

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
		BM	210 MW BOILER						
		BM	Overhauling works of Air pre heater						
1	APH2001	BM	Opening of all manhole doors, cleaning inside, Checking rotor level, sector plate and axial seal plate alignment, renewal of By-pass Seal , rotor post seal and setting, overhaul of APH soot blower mechanism. i) Opening of all manhole doors, and closing manhole doors after completion work including changing of asbestos ropes and clamps in the doors.	5	No	1378	276	289	303
2	APH2002	BM	ii)Removal of ash deposit around guide bearing area, and inside the APH.	1	No	2800	2800	2940	3080
3	APH2003	BM	b) Charges for cutting and removing of rigid stoppers checking and correction of rotor leveling, checking and correction of critical distance between guide bearing housing and housing sleeve and fixing, welding the rigid stoppers and provide shim packing in between guide bearing housing and permanent stoppers.	1	No	17874	17874	18768	19661
4	APH2004	BM	c) Charges for leveling and aligning of the radial sector plates and axial seal plates with respect to the rotor axis.	1	No	2979	2979	3128	3277
5	APH2005	BM	d) Charges for removal of worn-out/damaged bypass seals (complete assembly CE & HE) fixing and positioning properly with new seals. (Including transporting of new materials from stores to site and scraps from site to Stores).	1	No	11514	11514	12090	12665
6	APH2006	BM	e) Charges for finding the high point in 'T' bar,adjusting the bypass seals to correct clearance and clamping properly in both hot and cold ends of APH.	1	No	3747	3747	3934	4122
7	APH2007	BM	f) Charges for replacing of rotor post seal at hot end and cutting of sealing ring segments, cutting of tracking rod stuffing boxes, kawool packing and patch up ealing ring segments and leak arresting works around the guide bearing area and fixing of rotor post seals and rectification works on the eroded portions of spool seal assembly.	1	No	7926	7926	8322	8719
8	APH2008	BM	g) Overhaul of APH soot blower mechanism including dismantling, changing the bearings, soot blowers spray nozzles, if necessary and changing of lubrication and reassembling etc.	1	No	2290	2290	2405	2519
9	APH2009	BM	Charges for removing the cover of support bearing, draining of lubricating oil from the sump, cleaning, flushing, rinsing and inspection of bearings checking level and refilling with new oil and re packing the covers properly.	1	No	5254	5254	5517	5779
10	APH2010	BM	a) Charges for removal of worn-out radial seal in both cold end and hot end (complete assembly) and re fixing with new HT bolts & nuts and positioning. (Including transporting of new materials from Stores to site and scraps from site to stores).(SINGLE SEALING ARRANGEMENT)	1	No	23028	23028	24179	25331
11	APH2011	BM	b) Charges for removal of worn-out axial seal in both cold end and hot end (complete assembly) and re fixing with new HT bolts & nuts and positioning. (Including transporting of new materials from Stores to bite and scraps from site to stores).(SINGLE SEALING ARRANGEMENT)	1	No	9576	9576	10055	10534
12	APH2012	BM	c) Charges for fixing up straight edge after finding the low point of sector plate, adjusting the radial seals to correct clearance and clamping the seals in both hot end and cold end of APH.(SINGLE SEALING ARRANGEMENT)	1	No	9174	9174	9633	10091
13	APH2013	BM	d) Charges for fixing up straight edge after finding the low point of axial seal plate, adjusting the axial seals to correct clearance and clamping the seals properly.(SINGLE SEALING ARRANGEMENT)	1	No	4996	4996	5246	5496
14	APH2014	BM	Charges for removal of existing 'T' bars, fixing new / old 'T' bar and adjusting to correct radius and clamping properly.	1	No	1041	1041	1093	1145
15	APH2015	BM	Charges for cutting and removal of bypass seal fixing angle and fixing the same /new after carried out rectification works at the center section fixing plate with correct radius.	2	No	1321	661	694	727
16	APH2016	BM	Overhauling of Axial seal plate to sector plate seal, Kawool retainer box, link adjuster box.	1	No	8100	8100	8505	8910
17	APH2017	BM	Cleaning of steam coil Air pre-heater	1	No	1680	1680	1764	1848
18	APH2018	BM	Water washing of Air pre heater .	1	No	12808	12808	13448	14089
19	APH2019	BM	Charges for removal of cold end heating elements from its position, leading to the adjacent area of the Air pre heaters, dry cleaning, high jet pressure water cleaning and then air cleaning and putting back the same/old heating elements	4	No	2793	698	733	768
20	APH2020	BM	Overhauling of Hot end stationary Spool and renewing the retainer ring, Packing rings and etc.	1	No	13960	13960	14658	15356

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21	APH2021	BM	Complete dismantling of entire APH soot blower system, Fixing new protection cover for the soot blower pipe, Renewal of eroded guard pipe and Renewal of new pipe and reassembling with new soot blower pipe with twin nozzle assembly. a) Overhaul of APH soot blower mechanism including dismantling, changing the bearings, soot blowers spray nozzles, if necessary and changing of lubrication and reassembling etc.	1	No	2290	2290	2405	2519
22	APH2022	BM	b)i.Providing platform and dismantling after completion of work	1	No	2528	2528	2654	2781
23	APH2023	BM	ii)Fixing new protection cover for the soot blower pipe, Renewal of eroded guard pipe and Renewal of new pipe	1	No	10568	10568	11096	11625
24	APH2024	BM	Dismantling & cleaning the lube oil lines of Guide bearing & Support Bearings with air & steam and reassembling.	1	No	20454	20454	21477	22499
25	APH2025	BM	Renewal of deluge and water washing pipe assembly at Cold end / Hot end.	1	No	21832	21832	22924	24015
26	APH2026	BM	Overhauling of cold end heating element door seating flange at the rotor shell and refitting of cold end heating elements doors.	1	No	4183	4183	4392	4601
27	APH2027	BM	Providing new flange for the Axial seal plate to sector plate seal adjusted door	1	No	5860	5860	6153	6446
28	APH2028	BM	Overhauling of rotor shell, Diaphragm plate above 300 mm and intermediate heating elements support bars.	1	No	5572	5572	5851	6129
29	APH2029	BM	Patch up work on the eroded portion of the cold end Diaphragm plate	1	No	1651	1651	1734	1816
30	APH2030	BM	Overhauling of the eroded portion of the Hot end sector plate, cold end sector plates & Axial seal plates	1	No	12530	12530	13157	13783
31	APH2031	BM	Overhauling works in the Air Pre heater eroded portion of the center section of the Guide bearing.	1	No	33726	33726	35412	37099
32	APH2032	BM	overhauling of eroded / damaged portion of the Air Pre heater rotor angle and seating plate of the By pass seal angle by metal filling & patch welding and correcting to the required radius of both hot & cold ends	1	No	30660	30660	32193	33726
33	APH2033	BM	Removal of accumulated ash at center section connecting plate area of APH "A" side	1	No	19600	19600	20580	21560
34	APH2034	BM	Loading, transporting the New cold end baskets to boiler area, unloading and lifting the new baskets (300 mm height) from ground floor to 16 mtr floor and lowering the eroded cold end baskets from 16 mtr level to ground floor and devoluted to stores	20	No	5730	287	301	315
35	APH2035	BM	Removal of Intermediate heating elements –850 mm height a)Charges for dismantling the hot/ intermediate end basket removal door in the flue gas path above APH rotor, providing gantry arrangements for lifting the hot/intermediate end baskets and Fitting back the hot end basket removal door and refitting after completion of work.	96	No	4179	44	46	48
36	APH2036	BM	b)lifting the deteriorated hot/ intermediate end baskets from rotor and removing the basket outside of the APH, Lowering to 16 m level and moving the baskets to outer end of APH and lowering the baskets to '0' m level in between PA & FD fans	4	No	3985	996	1046	1096
37	APH2037	BM	c)loading of deteriorated hot/intermediate baskets on the lorry using departmental crane and transporting to central stores and unloading for devolution	24	No	3856	161	169	177
38	APH2038	BM	Renewal of intermediate end heating elements (850 mm height)	12	No	17060	1422	1493	1564
39	APH2039	BM	Removing the eroded sacrificing heating elements	20	No	5170	259	271	284
40	APH2040	BM	Renewal of sacrificing heating elements (200 mm height) Loading and transporting from central stores to boiler area, unloading and lifting the new Sacrificing (New improved type 200 mm height) baskets from ground floor to 16 m area, moving the basket from one end of APH to center of APH, lifting to 20m level, moving basket inside the APH, lowering to APH rotor area and positioning inside the rotor segment properly	20	No	17060	853	896	938
41	APH2041	BM	Removing the Hot end heating elements (650 mm height) from APH and lowering the heating elements from 20 mtr height to ground floor and devoluted to stores	16	No	5170	323	339	355

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42	APH2042	BM	Renewal of HOT end heating elements (650 mm height) loading, transporting from central stores to boiler area, unloading and lifting the Hot end baskets (650mm height) from ground floor to 16 m area, moving the basket from one end of APH to center of APH, lifting to 20m level, moving basket inside the APH, lowering to APH rotor area and positioning inside the rotor segment properly	16	No	17060	1066	1120	1173
43	APH2043	BM	Inspection/Renewal of Guide bearing : a) Arresting the APH rotor rigidly in all the axial doors around the entire circumference of the rotor. cutting 300 mm channel to the required length and welding the beam one end at the APH rotor angle another end at the axial door area (APH stationary area) with high rigidity for arresting movement if any of the rotor. Releasing the entire arresting channels after Inspection/replacing the guide bearing.	1	Nos	11310	11310	11876	12441
44	APH2044	BM	b) Removal of guide bearing from the APH housing along with housing sleeve:	1	Nos	43870	43870	46064	48257
45	APH2045	BM	c) Inspection/Renewal of Guide bearing : dismantling old guide bearing from housing, cleaning , assembling the New/same bearing along with housing sleeve providing retaining plate, tightening the lock nut slowly up to the required clearance between outer race to roller as given in the drawing and tightening the external screw of the lock nut and other related works etc	1	Nos	61215	61215	64276	67337
46	APH2046	BM	d) Providing retaining block for the housing and replacing packing rope of the sealing tube	1	Nos	12492	12492	13117	13741
47	APH2047	BM	Dismantling, cleaning, inspection and reassembling of air seal assembly	1	Nos	19644	19644	20626	21608
48	APH2048	BM	Renewal of Pin rack assembly a) Removing the existing pin rack assembly:	1	No	1309	1309	1374	1440
49	APH2049	BM	b) Fixing new pin rack:	1	No	3038	3038	3189	3341
50	APH2050	BM	Fabrication and fixing of tabs for the pin rack pins	2	Nos	761	381	400	419
51	APH2051	BM	RENEWAL OF HOT / COLD END SECTOR PLATE : a) Removing the existing eroded Hot end sector plate /Cold end sector plate	1	No	19272	19272	20236	21199
52	APH2052	BM	b) Renewal of new sector plate	1	No	50720	50720	53256	55792
53	APH2053	BM	Cutting and removal of deteriorated static seal assembly for sector plate, cleaning well and finishing the surface, transporting of new static seal assembly from stores to site, leading positioning and welding of static seal assembly on the sector plate and connecting plates and also packing of kawool wherever necessary	1	No	18055	18055	18958	19861
54	APH2054	BM	Charges for dismantling of Air motors/inspection and renewal of internals, vanes, bearings and reassembling works	1	No	1938	1938	2035	2132
55	APH2055	BM	Inspection of APH speed reducer internals & inspecting the lubricating oil for foreign material contamination and renewing the oil if necessary.	1	No	9198	9198	9658	10118
56	APH2056	BM	Renewal of worn out Multi disc & coupling Bolts. Ie., disconnecting the runner half coupling, removing the worn out multi disc and runner half coupling bolts and reconnecting the runner half coupling and complete aligning works including motor	1	No	7755	7755	8143	8531
57	APH2057	BM	Inspection replacing the worn out over running clutch and related works. This work involves disconnecting the Bibby resilient coupling, removing the over running clutch and its extension shaft. Replacing the worn-out over running clutch, extension shaft. Checking and correction of alignment of the Bibby resilient coupling	1	No	8267	8267	8680	9094
58	APH2058	BM	APH – Inspection – Replacing the worn out fluid coupling of the speed reducer. This work involves disconnecting the runner half coupling , renewing the new fluid coupling or replacing the same coupling after rectification and checking the alignment and trial run.	1	No	18494	18494	19419	20343
59	APH2059	BM	APH – Overhauling of released APH speed reducer, and keep it as spare APH speed reducer to meet out any break down	1	No	25382	25382	26651	27920
60	APH2060	BM	Complete overhaul of APH gear box, air motors, over running clutch , air lines , filters , pin rack gap and fluid coupling including alignment works etc. (a) Removal of auxiliaries connected with speed reducer of APH such as AC motor fluid coupling over running clutch bibby coupling and air motor assembly, including removal of gear box from its bed and lowering to the floor for carrying out overhaul works.	1	No	4322	4322	4538	4754

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61	APH2061	BM	b) Complete overhaul of speed reducer gear box, of APH including changing the damaged helical pinion shaft, gear and bearing if necessary and assembling the same after completion of overhaul (Spares will be supplied by Board at free of charges)	1	No	16432	16432	17254	18075
62	APH2062	BM	c) Overhaul of air motor, over running clutch, Bibby coupling and connected air lines, valves etc. including changing the damaged filters valves if necessary etc. complete (spares will be supplied by Board on free of charges)	1	No	1938	1938	2035	2132
63	APH2063	BM	d) Refitting of speed reducer gear box in the bed and refitting the auxiliaries connected with speed reducer such as AC motor, fluid coupling over running clutch, bibby coupling and air motor and air line assembly etc. complete.	1	No	4466	4466	4689	4913
64	APH2064	BM	e) Alignment of APH drive motor with speed reducer through fluid coupling.	1	No	2347	2347	2464	2582
65	APH2065	BM	f) Checking pin rack gap between rotor and drive units and adjusted to the required clearance.	1	No	2347	2347	2464	2582
66	APH2066	BM	g) Arresting air leakage in and around the pinion air seal assembly , air seal assembly cover and patch up , filling weld metal on the eroded portion of the pinion air seal , replacing the carbon ring with tension spring	1	No	2067	2067	2170	2274
67	APH2067	BM	h) Renewal of runner half coupling of both fluid coupling and speed reducer.	1	No	5565	5565	5843	6122
68	APH2068	BM	(i) Over hauling of fluid coupling Unit and assembling the same.	1	No	4452	4452	4675	4897
69	APH2069	BM	Dismantling, cleaning and overhauling of APH lub oil coolers, filters for Support bearing and guide bearing and conducting hydraulic test of coolers and reassembling with includes replacing of 'o' ring, gaskets etc (i) Labour charges for dismantling cleaning of lub oil cooler nest and filters	1	No	4868	4868	5111	5355
70	APH2070	BM	(ii) Labour charges for assembling of lub oil cooler nest and filters	1	No	2786	2786	2925	3065
71	APH2071	BM	c) Labour charges for hydraulic testing of the APH Lub oil cooler @ 15 Kg/Cm2 pressure for 30 minutes in the presence of Board Engineer.	1	No	3346	3346	3513	3681
72	APH2072	BM	Overhauling of APH lub oil pumps and valves for Support bearing and guide bearing. This work includes Dismantling, cleaning, Inspection of bearings, Gears, internals and replacement of the same if required then reassembling. and alignment works etc	1	No	5190	5190	5450	5709
73	APH2073	BM	Charges for renewal of worn-out radial seals both cold & hot end and axial seals and setting.(Double sealing arrangement) a)Charges for removal of worn-out radial seal in both cold end and hot end (complete assembly) and re fixing with new HT bolts & nuts and positioning. (Including transporting of new materials from Stores to site and scraps from site to stores).(DOUBLE SEALING ARRANGEMENT)	1	No	46056	46056	48359	50662
74	APH2074	BM	b)Charges for removal of worn-out axial seal in both cold end and hot end (complete assembly) and re fixing with new HT bolts & nuts and positioning. (Including transporting of new materials from Stores to bite and scraps from site to stores).(DOUBLE SEALING ARRANGEMENT)	1	No	19152	19152	20110	21067
75	APH2075	BM	C) Charges for fixing up straight edge after finding the low point of sector plate, adjusting the radial seals to correct clearance and clamping the seals in both hot end and cold end of APH.(DOUBLE SEALING ARRANGEMENT)	1	No	18348	18348	19265	20183
76	APH2076	BM	D)Charges for fixing up straight edge after finding the low point of axial seal plate, adjusting the axial seals to correct clearance and clamping the seals properly.(DOUBLE SEALING ARRANGEMENT)	1	No	9992	9992	10492	10991
77	APH2077	BM	RENEWAL OF AXIAL PLATE a.) Cutting and removing the APH Housing panel for removing the eroded axial seal plate and leading new axial seal plate.	2	Nos	6075	3038	3189	3341
78	APH2078	BM	b)Removing the existing Axial seal plate assembly	1	No	33132	33132	34789	36445
79	APH2079	BM	c) Replacing new Axial seal plate	1	No	82800	82800	86940	91080
80	APH2080	BM	Cutting and removal of deteriorated static seal assembly of axial seal plate , cleaning surface with emery transporting of new static seal assembly from stores to site, leading positioning and welding of static seal assembly on the sector plate and connecting plates and also packing of ceramic fiber wherever necessary.	1	No	18055	18055	18958	19861
81	APH2081	BM	Renewal of cold end support frame at both inboard and out board:	12	No	65480	5457	5730	6002

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82	APH2082	BM	Renewal of damaged Support bearing in Air pre Heater and other related works a) Charges for checking the condition of 4 Nos. of 50 ton hydraulic jacks its pumps and hoses placing on the rotor arresting fixtures, and holding frame,. Lifting the entire rotor assembly by 10 to12 mm. placing temporary packing supports and arresting the rotor assembly.	1	No	23569	23569	24747	25926
83	APH2083	BM	b)Charges for dismantling of damaged support bearing assembly, pulling it to the access opening , removing the grills and supports, lowering it to plat form, taking out damaged bearing, adopter plate etc. Cleaning and devoluting the damaged bearings to stores.	1	No	31185	31185	32744	34304
84	APH2084	BM	c) Charges for reconditioning of support bearing housing by metal filling grinding and machining to the required size	1	No	8660	8660	9093	9526
85	APH2085	BM	d) Charges for cleaning new support bearing (294/500), housing cover plate, adopter plate, all threaded holes in the housing, checking the dimensions and tolerance of the bearing and adopter, assembling of support bearing inner race with adopter plate and support bearing outer race with support bearing housing, lifting the assembling from 'o' m to support bearing area	1	No	33026	33026	34677	36328
86	APH2086	BM	e) Charges for cleaning, inspection and checking the dimension of support trunnion spigot and reconditioning the damaged support trunnion spigot by welding grinding and polishing etc	1	No	22017	22017	23118	24219
87	APH2087	BM	f) Charges for lifting from 12.5 elevation to 14.5 m elevation pulling the support bearing housing assembly to its original location, cleaning the 28 sets of shim packs, jacking the support bearing assembly and placing the sim packs, checking the support bearing housing assembly with sprit level on four sides and adjusting to the required tolerance level, final tightening of support bearing housing, fixing fasteners with torque wrench to the required level, including cost of consumables & hire charges for T&P"s. i) Charges for lifting from 12.5 m elevation to 14.5 m elevation, pulling the support bearing housing assembly to its original location	1	No	17451	17451	18324	19196
88	APH2088	BM	ii)Charges for cleaning the 28 sets of shim packs, jacking the support bearing housing assembly and placing the sim packs, checking the support bearing housing assembly with sprit level on four sides and adjusting to the required tolerance level, final tightening of support bearing housing, fixing fasteners with torque wrench to the required level	1	No	21007	21007	22057	23108
89	APH2089	BM	g) Charges for lowering the complete rotor assembly slowly and checking its level by dial gauge, checking and adjusting the support trunnion with respect to support bearing housing center, releasing the jack pressure, removing and dismantling all the rotor supports packing plates, temporary arresting fixtures and jacks its pumps, houses eic	1	No	36830	36830	38672	40513
		BM	Overhauling works in Flue gas ducts						
90	FGD2001	BM	Charges for cutting and removal of heavily eroded flue gas duct plates (Multilayer) from the parent plate, transporting & devoluting scrap to Central Stores/M.T.P.S.	2	M²	984	492	517	541
91	FGD2002	BM	Labour charges for welding eroded initial welding joints in the flue gas duct below 2 Meter level	10	M	632	63	66	70
92	FGD2003	BM	Labour charges for welding eroded initial welding joints in the flue gas duct above 2 Meter level	8	M	632	79	83	87
93	FGD2004	BM	Charges for transporting of 6mm M.S./ Checkered plates from Central Stores/MTPS to Boiler area, cutting into required size, leading, lifting, positioning on the eroded portions of the duct below 1.5 meters and welding the same	2	M²	1393	697	731	766
94	FGD2005	BM	Charges for transporting of 6mm M.S./ Chequered plates from Central Stores/MTPS to Boiler area, cutting into required size, leading, lifting, positioning on the eroded portions of above 1.5 meter side wall portion of the duct and welding the same	2	M²	1673	837	878	920
95	FGD2006	BM	Charges for transporting of 6mm M.S./ Checkered plates from Central Stores/MTPS to Boiler area, cutting into required size, leading, lifting, positioning on the eroded top portions of the duct above 1.5 meter level and welding the same	2	M²	1953	977	1025	1074
96	FGD2007	BM	Drawal of 6mm M.S plate from central stores transporting the materials to outside workshop cutting in to required size, bending to the required size and profile, transporting back to MTPS boiler area.	1	Ton	9198	9198	9658	10118

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97	FGD2008	BM	Charges for transporting new deflector plate and leading to flue gas duct, leading, lifting to Boiler Flue gas ducts. Fixing and welding in the duct and to the correct contour. Placing the deflector plate in the guide angle and welding the same.	3	M ²	2657	886	930	974
98	FGD2009	BM	Charges for removing the existing eroded duct supports,supports for ESP entrance area and transporting of new pipes/Angles from Central Stores / MTPS, cutting into required size leading lifting, positioning and welding.	10	M	1041	104	109	115
99	FGD2010	BM	Charges for cutting and removal of eroded guard plates over the expansion joint and providing new guard plate of size 3.15 mm HR sheet over the expansion joint after completion of inspection and patch welding works on expansion joints.	2	M ²	1321	661	694	727
100	FGD2011	BM	Charges for cutting and removal of heavily eroded flue gas duct splitter plates at the entrance of ESP, transporting & devoluting scrap to Central Stores/M.T.P.S.	2	M ²	984	492	517	541
101	FGD2012	BM	Charges for transporting new MS plates from Central Stores to Boiler area, leading, lifting to Boiler Flue gas ducts for fixing & welding splitter plate at the entrance of ESP.	3	M ²	2657	886	930	974
102	FGD2013	BM	Charges for renewal of expansion joint style 03 of size 3060 x 3593 in FG duct near first Guide vane a) Charges for locking and arresting the upstream and downstream sides of the flue gas ducts connecting the saw tooth expansion joint, cutting and removal of the deteriorated expansion joint of styles 03 of size 3060 x 3593 and cutting and removal of distorted and elongated parent body portion of flue gas duct equal to the height of new expansion joint and also transporting of scrap materials from boiler site to Central stores for devolution.	1	No	17485	17485	18359	19234
103	FGD2014	BM	b) Charges for reconditioning of parent body plates around styles 03, transporting of new expansion joints from Central stores to Boiler site, lifting the new expansion joint styles 03 from 0'M to 16M level, leading and erection in position, alignment with ducts, welding both sides and finally cutting and removal of the locking and arresting arrangements, scaffolding and plat forms.	1	No	37770	37770	39659	41547
104	FGD2015	BM	Charges for renewal of expansion joint style 02 of size 1837 x 1735 in horizontal portion of Hot PA ducts both "A&B" sides a). Charges for erection of the temporary fixture for mounting the chain block for removal of the eroded expansion joints and fixing the new expansion joints in the horizontal portion of the Hot Primary air duct and removal of the fixture after renewal of the expansion joint..	1	No	6075	6075	6379	6683
105	FGD2016	BM	b) Charges for cutting, dismantling and removal of the severely eroded style 02 expansion joints of size 1837 x 1735 in PA ducts A/B sides.	1	No	6283	6283	6597	6911
106	FGD2017	BM	c) Drawl and erection of style 02 saw tooth expansion joint of size 1837 x 1735 in PA ducts sides A/B sides.	1	No	11460	11460	12033	12606
107	FGD2018	BM	Charges for renewal of expansion joint style 02 of size 2654 x 2450 before ESP including drawal of materials and devolution of scrap at Central stores. a) Cutting and removal of eroded expansion joint style 02 of size of 2654 X 2450.This work involves providing platforms inside and outside the ducts, locking and arresting the upstream and downstream sides of flue gas ducts, connecting the expansion joint style 02, cutting, dismantling and removal of the eroded saw tooth expansion joint style 02 before ESP inlet funnel and devoluting the same to the Central Stores/MTPS.	1	No	9220	9220	9681	10142
108	FGD2019	BM	(b). Drawal of new saw tooth expansion joint style 02 of size 2654 x 2450 from Central Stores/MTPS and transporting to Boiler area lifting, leading and erection in position, alignment with flue gas duct and welding. Finally cutting and removing all the locking and arresting arrangement, scaffolding and platforms. This work including the transporting charges of materials from Central Stores to Boiler. (Including the cost of welding electrodes.	1	No	15510	15510	16286	17061

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109	FGD2020	BM	Charges for renewal of expansion joint style 05 of size 3394 x 8470 above APH including drawal of materials and devolution of scrap at Central stores. a). Charges for locking and arresting the upstream and downstream sides of the flue gas ducts connecting the saw tooth expansion joint, cutting and removal of the deteriorated expansion joint of style 05 of size 3394 x 8470 and cutting and removal of distorted and elongated parent body portion of flue gas duct equal to the height of new expansion joint and also transporting of scrap materials from boiler site to Central stores for devolution .	1	No	31824	31824	33415	35006
110	FGD2021	BM	b.Charges for reconditioning of parent body plates around style 05 , transporting of new expansion joint from Central stores to Boiler site , lifting the new expansion joint style 05 from 0'M to 18M level ,leading and erection in position , alignment with ducts, welding both sides and finally cutting and removal of the locking and arresting arrangements, scaffolding and plat forms.	1	No	76644	76644	80476	84308
111	FGD2022	BM	Charges for renewal of expansion joint style 03 &04 size 2425 x 4482 after APH in FG Gas inlet slope. (Including drawel and devolution of materials at stores/MTPS.) a).Cutting and removal of the deteriorated expansion joint of style 03 &04 of size 2425 x 4482.	1	No	17485	17485	18359	19234
112	FGD2023	BM	(b) Charges for modification work in the expansion joint flanges to suit the site condition. This work involves taking measurements at four corners of the expansion joint, correcting the flanges by cutting the protrude portion,fabrication of new flange and welding.	1	No	8100	8100	8505	8910
113	FGD2024	BM	c) Drawl and erection of new saw tooth expansion joint style -03 &04 of size 2425X4482 in flue gas duct " A& B" sides .	1	No	29640	29640	31122	32604
114	FGD2025	BM	Providing & dismantling scaffolding arrangements above APH (Nearby style-07 expansion joints) and cover the opening above APH with 3.15 mm HR sheet to prevent falling of materials in to APH to ensure safety for the workmen in APH	1	No	35728	35728	37514	39301
115	FGD2026	BM	Renewal / reconditioning of supporting structure of APH inlet and out let duct Hopper area.	1	No	35120	35120	36876	38632
116	FGD2027	BM	Cutting the eroded portion of the Primary air damper and its flange rectification by metal filling, cutting the eroded portion of the ducts and patch welding and rectification of the Manhole doors by welding	1	No	29208	29208	30668	32129
117	FGD2028	BM	cleaning the accumulated the ash in side of the Hot primary air ducts& Hot secondary Air ducts by opening the man hole doors and cleaning the ducts, collecting the accumulated ash in the Gunny bags, bringing to "0" meter.	1	No	42000	42000	44100	46200
118	FGD2029	BM	Removal of accumulated ash at interconnection and around the secondary air duct in SCAPH area. This work involves cleaning , collecting the accumulated ash in the Gunny bags, bringing to "0" meter	1	No	16800	16800	17640	18480
119	FGD2030	BM	Providing sampling points / temperature measuring points at various location of flue gas ducts	1	No	2402	2402	2522	2642
120	FGD2031	BM	Cutting and removal of the eroded protruded portion of previously patched up plates at the flow entry direction in the flue gas duct plates and transporting of scrap to Central Stores/M.T.P.S	10	M	984	98	103	108
121	FGD2032	BM	Removal of wear resistance plate for patch up the eroded intricate portion and re fixing the same after completing the patch up	3	M ²	1616	539	566	593
122	FGD2033	BM	Patch welding of eroded portion of expansion joint styles of various sizes in the flue gas /air duct.	2	M ²	912	456	479	502
123	FGD2034	BM	Strengthening wear resistant supports with new gazette plate	2	Nos	3138	1569	1647	1726
124	FGD2035	BM	Complete dismantling of damaged portion of Flue gas duct. This work involves arresting, cutting, leading and removal of eroded duct plates in the form of multilayer and devolution of scraps to stores.	1	Ton	5314	5314	5580	5845
125	FGD2036	BM	Fabrication of portion of FG duct.	1	Ton	28800	28800	30240	31680
126	FGD2037	BM	Erection, testing & commissioning the portion of flue gas duct with stiffeners, field joints and field flange joints	3	Ton	44454	14818	15559	16300

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
127	FGD2038	BM	Charges for renewal of expansion joint style 07 of size 2450 x 6159 before APH FG Gas inlet. (a) Charges for transport new expansion joint from stores to site, providing temporary platforms and scaffoldings and locking and arresting the upstream and downstream sides of the flue gas ducts connecting the saw tooth expansion joint, cutting and removal of the deteriorated expansion joint of style 07 of size 2450 x 6159 and cutting and removal of distorted and elongated parent body portion of flue gas duct equal to the height of new expansion joint without disturbing its original height and devolution of scraps from site to stores.	1	Nos	24479	24479	25703	26927
128	FGD2039	BM	(b) Charges for re-conditioning of parent body plates around style 07, lifting the new expansion joint style 07 from '0' m to 20m level, leading and erection in position, alignment with ducts, welding both sides and finally cutting and removal of the locking and arresting arrangements, scaffolding and platforms.	1	Nos	57735	57735	60622	63509
129	FGD2040	BM	strengthening the adjacent area of the expansion joints in PA ducts by providing additional supports.(both sides approx. 1mt)	1	Nos	11460	11460	12033	12606
130	FGD2041	BM	Renewal of expansion joint style 02 of size 2448 x 3362 at SA hot duct. (a). Charges for cutting, dismantling and removal of the severely eroded style expansion joints of size 2448 x 3362 on APH A & B sides in SA ducts.	1	No	11525	11525	12101	12678
131	FGD2042	BM	b)Drawl and erection of style 02 saw tooth expansion joint of size 2448 x 3362 in SA ducts A & B sides	1	No	25886	25886	27180	28475
132	FGD2043	BM	Renewal of expansion joint style 01 / 02 of size 3528 x 2528 above APH PA hot duct a.Charges for cutting, dismantling and removal of the severely eroded style expansion joints of size 3528 x 2528 on APH A & B sides in PA ducts	1	No	9220	9220	9681	10142
133	FGD2044	BM	b)Drawl and erection of style 01 & 02 saw tooth expansion joint of size 3528 x 2528 in APH at PA hot duct .	1	No	22188	22188	23297	24407
134	FGD2045	BM	Renewal of expansion joint style 01 of size 4350 x 3362 above APH at SA hot duct. (a). Charges for cutting, dismantling and removal of the severely eroded style expansion joints of size 4350 x 3362 on APH A & B sides in SA ducts.	1	No	11525	11525	12101	12678
135	FGD2046	BM	b) Drawl and erection of style 01 saw tooth expansion joint of size 4350 x 3362 in SA ducts A & B sides.	1	No	25886	25886	27180	28475
136	FGD2047	BM	Cutting and dismantling of existing fabric Compensator for the renewal of Expansion Joint of Style 03/04 size 2425 x 4482 after APH in FG Gas inlet slope.	1	No	15942	15942	16739	17536
137	FGD2048	BM	Providing fabric Compensator for expansion joint of style - 03 /04 of size 2425X4482 in flue gas duct " A& B" sides This work involves Cutting and fabrication of MS plate of 6mm thick to the required size, fixing it on the expansion joint both top and bottom of the expansion joint flange to the entire length.	1	No	18599	18599	19529	20459
138	FGD2049	BM	Renewal of expansion joint style 01 of size 1345 mm x 3990 mm ID fan inlet duct including drawal of materials and devolution of scrap at Central stores. (a) Cutting and removal of eroded expansion joint style 01 of size 1345 mm x 3990 mm.	1	No	9220	9220	9681	10142
139	FGD2050	BM	b) Drawal of new saw tooth expansion joint style 01 of size 1345 mm x 3990 mm from Central Stores/MTPS and transporting to Boiler area lifting, leading and erection in position, alignment with ID fan inlet duct and welding.	1	No	15510	15510	16286	17061
140	FGD2051	BM	Charges for renewal of expansion joint style 01/02 of size 3058 x 3591 at ID fan outlet duct. (a). Charges for cutting, dismantling and removal of the severely eroded Style expansion joints of size 3058 x 3591 at ID fan outlet ducts.	1	No	9220	9220	9681	10142
141	FGD2052	BM	b) Drawl and erection of style 01/02 saw tooth expansion joint of size 3058 x3591 at ID fan Outlet Ducts.	1	No	22188	22188	23297	24407
142	FGD2053	BM	Charges for renewal of expansion joint style 01 of size 1636 x 3362 SA hot air interconnection duct (a) Cutting and removal of eroded expansion joint style 01 of size of 1636 x 3362.	1	No	9220	9220	9681	10142
143	FGD2054	BM	Drawl of new saw tooth expansion joint style 01 of size 1636 x 3362 from Central Stores/MTPS and transporting to Boiler area lifting, leading and erection in position, alignment with SA duct and welding	1	No	15510	15510	16286	17061
144	FGD2055	BM	Insulation work: a) providing scaffolding arrangement at Boiler area for removal and re-insulation	10	M²	912	91	96	100

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
145	FGD2056	BM	b)Removal of insulation wool mattress and putting back with new / same wool mattress after cutting to the required contour shape.	10	M ²	1529	153	161	168
146	FGD2057	BM	c) Removal of deteriorated G.I sheets and re fixing the new / same G.I.sheets after fabricating to the required contour shape, making grooves and tightening with lock screws (1/4")	10	M ²	1601	160	168	176
147	FGD2058	BM	d) Removing the GI strips and retainer plates and providing back with new / same strips and retainer plates	15	M ²	632	42	44	46
148	FGD2059	BM	Charges for providing of frames and doors for the Flue Gas Duct	1	No	26312	26312	27628	28943
		BM	Overhauling works in FANS						
149	FANS2001	BM	(a) Charges for complete overhaul of PA fans which includes both bearing of NDE and DE lub oil systems, and checking of impeller, impeller casing, shaft seals, taking readings on coupling alignment impellers gap and all bearings cleaning and checking shaft level of PA Fans.	1	No	16416	16416	17237	18058
150	FANS2002	BM	b) Overhauling of gates PAD 3, gear drives including changing of ropes, overhauling of gear box, actuators and damper leaves.	1	No	6032	6032	6334	6635
151	FANS2003	BM	c) Overhauling of damper flaps, link rods of PAD 1 including cleaning of primary air duct pansion joint etc	1	No	4352	4352	4570	4787
152	FANS2004	BM	(d) Charges for De-coupling / Coupling and of PA Fan motor with fan.	1	No	1601	1601	1681	1761
153	FANS2005	BM	a) Complete overhaul and checking of FD fan bearings,(both inner and outer) impeller housing shafts, taking readings on coupling alignment. Impeller clearance and checking housing verticality on bearings, overhauling of IGV assembly, removal of corroded/worn out drive lever arrangement, suspension bush, etc. and renew the same as instructed by Engineer in charge in Unit.	1	No	21756	21756	22844	23932
154	FANS2006	BM	b) Overhauling of SAD 3 gear drive damper cleaning air duct up to air pre heaters and attending minor repair works on duct and expansion joints and dampers etc.	1	No	6528	6528	6854	7181
155	FANS2007	BM	c) Charges for De-coupling / Coupling and of FD Fan motor with fan.	1	No	1601	1601	1681	1761
156	FANS2008	BM	a) Complete overhaul of ID fans which includes cleaning , checking & couplings on both sides of voith coupling, checking of fan bearings, impellers, impeller casing and shaft seals, taking readings on impellers clearance, impeller thickness, coupling alignment readings.	1	No	26368	26368	27686	29005
157	FANS2009	BM	b) Opening of voith coupling oil tank cover, drain the working oil, cleaning and checking the internals and closing the cover and renewal of working oil including cleaning the oil filters.	1	No	2456	2456	2579	2702
158	FANS2010	BM	c) Overhauling of flue gas gates such as GG5,7,&9 gear drives and gear box overhauling , drive chain etc .	1	No	4352	4352	4570	4787
159	FANS2011	BM	d) Charges for cutting and inspection hole in ID fan impeller conical cover plates at both sides by gas cutting and removing of fly ash deposited inside inspection of inner side and welding the same.	1	No	5284	5284	5548	5812
160	FANS2012	BM	e) Charges for De-coupling / Coupling and of PA Fan motor with fan.	1	No	1601	1601	1681	1761
161	FANS2013	BM	Alignment of motor with PA Fan/FD Fan/ID Fan/ voith coupling	1	No	12640	12640	13272	13904
162	FANS2014	BM	ID fan – Inspection – Replacing of worn out Variable speed Turbo hydraulic coupling set – Voith make by Spare coupling set and related works. a). Charges for dismantling of the voith coupling assembly from ID Fan, dismantling lub oil lines from rotor and end cover draining oil from rotor, lift and lead to ground level and transport to workshop repair bay	1	No	22288	22288	23402	24517
163	FANS2015	BM	b)Transporting one No. overhauled voith coupling complete assembly from workshop to ID Fan area ,fixing the curved tooth gear coupling both primary and secondary sides in overhauled voith coupling assembly	1	No	33432	33432	35104	36775
164	FANS2016	BM	c)Charges for blue matching of voith coupling bottom seating and bed .	1	No	5512	5512	5788	6063
165	FANS2017	BM	d)Charges for lifting, leading and erecting the overhauled voith coupling in its location in ID Fan and connecting its accessories lub oil lines etc .	1	No	27860	27860	29253	30646
166	FANS2018	BM	e) Alignment of ID fan to Voith Coupling / Voith Coupling to Motor	1	No	12640	12640	13272	13904

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
167	FANS2019	BM	FD fan – Inspection-Replacing of worn out Fan Drive End bearing and Non drive End bearing . a) Charges for de-coupling and releasing FD fan motor from its bed with motor roof, motor bolts arresting, removal of fan DE bearing pedestal, DE bearing housing, DE bearing, removal of coupling by oil heating, shaft cover, IGV three blades, impeller, bolts, impeller arresting, removal of NDE bearing grease pipe, NDE bearing end cover, NDE bearing housing, NDE bearing, moving of shaft towards NDE side and arresting.	1	No	39996	39996	41996	43996
168	FANS2020	BM	b)Cleaning of FD fan DE bearing mounting area, NDE bearing mounting area and impeller mounting area, blue matching of NDE bearing housing with pedestal, blue matching of DE bearing housing with pedestal and leveling	1	No	48030	48030	50432	52833
169	FANS2021	BM	c) Moving of shaft towards FD fan NDE side, tightening the impeller, moving of shaft towards DE side, mounting of new DE bearing and new NDE bearing on shaft, mounting impeller on shaft, mounting of DE bearing housing, NDE Bearing housing on shaft, positioning, oil heating of coupling and then mounting, mounting of IGV three blades	1	No	41626	41626	43707	45789
170	FANS2022	BM	(d) Charges for alignment of FD fan DE bearing, checking face out, clearance, alignment of NDE bearing, checking face out, clearance, alignment of impeller, alignment of IGV assembly with shaft, re-mounting of impeller housing, re-mounting of motor, motor roof, greasing DE bearing, NDE bearing, IGV assembly. Coupling of fan with motor, trial run	1	No	48030	48030	50432	52833
171	FANS2023	BM	Checking the lubricating oil for any contamination, oil draining and renewing the oil in both Drive & non drive ends for PA & ID fans Bearings.	1	No	2642	2642	2774	2906
172	FANS2024	BM	Charges for attending ESP field failure.	1	No	2585	2585	2714	2844
173	FANS2025	BM	Charges for cleaning accumulated coal dust, fly ash other waste material and air washing of hot primary air duct, hot secondary air duct, various floors of Air pre heater, flue gas duct, cold primary air duct, cold secondary air duct, Primary air fan, Forced draught fan, Induced draught fan and its floors, ESP CRM floor, ESP roof top, structure, floor, walk way, hand rails, pipes etc from Economizer out let to chimney	1	No	11200	11200	11760	12320
174	FANS2026	BM	a) Charges for removal of worn out wear plates from impeller of ID fan by heating the bolts or gas cutting , cleaning the area of impellers , drawl of new wear plates and counter sunk bolts from central stores / MTPS , mounting of new wear plates in impellers using counter sunk bolts. (a) Removal of worn-out wear plates in one ID fan.	1	No	26433	26433	27755	29076
175	FANS2027	BM	(b) Mounting of new wear plates in impellers of one ID fan	1	No	25850	25850	27143	28435
176	FANS2028	BM	Charges for cleaning of PA fans lub oil tank and flushing of lub oil lines	1	No	9765	9765	10253	10742
177	FANS2029	BM	Charges for cleaning of PA fans and FD fans suction hood and silencer assembly.	1	No	11232	11232	11794	12355
178	FANS2030	BM	Charges for cleaning and painting of PA and FD fan suction line strainers	1	M ²	689	689	723	758
179	FANS2031	BM	Charges for painting roof top and grills	1	M ²	258	258	271	284
180	FANS2032	BM	Overhaul of FD fan IGV includes dismantling of all link rods, cleaning & greasing, dismantling of all guide rollers, cleaning & greasing, Checking and renewal of bearings if required and assembling of IGV and Calibration of IGV for perfect closing / opening.	1	No	25850	25850	27143	28435
181	FANS2033	BM	Hydraulic testing of PA fan Lub oil cooler (a) Labour charges for cleaning and dismantling	1	No	4868	4868	5111	5355
182	FANS2034	BM	b) Labour charges for assembling of PA fan cooler	1	No	2786	2786	2925	3065
183	FANS2035	BM	c) Labour charges for hydraulic testing of the PA fan Lub oil cooler @ 15 Kg/Cm2 pressure for 30 minutes in the presence of Board Engineer.	1	No	3346	3346	3513	3681
184	FANS2036	BM	Hydraulic testing of ID fan Lub oil cooler (a) Labour charges for cleaning and dismantling	1	No	4868	4868	5111	5355
185	FANS2037	BM	b) Labour charges for assembling of ID fan Lub oil cooler:	1	No	8358	8358	8776	9194
186	FANS2038	BM	c) Labour charges for hydraulic testing of ID fan luboil cooler @ 15 Kg/Cm2 pressure for 30 minutes in the presence of Board Engineer .	1	No	3346	3346	3513	3681
187	FANS2039	BM	Charges for overhauling of PA fan lub oil pump.	1	No	5190	5190	5450	5709

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
188	FANS2040	BM	Charges for checking and correction the clearance of PA Fan drive End Bearing, non-drive End Bearing and blue matching of bearings with shaft and blue matching of the bearings seating area. a) Checking of drive end Bearing, Bearing clearance, shaft, thrust platesand cleaning the Bearing,thrust plates, shaft and correction the bearing clearance and blue matching the bearings seating areausing scrapping tools, oil stonesand assembling the bearing and providing oil and cooling water lines.	1	No	19008	19008	19958	20909
189	FANS2041	BM	b)Checking of Non drive end bearing, bearing clearance, shaft,cleaning the Bearingand correction the bearing clearance and blue matching the bearingsseating areausing scrapping tools, oil stonesand assembling the bearing and providing cooling water lines	1	No	15840	15840	16632	17424
		BM	Overhaul of ESP Internals & related works .						
190	ESP2001	BM	Opening all the manhole doors in 7.5 mtr. and roof top of ESP, Mechanical cleaning and water washing the fields in ESP including collecting plates, emitting electrode rapping mechanism and structures inside the ESP and ESP hoppers, and closing all the manhole doors including the cost of asbestos ropes for doors completely.	1	No	12292	12292	12907	13521
191	ESP2002	BM	Replacing of eroded/snapped Emitting electrodes.	45	Nos	1249	28	29	31
192	ESP2003	BM	Checking the condition and measuring the thickness of collecting electrodes per field(254.5 Nos). Collecting electrodes shall be checked in 1 shift.	1	No	2756	2756	2894	3032
193	ESP2004	BM	Charges for checking, replacing worn out/bent shock bar guides both front and rear wherever necessary	12	Nos	1321	110	116	121
194	ESP2005	BM	Charges for checking, replacing worn out shock bar after providing necessary scaffolding arrangements.	1	No	1673	1673	1757	1840
195	ESP2006	BM	Charges for checking, replacing of wornout pin wheel assembly.	3	Sets	1881	627	658	690
196	ESP2007	BM	Charges for checking, replacing of worn out plain bearing in CRM and ERM horizontal shafts etc.	30	Nos	1041	35	36	38
197	ESP2008	BM	Checking the condition and measuring the thickness of emitting electrodes per field 1296 Nos. Emitting electrodes shall be checked in 1 shift.	1	Field	3294	3294	3459	3623
198	ESP2009	BM	Checking the rapping mechanisms both emitting and collecting replacing/re-conditioning of eroded tumbling hammers etc 30 Nos. of tumbling hammers shall be replaced in 1 shift :	30	Nos	1041	35	36	38
199	ESP2010	BM	Reconditioning the collecting electrodes by patch welding etc., completely (MS plates will be supplied by Board on free of charges).12 Nos. of shock iron shall be removed and replaced in 1 shift.	12	Nos	1953	163	171	179
200	ESP2011	BM	Charges for checking, reconditioning/replacing of wornout spares of Drive arrangement of emitting rapping mechanism with spares.3 sets can be changed in 1 shift.	3	Sets	1881	627	658	690
201	ESP2012	BM	Charges for renewal of worn-out/deteriorated / damaged/fallen gas distribution screen plates from ESP primary and secondary side including the provision of scaffolding arrangements, cutting gas etc. screen plates will be supplied by Board at free of charges.Estimate for 3 Nos. Screen plates (One plate having width of 0.4m and length of 12.5m)	3	Nos	1321	440	462	484
202	ESP2013	BM	Charges for renewal / reconditioning of fallen Deflection plates over the primary / secondary screen plates.his work involves providing scaffolding arrangements leading and positioning and fixing the deflection plates. (Deflection plates will be supplied by Board with free of cost)	15	Nos	1192	79	83	87
203	ESP2014	BM	Charges for bend removal by hot correction including cutting gas, labour, scaffolding arrangements etc..8 Nos. collecting electrodes should be hot correction per shift.	8	Nos	1041	130	137	143
204	ESP2015	BM	Charges for strengthening of eroded ESP internal structure and transporting Angles from Central Stores / MTPS, cutting into required size leading lifting, positioning and welding.	15	M	1041	69	73	76
205	ESP2016	BM	Charges for providing hug bolt in the second collecting electrode to support shock bar and welding of bolt & nut including charges for bolt & nut.	15	Nos	1393	93	98	102
206	ESP2017	BM	Charges for dismantling, renewal of bearings & Gears and internals, reassembling of CRM gear boxes.	1	No	5190	5190	5450	5709
207	ESP2018	BM	Charges for dismantling, renewal of bearings & Gears and internals, reassembling of ERM gear boxes.	1	No	3963	3963	4161	4359

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
208	ESP2019	BM	Labour Charges for dismantling ERM grip coupling, bearing housing, shaft, bearing & checking the bearing, bush, shaft, and renewal of worn-out bearing, reconditioning / replacing shaft, re assembling.	1	No	3906	3906	4101	4297
209	ESP2020	BM	Charges for one coat of painting the gear boxes and all inspection door with enamel paint (including cost of paint)	10	M ²	258	26	27	28
210	ESP2021	BM	Charges for cleaning ash deposit in support insulators inside the ESP	3	Nos	840	280	294	308
211	ESP2022	BM	Charges for cleaning the accumulated ash in ESP "AB" pass & "CD pass outlet funnel area, screen plates & ducts up to ID 2A & ID 2B inlet area.	1	side	36400	36400	38220	40040
212	ESP2023	BM	Charges for cutting and removing the eroded portions of supporting Structures in the screen plate areas, fabrication & erection of new supporting structures, strengthening of the damaged portion in the ESP inlet side by welding and other related works in both 'AB' and 'CD' pass including the cost of welding electrodes.	1	Pass	13285	13285	13949	14614
213	ESP2024	BM	Charges for cleaning the accumulated ash inside the ESP hoppers	8	No	4496	562	590	618
214	ESP2025	BM	Charges for renewal of Actuator gear boxes in flue gas ducts.	1	No	15444	15444	16216	16988
215	ESP2026	BM	Charges for renewal / reconditioning of 1 No. flange at bottom of hopper, man hole doors, poking hole, heating chamber, provided & removal of working platforms on hopper and related equipment including the cost of welding electrodes.	1	No	10628	10628	11159	11691
216	ESP2027	BM	Labour charges for drawl of 100 Nos. ESP primary and secondary screen plates (Size: - Width 0.4m, length 12.5 m) from Central Stores/MTPS-1, loading into trailer lorry, transporting and unloading (Crane will be provided by Board at free of charges)	1	No	4212	4212	4423	4633
217	ESP2028	BM	Labour charges for removal of damaged/ eroded/worn out ESP primary and secondary screen plates of size width 0.4m width, 12.5m length from ESP inside without damaging other inside components by providing necessary derrick arrangements	5	Nos	3418	684	718	752
218	ESP2029	BM	Charges for lifting ESP primary and secondary screen plates of size one plate having width of 0.4m and length of 12.5m From 'O' mtr. to ESP top Elevation and re-erection, this work involves, additional support frames to be provided inside and out side ESP for properly locate and position the guide shaft assembly. Erecting the ESP primary and secondary screen plates of size one plate having width of 0.4m and length of 12.5 m after providing necessary derrick arrangements.	3	Nos	4754	1585	1664	1743
219	ESP2030	BM	Labour charges for shifting of eroded ESP primary and secondary screen plates from ESP 'O' mtr. and loading it to vehicle and devolute at Central Stores / MTPS-1.	1	No	2808	2808	2948	3089
220	ESP2031	BM	Charges for replacing of worn out CERM and EERM shaft ant its supporting structures a)Charges for replacing the worn out EERM shafts with structure,tumbling hammers ,bush bearings with necessary scaffolding arrangementsaligning the shafts plain bearings ,bush bearings, and tumbling hammersChecking the rapping mechanisms both emitting and collecting replacing/re-conditioning of eroded tumbling hammers.	1	Sets	27660	27660	29043	30426
221	ESP2032	BM	b)Charges for replacing the worn out CERM shafts with structure, tumbling hammers ,plain bearings with necessary scaffolding arrangements.	1	Sets	20076	20076	21080	22084
222	ESP2033	BM	Labour charges for drawal of 441 Nos. ESP collecting plates of size 400mm width x 12.5m long from Central Stores/MTPS, loading into trailer lorry, transporting and unloading at Unit-I 'O' mtr.level including transporting charges and hydro mechanical crane.	1	LS	26210	26210	27521	28831
223	ESP2034	BM	Charges for lifting of ESP collecting electrode (plates) From 'O' mtr. to ESP top ie.23 mtrs. elevation and erection.This work involves, additional support frames to be provided inside ESP for properly locate and position the guide shaft assembly. Erecting the ESP collecting plates (size of 400 mm width x 12.5 m long) including crane charges for hydromech crane of capacity to lift 300 Kgs at 50m boom length.	7	Nos	2642	377	396	415
224	ESP2035	BM	Labour charges for shifting HVR transformers, which are fouling and interrupting when removal of ESP collecting electrodes. Re-fixing the same after completion of collecting electrodes works	4	Nos	10916	2729	2865	3002

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
225	ESP2036	BM	Charges for removal of inner and outer casing longitudinal ESP roof plate by cutting, a) Charges for removal of inner and outer casing longitudinal ESP roof plate by gas cutting or using welding electrodes including the cost of consumables and T & P etc. and removal of insulation wool mattress.	4	M ²	1264	316	332	348
226	ESP2037	BM	b) Labour charges for fixing and welding the same outer and inner casing longitudinal roof place including cost of consumables and T & P and cost of welding electrodes and renewal or putting back the same insulation wool mattress	4	M ²	984	246	258	271
227	ESP2038	BM	Labour charges for removal of damaged/ eroded/wornout ESP collecting electrodes of size 400mm width x 12.5 m long from ESP inside without damaging other inside components. with providing necessary derrick arrangements	20	Nos	3138	157	165	173
228	ESP2039	BM	Labour charges for shifting of eroded ESP collecting plates from ESP 'O' mtr. and loading it to vehicle and devolute at Central Stores / MTPS.	1	No	26210	26210	27521	28831
		BM	Boiler Maintenance - PRESSURE PARTS						
229	BPR2001	BM	Charges for air cleaning and water washing the boiler tube puncture area to facilitate boiler tube rectification works.	1	No	5442	5442	5714	5986
230	BPR2002	BM	Charges for identification rectification of tube puncture up to 10 Joints including Arc filling by spool piece, edge preparation and welding by IBR welder and assisting for hydraulic test. (Filler wire will be provided by Board at free of cost)	1	No	48713	48713	51148	53584
231	BPR2003	BM	Charges for renewal of defective boiler tubes of size 44.5mm OD inclusive of transportation, cutting of defective tubes, edge/spool preparation, welding with IBR welder and assisting for hydraulic test.	3	No	5392	1797	1887	1977
232	BPR2004	BM	Charges for renewal of defective boiler tubes of size above 44.5mm OD inclusive of transportation, cutting of defective tubes, edge/spool preparation, welding with IBR welder and assisting for hydraulic test.	2	No	5291	2645	2778	2910
233	BPR2005	BM	ASSISTANCE AND INSPECTION FOR BOILER HYDRAULIC TEST WHEN THE UNIT IS IN STANDBY CONDITION This work comprises of assistance for hydraulic test and inspection of Boiler at pressurized condition in boiler I st pass, Inter pass, II nd pass and Economiser hopper area and allied valve operations etc.,	1	Time	3788	3788	3977	4167
234	BPR2006	BM	Charges for cutting, edge preparation and welding of 1" pipe line, tee elbows, bends in Boiler pressure parts by IBR welder etc. at joints.	3	No	3670	1223	1285	1346
235	BPR2007	BM	Charges for fin welding: Charges for fin welding by cleaning, surface preparation and welding.	4	M	1350	338	354	371
236	BPR2008	BM	ARC FILLING i) Grinding of Boiler tubes for Arc filling of size 150 x 25 M ² area for 3 Layers	1	No	1507	1507	1582	1658
237	BPR2009	BM	ii). Charges IBR Welder for Arc filling of area 25 x 150 M ² by 3 layer.	1	No	661	661	694	727
238	BPR2010	BM	Removal & Erection of Economizer upper/lower banks: i) Charges for cutting, removal of Upper/ Lower coil bank, leading out the Boiler	1	No	13070	13070	13724	14377
239	BPR2011	BM	ii) Charges for reversing the coil, repairing arresting bands, leading inside the Boiler, position, renewal of damaged collector plate making alignment and IBR welder joints.	1	No	18765	18765	19703	20642
240	BPR2012	BM	SKY CLIMBER SERVICING a). Charges for cleaning and inspection of sky climbers drive and its auxiliaries such as hoist safety device, brake pawl assembly, drum shield assembly, tension roller assembly, fair lead guide etc., after proper cleaning inspection for any damage and rectification of the same, cleaning air filter and gear assembly and lubricating the system and topping up of oil in filter etc.,(for one set)	1	Sets	3316	3316	3482	3648
241	BPR2013	BM	b) Charges for cleaning and compete inspection of sky climber platforms, rectification of defects such as connecting bars, assembly holes ,stirrup rods connecting the links , bends in the platforms and rectification of damaged holes (for one set)	1	Set	3316	3316	3482	3648
242	BPR2014	BM	c) Cleaning and inspection of wire ropes and clamps, removing the links and bends in wire ropes and lubricating the same etc.,	1	Set	1938	1938	2035	2132
243	BPR2015	BM	d) Sky climber erection dismantling, including transporting of sky climber components, operation of load test as per instruction of Engineer-in-charge.	1	Set	2570	2570	2699	2827
244	BPR2016	BM	Charges for Reconditioning the sky climber hoist gear box assemblies by dismantling, cleaning, inspection and replacing the defective end cover plate, pressure bolt, locking plate, bearings, lock pin etc., (For 1 No. gear box)	1	Set	4020	4020	4221	4422

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
245	BPR2017	BM	Charges for transportation, erection of sky climbers and dismantling after completion of overhaul works. i)Charges for transportation of sky climbers (to & fro).	3	set	4322	1441	1513	1585
246	BPR2018	BM	ii)Charges for erection of sky climbers and dismantling after completion of works.	1	No	6116	6116	6422	6728
247	BPR2019	BM	Charges for shifting the sky climber inside the furnace for access of Platen Super- heater coils:	1	Nos	3058	3058	3211	3364
248	BPR2020	BM	Charges for operation of sky climbers required for various works such as cleaning, burner repairing, tube thickness survey, tube repairing works etc., in Boiler.	4	Nos	3876	969	1017	1066
249	BPR2021	BM	Charges for providing GI sheet/ MS sheet shield for 10.5 mt length inside Boiler inter pass Re Heater area to protect material falling from RH coil slop in to Boiler first pass and dismantling after completion of work and arranging polythene covers to Sky climber motor, sky lock etc. to protect damage from water and dust, cleaning falling soot particles from Sky climber bed during carrying out Jet cleaning work	1	Time	7812	7812	8203	8593
250	BPR2022	BM	Charges for overhauling of valves including dismantling, inspection, rectification of defects, if any, lapping of valve seat and disc, renewal of sealing rings, gland packing etc. cleaning of all parts, freeing of all fasteners, inspection of drive bush, bearings, etc. and renewing if necessary, assembling the valve, yoke i) MAIN STEAM STOP VALVE / 300/250 VALVE / FLCV Valves - Each	1	No	8185	8185	8594	9004
251	BPR2023	BM	ii)150/250 valves 100/250 valves and 65/250 valves - Each	1	No	3604	3604	3784	3964
252	BPR2024	BM	iii)250/40, 200/40, 150/40 & 100/40 size valves - Each	1	No	1953	1953	2051	2148
253	BPR2025	BM	iv) 40 mm to 50 mm size of valves.	1	No	1041	1041	1093	1145
254	BPR2026	BM	v) 15 mm to 25 mm size of valves.	1	No	521	521	547	573
255	BPR2027	BM	Charges for overhauling of Thermal drains, WWSB line, APHSB line control valves, RH/ SH spray control valves etc. by dismantling, inspection, lapping of valve seat and disc, renewal of spiral wound gasket and gland packing etc. cleaning, freeing of all fasteners and renewing if necessary, assembling the valve	1	Nos	2642	2642	2774	2906
256	BPR2028	BM	Charges for cutting and replacing the defective valve of size up to 25 mm Rate for 3 valves (For valves of size up to 25 mm)	3	No	4841	1614	1694	1775
257	BPR2029	BM	Charges for cutting and replacing the defective valves for valves of size 40 mm to 50 mm.	1	No	2010	2010	2111	2211
258	BPR2030	BM	Charges for dismantling & assembling the electrical Actuators to facilitate valve overhauling work.	1	No	2025	2025	2126	2228
259	BPR2031	BM	Charges for cutting of 65/250 size valve due to passing in various system of boiler includes the charges for transportation of new valve from central stores, cutting the existing valve, edge preparation, positioning the new valve and welding with IBR quality welder including all consumables and T & Ps etc.	1	No	10126	10126	10632	11139
260	BPR2032	BM	Refractory: Charges for chipping removal of defective refractory, cleaning, surface preparation, patch work new refractory in various elevation of Boiler, and disposing removed refractory from site. i) Charges for transporting the refractory from stores and unloading at site, leading, lifting, stacking at 7m to 52 m elevation of Boiler and removing the waste refractory from Boiler lowering to the ground flower, loading to tipper and disposing at waste disposal area of TPS.	1000	Kg	1752	2	2	2
261	BPR2033	BM	ii)Charges for chipping removal of old defective refractory, cleaning, surface preparation, mixing the refractory with water application and curing the patch worked refractory in Boiler at various elevation.	200	Kg	1558	8	8	9
262	BPR2034	BM	Charges for fixing shrouding at erosion prone Boiler tubes & bends by Tag welding.	15	Nos	1730	115	121	127
263	BPR2035	BM	Charges for removal of damaged cassette baffles from various assemblies in boiler coil and to fitting new one by	5	Nos	2233	447	469	491
264	BPR2036	BM	Water washing of Interpass and Ist pass i) Water washing of boiler inter-pass area (area inclusive of re-heater coils, water wall Screen tubes, S.H Screen tubes etc.)	1	Nos	5140	5140	5397	5654
265	BPR2037	BM	ii) Water washing of boiler I pass water walls inclusive of gooseneck bends area through peepholes.	1	Nos	5140	5140	5397	5654
266	BPR2038	BM	Air & water washing of boiler IInd pass. i) Air washing of boiler II pass	1	Nos	13605	13605	14285	14966
267	BPR2039	BM	ii) Water washing of boiler II pass	1	Nos	12192	12192	12802	13411

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
268	BPR2040	BM	Removal of heavy lumps of shoot deposited on water walls and platen super heater coil tubes by using wire brushes / scrapping with assistance of sky climber.	1	No	35373	35373	37142	38910
269	BPR2041	BM	Removal of heavy lumps of soot deposited on boiler Inter pass Re heater coil by using wire brushes / scrapping with assistance of sky climber.	1	No	10884	10884	11428	11972
270	BPR2042	BM	OVERHAULING OF SOOT BLOWERS i) Overhauling of wall deslaggers:	1	No	1113	1113	1169	1224
271	BPR2043	BM	ii) Charges for dismantling of soot blower valve head assembly, lapping the valve seat, renewal of gaskets, pressure setting the valve and alignment checking etc.	1	No	969	969	1017	1066
272	BPR2044	BM	Servicing of LRSB assembly i) Over hauling of LRSB valve assembly:	1	No	2089	2089	2193	2298
273	BPR2045	BM	ii) Over hauling and alignment of LRSB Lance tube:	1	No	3202	3202	3362	3522
274	BPR2046	BM	iii) Servicing of LRSB travelling carriage assy., rotary & traverse chains etc.:	1	No	2498	2498	2623	2748
275	BPR2047	BM	Charges for dismantling defective swivel tube from WW Soot Blower, leading, lifting and fixing of new swivel tube in various elevation of soot blower.	2	No	1601	801	841	881
276	BPR2048	BM	Charges for drawal of LRSB lance tube from stores transporting to Unit I Boiler area leading , lifting to above 40 m elevation of Boiler using pulley and rope, Dismantling/ cutting removal of defective Lance tube from LRSB, fixing new lance to in position, lowering the defective lance tube to '0' m ground floor, devoluting the scrape to stores	1	No	6699	6699	7034	7369
277	BPR2049	BM	Charges for removal of box shrouding before water washing and refixing the same after tube rectification in Boiler II pass area. i) In one shift 200 boxes shrouding can be removed.	200	No	2800	14	15	15
278	BPR2050	BM	ii) In one shift 200 boxes shrouding can be refixed	200	No	2800	14	15	15
279	BPR2051	BM	Charges for reconditioning of WWSB & LRSB cover boxes by tinkering work, cleaning the cover box for painting and renewal of worn out fasteners	3	No	2305	768	807	845
280	BPR2052	BM	Charges for dismantling the existing WWSB seal box from outer water wall by gas cutting, removal of refractory, removing worn out guide sleeve, surface preparation for sleeve seating & seal box seating, fixing the sleeve with proper setting, welding with seal box, fixing the seal box by fin welding in the water wall tube as before, fin welding of scalloped bars and providing new refractory. Charges for dismantling, sleeve welding & refitting the seal box in position	1	No	10340	10340	10857	11374
281	BPR2053	BM	Renewal and repairing of Damaged Insulation and Re fixing Skin casing inclusive of necessary Scaffolding arrangements.	4	M ²	2161	540	567	594
282	BPR2054	BM	Charges for removal of worn out/ damaged insulation and Aluminium sheet from Boiler pipe lines.	10	M ²	1321	132	139	145
283	BPR2055	BM	Charges for cutting of new / old ceramic blanket/wool mattress for required size and fixing on Boiler pipe lines.	10	M ²	1730	173	182	190
284	BPR2056	BM	Charges for cutting new Aluminium / G.I sheet to required size, bending forming and making locking grooves and fixing/ Repairing, dents removal from released Aluminium/ G.I sheets, fixing on insulation and positioning the sheets intact with suitable fasteners on Boiler pipe lines .	10	M ²	2082	208	219	229
285	BPR2057	BM	Charges for repairing old / providing new Aluminium / G.I. sheet over the 90 deg. Bend pipe lines of size up to 2" involves cutting, bending and fixing on the insulation	2	Nos	969	485	509	533
286	BPR2058	BM	Charges for repairing old/ providing new Aluminium / G.I. sheet over the 90 deg. Bend pipe lines of size above 2" involves cutting, bending, and fixing on the insulation.	2	Nos	1658	829	870	912
287	BPR2059	BM	INSULATION WORK: Charges for removal and refixing of insulation hood and insulation of the following valves for repairing/O.H works. i) 100/250 size valves	3	Nos	2010	670	704	737
288	BPR2060	BM	ii) 65/250 size valves	4	Nos	1658	415	435	456
289	BPR2061	BM	Charges for cutting the ribs of coal nozzle correcting the divider plate to size, aligning, fixing and welding the divider plate by stitch welding on either side in coal nozzle as per requirement per nozzle.	1	No	1874	1874	1968	2061
290	BPR2062	BM	Charges for transportation of coal nozzles (SH) from central stores to work sit	12	No	1264	105	111	116

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
291	BPR2063	BM	Charges for re-conditioning of coal nozzles, patch works, metal filling the eroded portion, finishing to the requirement for one number nozzle.	1	No	2930	2930	3077	3223
292	BPR2064	BM	Charges for checking the dimensions, cleaning and tapping all threads painting nozzles with red oxide paint.	1	No	1113	1113	1169	1224
293	BPR2065	BM	Charges for hard facing of new/old coal nozzles up to 372mm from exit and entry side in diamond pattern of 40mm size and a dot at the center or the pattern as recommended by Engineer-in-charge	1	No	2786	2786	2925	3065
294	BPR2066	BM	Charges for fabrication of divider plate (both left & right) to a required size including charges for cutting bending grinding and red oxide painting	1	No	984	984	1033	1082
295	BPR2067	BM	Charges for fabrication of divider plate (straight) to a required size including Charges for cutting, grinding and red oxide painting	1	No	984	984	1033	1082
296	BPR2068	BM	RECONDITIONING OF USED & WORN-OUT COAL NOZZLE TIPS i) Cutting of old splitter plates, grinding and edge	1	No	2498	2498	2623	2748
297	BPR2069	BM	ii) Fixing of new splitter plates inside the tip and inner cover plate patching in 4 sides checking the alignment.	1	No	2952	2952	3100	3247
298	BPR2070	BM	HARDFACING OF RECONDITIONED COAL NOZZLE TIPS i) Charges for transporting of coal nozzle tips from Central Stores to Workshop.	12	Nos	1264	105	111	116
299	BPR2071	BM	ii) Charges for hard facing of coal nozzle tips	1	No	2603	2603	2733	2863
300	BPR2072	BM	CHECKING OF DEFORMATION OF COAL NOZZLE TIP & MATCHING Charges for checking of deformation and matching of 1 No. reconditioned tip with nozzle for proper clearance.	1	No	1098	1098	1153	1208
301	BPR2073	BM	Rectification of defects in secondary air dampers and cleaning of wind box.	1	No	8644	8644	9076	9508
302	BPR2074	BM	Charges for fabrication of new air damper, by sizing, bending of BMC 20 plate of 8/6mm thickness, 1" CS tube sizing, hinge plates, link plate, arresting plate etc., drilling and welding the arresting plate, hinge plate suitably as per the released sample. Required BMC 20 plate will be supplied by board at free of cost.	3	No	12770	4257	4470	4682
303	BPR2075	BM	Charges for cutting removal of worn out air dampers fixed & moving blades, shaft, preparing air compartment plates, shaft and damper blades, welding shaft with moving blade and making proper alignment and checking for free operation.	3	No	6699	2233	2345	2456
304	BPR2076	BM	Removal of insulation from top & bottom of the wind box and refixing after completion of rectification works.	4	M ²	2233	558	586	614
305	BPR2077	BM	Charges for cleaning the accumulated ash deposits over the Wind box Top left & Right side. Inspection, rectification of eroded portions in wind box and assisting for air leak test. i) Charges for inspection and marking the flue gas/hot air leakage point in wind box and rear arch room area.	1	side	2362	2362	2480	2598
306	BPR2078	BM	ii) Charges for removing the eroded portions in wind box and welding with new plates inclusive of transportation, lead and lift, scaffolding arrangements, etc	1	side	13096	13096	13751	14406
307	BPR2079	BM	Dismantling the existing floor Grills: Charges for cutting tag weldment of floor Grills, dismantling, leading, lifting and stacking on the aside of the floor at 24 m elevation.	6.25	M ²	1953	313	328	344
308	BPR2080	BM	Refixing of the released Floor Grills Leading lifting of grills from the same floor erecting at 24 m level.	6.25	M ²	1953	313	328	344
309	BPR2081	BM	Charges for dismantling of A.C/ D.C scanner air fan end cover plate, motor, impeller etc overhaul works and assembling the same fan and normalizing	1	No	3202	3202	3362	3522
310	BPR2082	BM	Charges for dismantling and inspection of delivery side flap gate of scanner air fan for free operation and rectification defects if any and reassembling the same with new gasket.	1	No	1953	1953	2051	2148
311	BPR2083	BM	Over hauling of suction and delivery air dampers of scanner air fan by dismantling, cleaning, inspecting of operation, and replacing the flange gasket	1	No	1041	1041	1093	1145
312	BPR2084	BM	Over hauling of emergency air damper of scanner air fan system by dismantling, cleaning, inspecting of power cylinder operation	1	No	1673	1673	1757	1840

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
313	BPR2085	BM	OVERHAULING OF BURNERS i) Removing inner and outer panel door, releasing all reach rods from burner tilt mechanism, dismantling of direct and indirect burner tilt mechanism components for inspection	1	No	6102	6102	6407	6712
314	BPR2086	BM	ii) Inspection, cleaning, rectification and alignment of burner tilt mechanism components like bell crank clevis and drive lever, reassembling after fixing of coal nozzles, etc., with proper lubricants and connecting all reach rods with burner tilt mechanism including fixing of inner panel, outer panel doors (Asbestos tape gaskets and special lubricants will be supplied by board).	1	No	6548	6548	6875	7203
315	BPR2087	BM	OVERHAULING OF COAL COMPARTMENT ASSEMBLY i) Transporting of new coal nozzle compartment assembly to work site and old coal nozzle assembly from site to stores. Lorry and crane will be spared by board at free of charge for transporting.	12	No	1752	146	153	161
316	BPR2088	BM	ii) Dismantling of old nozzle assembly from its compartment, cleaning and preparing the coal compartment for re-fixing of new coal nozzle.	1	No	2922	2922	3068	3214
317	BPR2089	BM	iii) Checking of new coal nozzles and tips for proper aligning of coal nozzles, checking the clearance, rectification if any, fixing of new coal nozzle assembly inside the coal compartment in position and checking the clearance, checking the burner tilt, etc.	1	No	2642	2642	2774	2906
318	BPR2090	BM	OVERHAULING OF OIL COMPARTMENT ASSEMBLY i) Overhauling of oil gun assembly from stationary union to diffuser after dismantling, cleaning, checking the critical dimension, checking of guide tube assembly and supports, rectifying any damages, re-fixing oil gun assembly, igniter guide tube etc., after overhaul	1	No	1673	1673	1757	1840
319	BPR2091	BM	ii) Removing the oil nozzle tip with reach rod from furnace side after removing the fixing pins, overhauling of nozzle tip and linkages, checking the holes, lubrication of pins, re-fixing of oil nozzle and checking the clearance with wind box.	1	No	1673	1673	1757	1840
320	BPR2092	BM	OVERHAULING OF AIR COMPARTMENT ASSEMBLY Dismantling of air nozzle tip with reach rods from furnace side, overhauling of air nozzle tip linkages, pins etc. Checking the pin hole sizes etc. rectification of damages if any, checking the clearance, replacing the damaged hose with new one, reassembling after lubrication.	1	No	2233	2233	2345	2456
321	BPR2093	BM	Charges for removal of the Oil & Atomising steam metallic flexible hose from the Oil gun station (6 Nos. per corner) and Oil gun & Scanner cooling rubber hose (8 Nos. per corner) from the header pipe line to facilitate the maintenance of burner works, renewal of the damaged hoses if necessary and refixing the hoses after completion of the burner maintenance work by providing the hose clips properly	1	No	7524	7524	7900	8276
322	BPR2094	BM	Charges for attending burner by removal of outer / inner cover plates for repair & renewal of damaged Reach rod assembly/ eroded nozzle welding etc. after completion of work normalizing the Burner.	1	Time	2233	2233	2345	2456
323	BPR2095	BM	PAINTING with one coat Burner inner covers plates (both sides), outer panel covers plates, and inside gun assemblies	1	No	258	258	271	284
324	BPR2096	BM	Painting with two coat	1	No	406	406	426	446
325	BPR2097	BM	Charges for cutting and removal of 1 No. worn-out/damaged fasteners in burner corners 1 to 4 in a boiler.	2375	No	36180	15	16	17
326	BPR2098	BM	Fixing of 1 No.new bolts & nuts in inner and outer cover plates of burner corners	2375	No	37620	16	17	17
327	BPR2099	BM	Charges for servicing of Oil & Atomising Steam Pneumatic burner trip valve from the line, dismantling the bonnet from the body, inspection of the disc, renewal of disc if required, renewal of the body gasket, refixing the HMV body in the line .	2	No	969	485	509	533
328	BPR2100	BM	Charges for removal of the Oil & Atomising steam metallic flexible hose from the Oil gun station (6 Nos. per corner) and Oil gun & Scanner cooling rubber hose (8 Nos. per corner) from the header pipe line to facilitate the maintenance of burner works, renewal of the damaged hoses if necessary and refixing the hoses after completion of the burner maintenance work by providing the hose clips properly including the cost of consumables, hire charges for T&P's etc.	1	Corner	7524	7524	7900	8276

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
329	BPR2101	BM	Charges for renewal of the Burner tilting mechanism critical spares such as drive shaft. Link rod, index plate, clevis pin etc. By new ones	1	No	17532	17532	18409	19285
330	BPR2102	BM	Charges for removal of defective Burner corner end air nozzle tips leading, lifting, and fitting in the burner corner in its position and making proper alignment and operation.	1	No	5170	5170	5429	5687
331	BPR2103	BM	Charges for Reconditioning of used & worn-out Inter Air Nozzle Tips work involves the cutting & removal of old splitter plates, grinding and edge preparation, cutting of new SS splitter plates & patch plates for inner cover plates and outer body of square tip including transportation. Fixing of new splitter plates inside the tip and inner cover plate patching in 4 sides checking the alignment.	1	No	7755	7755	8143	8531
332	BPR2104	BM	Charges for Reconditioning of used & worn-out oil Nozzle Tips work involves the cutting & removal of old splitter plates, grinding and edge preparation, cutting of new SS splitter plates & patch plates for inner cover plates and outer body of square tip including transportation. Fixing of new splitter plates inside the tip and inner cover plate patching in 4 sides checking the alignment.	1	No	8811	8811	9252	9692
333	BPR2105	BM	DRUM OVERHAULING i) Charges for opening the drum manhole doors, cleaning & inspection of drum internals, flushing of phosphate dosing line by cutting and welding, cleaning and inspection of screen dryers, and providing new gasket for manhole doors.	1	No	16884	16884	17728	18572
334	BPR2106	BM	ii) Checking of weld cracks in separation chamber and welding the cracks with IBR welder.	1	No	5814	5814	6105	6395
335	BPR2107	BM	iii) Dismantling the turbo separator (100 Nos.) for cleaning and refixing in position	1	No	19053	19053	20006	20958
336	BPR2108	BM	OVERHAULING OF DRUM AND SUPER HEATER SAFETY VALVES: This work comprises of dismantling, cleaning, lapping the seat and disc, assembling without disturbing its initial settings.	1	No	5874	5874	6168	6461
337	BPR2109	BM	OVERHAULING OF PRDS & RH SAFETY VALVES: This work comprises of dismantling, cleaning, lapping the seat and disc assembling without disturbing its initial settings.	1	No	7539	7539	7916	8293
338	BPR2110	BM	OVERHAULING OF CBD TANK AND SOOT BLOWER SAFETY VALVES: The work comprises of dismantling, cleaning, lapping, settings etc of safety valves	1	No	4050	4050	4253	4455
339	BPR2111	BM	ASSISTANCE FOR SAFETY VALVE FLOATING: This work comprises of setting the valve as per design value for lifting & resetting pressure and assisting during floating of safety valves.	5	Nos	5572	1114	1170	1226
340	BPR2112	BM	Charges for rectification of Boiler drum separators by reconditioning erosion/ crack, alignment of fins and replacing worn out mounting fasteners.	5	No	2642	528	555	581
341	BPR2113	BM	Charges for Cutting removal of worn out drain lines of Safety valves of Boiler Drum, MSL lines etc., checking removal chocking if any, renewal of eroded portion, welding normalizing the lines including all consumables etc	1	No	3906	3906	4101	4297
342	BPR2114	BM	Charges for cutting and replacing of defective/ buckled end plate in the rear side of LTSH upper bank area in boiler II pass which is provided to protect the end coil erosion by cutting the M.S. plate to required size and providing stiffener plates to equal distance	1	No	18948	18948	19895	20843
343	BPR2115	BM	Charges for providing new M.S. plates in the middle side of boiler headers such as rear side, left side and right side headers in Boiler II pass to protect header erosion	1	No	13752	13752	14440	15127
344	BPR2116	BM	Charges for transporting, leading lifting new peep hole door assembly (size:370x230) to site at different elevation of Boiler, dismantling worn out/ damaged peephole door assembly from side wall of the Boiler, renewing worn out studs, refixing of new peephole door in correct position, lowering released scarp to ground floor	1	No	5874	5874	6168	6461
345	BPR2117	BM	Charges for transporting, leading lifting new man hole door assembly (size:575x525) to site at different elevation of Boiler, dismantling worn out/ damaged man hole door assembly from side wall of the Boiler, renewing worn out studs, refixing of new man hole door in correct position, lowering released scarp to ground floor including charges for T&P and consumables like cutting gas, welding electrode etc.	1	No	10707	10707	11242	11778
346	BPR2118	BM	Charges for Overhauling of peep hole door assembly in Boiler by cleaning, inspection of pins, studs, bolt & nuts, lever, operation freeness, replace the sealing asbestos rope etc., and rectification of defects if any, including the cost of all required consumables.	1	No	1041	1041	1093	1145

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
347	BPR2119	BM	Charges for Overhauling of man hole door assembly in Boiler by cleaning, inspection of pins, studs, bolt & nuts, lever, operation freeness, replace the sealing asbestos rope etc., and rectification of defects if any	1	No	3906	3906	4101	4297
348	BPR2120	BM	Charges for removal of defective/ damaged asbestos rope and renewal of the same in Atomising steam & oil lines of all burner corner elevations.	1	No	3202	3202	3362	3522
349	BPR2121	BM	Charges for buffing water wall tubes for tube thickness survey	25	M	4996	200	210	220
350	BPR2122	BM	Charges for providing assistance in Boiler tube thickness survey	150	Points	1133	8	8	8
351	BPR2123	BM	Charges for conducting Boiler tube thickness survey and hire charges for ultrasonic thickness gauge.	475	Points	1133	2	3	3
352	BPR2124	BM	Charges for conducting tube thickness survey by physical verification in boiler 2nd pass and inter pass area, arranging necessary lighting inside the Boiler	1	Nos	12490	12490	13115	13739
353	BPR2125	BM	Charges for leading lifting of scaffolding materials and erection of platform and scaffolding at S.H/W.W screen tube area, Eco hanger tube area, Economiser Hopper area and 'S' panel area to conduct Boiler tube thickness survey and tube rectification work and removal of platform and scaffolding.	1	No	39949	39949	41946	43944
354	BPR2126	BM	Charges for cutting removal of shrouding provided on Boiler tubes & bends for identify the tube erosion.	15	No	984	66	69	72
355	BPR2127	BM	Charges for cutting, removal of existing damaged cassette baffles which are formed like fissure, blister, twist, wrinkle, bulge from LTSH / Economiser upper & lower bank coils and devoluted to stores	3	No	1896	632	664	695
356	BPR2128	BM	Charges for fixing of new cassette baffles after cleaning the fixng area in LTSH / Economiser upper & lower bank coils by welding of clamps with coil & cassette baffle. Charges including material drawl from stores and transportation	6	No	1673	279	293	307
357	BPR2129	BM	Charges for renewal of existing dislodged / worn out End shields / cassette baffles which are provided in the various coil assemblies such as in the Eco & LTSH upper bank to avert the flue gas erosion by new ones including the charges for transporting from stores to work spot,	5	No	2233	447	469	491
358	BPR2130	BM	Charges for removal of pent house insulation skin casing sheets and insulation for an area of 3m2 and removal of inner casing plate of 2m2 and refixing the same after completion of work.	1	No	4610	4610	4841	5071
359	BPR2131	BM	Charges for collecting, removal of ash inside the boiler Penthouse headers and boiler drum area, disposal of ash to the ground floor ash trench.	1	No	56000	56000	58800	61600
360	BPR2132	BM	Charges for removal of ash from penthouse roofing floor and rear arch room, dispose the ash to ground floor ash drench.	1	No	16800	16800	17640	18480
361	BPR2133	BM	Charges for removal of ash from Economizer hopper flue gas deflection slope and dispose to ground floor ash trench	1	No	50400	50400	52920	55440
362	BPR2134	BM	Charges for removal of ash from Boiler front and rear 'S' panel enclosure area and dispose to ground floor ash trench.	1	No	20160	20160	21168	22176
363	BPR2135	BM	Charges for chock removal in ECO hopper (4 parts) during AOH/COH coil repair work by falling material, leading, lowering, disposing the waste material to the appropriate place.	1	No	16800	16800	17640	18480
364	BPR2136	BM	Charges for rectification of damaged / worn out portion of M.S plates in pent House inner floor along water wall screen tube roofing bend & S.H screen tube roofing bend area by cutting removal of damaged portions, cutting of new MS plates as per requirement and patch welding including lifting, leading of MS plates, Gas cylinders	1	No	31230	31230	32792	34353
365	BPR2137	BM	Charges for arranging shield above the air pre hear in the flue gas duct using angles and sheet metal so as not to interrupt the work of Air Pre heater underneath area.	1	No	12603	12603	13233	13863
366	BPR2138	BM	Charges for leading, lifting and arranging platform and scaffolding wherever required in the boiler and dismantling after completion of work.	1	No	6146	6146	6453	6761
367	BPR2139	BM	Charges for cutting removal of worn out M.S plate and supporting pipes from Eco mixing chamber hopper, lead and lift brought out side from Eco hopper area.	1	No	7584	7584	7963	8342

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
368	BPR2140	BM	Charges for transporting of required beams, channels, tubes, 6 mm M.S plates, angles etc. from various elevation Of Boiler, stores and leading & lifting the materials to Economiser hopper area of elevation 24 mt. floor, lowering released scrap material using pulley arrangement and devolute to central store. Lorry will be provided by TANGEDCO at free of cost.	1	No	6994	6994	7344	7693
369	BPR2141	BM	Charges for cutting the worn out supports at Eco hopper area and replacing with new pipes by welding.	5	M	1041	208	219	229
370	BPR2142	BM	Charges for transporting of 6 mm M.S plates from central stores/MTPS-I to Boiler area, cutting in to required size, leading , lifting, positioning on the eroded contour portions of Economiser hopper deflection slope area and welding the same	2	M²	1953	977	1025	1074
371	BPR2143	BM	Charges for cleaning the entire boiler structures, Backstay beams, cable trays, walk ways, staircase, handrail pipes, Burner corners, pipelines of various systems, PRDS system etc. free from fly ash, coal powder deposit etc. by using the Service air after the Capital/ Annual Overhaul.	1	Time	81280	81280	85344	89408
372	BPR2144	BM	Charges for removal of all solid waste like cotton/wool waste, insulating materials, waste welding rod cut bits, spillage of oil etc. from boiler 0 mtr to 52 mtr floor areas and devoulte metal scrap to central stores/MTPS-I. (Lorry will be provided by board at free of cost)	1	Time	5880	5880	6174	6468
373	BPR2145	BM	Charges for cleaning & Water washing the boiler ground floor area after over hauling of Boiler.	1	Time	16800	16800	17640	18480
374	BPR2146	BM	1. Charges for over hauling of Indmodact actuator of Model 52031/ 52032 in Boiler area by leading, lifting, draining Oil, dismantling, cleaning, checking mechanical operation attending minor defects, renewing oil seal, O ring, gasket etc., assembling	1	No	3346	3346	3513	3681
375	BPR2147	BM	Charges for over hauling of Beacon Rotark /Limitorque actuator Model K-300 in Boiler area by leading, lifting, draining Oil, dismantling, cleaning, checking mechanical operation attending minor defects, renewing oil seal, O ring, gasket assembling	1	No	3346	3346	3513	3681
376	BPR2148	BM	Charges for over hauling of Beacon Rotark/Limitorque actuator Model K-600 in Boiler area by leading, lifting, draining Oil, dismantling, cleaning, checking mechanical operation attending minor defects, renewing oil seal, O ring, gasket assembling	1	No	5019	5019	5270	5521
377	BPR2149	BM	Charges for Reconditioning of sky climber bed of size 3m length by removing bend of the plate and pipes, cracked pipe welding, renewing cracked plate welding, providing aluminium stiffener to bed side plate, renewing aluminium 45x 25x 2mm thick rectangular pipe and drilling,, renewing bolts and nuts of various sizes.	1	set	13210	13210	13871	14531
		BM	Lift						
378	BLIFT2001	BM	Operation and attending Routine maintenance & Minor repair works in Boiler Lift I to IV and its accessories. 1) Charges for continuous operation of Boiler Lift I to IV for transporting men & material	1	No	409	409	429	450
379	BLIFT2002	BM	2) Charges for Routine maintenance & Minor repair works in Boiler Lift I to IV and its accessories for trouble free operation of the lifts.	1	No	1586	1586	1665	1745
		BM	DM Plant						
380	DMP 001	BM	Overhaul of contact tank & Pressure sand filter 1A) Charges for top side man hole door opening, dismantling of inlet and outlet headers, cleaning the headers & refixing the same after painting works and closing the manhole doors.	1	No	14610	14610	15341	16071
381	DMP 002	BM	1b) Charges for painting the inside of contact tank, inlet & outlet headerswith two coats of First quality Epoxy coal tar (high build) with hardner.	10	M²	812	81	85	89
382	DMP 003	BM	2a) Charges for opening the manhole, dismantling the inlet distribution system, checking the Laterals & to renew if necessary and thorough cleaning of the pipes.	1	Nos	11450	11450	12023	12595
383	DMP 004	BM	2b)Charges for removal of filter media, pebbles and segregation of removed filter media and cleaning the pebbles.	1	No	18165	18165	19073	19982
384	DMP 005	BM	2c) Charges for cleaning the tank inside thoroughly, water washing and removal of any debris inside the tank and preparing the surface for painting.	1	No	1938	1938	2035	2132
385	DMP 006	BM	2d) Charges for painting the inside of contact tank, inlet & outlet headers with two coats of First quality Epoxy coal tar (high build) with hardner.	10	M²	812	81	85	89

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
386	DMP 007	BM	2e) Charges for re-fitting the collection and distribution headers and their pipes and refilling the filter media to the required level closing the manhole doors.	1	No	17804	17804	18694	19584
387	DMP 008	BM	3) Charges for Sewing sand approximately 32.48m3 to the required size of 0.35mm – 0.5mm from the 8 Nos. Pressure Sand Filter and including supply of normal sand 8m3 for topping up.	1	No	560	560	588	616
388	DMP 009	BM	Overhauling of pumps SINGLE STAGE HORIZONTAL CENTRIFUGAL De GAS PUMP, DMWP, HWMP, Bfill PUMP, SWTP 1) Charges for de-coupling the pump & its motor after disconnecting the Electric supply, de-positioning the Motor, Remove the Rotary assembly from casing and refitting the same after completion of overhauling works.	1	No	2362	2362	2480	2598
389	DMP 010	BM	2) Charges for dismantling the pump spares & renewal of worn-out parts by new one or reconditioning the spares if necessary and reassembling the same and other related work if any.	1	No	4724	4724	4960	5196
390	DMP 011	BM	3) Charges for removing the existing wear rings from impeller and refixing new rings, machining to required dimension, drilling & tapping works for crub screw arrangement.	1	No	818	818	859	900
391	DMP 012	BM	4) Charges for positioning the LT Motor, Alignment work with the Bed bolts in full tight condition and Coupling the Motor with the Pump, including Tools & Plants and other related work if any.	1	No	4724	4724	4960	5196
392	DMP 013	BM	5) Charges for boring the Couplings to the required dimension, Key way cutting, drilling hole & tapping.	1	No	40	40	42	44
393	DMP 014	BM	SINGLE STAGE VERTICAL SUB MERGED PUMP, EFFLUENT WATER TRANSFER PUMPS 1) Labour charges for complete overhauling including dismantling, cleaning of Effluent pump parts, replacing the worn out spares by new one (if necessary) and re - assembling the same after completion of overhauling work & allied works if any.	1	No	18046	18046	18948	19851
394	DMP 015	BM	2) Charges for Trueness checking & removing run out for the Head & Impeller Shaft of Effluent Pump.	1	No	1095	1095	1150	1205
395	DMP 016	BM	3) Charges for removing the existing wear rings from impeller, casings for Effluent Pump and refixing new rings, machining to required dimension, drilling & tapping works for crub screw arrangement.	1	No	876	876	920	964
396	DMP 017	BM	4) Charges for removing the existing bush or Sleeve from Shaft, IB Housing & Impeller Top Casing for effluent Pump and refixing the above, machining to required dimension.	1	No	1095	1095	1150	1205
397	DMP 018	BM	5) Charges for alignment for the base plate of the vertical Effluent pump with bed frame Bed bolts in full tight condition and coupling the motor with the pump & related works.	1	No	4724	4724	4960	5196
398	DMP 019	BM	NEUTRALISING PITS BELOW GROUND LEVEL CLEANING Cleaning and removing of sludge of acidic, alkaline and lime slurry formed during neutralization of effluent water in neutralizing pits.	1	No	2961	2961	3109	3257
399	DMP 020	BM	Overhauling of Ion exchangers Weak Base Anion Ion Exchanger. a) Charges for manhole door opening, back washing, cleaning of internals by Air Scouring.	1	No	1321	1321	1387	1453
400	DMP 021	BM	b) Charges for removal of entire resins from ion exchanger tank manually, cleaning & checking the organic fouling and re filling of resins after completion of work.	1	No	4803	4803	5043	5283
401	DMP 022	BM	c) Charges for dismantling Inlet distribution Header & its bends and re - assembling the same, after completion of work.	1	No	1321	1321	1387	1453
402	DMP 023	BM	d) Charges for dismantling of MSRL Lateral Support Members, PVC Latrals & Middle collection Header, Cleaning & checking the healthiness of PVC Lateals, renewing the letarals if necessary & assembling and re - assembling Middle collection Header, PVC Latrals & MSRL Lateral Support Members., after completion of work.	1	No	3762	3762	3950	4138
403	DMP 024	BM	e) Charges for dismantling of bottom collecting deflector plate & out let pipe, Cleaning & checking the healthiness of PP Double Decker Strainer buttons & Resin Trap, renewing the Strainer buttons & Resin Trap if necessary, assembling all Strainer buttons & Resin Trap and then closing the bottom collecting deflector plate & out let pipe.	2	M ²	4996	2498	2623	2748

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
404	DMP 025	BM	f) Charges for Resin washing, open back washing & water draining. Measuring resin level after water draining, to top up the resins for required level if necessary, and lifting the man hole dummy from ground and closing.	1	No	3202	3202	3362	3522
405	DMP 026	BM	Strong Base Anion Ion Exchanger. a) Charges for manhole door opening, back washing, cleaning of internals by Air Scouring.	1	No	1321	1321	1387	1453
406	DMP 027	BM	b) Charges for removal of entire resins from ion exchanger tank manually, cleaning & checking the organic fouling and re filling of resins after completion of work.	1	No	4803	4803	5043	5283
407	DMP 028	BM	c) Charges for dismantling Inlet distribution Header & its bends and re - assembling the same, after completion of work.	1	No	1321	1321	1387	1453
408	DMP 029	BM	d) Charges for dismantling of MSRL Lateral Support Members, PVC Latrals & Middle collection Header, Cleaning & checking the healthiness of PP Short Strainer buttons & Rubber Grommets, renewing the above if necessary, assembling all Strainer buttons & Rubber Grommets and re-assembling Middle collection Header, PVC Latrals & MSRL Lateral Support Members., after completion of work.	1	No	5643	5643	5925	6207
409	DMP 030	BM	e) Charges for dismantling of bottom collecting deflector plate & out let pipe, Cleaning & checking the healthiness of PP Double Decker Strainer buttons & Resin Trap, renewing the Strainer buttons & Resin Trap if necessary, assembling all Strainer buttons & Resin Trap and then closing the bottom collecting deflector plate & out let pipe.	1	No	4996	4996	5246	5496
410	DMP 031	BM	f) Charges for Resin washing, open back washing & water draining. Measuring resin level after water draining, to top up the resins for required level if necessary, and lifting the man hole dummy from ground and closing.	1	No	3202	3202	3362	3522
411	DMP 032	BM	Mixed Bed Ion Exchanger. a) Charges for manhole door opening, back washing, cleaning of internals by Air Scouring.	1	No	1321	1321	1387	1453
412	DMP 033	BM	b) Charges for removal of entire resins from ion exchanger tank manually, cleaning & checking the organic fouling and re filling of resins after completion of work.	1	No	4803	4803	5043	5283
413	DMP 034	BM	c) Charges for dismantling Inlet distribution Header & its bends and re - assembling the same, after completion of work.	1	No	1321	1321	1387	1453
414	DMP 035	BM	d) Charges for dismantling of MSRL Lateral Support Members, PVC Latrals & Middle collection Header, Cleaning & checking the healthiness of PP Short Strainer buttons & Rubber Grommets, renewing the above if necessary, assembling all Strainer buttons & Rubber Grommets and re-assembling Middle collection Header, PVC Latrals & MSRL Lateral Support Members., after completion of work.	1	No	5643	5643	5925	6207
415	DMP 036	BM	e) Charges for dismantling of MSRL Lateral Support Members, PVC Latrals & Alkali Regenerant Header, Cleaning & checking the healthiness of PVC Laterals, renewing the laterals if necessary & assembling and re - assembling Alkali Regenerant Header, PVC Latrals & MSRL Lateral Support Members., after completion of work.	1	No	3762	3762	3950	4138
416	DMP 037	BM	f) Charges for dismantling of bottom collecting deflector plate & out let pipe, Cleaning & checking the healthiness of PP Double Decker Strainer buttons & Resin Trap, renewing the Strainer buttons & Resin Trap if necessary, assembling all Strainer buttons & Resin Trap and then closing the bottom collecting deflector plate & out let pipe.	1	No	4996	4996	5246	5496
417	DMP 038	BM	g) Charges for Air Scoaring, Acid Chocking & washing, open back washing & water draining. Measuring resin level after water draining, to top up resins for required level if necessary, and lifting the man hole dummy from ground and closing.	1	No	4803	4803	5043	5283
418	DMP 039	BM	Strong Acid Cation Ion Exchanger. a) Charges for manhole door opening, back washing, cleaning of internals by Air Scouring.	1	No	1321	1321	1387	1453
419	DMP 040	BM	b) Charges for removal of entire resins from ion exchanger tank manually, cleaning & checking the organic fouling and re filling of resins after completion of work.	1	No	4803	4803	5043	5283
420	DMP 041	BM	C) Charges for dismantling Inlet distribution Header & its bends and re - assembling the same, after completion of work.	1	No	1321	1321	1387	1453
421	DMP 042	BM	d) Charges for dismantling of MSRL Lateral Support Members, PVC Latrals & Middle collection Header, Cleaning & checking the healthiness of PP Short Strainer buttons & Rubber Grommets, renewing the above if necessary, assembling all Strainer buttons & Rubber Grommets and re-assembling Middle collection Header, PVC Latrals & MSRL Lateral Support Members., after completion of work.	1	No	5643	5643	5925	6207

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
422	DMP 043	BM	e) Charges for dismantling of bottom collecting deflector plate & out let pipe, Cleaning & checking the healthiness of PP Double Decker Strainer buttons & Resin Trap, renewing the Strainer buttons & Resin Trap if necessary, assembling all Strainer buttons & Resin Trap and then closing the bottom collecting deflector plate & out let pipe.	1	No	4996	4996	5246	5496
423	DMP 044	BM	f) Charges for Air Scoaring, Acid Chocking & washing, open back washing & water draining. Measuring resin level after water draining, to top up the resins for required level if necessary, and lifting the man hole dummy from ground and closing.	1	No	4803	4803	5043	5283
424	DMP 045	BM	Charges for Rubber Lining spark test before & after rubber patching/lining Works for Ion Exchanger Pressure Vessels & Degasser Towers, including necessary T&P and consumable.	1	No	1333	1333	1400	1466
425	DMP 046	BM	Rubber lining charges 6a) Charges for removal of existing rubber lining for 3m2	3	M²	1321	440	462	484
426	DMP 047	BM	6b) Charges for and sand blasting work for 2m2 area	2	M²	1378	689	723	758
427	DMP 048	BM	6c) Coating of adhesive compound providing 8 hour gap between each coating before patching of natural rubber. (For 10m2 area)	10	M²	258	26	27	28
428	DMP 049	BM	6d) Charges for rubber lining (Vulcanizing) by hot banding process and stream centering for 5m2 area.	5	M²	1058	212	222	233
429	DMP 050	BM	Charges for the inspection of gusset cleat plates removing of damaged rubber lining, gusset plates providing new gusset cleat plates and rubber lining if necessary.	1	No	1690	1690	1775	1859
430	DMP 051	BM	Opening of Man hole dummy, removal & collecting of DG Tower Rings, dismantling of connecting pipe lines, top cover plate, cowl, bottom cover plate & locating strip, Duct, blowers & Filters for inspection & cleaning of the above parts and renewing the damaged parts wherever necessary and reassembling the same after completion of work.	1	No	12808	12808	13448	14089
431	DMP 052	BM	Charges for dismantling of damaged Degasser blower air duct, dampers and CO2 vent cowl and assembling the same after strengthening with FRP in stage- I & II.	1	No	3963	3963	4161	4359
432	DMP 053	BM	Labour charges for devoluting the resin which are removed from Ion Exchangers in DM Plant Stage I.	1	No	5472	5472	5746	6019
		TM	210 MW LMW TURBINE						
433	TL20001	TM	Dismantling, overhauling and assembling of HP & IP control valve columns. Dismantling the control valve columns after loosening the bolts, dismantling its liners, spring assembly liner sliding pin, dismantling the roller bearings, cleaning the above items, inspection of liner key way and measuring the dimension, welding and grinding to the dimension required, greasing the bearing, assembling the dismantled parts and setting the roller clearance as per the direction of engineer in charge.	1	No	8840	8840	9282	9724
434	TL20002	TM	Dismantling, inspection, and changing of HP & IP control valves:Cutting the spindle leak off lines, heating the cap nut of steam chest by gas, dismantling the control valve assembly from steam chest, cleaning of all parts removal of steam strainer and cleaning spare valve and valve seat lapping and checking blue matching, steam chest flange lapping and blue matching, checking valve stem and liner clearance, valve stem DYE penetrant checking etc., a). Dismantling the control valve assembly from steam chest, cleaning of all parts, removal of steam strainer and cleaning spare valve and valve seat lapping and checking blue matching, Assembling the spare valve with steam chest and tightening the cap nut etc., checking Idle lift connecting the spindle leak off lines and welding as per the direction of the Engineer-in- charge.	1	No	20168	20168	21176	22185
435	TL20003	TM	b). Drilling the hole in the stem for providing spilt pin, providing the split pin, checking the washer clearance, checking valve lift etc.	1	No	3044	3044	3196	3348
436	TL20004	TM	Dismantling, overhauling and assembling of HP & IP cam shaft arrangement:Dismantling the cam shaft arrangements from its plumber blocks. Inspection of all bearings, changing the damaged bearings, metal building and machining if required in the bearing seating area, cam inspection and changing the damaged cam. Greasing of all bearings and assembling.	1	No	9405	9405	9875	10346

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
437	TL20005	TM	Dismantling front pedestal cover, overhauling of main oil pump, intermediate pilot valve, Speed load control assembly, Differentiator, EGPV, turbine trip switch, CVSM feed pack pilot Control pilot & over speed striker. Dismantling of front bearing pedestal top cover, disconnecting the oil pipe lines, dismantling the gear coupling inspection & rectification dismantling of main oil pump, rotor float checking, side and top oil clearance checking. Inspection of impeller, wear ring clearance checking inspection of bearings and doing correction works, replacement of bearings, gear coupling if required. MOP & HP rotor alignment checking and correcting the same and assembling the gear coupling and MOP cover. Dismantling the MOP NRV, lapping and blue matching and assembling, Dismantling, cleaning, inspection and assembling of follow pilot, summation pilot, load/speed control pilot, speeder gear assembly, EGPV, intermediate pilot, differentiator, CVSM feedback pilot etc., Speed governor sleeve to nozzle, EGPV lever to over speed striker to rubber.	1	No	56886	56886	59730	62575
438	TL20006	TM	Dismantling, inspection, and assembling of turbine bearings (Top & Bottom) No:1 and 3 to 7 (each bearings) Dismantling the bearing pedestal cover, top half of the bearings, bottom half of the bearing DPT check, bedding inspection, oil clearance checking and correction, assembling the bottom half of the bearing, top oil clearance checking and correction, assembling the top half of the bearing, checking of interference and assembling the top cover.	1	No	26420	26420	27741	29062
439	TL20007	TM	Dismantling, inspection, and assembling of turbine bearings No:2 Radial & Thrust bearing (Top & Bottom) a). Dismantling the bearing pedestal cover, top half of the bearings, bottom half of the bearing DPT check, bedding inspection, oil clearance checking and correction, assembling the bottom half of the bearing, top oil clearance checking and correction, assembling the top half of the bearing, checking of interference and assembling the top cover.	1	No	26420	26420	27741	29062
440	TL20008	TM	b). Checking the interference to the yoke, Loosening the bolts, releasing the adjusting rings and lifting the top/bottom yoke assembly, dismantling the surge pads & working pads and dismantling the amortiser from the bottom of bearing. After correction reassembling the yoke, pads, tightening the bolts and fixing the amortiser.	1	No	8328	8328	8744	9161
441	TL20009	TM	Dismantling, inspection and assembling of, Turbine top half of the bearings 1 to 7 (each Bearings): Dismantling the bearing pedestal cover, top half of the bearings, DPT check, bedding inspection, oil clearance checking and correction, assembling the top half of the bearing, checking of interference and assembling the top cover	1	No	13210	13210	13871	14531
442	TL20010	TM	Dismantling the bearing cover, checking the bearing interference and assembling after C & I work: Dismantling the bearing cover by loosening the cap nuts, checking the bearing to cover Interference attending correction if any and assembling after cleaning the parting plane and after completion of C & I works	1	No	4803	4803	5043	5283
443	TL20011	TM	Dismantling of barring gear assembly, oil pipe lines, hand wheel assembly, semi coupling of motor, worm cover, worm of barring gear, worm wheel cover, worm shaft lever, removing and inspection of bearings, correction of key ways in worm shaft, inspection and renewal of pressing bush, gland bush and renewal of oil seals, bearings, assembling and coupling alignment etc.	1	No	19449	19449	20421	21394
444	TL20012	TM	Checking the hot governing characteristics and adjusting the valve openings as per the instruction of Engineer in-charge including tools and tackles.	1	No	3008	3008	3158	3309
445	TL20013	TM	MOT FILTER CLEANING: Charges for main oil tank filters cleaning including dismantling of filter cover plate, lifting of filters, cleaning of filters by air, inspection of Filters and assembling of Filter Cover plate, cleaning of spillage oil in and around the Main oil tank	1	No	3435	3435	3607	3779
446	TL20014	TM	SPARE ROTOR ROTATION:Dismantling top cover of spare Rotor box, lifting of spare rotor and kept on Rotor stand, Rotating 180o of Rotor, and lifting Rotor, Kept inside Rotor Box, Closing Top cover of box.	1	No	7305	7305	7670	8036

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
447	TL20015	TM	REPLACEMENT OF HP CONTROL VALVE STEM: Removing the tack weld of the valve nut to valve body by grinding and loosening the valve nut, removing the broken stem, cleaning and checking the thoroughness of new valve stem, changing the new valve stems after ensuring proper fitting of the thrust ring & Tightening the valve nut, tack welding DP Test of the tack weld etc.,	1	No	11165	11165	11723	12282
448	TL20016	TM	Replacing the stem of removed IPT control valve: Charges for renewal of stem for IPT control valve 1 No.	1	No	62985	62985	66134	69284
449	TL20017	TM	INSULATION: a) Removal of insulation from HP/IP control valve, cleaning and disposal of removal insulation including transportation.	1	No	2312	2312	2428	2543
450	TL20018	TM	b). Re- insulation from HP/IP control valve, painting, claddings aluminum sheet & cleaning.	1	No	2312	2312	2428	2543
451	TL20019	TM	Removal of LP front & Rear gland steam pipes insulation, re-insulation, Aluminium cladding after fixing of LP front & rear gland steam pipes etc.	1	No	6936	6936	7283	7630
452	TL20020	TM	Plastering the cement on the insulation of HPCV 1 to 4 and finishing. Cleaning the waste cement from the TG floor and providing the suitable thermal safety appliances for handling the hot spots. Transporting the cement from packet store to work spot.	100	Kg	1708	17	18	19
453	TL20021	TM	CENTRIFUGE: Cleaning of Bowl Assembly of centrifuge Charges for centrifuge dismantling, cleaning and inspection of bowl assembly internals, friction pad assembly, renewal of damaged parts, reassembling and cleaning of spillage oil in and around the centrifuge floor area etc.,.	2	No	3543	1772	1860	1949
454	TL20022	TM	CENTRIFUGE OVERHAULING –ALFA LAVAL: a) Dismantling of oil inlet and outlet pipe lines to centrifuge, dismantling of motor, break drum, bowl assembly and pump assembly. Cleaning, inspection, Renewal of damaged spares, bearings, oil seals and assembling, successful commissioning of the centrifuge.	1	No	20160	20160	21168	22176
455	TL20023	TM	b).Cleaning of Oil line, renewal of oil line gaskets and painting etc	1	No	2498	2498	2623	2748
456	TL20024	TM	CENTRIFUGE OVERHAULING –PENNWALT: a).Charges for Dismantling of inlet and outlet oil lines connected to oil pumps and heater tank & cleaning etc.,	1	No	3202	3202	3362	3522
457	TL20025	TM	b).Charges for dismantling of Suction pump assembly, cleaning all internals, renewal of Bearings, oil seals, oil gaskets and assembling etc.,	1	No	4890	4890	5135	5379
458	TL20026	TM	c).Charges for dismantling of discharge pump assembly, cleaning all internals, renewal of Bearings, oil seals, oil gaskets and assembling etc.,	1	No	4890	4890	5135	5379
459	TL20027	TM	d).Charges for Dismantling Centrifuge Belt guard, centrifuge Bowl assembly, bottom feed nozzle assembly, idler arm assembly, bearing complete assembly, cleaning, inspection, renewal of bearings, gaskets, bushes and assembling work etc.,	1	No	15852	15852	16645	17437
460	TL20028	TM	e).Charges for renewal of existing oil line valves, gaskets and assembling of oil lines etc.,	1	No	8932	8932	9379	9825
461	TL20029	TM	TURBINE LUB OIL COOLER - ATTENDING TUBE PUNCTURE a).Dismantling of top water box, cleaning of all tubes, lifting & hydraulic testing of tube nest, plugging of punctured tubes, cleaning of top and bottom water box, cleaning of all flange seating areas, providing new oil and water gaskets, assembling and tightening of all parts .	1	No	17864	17864	18757	19650
462	TL20030	TM	b).Draining of oil from TLOC, shifting oil barrels ,top up oil to MOT through centrifuge etc.	1	No	2384	2384	2503	2622
463	TL20031	TM	SEAL OIL COOLER - ATTENDING TUBE PUNCTURE a). Draining of oil from SOC, shifting oil barrels, after attending hydraulic testing of tube nest top up oil to MOT through centrifuge etc.	1	No	1824	1824	1915	2006
464	TL20032	TM	b) Attending tube puncture in Seal oil coolers: Dismantling of top water box, brush cleaning of all tubes, hydraulic testing of tube nest, plugging of punctured tubes, cleaning of top and bottom water box, cleaning of all flange seating areas, providing new oil and water gaskets, assembling and tightening of all parts and charging of oil & water side etc.	1	No	11165	11165	11723	12282
465	TL20033	TM	SEAL OIL COOLER – TUBE NEST REPLACEMENT WORK: Dismantling existing eroded seal oil cooler tube nest: a).Draining of oil from SOC , shifting oil barrels ,after changing spare SOC top up oil to MOT through centrifuge etc.	1	No	1824	1824	1915	2006

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
466	TL20034	TM	b).Dismantling of top water box, lifting the tube nest, cleaning of top and bottom water box & outer shell, cleaning of all flange seating areas, positioning the spare tube nest and hydraulic testing of tube nest & providing new oil and water gaskets, assembling and tightening of all parts.	1	No	11718	11718	12304	12890
467	TL20035	TM	c) Lifting the eroded tube nest after complete cleaning the tube nest without any oil traces & Transporting the removed tube nest to the Repair Bay, lifting the spare tube nest after complete cleaning of tubes by water & air, transporting the spare tube nest from Repair Bay to seal oil cooler location as per the instruction of Board Engineer, etc.	1	No	8932	8932	9379	9825
468	TL20036	TM	TURBINE LUB OIL COOLER – TUBE NEST REPLACEMENT WORK: a).Dismantling existing punctured Turbine Lub oil cooler tube nest & Draining of oil from TLOC , shifting oil barrels ,after changing spare TLOC top up oil to MOT through centrifuge	1	No	2384	2384	2503	2622
469	TL20037	TM	b).Dismantling of top water box, lifting the tube nest, cleaning of top and bottom water box & outer shell, cleaning of all flange seating areas, positioning the spare tube nest and hydraulic testing of tube nest & providing new oil and water gaskets, assembling and tightening of all parts.	1	No	17864	17864	18757	19650
470	TL20038	TM	c) Lifting the punctured tube nest after complete cleaning the tube nest without any oil traces & Transporting the removed tube nest to the Repair Bay, lifting the spare tube nest after complete cleaning of tubes by water & air, transporting the spare tube nest from Repair Bay to turbine lub oil cooler location as per the instruction of Board Engineer, etc.	1	No	28818	28818	30259	31700
471	TL20039	TM	OVERHAULING AND LOAD TESTING OF 1T/2T CHAIN BLOCK: Charges for Overhauling of 1T/2T chain blocks, painting, checking free operation of chain blocks and transporting load materials to each location of chain blocks. Load testing and obtaining load testing certificate from Licensed Agency including Load testing Fee payable to Licensed Agency. Transporting of materials from stores / inside MTPS-I area for load testing and vise versa (Paint, Lorry and crane will be provided by Board at free of cost)	1	No	3762	3762	3950	4138
472	TL20040	TM	OVERHAULING AND LOAD TESTING OF TURBINE LIFTING TACKLES: Charges for Lifting, cleaning the HP/IP/LP casing lifting device, re-conditioning the damaged steel rope, painting and applying the rope component, arranging required available concrete weights for Load testing and obtaining load testing certificate from Licensed Agency including Load testing Fee payable to Licensed Agency. (Each lifting device) (Paint, Lorry and crane will be provided by Board at free of cost)	1	No	20104	20104	21109	22114
473	TL20041	TM	Charges for Lifting, cleaning, inspection of HP/LP/IP Rotor/ TG Bearing lifting devices steel ropes, painting and applying the rope component, arranging required available concrete weights for Load testing and obtaining load testing certificate from Licensed Agency including Load testing Fee payable to Licensed Agency. (Paint, Lorry and crane will be provided by Board at free of cost)	1	No	9405	9405	9875	10346
		TM	Re-Tubing of Seal Oil Cooler Tube Nest:						
474	TL20042	TM	1. Cutting and removal of worn out tube nest using cutting wheel without damaging the baffle plates and stiffener plates.	1	No	5284	5284	5548	5812
475	TL20043	TM	2. Cutting and removal of worn out tubes and reconditioning of end plates:	1	No	15852	15852	16645	17437
476	TL20044	TM	3. New tube fixing , flaring of tube ends, providing 3mm neoprene rubber sheet in baffle plates and other connected works etc.	1	No	65472	65472	68746	72019
477	TL20045	TM	4. Hydraulic testing of re-tubed nest:	1	No	3612	3612	3793	3973
478	TL20046	TM	5.a) Labour charges for cutting, machining, drilling and grinding work for tube plate.	1	No	22988	22988	24137	25287
		TM	Re-Tubing of Turbine Lub Oil Cooler Tube Nest:						
479	TL20051	TM	1. Cutting and removal of worn out tube nest cover plate using cutting wheel without damaging the baffle plates and stiffener plates.	1	No	5284	5284	5548	5812
480	TL20052	TM	2. Cutting and removal of worn out tubes and reconditioning of end plates	1	No	15852	15852	16645	17437
481	TL20053	TM	3. New tube fixing, flaring of tube ends, new SS tube nest cover plate fixing, welding, Grinding and other connected works etc.	1	No	65472	65472	68746	72019

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
482	TL20054	TM	4. Hydraulic testing of retubed nest:	1	No	3612	3612	3793	3973
		TM	II. PUMPS						
483	TL20055	TM	Reconditioning of 1 No Cartridge of Boiler Feed Pump a. Charges for removal of bearings, mechanical seals, thrust collar, discharge cover, balancing disc, etc.,	1	No	10758	10758	11296	11834
484	TL20056	TM	b) Charges for removal of all the impellers, diffusers and stage bodies one by one.	1	No	32274	32274	33888	35501
485	TL20057	TM	c) Charges for cleaning of all the spares and taking measurement of wearing rings, eye rings and neck rings and conducting die penetrate test on all the impellers, diffusers etc.	1	No	21516	21516	22592	23668
486	TL20058	TM	d) Checking measurements to ascertain interference fitting of impellers, balancing drum and thrust collar etc. and checking run out of shaft/eccentricity of shaft in V- Block and Lathe.	1	No	5019	5019	5270	5521
487	TL20059	TM	e) Charges for assembling the rotating parts for balancing	1	No	21516	21516	22592	23668
488	TL20060	TM	f) Machining of impeller wear rings to the required dimensions of assembled rotor after setting in lathe bed.	1	No	1314	1314	1380	1445
489	TL20061	TM	g)Machining the ID of Stage body & Diffuser wear rings 10 Nos. to the required dimensions and providing grooves.	1	No	1314	1314	1380	1445
490	TL20062	TM	h) Charges for making correction by removing weights to bring the required level of Dynamic balancing in the rotor assembly by grinding suitable locations in the impellers during number of trails	1	No	5019	5019	5270	5521
491	TL20063	TM	i) Charges for dismantling of rotating parts after completion of balancing:	1	LS	21516	21516	22592	23668
492	TL20064	TM	j) Charges for assembling of impellers, diffusers, stage bodies, discharge cover, bearing housing:	1	LS	21516	21516	22592	23668
493	TL20065	TM	k)Labour charges for removing the balancing drum bush and assembling the new bush and welding, after machining the new bush and groove cutting by vertical boring machine.	1	No	7250	7250	7613	7975
494	TL20066	TM	l)Charges for removing the existing suction guide wear ring, assembling the new ring and machining the new ring and groove cutting.	1	No	3187	3187	3346	3506
495	TL20067	TM	Removal of cartridge from Boiler Feed Pump bed Model FK6D30,inserting the reconditioned cartridge and commissioning. a)Charges for dismantling of cooling water lines oil lines, decoupling, and removal of studs and withdrawal of cartridge.	1	No	37653	37653	39536	41418
496	TL20068	TM	b) Charges for assembling, inserting the new cartridge inside the barrel correction of bearings housing, radial centering shaft, axial centering, assembling of seals, aligning,reassembling and modification of oil lines, balance leak off lines, cooling water lines and successful commissioning of the pump.	1	No	53790	53790	56480	59169
497	TL20069	TM	c) Disconnecting the suction flanges of BFP, Removing the old gaskets and cleaning the flange surfaces, reassembling the suction and discharge flanges with renewed gaskets.	1	No	3202	3202	3362	3522
498	TL20070	TM	d) Renewal of Barrel gasket in BFP and attending the defects in drain pipe line	1	No	2595	2595	2725	2855
499	TL20071	TM	e)Disconnecting the Balancing leak-off line, removing the old gaskets and cleaning the flange surfaces, reassembling the leak-off line with renewed gasket.	1	No	1982	1982	2081	2180
500	TL20072	TM	f)Charges for discharge cover stud fixing threaded holes M42 x 16 Nos. thread cleaning in the barrel, stud external thread cleaning, stud fixing nuts M42 x 16 Nos. thread burr cleaning by tapping and suction guide ring fixing threaded holes M12 x 24 Nos. thread cleaning. i)Charges for discharge cover stud fixing threaded holes M42 x 16 Nos. Thread cleaning in the barrel.	1	No	4803	4803	5043	5283
501	TL20073	TM	ii)Charges for discharge cover stud external thread cleaning, stud fixing nuts M42 x 16 Nos. thread burr cleaning by tapping.	1	No	3876	3876	4070	4264
502	TL20074	TM	iii)Charges for suction guide ring fixing threaded holes M12 x 24 Nos. thread cleaning.	1	No	1938	1938	2035	2132
503	TL20075	TM	Renewal / Replacement / Servicing of DE/NDE Mechanical seals & renewal of CW Jacket 'O' rings of BFP. a. De-coupling the feed pump, dismantling the oil and water lines, dismantling the DE / NDE side bearing assembly, mechanical seals etc.	1	No	6806	6806	7146	7487
504	TL20076	TM	b. Renewal of Cooling water jacket "O" rings by removing cooling water jacket from DE/NDE side of BFP using puller arrangement.	1	No	3403	3403	3573	3743
505	TL20077	TM	c. Re-assembling the bearing housing, journal bearing & Mechanical Seals after servicing and assembling, renewal of gaskets for oil lines, checking oil clearance and other allied works.	1	No	8766	8766	9204	9643

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
506	TL20078	TM	Renewal of suction Guide 'O' Ring of Boiler Feed Pumps. De-coupling the feed pump, dismantling the suction guide cover flange, cleaning and renewal of suction guide 'O' ring and reassembling the cover flange and coupling of the pump with Voith.	1	No	6806	6806	7146	7487
507	TL20079	TM	Inspection of DE / NDE Bearings of BFP and Replacing/servicing if required a. De-coupling the feed pump, dismantling the oil and water lines, dismantling the DE / NDE side bearing assembly etc.	1	No	6806	6806	7146	7487
508	TL20080	TM	b. Checking of DE/NDE Bearings, taking measurements, blue matching, servicing/ replacing if necessary and re-assembling of the Bearing Housings and commissioning of the pump.	1	No	3403	3403	3573	3743
509	TL20081	TM	Inspection of DE / NDE Bearings of BFP and Inspection / Repairing/Servicing o Mechanical seal coolers of Boiler Feed Pump Disconnecting the CW line flanges, Mechanical seal cooling water lines from the Mechanical seal cooler, dismantling the mechanical seal cooler from the bed, dismantling the shell and the tubes separately, cleaning of the tubes and the shell, Reconditioning of the wornout shell portions if required, Painting inside the shell with Anti-Corrosive Black paint, Hydraulic testing of the cooler tubes for the rated pressure, reassembling the shell and the tubes and assembling the cooler in the bed with renewed gaskets and painting the cooler consumables and T & P charges.	1	No	6966	6966	7314	7663
510	TL20082	TM	Renewal / Repairing of DE/NDE Bearing Housings / Bearing carrier Assemblies, Centering, Providing Guide pins/dowel pins according to the alignment and allied works. a. De-coupling the feed pump, dismantling the oil and water lines, dismantling the DE / NDE side bearing assembly, bearing housings and bearing brackets etc.	1	No	6806	6806	7146	7487
511	TL20083	TM	b. Checking of bearings, taking measurements,repairing/servicing/ renewing the bearing housings/bearing carrier assemblies and replacement of wornout parts ect., matching with the bearings and allied works.	1	No	3403	3403	3573	3743
512	TL20084	TM	c. Re-assembling the bearing housing/carrier assemblies, journal bearings & other parts after servicing and assembling, centering the bearing housings with respect to the cartridge & barrel assembly, checking for free rotation of the pump, renewal of gaskets for oil lines, checking oil clearance and other allied works.	1	No	8766	8766	9204	9643
513	TL20085	TM	Disconnecting the suction & discharge flanges of BFP, Removing the old gaskets and cleaning the flange surfaces, reassembling the suction and discharge flanges with renewed gaskets.	1	No	3202	3202	3362	3522
514	TL20086	TM	Renewal of Discharge Cover 'O' Ring of Boiler Feed Pump (a) Decoupling the Feed pump from hydraulic coupling dismantling all the oil &water lines, removing the drive end and non drive end side studs withdrawing the pump cartridge assembly from the barrel using fixture.	1	No	15399	15399	16169	16939
515	TL20087	TM	(b) Dismantling the DE&NDE side bearing assemblies, mechanical seals, removing the HP end cover after supporting cartridge.	1	No	15399	15399	16169	16939
516	TL20088	TM	(c) Renewing the discharge cover O ring, reassembling the cartridge into the barrel and positioning the discharge cover, tightening the studs using hydraulic torque tensioner on both the sides. Assembling of the mechanical seals, bearings and checking clearances of the bearings.	1	No	10266	10266	10779	11293
517	TL20089	TM	(d) Aligning the pump with the hydraulic coupling, reassembling the cooling water lines & oil lines and successful commissioning of the pump .	1	No	12879	12879	13523	14167
518	TL20090	TM	Renewal of Barrel gasket in BFP and attending the defects in drain pipe line.	1	No	2595	2595	2725	2855
519	TL20091	TM	Attending Steam Leakage in BFP balancing Leak- off Line Disconnecting the Balancing leak-off line, removing the old gaskets and cleaning the flange surfaces, reassembling the leak-off line with renewed gasket.	1	No	2595	2595	2725	2855
520	TL20092	TM	Overhauling of BFP Mechanical Seal Cooler a) Dismantling the Mechanical Seal Cooler connected pipe lines removing and dismantling of mechanical seal cooler & removing the existing cylindrical portion and coil from the cooler .	1	No	1321	1321	1387	1453
521	TL20093	TM	b) Cleaning the outer portion of coils by wire brush preparation of gaskets for all flanges assembling and resuming pipe line connections and erection of mechanical seal cooler. painting the inner and outer side of the mechanical seal cooler shell and connected pipe lines.	1	No	1410	1410	1481	1551
522	TL20094	TM	Checking and Correcting the alignment between Feed Pump Coupling to Voith Coupling.	1	No	6518	6518	6844	7170

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
523	TL20095	TM	Overhauling of Boiler feed Booster Pump 1. Decoupling the pump, dismantling CW lines and oil lines dismantling of bearings mechanical seals at both DE & NDE and their inspection, reassembling of seal cartridge with renewed mechanical sealing elements including of consumables and T&P charges.	1	No	14444	14444	15166	15888
524	TL20096	TM	2.Opening of top cover of split casing dismantling of rotor, inspection and measurement of wear rings, renewal of parts if required. Reassembling and positioning of the rotor and closing of top casing including of consumables and T&P charges.	1	No	14444	14444	15166	15888
525	TL20097	TM	3. Mounting of mechanical seals and bearings housing at DE & NDE, checking of various clearances of the bearings and restoring the oil lines and CW lines including of consumables and T&P charges.	1	No	10833	10833	11375	11916
526	TL20098	TM	4. Disconnection of the pump from suction and discharge pipe flanges, checking and correcting the pump alignment with motor and rechecking of pump alignment flanges with renewed gaskets. And other such works required for efficient operation of the pump and commissioning .	1	No	14444	14444	15166	15888
527	TL20099	TM	5. Reconditioning of Pump Top, Bottom Casing & Casing Rings etc. Grinding the eroded portions of the casing ring assembly seating areas and other eroded areas in the top & Bottom casings, and casing wear rings and Welding with suitable special electrodes after preheating the casing, and rings as per requirement. (Welding Electrodes will be provided by the BOARD)	1	No	4466	4466	4689	4913
528	TL20100	TM	6. Metal filling with E 670 welding rod on the stepped portion of the pump shaft, Machining and smooth finishing of the welded portion of BFB Pump shaft NDE Side..(Welding Electrodes will be provided under contractor scope) (a) Metal filling with E 670 welding rod on the stepped portion of BFB pump shaft	1	No	1605	1605	1685	1766
529	TL20101	TM	7. Checking and Correcting the alignment between Booster Pump Coupling to Motor Coupling.	1	No	13036	13036	13688	14340
530	TL20102	TM	Inspection of bearings and Renewal Replacement / Servicing of DE/NDE Bearings / Oil Guards / Thrust pads of Boiler Feed Booster Pump. a. De-coupling the feed pump, dismantling the oil and water lines, dismantling the DE / NDE side bearing assembly etc.,	1	No	6806	6806	7146	7487
531	TL20103	TM	b. Checking of DE/NDE Bearings, taking measurements, blue matching, servicing/ replacing if necessary and re-assembling of the Bearing Housings and commissioning of the pump.	1	No	3403	3403	3573	3743
532	TL20104	TM	Renewal / Repairing of DE/NDE Bearing Housings / Bearing carrier Assemblies, Centering, Providing Guide pins/dowel pins according to the alignment and allied works a. De-coupling the booster pump, dismantling the oil and water lines, dismantling the DE / NDE side bearing assembly, bearing housings and bearing brackets etc.	1	No	6806	6806	7146	7487
533	TL20105	TM	b.Checking of bearings, taking measurements, repairing/servicing/renewing the bearing housings/bearing carrier assemblies and replacement of wornout parts etc., matching with the bearings and allied works.	1	No	3403	3403	3573	3743
534	TL20106	TM	c. Re-assembling the bearing housing/carrier assemblies, journal bearings & other parts after servicing and assembling, centering the bearing housings with respect to the cartridge & barrel assembly, checking for free rotation of the pump, renewal of gaskets for oil lines, checking oil clearance and other allied works.	1	No	8766	8766	9204	9643
535	TL20107	TM	Dismantling & cleaning the strainer lid assembly and removing the BFBP strainer basket from the strainer assembly, inspection and renewing the damaged strainers if necessary, cleaning the strainers and reassembling the basket.	1	No	3346	3346	3513	3681
536	TL20108	TM	Checking and Correcting the alignment between Booster Pump Coupling to Motor Coupling.	1	No	13036	13036	13688	14340
537	TL20109	TM	Renewal / Replacement / Servicing of DE/NDE Mechanical seals & renewal of CW Jacket 'O' rings of BFBP. a. De-coupling the booster pump, dismantling the oil and water lines, dismantling the DE / NDE side bearing assembly, mechanical seals etc.	1	No	6806	6806	7146	7487
538	TL20110	TM	b. Renewal of Cooling water jacket "O" rings by removing cooling water jacket from DE/NDE side of BFP using puller arrangement.	1	No	3403	3403	3573	3743

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
539	TL20111	TM	c. Re-assembling the bearing housing, journal bearing & Mechanical Seals after servicing and assembling, renewal of gaskets for oil lines, checking oil clearance and other allied works.	1	No	8766	8766	9204	9643
540	TL20112	TM	Overhauling of Voith Hydraulic Coupling of Boiler Feed Pump a. Draining of operating fluid from the oil sump and oil filters. Measuring the coupling gaps and alignment position of couplings. Dismantling the connecting couplings between Voith / Motor and Voith / BFP, checking the radial run out of the input/output shafts	1	No	5958	5958	6256	6554
541	TL20113	TM	b. Removing the actuator, Cam control system, dismantling the auxiliary LOP motor from the housing and removing the top cover of the Voith coupling.	1	No	3202	3202	3362	3522
542	TL20114	TM	c. Removing the fusible plugs, dismantling the input shaft, rotating parts, filling pump, auxiliary LOP and scoop tube mechanism.	1	No	5958	5958	6256	6554
543	TL20115	TM	d. Inspecting the bladed wheel, bearings for their clearances, plain bearings Smoothing, inspecting the bearing portion in the shaft and polishing, inspection of scoop tube Mechanism for wear and replacing if necessary for the all above.	1	No	14156	14156	14864	15572
544	TL20116	TM	e. Inspection of Toothed gears, overhauling of auxiliary LOP and filling pump.	1	No	3876	3876	4070	4264
545	TL20117	TM	f. Removing the old sealing compound and any sludge's from the sump, top cover etc, and then re-coating with sealing compound {Hylomer, Paul seal (or) equivalent} to all sealing surfaces	1	No	2498	2498	2623	2748
546	TL20118	TM	g. Reassembling the rotating parts, filling pump, auxiliary LOP and reinstalling the input/output shaft, rotating parts, filling pump and auxiliary LOP.	1	No	14156	14156	14864	15572
547	TL20119	TM	h. Assembling the cam control and actuator, scoop tube mechanism, greasing them and assembling the top cover of the coupling and assembling the temperature probes	1	No	5958	5958	6256	6554
548	TL20120	TM	i. Checking of alignment between the voith couplings & Feed pump and correcting, filling of oil to the sump and carrying out trial run of the LOP and finally commissioning the coupling.	1	No	6518	6518	6844	7170
549	TL20121	TM	j. Checking and correcting of alignment between the Booster pump coupling and motor coupling of Voith coupling and carrying out trial run of the BFP and finally commissioning of the pump.	1	No	13036	13036	13688	14340
550	TL20122	TM	Inspection/ Replacement of fusible plugs and scoop tube mechanism of BFP voith Coupling.	1	No	5958	5958	6256	6554
551	TL20123	TM	Inspection and Hydraulic Testing of BFP Lub oil/ Working oil cooler Assembly. Disconnecting the Lub oil / Working Oil lines from the Cooler after draining the sump oil, dismantling the water boxes, separation of tube nest from the cooler and cleaning the inner surface of shells, tube nest and conducting the hydraulic test to the rated pressure, reconditioning of shell outer surface by welding if necessary, plugging the tubes if puncture deducted and reassembling of cooler and the connected parts with the renewed gaskets & 'O' rings	1	No	7926	7926	8322	8719
552	TL20124	TM	Overhauling of Lub Oil Cooler "Y" Strainer Cooling water inlet & Outlet line valves of GLV/GV/BLV 100 mm/125 Class:	1	No	3747	3747	3934	4122
553	TL20125	TM	Checking and correcting of alignment between the Voith coupling and motor coupling of BFP.	1	No	13036	13036	13688	14340
554	TL20126	TM	Retubing of 1No. Working oil Cooler tube Nests of Boiler Feed Pumps with 90/10 Cupro Nickel tubes. (i) Releasing the eroded old tubes one by one and reconditioning of Baffle plates of the working oil cooler nests.	1	No	10568	10568	11096	11625
555	TL20127	TM	(ii) Insertion of new tubes through tube plates and flaring the tubes with end plates on both sides of the nest.	1	No	54560	54560	57288	60016
556	TL20128	TM	(iii) Labour Charges for carrying out Hydraulic Test.	1	No	3612	3612	3793	3973
557	TL20129	TM	(vii) Labour charges for cutting, machining, drilling and grinding work for tube plates.	1	No	6088	6088	6392	6697
558	TL20130	TM	Retubing of 1No. Lub oil Cooler tube Nests of Boiler Feed Pumps with 90/10 Cupro Nickel tubes. (i) Releasing the eroded old tubes one by one and reconditioning of end plates on both sides of the lub oil cooler nests and baffle plates.	1	No	7902	7902	8297	8692
559	TL20131	TM	ii) Insertion of new tubes through tube plates and baffle plates and flaring the tubes with end plates on both sides of the nest.	1	No	29344	29344	30811	32278
560	TL20132	TM	(iii) Labour Charges for carrying out Hydraulic Test.	1	No	3612	3612	3793	3973
561	TL20133	TM	iv) Labour charges for marking, cutting, machining, drilling 190 Nos holes and grinding work for tube plates.	1	No	6088	6088	6392	6697
562	TL20134	TM	viii) Charges for removing old Baffle Plates & tie rods, machining, drilling new Baffle Plates SS 304 and tie rods etc for BFP Lub oil cooler.	1	No	1491	1491	1566	1640

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
563	TL20135	TM	a) Decoupling and removing the pump & motor from the bed and Dismantling the DE & NDE bearing housings of pump.	1	No	4724	4724	4960	5196
564	TL20136	TM	b) Cleaning the Suction line, suction filter and Discharge line flanges, CW line flanges and renewal of gaskets and connecting suction and discharge lines with the pump, connecting and welding of the leak off line with the pump and other connected CW lines for the commissioning of the pump.	1	No	5428	5428	5699	5971
565	TL20137	TM	c.Dismantling and cleaning of oil coolers & cooling water lines and changing gaskets and assembling with the pump.	1	No	2290	2290	2405	2519
566	TL20138	TM	d. Dismantling pump internals.	1	No	7086	7086	7440	7795
567	TL20139	TM	e. Renewal of defective shaft sleeves, checking measurements,	1	No	2362	2362	2480	2598
568	TL20140	TM	f. Cleaning the pump parts and assembling after replacing of worn-out parts, Checking pump float and Other required dimensions.	1	No	9448	9448	9920	10393
569	TL20141	TM	g.Dismantling the cooling chamber plate, renewal 'O' rings & Gasket and assembling, heating Bearing housings for fitting bearings, Reconditioning the pump tie rods,	1	No	6692	6692	7027	7361
570	TL20142	TM	h. Shifting the motor to plinth place, aligning & coupling the pumps with motors and Commissioning of HDP 2A and 2B.	1	No	7086	7086	7440	7795
571	TL20143	TM	Replacement of defective Heater Drip Pump with Spare pump, and commissioning. 1. Decoupling and removing the defective pump & motor from the bed and Dismantling the DE & NDE bearing housings of pump.	1	No	4724	4724	4960	5196
572	TL20144	TM	2. Transporting the Spare pump from Repair Bay area to the Pump Bed and Transporting the released pump to the repair bay area for overhauling including leading and lifting charges.	1	No	2786	2786	2925	3065
573	TL20145	TM	3. Cleaning the Suction line, suction filter and Discharge line flanges, CW line flanges and renewal of gaskets and connecting suction and discharge lines with the pump, connecting and welding of the leakoff line with the pump and other connected CW lines for the commissioning of the pump.	1	No	5428	5428	5699	5971
574	TL20146	TM	4. Dismantling and cleaning of oil coolers & cooling water lines and changing gaskets and assembling with the pump.	1	No	2290	2290	2405	2519
575	TL20147	TM	5. Shifting the motor to plinth place, aligning & coupling of the spare pump with motor and Commissioning of spare pump in HDP 1A	1	No	7086	7086	7440	7795
576	TL20148	TM	Attending replacement of defective Bearings in Non-Drive End of Heater Drip Pump and Commissioning of pump. a. Decoupling of pump with motor and Dismantling the DE & NDE side Cooling water lines of pump.	1	No	1393	1393	1463	1532
577	TL20149	TM	b. Dismantling and cleaning of oil chambers and changing gaskets at both the ends.	1	No	2290	2290	2405	2519
578	TL20150	TM	c. Removal of NDE side seized bearings by Gas Cutting and Heating the bearing housing, cleaning the shaft bearing seating area and checking measurements, Cleaning the bearing housing and Renewal of required NDE bearings, sleeves, "O" rings, Gland ropes & gaskets and assembling suitably with pump shaft.	1	No	5428	5428	5699	5971
579	TL20151	TM	d. Alignment of pump with motor & coupling of the pump with motor, assembling of oil chambers at both the ends and connecting all cooling water lines and Commissioning of pump.	1	No	4724	4724	4960	5196
580	TL20152	TM	Attending Renewal of sleeve "O" ring/ DE bearing at -Drive End side of Heater Drip Pump and Commissioning of pump. a)Decoupling of pump with motor and Dismantling the DE side Cooling water lines of pump.	1	No	1393	1393	1463	1532
581	TL20153	TM	b)Dismantling and cleaning of oil chambers and changing gaskets at DE side.	1	No	2290	2290	2405	2519
582	TL20154	TM	c) Removal of DE side bearing by mechanical puller arrangements, cleaning the shaft bearing seating area, Cleaning the bearing housing and Renewal of sleeve "O" ring, bearing if necessary, assembling the bearing arrangements, Gland ropes & gaskets suitably with pump shaft.	1	No	3906	3906	4101	4297
583	TL20155	TM	d) Alignment of pump with motor & coupling of the pump with motor, assembling of oil chambers at both the ends and connecting all cooling water lines and Commissioning of pump.	1	No	4724	4724	4960	5196

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
584	TL20156	TM	Overhauling of Turbine Lub Oil Cooler Booster Pump a)Decoupling the pump, disconnection of the pump from suction and discharge pipe flanges, dismantling of Bearing housings & bearings at DE & NDE and their inspection & changing the bearings if necessary (Bearings will be supplied by TANGEDCO)	1	No	5398	5398	5668	5938
585	TL20157	TM	b) Dismantling of Glands from DE & NDE stuffing box, inspection of gland sleeves and replacing if necessary. Opening of top cover of split casing, dismantling of rotor, inspection and measurement of wear rings, renewal of parts if required. Renewal of Gaskets & Gland ropes. Reassembling and positioning of the rotor and closing of top casing including of consumables and T&P charges. (Necessary spares will be provided by the TANGEDCO)	1	No	5398	5398	5668	5938
586	TL20158	TM	c. Reconditioning of Pump Top, Bottom Casing & Casing Rings etc., grinding the eroded portions of the casing ring assembly seating areas and other eroded areas in the top & Bottom casings, and casing wear rings and Welding with suitable special electrodes after preheating the casing and rings as per requirement. Dismantling the Suction Strainer from the strainer well, cleaning the strainer, reconditioning the strainer basket if required & renewal of strainer well top cover 'O' ring. Inclusive of consumables and T&P charges. (Welding Electrodes will be provided by the BOARD)	1	No	4466	4466	4689	4913
587	TL20159	TM	d. Checking and correcting the pump alignment with motor and rechecking of pump alignment after connecting the suction & discharge flanges with renewed gaskets. Inspection of couplings, coupling pads and replacing if necessary, Coupling the pump with motor, connecting the pump from suction and discharge pipe flanges, and other such works required for efficient operation of the pump and commissioning. Cleaning & painting the complete pump assembly & Base structure, Painting inside the pump casings and suction strainer well inside area, also the connected pipelines and painting of the pump base concrete structure with Oil Distemper	1	No	6022	6022	6323	6624
588	TL20160	TM	Overhauling of Hydrogen Cooler Booster Pump a. Decoupling the pump, disconnection of the pump from suction and discharge pipe flanges, draining the lub oil from the sump, Dismantling of Suction strainer top cover and the strainer	1	No	2498	2498	2623	2748
589	TL20161	TM	b. Dismantling of the Bearing Covers, Bearing Bracket, Bearing Bracket Lantern, splash ring, Dismantling of mechanical Seal, shaft sleeve and dismantling of the casing cover from the volute casing etc.,	1	No	3876	3876	4070	4264
590	TL20162	TM	c. Dismantling the impeller Assembly from the Volute Casing, Inspection and reconditioning the eroded portions of the casings if required, Inspection, Checking measurements and tolerances of the impeller, shaft, impeller wearing ring, casing ring and neck ring and replace all the above if necessary including machining of the wearing rings to the required size and assembling with the impeller suitably	1	No	4003	4003	4203	4403
591	TL20163	TM	d. Reassembling and positioning of the rotor assembly and closing of casing cover, reassembling the mechanical seals after inspection and replacement of the spares & sleeves, Assembling the splash ring, Bearing Bracket Lantern, Bearing Bracket, Bearings, Bearing Covers and assembling the half coupling in shaft	1	No	3876	3876	4070	4264
592	TL20164	TM	e. Checking and correcting the pump alignment with motor and connecting of pump flanges with renewed gaskets. Inspection of couplings, coupling pads and replacing if necessary, coupling the pump with motor, connecting the pump from suction and discharge pipe flanges, and other such works required for efficient operation of the pump and commissioning. Cleaning & painting the complete pump assembly & Base structure, Painting inside the pump casings and suction strainer well inside area, also the connected pipelines and painting of the pump base concrete structure with Oil Distemper (Paint under Contractor Scope)	1	No	7977	7977	8376	8775
593	TL20165	TM	Overhauling of Hydrazine Dozing Pump a. Decoupling the motor and the liquid well assembly, Draining the oil from the pump, dismantling the speed reduction assembly, dismantling the plunger and the pump bodies and connected flanges.	1	No	969	969	1017	1066

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
594	TL20166	TM	b. Dismantling the crosshead piston and connecting rod, removing the well crank plate, removal of sleeve for cross head, removal of the bearings properly, dismantling of worm and worm wheel assemblies, cleaning and inspection of all the above parts for wear and replacement if necessary. Reassembling all the above after overhauling as per the procedure	1	No	2498	2498	2623	2748
595	TL20167	TM	c. Dismantling of the pump, plunger assembly, valve and valve seats, inspection and replacing the wornout parts if necessary and reassembling the pump	1	No	2498	2498	2623	2748
596	TL20168	TM	d. Inspection of couplings, coupling pads and replacing if necessary, Coupling the motor and the liquid well assembly, Filling of oil in the sump, Assembling the speed reduction assembly, connecting the plunger and the pump bodies and connected flanges, checking of alignment with the motor and successful commissioning of the pump. Cleaning & painting the complete pump assembly & Base structure, painting the connected pipelines and painting of the pump base concrete structure with Oil Distemper . (Paint under Contractor Scope)	1	No	2676	2676	2810	2944
597	TL20169	TM	Overhauling of Phosphate Dosing Pump a. Decoupling the motor and the liquid well assembly, Draining the oil from the pump, dismantling the speed reduction assembly, dismantling the plunger and the pump bodies and connected flanges.	1	No	969	969	1017	1066
598	TL20170	TM	b. Dismantling the crosshead piston and connecting rod, removing the well crank plate, removal of sleeve for cross head, removal of the bearings properly, dismantling of worm and worm wheel assemblies, cleaning and inspection of all the above parts for wear and replacement if necessary. Reassembling all the above after overhauling as per the procedure	1	No	2498	2498	2623	2748
599	TL20171	TM	c. Dismantling of the pump, plunger assembly, valve and valve seats, inspection and replacing the wornout parts if necessary and reassembling the pump	1	No	2498	2498	2623	2748
600	TL20172	TM	d. Inspection of couplings, coupling pads and replacing if necessary, Coupling the motor and the liquid well assembly, Filling of oil in the sump, Assembling the speed reduction assembly, connecting the plunger and the pump bodies and connected flanges, checking of alignment with the motor and successful commissioning of the pump. Cleaning & painting the complete pump assembly & Base structure, painting the connected pipelines and painting of the pump base concrete structure with Oil Distemper (Paint under Contractor Scope)	1	No	2676	2676	2810	2944
601	TL20173	TM	Condenser, Make: M/S BHEL, HARDWAR Type:210 MC-1 Dismantling and assembling of Condenser cooling water Box doors, manhole door (Front and Rear), inspection of Condenser tubes and tube sheets including the supply of Neoprene rectangular rubber cord. a) Opening of condenser front doors of one side Condenser (LHS/RHS) having two split doors.	1	No	30100	30100	31605	33110
602	TL20174	TM	b) Closing of condenser front door of one side condenser having two split doors and manhole door with renewed rubber Cords and ropes.	1	No	35019	35019	36770	38521
603	TL20175	TM	c) Providing platform to carry out renewal of tubes from the tube sheet work of top side of the condenser tubes and releasing the same after completion of work (LHS & RHS) for one side either front/back.	1	No	29148	29148	30605	32063
604	TL20176	TM	d) Opening of condenser Back doors of one side Condenser (LHS/RHS) having two split doors. Including of cutting and dislocating the platforms & handrails provided near the condenser back side	1	No	47300	47300	49665	52030
605	TL20177	TM	e) Closing of condenser Back door of one side condenser having two split doors, manhole doors with renewed rubber chords (LHS & RHS). Including of leading, relocating and welding & fixing of the platforms & handrails provided near the condenser back side	1	No	49538	49538	52014	54491
606	TL20178	TM	f) Charges for one side either front/back side of LHS/RHS inspection of condenser tubes and tube sheet for internal repair by using special tools and methods.	1	No	17864	17864	18757	19650
607	TL20179	TM	Renewal of plugged tubes and weakened tubes observed after surface cleaning including flaring and torque setting. (each Tube)	1	No	1673	1673	1757	1840
608	TL20180	TM	Inspection of condenser CW box (Front & Rear) for cleaning / Vacuum tightness test Closing of 16 Nos. Manhole doors after renewing all the manhole door rubber chords and Providing and removing condenser jack pipes during vacuum tightness test.	1	LS	8832	8832	9274	9715

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
609	TL20181	TM	Inspection and cleaning of Hot well and steam side of condenser (LHS & RHS) Opening/Closing the Condenser Steam side & Hot well manhole doors of 6 Nos., Cleaning inside the hot well to remove the dust and impurities, inspection the steam side area, cleaning of spray nozzle, cleaning the rubber chord seating groove and surface area of the manhole and closing after renewing all the manhole door rubber chords.(Rubber chord contractor scope)	1	LS	9405	9405	9875	10346
610	TL20182	TM	Overhauling of 200mm condenser air release cum vacuum breaking valve and its isolation gate valves and gear mechanism. Dismantling the isolation valve, air release cum vacuum breaking valve of size 200mm,Cleaning all the parts, lapping the seating surface like valve seat and gates, checking blue contact, changing the internals if necessary and reassembling the valves with new gland packing's, "O" Rings etc.	1	No	1618	1618	1699	1780
611	TL20183	TM	Overhauling of gear box ,Inspection of valve disc & Nitril seal in 1600 mm BFV and drain valves of cooling water inlet and outlet pipe lines 1) Providing scaffolding arrangement inside cooling water inlet and outlet pipe lines in Unit – II condenser to attend the inspection of valve disc & Nitril seal in 1600 mm BFV for safe working and dismantling the scaffolding arrangement after completing the rectification work.	1	No	2290	2290	2405	2519
612	TL20184	TM	2) Overhauling of 1600 MM Butter fly valve along with Gear Box Assembly of cooling water inlet and outlet pipe lines in Unit – II condenser (LHS and RHS) which includes dismantling of actuator, gear box assy. O/H of Gear box inspection, renewal of spares if necessary and overhauling of B.F.V of size 1600 mm including dismantling the bearing assembly at both ends renewal of spares if necessary and reassembling including cost of consumables and charges for T&Ps Etc.. a) Dismantling of manhole door and assembling the same after completion of work including cost of consumables rubber gaskets non-metallic gaskets etc and charges for T&Ps etc.	1	No	6692	6692	7027	7361
613	TL20185	TM	b) Overhauling of Gear box assembly of B.F.V, including dismantling of actuator, gear box assembly, inspection, renewal of spares if necessary and re assembling including cost of consumables and charges for T&Ps etc.	1	No	9220	9220	9681	10142
614	TL20186	TM	c) overhauling od B.F.V of size 1600 mm including arresting the valve disc with screw jack etc. dismantling the bearing assembly at both ends renewal of spares if necessary and reassembling including cost of consumables and charges for T&Ps Etc.	1	No	16135	16135	16942	17749
615	TL20187	TM	Overhauling of OLCTC system pump a) Decoupling the pump, disconnection of the pump from suction and discharge pipe flanges, draining the lub oil from the sump.	1	No	1938	1938	2035	2132
616	TL20188	TM	b. Dismantling of the Bearing Covers, Bearing Bracket, Dismantling of shaft sleeve and dismantling of the casing etc.,	1	No	3316	3316	3482	3648
617	TL20189	TM	c. Dismantling the impeller Assembly from the Casing, Inspection and reconditioning the eroded portions of the casings if required, Inspection, Checking measurements and tolerances of the impeller, shaft, impeller wearing ring, casing ring and neck ring and replace all the above if necessary including machining of the wearing rings to the required size and assembling with the impeller suitably inclusive of consumables and T&P charges.	1	No	3303	3303	3468	3633
618	TL20190	TM	d. Reassembling and positioning of the rotor assembly and closing of casing cover, reassembling the sleeve, Bearing Bracket Bearings, Bearing Covers and assembling the coupling in shaft including of consumables and T&P charges.	1	No	3316	3316	3482	3648
619	TL20191	TM	e. Checking and correcting the pump alignment with motor and connecting of pump flanges with renewed gaskets. Inspection of couplings, Coupling the pump with motor, connecting the pump from suction and discharge pipe flanges, and other such works required for efficient operation of the pump and commissioning. Cleaning & painting the complete pump assembly & Base structure, Painting inside the pump casings, and painting of the pump base concrete structure, with Oil Distemper including the charges for T&Ps and consumables.(Paint under Contractor's Scope)	1	No	7137	7137	7494	7851

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
620	TL20192	TM	Inspection of OLCTC System Ball collecting screen manhole doors LHS & RHS -2 Nos, and cleaning the debris, welding of defective ball collecting screens in LHS & RHS and closing of manhole doors with renewal of gaskets. a. Opening of OLCTC System Ball collecting screen manhole doors LHS & RHS -2 Nos. and cleaning the debris and closing of manhole doors with renewal of gaskets.	1	No	5284	5284	5548	5812
621	TL20193	TM	b. Welding of defective ball collecting screen in LHS & RHS of OLCTC system.	1	No	5056	5056	5309	5562
622	TL20194	TM	Cleaning and painting works including cost of paintings. Cleaning and painting of CW Inlet & outlet pipe lines and CW Box of condenser(LHS & RHS) with double coat including cost of enamel paint Two Coat of painting of CW Inlet & outlet pipe lines of condenser in outer side (LHS & RHS)	10	M ²	406	41	43	45
623	TL20195	TM	Complete Overhauling of HP Bypass Main Valves Model No. ARS 72- LHS & RHS	1	No	0	45000	47250	49500
624	TL20196	TM	Complete overhauling of the HP Bypass spray Valves. Model No. E22S	1	No	0	16500	17325	18150
625	TL20197	TM	Complete overhauling of the LP Bypass spray Valves. Model No. NR-100-50	1	No	0	16500	17325	18150
626	TL20198	TM	Complete Overhauling of Oil Supply Unit . Model No. OV 32B	1	No	0	27500	28875	30250
627	TL20199	TM	Replacement of existing Condensate Extraction Pump by Spare Pump: a)Removing of pump half coupling, checking pump float, removal of Bearing chamber and bearings, Disconnecting air vents and cooling water lines, suction and discharge flanges and lifting the pump.	1	No	17300	17300	18165	19030
628	TL20200	TM	b)Placing the Spare Condensate Extraction Pump on the canister and restoring the suction and discharge pipe connections.	1	No	5155	5155	5413	5671
629	TL20201	TM	c)Assembling the bearings chamber, Restoring the pump Half coupling, air vent and cooling Water lines, Checking and correcting pump float, Successful commissioning of the pump.	1	No	23545	23545	24722	25900
630	TL20202	TM	Inspection / Replacement of Coupling / Bearings of CEP Lifting of Motor from its bed and remounting the motor with CEP and carrying out alignment	1	No	6920	6920	7266	7612
631	TL20203	TM	Overhauling of released Condensate Extraction Pump 1. a)Removing of pump half coupling, checking pump float, removal of Bearing chamber and bearings, Disconnecting air vents and cooling water lines, suction and discharge flanges and lifting the pump.	1	No	17300	17300	18165	19030
632	TL20204	TM	b) Cleaning the well, dewatering and dismantling Canister, Rust removal, Cleaning and Painting with 2 coats of paint and placing the Canister of CEP.	1	No	8822	8822	9263	9704
633	TL20205	TM	c)Placing the Spare Condensate Extraction Pump on the canister and restoring the suction and discharge pipe connections.	1	No	5155	5155	5413	5671
634	TL20206	TM	d) Assembling the bearings chamber, Restoring the pump Half coupling, air vent and cooling Water lines, Checking and correcting pump float, Successful commissioning of the pump.	1	No	23545	23545	24722	25900
635	TL20207	TM	Inspection / cleaning and assembling of CEP strainer Assembly . Loosening of all the strainer cover flange bolts & nuts, lifting and removing the strainer cover, removing the CEP strainer from the strainer assembly, inspection and reconditioning the damaged strainer if necessary,	1	No	6966	6966	7314	7663
636	TL20208	TM	Complete Overhauling of Air Compressors. a. Dismantling of Inter and After coolers, Air inlet and outlet headers and pipes, HP and LP piston assemblies & cylinders, Suction & Delivery valves, Cooling Water and Air pipes and removal of V-Belts.	1	No	3963	3963	4161	4359
637	TL20209	TM	b. Dismantling of crank case top cover, Inspection & renewal of main Bearing and Connecting rod Bearing and replacement of crank shaft and fly wheel if required.	1	No	7524	7524	7900	8276
638	TL20210	TM	c. Cleaning of Cooling Water jackets of HP/LP cylinders and cooler shells. Acid cleaning of Cooling Water jackets of HP/LP cylinders, inter cooler and after cooler shells with diluted Hydro Chloric Acid	1	No	4996	4996	5246	5496
639	TL20211	TM	d. Overhauling of Inter coolers, after cooler and Oil cooler including hydraulic testing of Tube nests.	1	No	2498	2498	2623	2748
640	TL20212	TM	e. Assembling of HP & LP cylinders, Air outlet headers, coolers, Fixing V-Belts and alignment of flywheel with motor pulley.	1	No	7524	7524	7900	8276
641	TL20213	TM	f. Renewal of worn-out Bearing ring and Piston rod in HP / LP piston Assembly, if Necessary,	2	Nos	5284	2642	2774	2906

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
642	TL20214	TM	g.Cleaning of pistons & piston assemblies, reassembling HP & LP piston assemblies with renewed gland packing's, Oil scrapper rings & retaining rings, cleaning primary & secondary oil filters and overhauling of oil pumps etc.,	1	No	5814	5814	6105	6395
643	TL20215	TM	h. Removal of HP and LP suction and Delivery valve cover plates Stud by Thread Cleaning and Tapping of all the studs of main body & Cleaning and Tapping of thread in HP & LP cylinder assembly and cooler assembly.	1	No	6605	6605	6935	7266
644	TL20216	TM	i. Dismantling, overhauling and assembling of suction and delivery valves -24 Nos Dismantling and revisioning of the 24 Nos of Compressor valves (suction & delivery) cleaning and de-carbonizing the spring plates, cushion plates valve plates etc and assembling back, conducting leak test with kerosene/Diesel.	1	No	9174	9174	9633	10091
645	TL20217	TM	j.Charges for recording the critical dimensions, replacement of the damaged parts if required in the crank case and crosshead assemblies & then assembling the other parts like bearings, crank shaft, connecting rod, water, oil pipe lines, oil pump & its assemblies and flywheel etc., and Setting the critical dimensions to the required level as per the site conditions.	1	No	20076	20076	21080	22084
646	TL20218	TM	i. Cleaning of Air Suction filter, renewal of lub oil, replacement of Cooling water flexible hoses and damaged pipe lines, insulation of HP Air outlet header etc., and assisting for commissioning of Compressor.	1	No	9606	9606	10086	10567
647	TL20219	TM	Charges for Opening, Servicing & reassembling in Position of 1st or 2nd Stages Suction Valve & Discharge valve.	1	No	9174	9174	9633	10091
648	TL20220	TM	Charges for replacing / refitting of oil Scrapper ring / Gland / Retainer ring /stuffing box in 1st or 2nd Stages . Opening of outer cover, dismantling of piston rod and piston assembly (Damaged side) & stuffing boxes, replacement of damaged parts of stuffing box / changing the gland / retainer ring / oil scrapper ring if necessary. Reassembly of piston and outer cover and checking of control dimensions. Cleaning oil spillage in the compressor completely.	1	No	2402	2402	2522	2642
649	TL20221	TM	Dismantling / Assembling the Inter Cooler or After Cooler bunch then checking for leakage & plugging the leak tubes. Inclusive of Hydro test. Dismantling the Inter cooler / After Cooler after isolation of Cooling water line. Incase tube leakage hydro test of the cooler to identify the defect tubes. Plug the defect tubes. Reassembly of the tube bundle with renewal of 'o' ring / gasket. Normalization of the cooling water lines. Cleaning oil spillage in the compressor completely.	1	No	2498	2498	2623	2748
650	TL20222	TM	Charges for Belt alignment & tightening. Changing the new belt. Giving tension to the belt and checking the alignment of pulley of motor and the fly wheel, if any belt in damaged condition, removal of the damaged set of belts, replacement of new belts, alignment and proper tensioning of the belts & Cleaning oil spillage in the compressor completely.	1	No	3058	3058	3211	3364
651	TL20223	TM	Charges for Cleaning of After Filter & Pre Filter of Drier, Changing the Filter. Opening / fixing of the outer cover of the pre filter & After Filter. Removing the ceramic filter candle out the filter casing, check the ceramic candle if the blockage is less the candle should be cleaned by the petrol or it is found that the blockage is very high the candle should be changed. Cleaning the inner surface of the filter casing, fixing the new / cleaned filter in the position.	1	No	3058	3058	3211	3364
652	TL20224	TM	Removal of existing activated alumina, cleaning the inside of the absorber tank, refilling the activated alumina. Opening of manhole at top and bottom. Removal of used activated alumina fro tower. Refilling of new activate alumina in ADP Tower and box up.Collect & packing the used activated alumina, cleaning the area of the air drier, dispose the activated alumina as per instruction of the site engineer.	1	No	3202	3202	3362	3522
653	TL20225	TM	Overhauling / replacement / repairing of Miscellaneous Valves. i.e. safety valves, moisture traps, drain valves. (25 NB / 50 NB) For 4 Nos valves. Dismantling the valves, lapping of valve, resetting. Renewal of spares wherever necessary, Setting of safety valves.	4	Nos	969	242	254	266

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
654	TL20226	TM	Attending the oil leakage inside Crank case. Removal of Crank case cover, Checking of the leakage by rotating the priming handle. Replacement of ferrule by flaring and swaging of the copper tube. If the copper tube if found defective , it is to be replaced with new one. Again the leakage is to be checked with priming handle. Renewal of gasket, checking the oil level and box up. Cleaning oil spillage in the compressor completely.	1	No	5583	5583	5862	6141
655	TL20227	TM	Charges for Changing damaged Fly wheel with new one in the Air Compressor. Dismantling the defective Flywheel from the crank shaft , taking measurements of crank shaft and new fly wheel, matching the Flywheel to suit the crank shaft and Fitting the new Flywheel.	1	No	4724	4724	4960	5196
656	TL20228	TM	Carrying out renewal of Manhole door gaskets and Overhauling of Safety valves of Air Receiver Tanks. This work also provides the manhole door gaskets of 5mm Neoprene were cut into required size and placed in the door seating area and ensure no air leak was observed during the service. Dismantling the Safety valves, inspection and cleaning of the internals, Re-assembling the valve with the renewal of gaskets	1	No	4974	4974	5223	5471
657	TL20229	TM	Overhauling of 3-ton capacity electrical Hoists & LT micro hoist motor. (I) Mechanical portion d) Hoist hook assembly :- Dismantling the hoist hook assembly completely, releasing of bearings, cleaning, greasing and assembling the hoist hook etc. complete.	1	No	12492	12492	13117	13741
658	TL20230	TM	Dismantling the hoist hook assembly completely, releasing of bearings, cleaning, greasing and assembling the hoist hook etc. complete	1	No	2756	2756	2894	3032
659	TL20231	TM	Retubing of 1 No. Inter cooler nest with 90/10 Cupro - nickel tubes. (i) Labour charges for insertion of the tubes through the tube plates and flaring the Cupro-Nickel tubes with tube plates after releasing eroded old tubes.	1	No	2082	2082	2186	2290
660	TL20232	TM	(ii)Hydraulic testing charges for carryout Hydraulic testing of Inter Cooler - 1No	1	No	1806	1806	1896	1987
661	TL20233	TM	Retubing of 1No. After cooler nest with 90/10 Cupro - nickel tubes. i) Labour charges for insertion of the tubes through the tube plates and flaring the Cupro-Nickel tubes with tube plates after releasing eroded old tubes.	1	No	16656	16656	17489	18322
662	TL20234	TM	ii) Hydraulic testing charges for carryout Hydraulic testing of Inter Cooler.	1	No	1806	1806	1896	1987
663	TL20235	TM	iii) Labour charges for marking, cutting, machining, drilling 104 Nos holes and grinding work for tube plates.	LS	LS	1874	1874	1968	2061
664	TL20236	TM	Dismantling the hoist hook assembly completely, releasing of bearings, cleaning, greasing and assembling the hoist hook etc. complete	1	No	2756	2756	2894	3032
665	TL20237	TM	III. Providing scaffolding arrangement to attend the Overhauling of 3 ton capacity electrical Hoists in LP Bypass valve LHS & RHS above the higher elevation for safe working and dismantling the scaffolding arrangement after completing the overhauling work.	1	No	4003	4003	4203	4403
666	TL20238	TM	LOAD TESTING 3 TON CAPACITY ELECTRICAL HOISTS Charges for load testing, transportation of materials and arranging for testing by the competent authority witnessing the load test and obtaining necessary Certificate to 3 Ton electrical Hoists in Unit I & II LP Bypass valve LHS & RHS.	1	No	2434	2434	2556	2677
667	TL20239	TM	Overhauling of 2 ton capacity E.O.T crane. d) Hoist hook assembly :- Dismantling the hoist hook assembly completely, releasing of bearings, cleaning, greasing and assembling the hoist hook etc. complete.	1	No	27800	27800	29190	30580
668	TL20240	TM	LOAD TESTING For 2Ton EOT crane For load testing, transportation of materials and arranging for testing by the competent authority witnessing the load test and obtaining necessary Certificate to 2Ton EOT crane	1	No	2434	2434	2556	2677
		TM	PIPE LINES AND VALVES						
		TM	Valves overhauling :						
669	TL20241	TM	Overhauling of GV 250 /250 ATA III Gr. MO with Bypass Valve: Dismantling the valve, cleaning all the parts, checking the actuator bearings, seating surfaces. Lapping the gate and seat for perfect blue matching, reassembling the valve with new self sealing ring and gland packing. Checking and cleaning the actuator thrust base bearing and lubrication to the bearings.	1	No	7881	7881	8275	8669

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
670	TL20242	TM	Overhauling of GV 10"/1500 Class HO and PNRV 250 / 250 ATA , SCNRV 300 /150 Class, GV/GLV 10 "/150 class,12 "/150, 300 class. Dismantling the valve, cleaning all the parts, Checking the seating surfaces. Lapping the gate/seat & flap/disc for perfect blue matching. Reassembling the valves with new self sealing ring and bonnet gaskets and gland packing rings.	1	No	3747	3747	3934	4122
671	TL20243	TM	Overhauling of GV 300/250 ATA III gr. MO/HO valve with Bypass valve Dismantling the valve, cleaning all the parts, checking the seating surfaces and Lapping the gate and seat for perfect blue matching, Reassembling the valve with new self sealing ring and gland packings. Checking and cleaning the actuator thrust base bearing and lubrication to the bearings.	1	No	9448	9448	9920	10393
672	TL20244	TM	Overhauling Of GV 100/250 ATA IX Gr M.O, GLV 4" Class 2500 M.O. Dismantling the valve, cleaning all the parts, checking the seating surfaces and actuator bearings. Lapping the gate and seat for perfect blue matching, Reassembling the valve with new self sealing ring and gland packings.	1	No	2226	2226	2337	2449
673	TL20245	TM	Overhauling of GV 100 / 250 ATA III Gr. HO, GV 65 /250 ATA III Gr. MO/HO, GV 2.5", 4" 2500 Class HO/MO valves Dismantling the valve, cleaning all the parts, checking the seating surfaces. Bearings. Lapping the gate and seat for perfect blue matching, Reassembling the valve with new self sealing ring and gland packings	1	No	2907	2907	3052	3198
674	TL20246	TM	Overhauling of GV 200 / 250 ATA M.O, GV 200 / 600 Class M.O ,SCNRV 400,600mm/150 Class GV 500,600mm/ 150 Class. Dismantling the valve/NRV cleaning all the parts checking the seating surfaces and actuator bearings, Lapping the gate / seat / flap for perfect blue matching, Reassembling the valve with new self sealing ring / bonnet gasket and gland packings.	1	No	6030	6030	6332	6633
675	TL20247	TM	Overhauling of GV, GLV 200 / 40 ATA, HO/MO, SCNRV 250 / 300/ 40 ATA, Control valve 6" x 6" / 300 class, GV 250 / 40 ATA H.O, 2.5",4" /150,300 class Dismantling the valve, cleaning all the parts, checking the seating surfaces and actuator bearings. Lapping the gate / seat /flap for perfect blue matching, Re-assembling the valve with new bonnet gaskets and gland packings.	1	No	3123	3123	3279	3435
676	TL20248	TM	Overhauling of GV 300/ 16 ATA MO, GV 300/40 ATA HO, GLV 200/40 ATA MO, Control valve 10 " x 10" / 300 class Dismantling the valve, cleaning all the parts of the valve, checking the seating surfaces and actuator bearings. Lapping the gate / seat / disc / flap for perfect blue matching. Reassembling the valve with new bonnet gaskets and gland packings.	1	No	4566	4566	4794	5023
677	TL20249	TM	Overhauling of GV 20" 150 class H.O. Dismantling the valve, cleaning all the parts, checking the bearings and seating surfaces. Lapping the gate / seat for perfect blue matching. Re-assembling the valve with new bonnet gasket and packings.	1	No	5427	5427	5698	5970
678	TL20250	TM	Overhauling of control valve size 4"x2.5"/1500 class: Dismantling the valve, cleaning all the parts, checking the seating surfaces Reassembling the valve with new Tech seal Bonnet, Tech seal for body, Stack, Gauge and gland packing. Checking and cleaning the Pneumatic actuator and lubrication to the bearings, fixing the actuator on the valve.	1	No	5608	5608	5888	6169
679	TL20251	TM	Overhauling of GV / GLV 2" class 800, 1500, 2500 HO/MO valves Dismantling the valve, cleaning all the parts, Lapping the gate, disc with seat, for perfect blue matching. Reassembling the valve with new bonnet gasket and gland packings.	1	No	1249	1249	1311	1374
680	TL20252	TM	Overhauling of GV/ GLV 1" class 800/1500/2500 HO/MO. Dismantling the valve, checking the seating surfaces. Cleaning all the parts. Lapping the disc with seat for perfect blue matching. Reassembling the valves with new gland packings and bonnet gaskets.	1	No	409	409	429	450
681	TL20253	TM	Changing of CRH (Left and Right) line flange and dummy flange gaskets. A) Providing the scaffolding arrangements. Disassembling the CRH line flange studs and dummy flange bolts. Removing the spacer flange for inspection.	1	No	5428	5428	5699	5971
682	TL20254	TM	b) Cleaning the spacer flange at both sides and mating surface of the line flange, Dummy flange. Providing the gaskets and positioning the spacer flange, Reassembling the CRH line flange and dummy flange by tightening the studs / bolts with out any leak	1	No	5428	5428	5699	5971

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
683	TL20255	TM	Overhauling of CRH NRV 500mm/40 ATA Dismantling the NRV, cleaning all the parts, checking the seating surfaces and Lapping the Disc and seat for perfect blue matching, dismantling the NRV Pneumatic cylinder cleaning all the parts, Reassembling the NRV with new bonnet gasket and gland packings and changing the NRV cylinder kit & reassembling the cylinder.	1	No	9448	9448	9920	10393
684	TL20256	TM	GASKET RENEWAL IN VALVES Overhauling of HP Heater Feed water group by pass valves FW valve Size 300 mm / 250 ATA by Dismantling the valve, cleaning all the parts,checking the seating surfaces and Lapping the Disc and seat for perfect blue matching, Reassembling the valve with new self sealing ring and gland packing rings.	1	No	21425	21425	22496	23568
685	TL20257	TM	Overhauling of GV 200 / 64, 40, 16 ATA GV 150/ 250 ATA MO Dismantling the valve, cleaning all the parts, checking the gate / seat surfaces, Lapping the gate/seat for perfect blue matching. Reassembling the valve with new self sealing ring, gland packing's rings without any leak, Checking the Actuator thrust base bearing and apply lubrication .	1	No	3445	3445	3617	3790
686	TL20258	TM	Overhauling of GV 150/64, 40, 16 ATA HO, GV 6 "/ 600, 300, 150 class HO, GLV 150 /40 ATA , GLV 6 " / 300 class HO/MO, SCNRV 200/40, 16 ATA. Dismantling the valve, cleaning all the parts, checking the seating surfaces, bearing, yoke bush etc., Lapping the gate/seat/disc/flap for perfect blue matching. Re-assembling the valve with new gland packing rings and bonnet gaskets without any leak. Checking the Actuator thrust base bearing and apply lubrication .	1	No	2756	2756	2894	3032
687	TL20259	TM	Overhauling of PNRV 100/250 ATA , GLV 100 / 40 , 16 ATA, GLV 4" / 600, 300 class HO / MO , SCNRV 150/ 40, 16 ATA, SRV 2.5 " X4 " / 300 Class ,GV 350/125 class & GV 300/125 class, GV150/64 ATA HO, SCNRV 350/125 class Dismantling the valve, cleaning all the parts, checking the seating surfaces, bearing, yoke bush etc., Lapping the gate/seat/disc/flap for perfect blue matching. Re-assembling the valve with new gland packing rings and bonnet gaskets without any leak. Checking the Actuator thrust base bearing and apply lubrication.	1	No	2067	2067	2170	2274
688	TL20260	TM	Overhauling of GV 65 / 300 class , GLV / GV 50/ 64, 40 ATA, GLV 2" / 800, 1500, 2500 class HO/MO, SCNRV 100/16 ATA and GV, GLV 200/125 Class. Dismantling the valve, cleaning all the parts, checking the seating surfaces of Gate/seat/ disc/ flap, bearing yoke bushes thrust base of the actuator etc.. Lapping the seating surfaces of gate/ seat/disc / flap for perfect blue matching. Reassembling the valve with new gland packing rings and bonnet gaskets without any leak. Checking the Actuator thrust base bearing and apply lubrication.	1	No	1249	1249	1311	1374
689	TL20261	TM	Changing the eroded pipe HPH Air Vent line (Orifice plate) Cutting the eroded and punctured pipes with orifice plates line HPH-5, 6 & 7 air evacuation line to FT(1) header line for a length of 400 mm removing the pipes of both sizes of the orifice plate connecting the orifice plate by welding and machining providing the pipes at both sides of the orifice plate and then with the lines by welding and replace orifice plate if necessary .	1	No	4868	4868	5111	5355

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
690	TL20262	TM	Gasket renewing for 400/500/600 mm valve, this work involves Removing the valve from line, Cleaning the flange surface on both sides, Preparation of gaskets for both ends, positioning the valve in the line with gaskets and tightening the flange bolts & nuts.	1	No	7926	7926	8322	8719
691	TL20263	TM	Gasket renewing for 250/300/350 mm valve, this work involves Removing the valve from line, Cleaning the flange surface on both sides, Preparation of gaskets for both ends, positioning the valve in the Line with gaskets and tightening the flange bolts & nuts.	1	No	5284	5284	5548	5812
692	TL20264	TM	Gasket renewal works of BFP to Deaerator 100 mm RC line Orifice flanges – 3 Nos at Deaerator floor. GV , GLV100mm/40 ATA in MC lines. This work involves dismantling the flange bolts and nuts, removing the orifice plate cleaning the flange surfaces, preparing the 2 Nos of gaskets, positioning the flanges & gaskets and tightening the flange bolts & nuts.	1	No	2362	2362	2480	2598
693	TL20265	TM	Gasket renewing for 150/200 mm valve, this work involves Removing the valve from line, Cleaning The flange surface on both sides, Preparation of gaskets for both ends, positioning the valve in the Line with gaskets and tightening the flange bolts & nuts.	1	No	2642	2642	2774	2906
694	TL20266	TM	Gasket renewing for 50 mm/ 40ATA/800 class valve This work involves Removing the valve from line, Cleaning The flange surface on both sides, Preparation of gaskets for both ends, positioning the valve in the Line with gaskets and tightening the flange bolts & nuts.	4	Nos	4803	1201	1261	1321
695	TL20267	TM	Gasket renewal works in 350 / 300 mm Cooling water line orifice plate flanges. This work involves dismantling the flange bolts and nuts, removing the orifice plate and differential pressure line flanges, cleaning the flange surfaces, preparing the 2 sets (1 set = 2 Nos) of gaskets, positioning the flanges & gaskets and tightening the flange bolts & nuts.	1	No	2082	2082	2186	2290
		TM	Valves, Pipes, Stubs, Bends and Reducers replacement by IBR and Non IBR Welding Works:						
696	TL20268	TM	Replacing the defective valve 250 mm / 250 ATA pipe size OD 273 x 32 mm by new Valve Transporting the new valve from the central stores to work spot, checking the valve for good condition, fixing in location cutting the existing valve of pipe size OD 273 x 32 mm, Edge preparation, positioning the valve with line, checking the alignment for welding by IBR welder with TIG and Arc welding work for fixing the new valve as per IBR specification,	1	No	5738	5738	6025	6312
697	TL20269	TM	Replacing the defective existing Valve with spool piece by new valve Size GV 200mm / 250 ATA / MO pipe size OD 219.1 X6.35 mm thick: Cutting the existing defective valves valves inlet side pipe about 941 mm length with stub portion. Preparing the edges of pipes both joints of size 219.1 x 6.35 mm to suit the new pipe edges. Transporting the pipes & valves from repair bay to work sport, positioning the pipe, checking the alignment for welding by IBR welder with TIG and Arc as per IBR specification	1	No	5738	5738	6025	6312
698	TL20270	TM	Replacing the existing defective valve side size GV 100mm/250ATA Pipe Dia 108 x 20 mm thick by Providing scaffolding arrangements: Cutting the existing defective valve right side of size 108 x 20 mm to suit the new pipe line edges. positioning the valve with pipe lines, checking the alignment for welding by IBR welder with TIG and Arc as per IBR specification.	1	No	5738	5738	6025	6312
699	TL20271	TM	Replacing the defective existing valve with spool pipe line by new valve size GV 100mm / 250 ATA, size OD 114 X 17.1 mm thick Replacing the existing defective, checking and cleaning of new valve: cutting the existing valve of size Dia 114 x 17.1 mm, Edge preparation, fixing in location, positioning the valve with line, checking the alignment for welding by IBR welder with TIG and Arc welding work for fixing the new valve as per IBR specification	1	No	5738	5738	6025	6312
700	TL20272	TM	Replacing the defective existing HRH pipe line stub by new stub Size OD 559 x 23.5 mm thick. I. (a) Cutting the existing defective HRH line about 1500 mm length with stub portion.Preparing edges of the pipes both joints of size 559 X 23.5 mm to suit the new pipe line edges. Transporting the pipeline from the central stores to work spot, positioning the pipe, checking the alignment for welding by IBR welder with TIG and ARC as per IBR specifications.	3	Nos	5738	1913	2008	2104

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
701	TL20273	TM	Replacing the existing defective valve of size GV 600/16ATA /BW / pipe dia 323.9 X 6.35 . a) Replacing the existing defective valve of size 600mm/16 ATA (Pipe size 609.6 x 6.35) by a new valve. Cutting the existing defective valve by arresting the movement of the line on both sides. Preparing the edge of pipes both inlet and outlet joints of size 609.6 x 6.35 mm to suit the valve of size 600 mm / 16 ATA. Transporting the valve from the repair bay to work spot, positioning the valve in the line, checking the alignment for welding by IBR welder with TIG and Arc as per IBR specification.	3	Nos	5738	1913	2008	2104
702	TL20274	TM	Replacing the existing defective valve size GV 500/16ATA /BW pipe dia 508 X 6.35 . a) Replacing the existing defective valve of size 500mm / 16 ATA (Pipe size 508 x 6.35) by a new valve. Cutting the existing defective valve by arresting the movement of the line on both sides. Preparing the edge of pipes both inlet and outlet joints of size 508 x 6.35 mm to suit the valve of size 500 mm / 16 ATA. Transporting the valve from the repair bay to work spot, positioning the valve in the line, checking the alignment for welding by IBR welder with TIG and Arc as per IBR specification.	3	Nos	5738	1913	2008	2104
703	TL20275	TM	Replacing the existing defective valve size of GV 300/16ATA /BW / MO/pipe dia 323.9 X 6.35 Replacing the existing defective valve of size 300mm / 16 ATA (Pipe size 323.9 x 6.35) by a new valve. Cutting the existing defective valve by arresting the movement of the line on both sides. Preparing the edge of pipes both inlet and outlet joints of size 323.9 x 6.35 mm to suit the valve of size 300 mm / 16 ATA. Transporting the valve from the repair bay to work spot, positioning the valve in the line, checking the alignment for welding by IBR welder with TIG and Arc as per IBR specification.	3	Nos	5738	1913	2008	2104
704	TL20276	TM	Replacing the existing defective drain line header Valves of by IBR Welder Pipe size of D -114.3 x 8.56 mm thick) by Checking and cleaning of new valves.Cutting the existing Valves of size 100 mm / 600 Class Edge preparation, positioning the valve with pipe lines, checking the alignment for welding by IBR welder with TIG and Arc welding work for fixing the new valve as per IBR specification and Stress Relieving the welding portions a) Labour charges for IBR welding joints	3	Nos	5738	1913	2008	2104
705	TL20277	TM	Replacing the existing defective Valves of size 2.5" / 2500 Class (Pipe size of Dia 73 x 14 mm thick) Replacing the existing defective Valves, checking and cleaning of new valve, cutting the existing valve of size Dia 73 x 14 mm, Edge preparation, fixing in location, positioning the valve with line, checking the alignment for welding by IBR welder with TIG and Arc welding work for fixing the new valve as per IBR specification and Making stress relieving. a) Labour charges for IBR welding joints. 3 Nos. of Butt joints to be welded by IBR welder for changing the valve size of dia 73 x 14 mm thick	3	Nos	5738	1913	2008	2104
706	TL20278	TM	Cutting and Welding of GLV 1"/1500/2500 class valves or equivalent joints by IBR Welder: Charges for cutting the defective 1" valve or equivalent 2 nos 1" joints in drain /vent line, grinding and welding the new valve in the line by IBR welder.	2	No	1853	927	973	1019
707	TL20279	TM	Replacement of Valves, Pipes, Stubs, Bends and Reducers by Non IBR Welding Works Replacing the defective drain line valves or equivalent in Heater drip, Condenser air, Axillary steam and drain water lines etc by Non IBR welder. Rate for Two number Non IBR cutting and welding	2	No	1321	661	694	727
708	TL20280	TM	Replacing the defective drain line valves or equivalent in Cooling water lines and ACW lines by Non IBR welder. (ERW pipe, reducer& bends) Rate for Two number Non IBR cutting and welding	2	No	1321	661	694	727
709	TL20281	TM	Replacing the existing damaged Metallic expansion bellow of Flash tank-I vent line To condenser by a new Metallic expansion bellow and spool piece by cutting, edge preparation and NON IBR welding . i) Cutting the damaged metallic expansion by providing necessary box type line support to arrest the movement of pipe line and removal of the chequered plate etc.	1	No	6075	6075	6379	6683
710	TL20282	TM	ii) Grinding the cutting surface of the pipe and edge preparation of the pipe at both sides, suit the new bellow and positioning the Metallic expansion bellow in the line.	1	No	14217	14217	14928	15639
711	TL20283	TM	iii) Welding the both sides of the Metallic expansion bellow and providing the chequered plate, beams and removal of pipe supports.	1	No	6246	6246	6558	6871

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
712	TL20284	TM	v) Charges for cutting, edge preparation and welding of spool piece (one joint)	1	No	4050	4050	4253	4455
		TM	REGENERATIVE EQUIPMENTS.						
713	TL20285	TM	Overhauling and Gasket renewal of LP Heater 1. (a) Removing of condensate inlet and outlet pipe lines and placing it on the floor and cleaning of all flange surfaces - 4 shifts	1	No	10856	10856	11399	11942
714	TL20286	TM	(b) Removing the water box and tube nest and placing it on the floor and inspection - 2 shifts for one side.	1	No	6692	6692	7027	7361
715	TL20287	TM	(c) Removing the water box side flange gaskets, tube nest side, flange gasket and cleaning of tube nest and all surfaces - 2 shifts for one side.	1	No	6632	6632	6964	7295
716	TL20288	TM	d) Hydraulic testing of tube nest - 2 shifts.	1	No	3618	3618	3799	3980
717	TL20289	TM	e) Connecting the condensate inlet and outlet pipe lines of LP Heater No.1 (LHS & RHS) water box and tube nest side after providing new gaskets and tightening of all flange of LP Heater No.1 (LHS & RHS) - 4 shifts.	1	No	10856	10856	11399	11942
718	TL20290	TM	Overhauling and Gasket renewal of LP Heater 2, 3 & 4. a) Removing of water box and placing it on the repair bay - 3 shifts.	1	No	7926	7926	8322	8719
719	TL20291	TM	b) Lifting of tube nest, placing it on the T.G. floor, inspection, cleaning of tube nest, shell and etc - 3 shifts.	1	No	9606	9606	10086	10567
720	TL20292	TM	c) Preparation of gaskets for the tube nest, water box inlet and outlet pipe line flanges etc.	1	No	1938	1938	2035	2132
721	TL20293	TM	d) Providing new gaskets for the tube nest and placing the tube nest inside the shell – 2 Shifts	1	No	5140	5140	5397	5654
722	TL20294	TM	e) Cleaning and checking of drip line Header Nozzle holes, Checking the tube nest for leak if any plugging of all punctured tubes, placing the water box on the tube nest and tightening of main flange, Condensate inlet and outlet flanges after providing new gaskets - 3 shifts.	1	No	9606	9606	10086	10567
723	TL20295	TM	Overhauling and Gasket renewal of Gland Cooler 1 & 2. a) Removal of Water box, flange bolts and nuts, Condensate inlet and outlet flanges, lifting the water box, placing it on the floor and cleaning of all flange surfaces - 2 shifts.	1	No	5844	5844	6136	6428
724	TL20296	TM	b) Lifting of tube nest, Placing it on the floor, inspection, cleaning of tube nest and hydraulic testing etc. - 2 shifts	1	No	6404	6404	6724	7044
725	TL20297	TM	c) Providing new gasket, for the tube nest and placing the tube nest inside the shell - 1Shift	1	No	2828	2828	2969	3111
726	TL20298	TM	c) Placing the water box on the tube nest and tightening the main flange, Condensate inlet and outlet flanges after providing new gasket - 3 shift	1	No	8766	8766	9204	9643
727	TL20299	TM	Renewal of Feed water tank manual gaskets, HP Heaters, Drip lines, and BFP Re-circulation lines flange gasket at Deaerator end cleaning inside the feed water tank including consumables. a) Opening of manhole cover of feed water storage tank both sides and gasket preparation for the manhole - 3 shifts.	1	No	7473	7473	7847	8220
728	TL20300	TM	b) Inspection of trays and sampling lines and cleaning of feed water tank - 3 shifts.	1	No	6201	6201	6511	6821
729	TL20301	TM	c) Changing of gaskets in HP Heaters drip line flanges and BFP's Re-circulation line flange at Deaerator - 4 shifts.	1	No	11084	11084	11638	12192
730	TL20302	TM	d) Assembling of manhole covers with new gaskets after cleaning the old gaskets - 2 shifts	1	No	4982	4982	5231	5480
731	TL20303	TM	Renewal of Deaerator main flange and connected main condensate line flange gaskets and inspection of trays. Dismantling the main Deaerator flange and connected main condensate pipe line and put it on Deaerator platform, Inspection of Deaerator Trays , cleaning of Main Deaerator flanges and main condensate flange matting surfaces . Reassembled the Main Deaerator main flange and Main condensate flanges with new gaskets. a) Removing studs and nuts in both the flanges of Deaerator header and connected main condensate line and placing it on the platform	1	No	6964	6964	7312	7660
732	TL20304	TM	b) Lifting the Deaerator header and connected main condensate line and cleaning of all the surface and providing of all gaskets.	1	No	10726	10726	11262	11799
733	TL20305	TM	c) Placing the gasket and Deaerator header and connected main condensate line and tightening of flanges	1	No	2642	2642	2774	2906
		TM	OVERHAULING AND GASKET RENEWAL (OR) REPLACEMENT OF MAIN EJECTOR						

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
734	TL20306	TM	Replacement of new tube nest of Main Ejector Disconnecting of all the steam pipe lines air lines and dismantling the nozzle box, Ejector shell, tube nest etc cleaning the tubes, water box, attending the tube puncture, setting and checking the nozzle gap, hydraulic testing of the tubes and assembling the ejector shell, tube nest, nozzle box, providing with new gasket connecting all the related pipe lines and overhauling of exit NRV and flow meter in main ejector as per direction of the Engineer in-charge.	1	No	19084	19084	20038	20992
735	TL20307	TM	Re-tubing of 1 No LP Heater Tube nest by Admiralty brass tubes: a) Cutting and removing the old tubes from the tube nest.	1	No	28344	28344	29761	31178
736	TL20308	TM	b)Grinding and reaming tube plate holes to suit the new admiralty tubes of size of OD 16 x 1mm thick	1	No	100380	100380	105399	110418
737	TL20309	TM	c) Bending the tubes in 'U' shape suitably to match the tube plate holes by sand filling and heating and fixing the tube in the tube plate and expanding the tube edges for proper fixing of tubes	1	No	434720	434720	456456	478192
738	TL20310	TM	d)Hydraulic testing of the tube nest at 36 kgs/cm2 pressure	1	No	47790	47790	50180	52569
739	TL20311	TM	Re-tubing of 1 No Vent condenser Tube nest by Admiralty brass Tubes: a)Cutting and removing the old tubes from the tube nest.	1	No	18896	18896	19841	20786
740	TL20312	TM	b) Grinding and reaming tube plate holes to suit the new admiralty tubes of size of OD 16 x 1mm thick	1	No	83650	83650	87833	92015
741	TL20313	TM	c). Bending the tubes in 'U' shape suitably to match the tube plate holes by sand filling and heating and fixing the tube in the tube plate and expanding the tube edges for proper fixing of tubes	1	No	326040	326040	342342	358644
742	TL20314	TM	d) Hydraulic testing of the tube nest at 36 kgs/cm2 pressure.	1	No	31860	31860	33453	35046
743	TL20315	TM	Re-tubing of 1 No Main Ejector Tube nest by Cupronickel tubes. a)Cutting and removing the old tubes.	1	No	7086	7086	7440	7795
744	TL20316	TM	b)Grinding and reaming the tube plate holes to suit the new cupro nickel tubes of size 17 x 1 mm dia	1	No	23695	23695	24880	26065
745	TL20317	TM	c) Bending the tubes in 'U' shape suitably to match the tube plate holes by sand filling and heating and fixing the tubes in the tube plate and expanding the tube edges for proper fixing of tubes.	1	No	41640	41640	43722	45804
746	TL20318	TM	d) Labour charges for carryout hydraulic test	1	No	3612	3612	3793	3973
747	TL20319	TM	SAFETY VALVES Overhauling and Hydraulic testing and Re-assembling of Safety valve size 6"/8"/40/64 ATA Removing the safety Relief valve size 6", 8" / 40, 64 ATA from HP Heaters & Deaerator Feed water tank, Disassembling the Safety Relief Valve cleaning all the parts of the SRV, checking the seating surfaces and Lapping the seat and disc for perfect blue matching. Setting the pressure for rated lifting the SRV with hydraulic pump. Reassembling the SRV with new inlet and outlet flange gaskets.	1	No	6246	6246	6558	6871
748	TL20320	TM	Overhauling Hydraulic test and Re- assembling of Safety valve of size 4"/2"/ 300 class Removing the safety Relief valve Size 4", 2"/ 300 Class from LP Heater, Gland cooler-I& Flange & Stud heating system Disassembling the Safety Relief Valve, cleaning all the parts of the SRV, checking the seating surfaces and Lapping the seat and disc for perfect blue matching. Setting the pressure for rated lifting the SRV with hydraulic pump. Reassembling the SRV with new inlet and outlet flange gaskets.	1	No	3460	3460	3633	3806
749	TL20321	TM	IV. Actuators Overhauling Works: Charges for Overhauling of Indmodact actuator model 52031 / 52032. This work involves draining the existing oil removing the existing oil seals & 'O' rings, gasket, fixing the new oil seals & 'O' rings, checking the mechanism and filling the new oil.	1	No	3346	3346	3513	3681
750	TL20322	TM	Charges for Overhauling of Beacon Rotork actuator model K-60/ K-150. This work involves Draining the existing oil removing the existing wheel retainer ring, oil seals & 'O' rings, fixing the new oil seals & 'O' rings, wheel retainer ring, checking the mechanism and filling the new oil.	1	No	2642	2642	2774	2906

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
751	TL20323	TM	Charges for Overhauling of Beacon Rotork actuator model K-300. This work involves Draining the existing oil removing the existing wheel retainer ring, oil seals & 'O' rings, fixing the new oil seals & 'O' rings, wheel retainer ring, checking the mechanism and filling the new oil.	1	No	3346	3346	3513	3681
752	TL20324	TM	Charges for Overhauling of Beacon Rotork actuator model K-600/K1000. This work involves Draining the existing oil removing the existing oil seals & 'O' rings, gasket, fixing the new oil seals & 'O' rings, checking the mechanism and filling the new oil.	1	No	5019	5019	5270	5521
753	TL20325	TM	V. Insulation Renewal Works: Charges for removal of insulation and providing re-insulation to Flash Tank and its accessories. This work involves removing insulation around the flash tank and connected drain Water lines and flanges and providing re-insulation to the required area and also Providing plastering work over the insulation.	1	No	5012	5012	5263	5513
754	TL20326	TM	Charges for removal of insulation and providing re-insulation to Gland Steam Cooler-I & II This work involves removing insulation around the water box side, inlet and Outlet flanges and providing re-insulation to the removed portion and fitting Aluminum sheet over it.	1	No	6806	6806	7146	7487
755	TL20327	TM	Charges for removal of insulation and providing re-insulation to Low Pressure Heaters. This work involves removing the insulation on the flange side, inlet and outlet of the LPH and side and finally providing re-insulation to the removed portion.	1	No	6692	6692	7027	7361
756	TL20328	TM	Charges for fabrication and fixing of new insulation boxes for valve Size 300 / 250 mm including charges for cutting the Aluminium sheet, Bending to required shape & all consumables, T&P etc.	1	No	2082	2082	2186	2290
757	TL20329	TM	Charges for fabrication and fixing of new insulation boxes for valve size 65, 100, 150, 200, 250 mm etc including charges for cutting the Aluminium sheet, bending to required shape & all consumables, T&P etc.,	1	No	1378	1378	1447	1516
758	TL20330	TM	Charges for removal and renewal of insulation and repairing the insulation boxes to 300, 400, 500 mm valves.	3	Nos	2067	689	723	758
759	TL20331	TM	Charges for removal and renewal of insulation and repairing the insulation boxes to 200, 250 mm valves in one shift 3 Nos. of valves can be provided with Insulation Rate for one shift for 3 Nos valves	3	Nos	1787	596	625	655
760	TL20332	TM	Charges for removal and renewal of insulation and repairing the insulation boxes to 65, 100, 150 mm valves in one shift 4 Nos. of valves can be provided with insulation.	4	Nos	1658	415	435	456
761	TL20333	TM	Charges for removal of insulation and Aluminium sheet and providing Scaffolding arrangement wherever necessary for pipe lines. This work involve removing exiting damaged insulation in HD Drip Lines, ES,MC,AS Lines and D/A damaged pipe lines.	10	M ²	1321	132	139	145
762	TL20334	TM	Charges for providing re-insulation with Ceramic blankets / wool mattress and Aluminium sheet wherever necessary for pipe lines. This work involve removing exiting damaged insulation in HD Drip Lines , ES,MC,AS Lines and Dearater damaged pipe lines, cutting of mattress for required size and putting back after removing the existing wool blankets.	10	M ²	1730	173	182	190
763	TL20335	TM	Charges for cutting new Aluminium sheet at required size, bending the sheet at required shape, providing locking grooves fitting Aluminium sheet on the insulation and positioning The sheets intact with suitable fasteners. (Where the Aluminum is not available location)	10	M ²	2082	208	219	229
764	TL20336	TM	Transporting the cement from pocket store to work spot, mixing the cement with water, Plastering the cement on the insulation and finishing the cement and cleaning the waste Cement on the floor. Providing suitable thermal safety appliances for handling hot spots	100	Kg	1708	17	18	19
765	TL20337	TM	Charges for disposal, cleaning and transportation of waste insulation material from work spot to ear marked area to dump.	1	No	1680	1680	1764	1848
766	TL20338	TM	VI. HP Heaters Puncture attending Work: (a) Removal of Stand pipe on LHS & RHS and placing it on the repair bay - 2 Shifts	1	No	7510	7510	7886	8261
767	TL20339	TM	b) Charges for removal of insulation and providing re-insulation to HPH This work involves removing the insulation around the flange and providing re-insulation.	1	No	11265	11265	11828	12392

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
768	TL20340	TM	c) Heating and removing of main flange cap nuts and studs of HP Heater -4 shifts	1	No	17664	17664	18547	19430
769	TL20341	TM	d) Gouging of main flange joint of HP Heater- 2 Shifts	1	No	14908	14908	15653	16399
770	TL20342	TM	e) Disconnecting and reconnecting of air evacuation line flange, Drip line flange and safety valve bottom drain line flange after cleaning and providing gaskets	1	No	12105	12105	12710	13316
771	TL20343	TM	f) Lifting of HPH shell and placing it on TG floor after disconnecting flange joints and drain line pipe joints - 2 Shifts	1	No	8272	8272	8686	9099
772	TL20344	TM	g) Special type Scaffolding arrangements for HP Heater to inspect the punctured Spiral Coils for 2 shifts	1	No	3088	3088	3242	3397
773	TL20345	TM	h) To carry out hydraulic test and checking of all the coils for leak if any - 2 Shifts	1	No	6692	6692	7027	7361
774	TL20346	TM	i) Locating the punctured coil, cutting and removing the coil, providing the new coil by IBR Welding and to carry out the hydraulic testing.	3	Nos	5401	1800	1890	1980
775	TL20347	TM	j) Placing the HPH-6 Shell on the bottom flange from TG floor (including Alignment of Top & Bottom metal seal gasket) and reconnecting the flange joints and drain line pipe joints - 2 Shifts.	1	No	8272	8272	8686	9099
776	TL20348	TM	k)Tightening of main flange bolts and nuts by gas heating - 3 Shifts	1	No	13332	13332	13999	14665
777	TL20349	TM	l) Erection of stand pipe on LHS & RHS of HPH - 2 Shifts	1	No	9090	9090	9545	9999
778	TL20350	TM	VII. REPLACEMENT OF METALLIC GASKETS OF HPH Removal of existing shell side and bottom side inner and outer worn out metal seal gasket by gouging, grinding the inner and outer sides of shell and bottom side main flange area, replacing the 2 Nos new metal seal gasket. Alignment on the shell and bottom flange metal seal gasket, welding the new metal seal gasket shell side and bottom side inner and outer side by Non IBR welder. (size 2380 mm x 2250 mm x 6 mm thick). (Standard joints = 63.5 mm x 5.2 mm)	1	No	1321	1321	1387	1453
779	TL20351	TM	VIII. 125/30T EOT Crane Load Test Work: a) EOT Crane Load Testing - Loading and unloading of 125/30 Ton of Materials for load testing. A.(a) Loading and unloading of 40 Tonnes Concrete blocks from Transport yard to IInd Repair bay and return the same from IInd repair bay to Transport yard after completion of load testing.	1	No	4168	4168	4376	4585
780	TL20352	TM	B.(a) Arranging of Concrete blocks totaling to 156 Tonnes for loading of Main Hoist of Crane No. I & II.	1	No	7070	7070	7424	7777
781	TL20353	TM	(b) Arranging of Concrete Blocks totaling to 40 Tonnes for load testing of AuxiliaryHoist of Crane No. I	1	No	4526	4526	4752	4979
782	TL20354	TM	XI) OVERHAULING OF 125/30 T EOT CRANE REVISIONING OF GEAR BOX IN MAIN HOIST Dismantling of top cover, removal of gears, inspection of gears and bearings and if necessary changing of bearings dismantling of gear couplings draining of old oil, changing of oil seal, assembling back the gears, gear couplings, topping up of oil, etc., and normalizing.	1	No	74970	74970	78719	82467
783	TL20355	TM	REVISIONING OF GEAR BOX IN AUXILIARY HOIST Removal of top cover, removal of gears, inspection of gears and bearings and if necessary changing of bearings dismantling of gear couplings draining of old oil, changing of oil seal, assembling back the gears, gear couplings, topping up of oil, etc., and normalizing.	1	No	58310	58310	61226	64141
784	TL20356	TM	REVISIONING OF GEAR BOXES IN CROSS TRAVEL: Removal of top cover, removal of gears, inspection of gears and bearings and if necessary changing of bearings dismantling of gear couplings draining of old oil, changing of oil seal, assembling back the gears, gear couplings, topping up of oil, etc., and normalizing.	1	No	16660	16660	17493	18326
785	TL20357	TM	REVISIONING OF GEAR BOXES IN LONG TRAVELS: Removal of top cover, removal of gears, inspection of gears and bearings and if necessary changing of bearings dismantling of gear couplings draining of old oil, changing of oil seal, assembling back the gears, gear couplings, topping up of oil, etc., and normalizing	1	No	24990	24990	26240	27489

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
786	TL20358	TM	INSPECTION OF DRUM SUPPORT BEARINGS .MH-2 Nos. AH-1 No. AND LINE SHAFT BEARINGS CT - 2 Nos. Removal of covers, inspection of bearings and if necessary changing of bearings, cleaning assembling back and greasing etc.,	1	No	4926	4926	5172	5419
787	TL20359	TM	REVISIONING OF BRAKES: All the brakes are to be dismantled, liners to be changed for whichever necessary, reassembling, adjusting and fixing.	1	No	4782	4782	5021	5260
788	TL20360	TM	REVISIONING OF BOTTOM AND TOP EQUILIZING PULLIES (BOTH M.H. AND A.H) AND WIRE ROPES INSPECTION: The pulleys to be dismantled, Bearings to be inspected, Cleaning and Changing of Bearings if necessary regreasing and assembling back. Inspection of wire rope as per IS Standards, magnifying inspection, core condition check, strand elongation, reduction check, strand kink, protrusion, bird caging & bend inspection.	1	No	4373	4373	4592	4810
789	TL20361	TM	INSPECTION OF HOOKS BEARINGS (BOTH MAIN HOIST & AUXILIARY HOIST) The Hooks to be Lowered to '0' Meter, Dismantled Bearings to be inspected and to be changed if necessary, cleaning regressing etc.,and assembling back.	1	No	11439	11439	12011	12583
790	TL20362	TM	REVISIONING OF CENTRALISED LUBRICATION SYSTEM Removal of all Strainers, Grease Pumps , PVC Hoses in the Centralized Lubrication System, inspection and Changing of Parts if necessary, Cleaning and Commissioning of all Lines and refilling the Grease Pumps with new grease.	1	No	37410	37410	39281	41151
791	TL20363	TM	OVERHAULING OF MAIN HOIST AND AUXHOIST MOTORS CAPACITY 58 HP, Cross Travel Motors and Long Travel Motors Disconnection of motor coupling, power & control cable, removal of foundation bolts and lifting the motor to a location. Dismantling of motor, releasing of rotor for inspection of cleaning of stator and its winding tightness of wedges and insulation of the overhaul, spraying one coat insulating varnish , drying of the stator and free heating and checking of IR values of winding of rotor.Inspection and cleaning of rotor, checking the stampings, cleaning the corroded parts if any checking the bearings and replacing it if necessary. Assembling of rotor and erection of motor and bed, cleaning and painting of motor with two coats of gray enamel paint, checking the alignment of the rotor given connection, checking the IR value and winding resistance.	1	No	7752	7752	8140	8527
792	TL20364	TM	REFURBISHMENT OF CONTROL PANELS. Inspection of control panels and Resistance Boxes work involved disconnect the power & control cables in control panels, checking each electrical components in control panels if necessary changing the electrical components, checking , cleaning and tightening the bolt & nuts in Resistance boxes,fixing back and normalizing etc., 1) Main Hoist Panel redressing, revamping. 2) Auxiliary Hoist Panel redressing, revamping. 3) Long Travel Panel redressing, revamping. 4) Cross Travel Panel redressing, revamping. 5) Protective Panel redressing, revamping. Switching elements condition checking, Power supply monitoring inspection & analysis. Energy Consumption measuring Power supply quality measurement-V, I, P, EN, Fr, Flicker & Harmonics.	1	No	7752	7752	8140	8527
793	TL20365	TM	OVERHULING AND REPLACEMENT OF GEAR ASSEMBLY IN LONG TRAVEL / CROSS TRAVEL GEAR BOXES OF 125T/30T EOT CRANE (a). Removing the complete gear box (Long Travel/Cross Travel gear box) assembly and lowering the Long Travel gear box from EOT crane Top side to 'o' Mtr repair Bay in Unit -II. This work involves draining the oil, decoupling the Main output coupling both ends, Decoupling the motor Drive coupling , planetary gear coupling and removing Main gear box bed bolts. There is no working space available in top of the EOT crane. Hence it is not able to repair Top side of 32 mtr height EOT crane. Hence the complete gear box to be lowering from 32 Mtr to 'o' Mtr repair bay in Unit-II.	1	No	11547	11547	12124	12702
794	TL20366	TM	b) Dismantling the main gear box gear wheel with long travel drive shaft main gear box pinion with shaft stage-I, Main gear box stage-2 with gear wheel, Main gear box stage-3 gear wheel pinion with shaft and main rear box stage-4 gear shaft connected with motor:	1	No	17514	17514	18390	19265

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
795	TL20367	TM	c) Removing the existing wornout Bearings-8 Nos from 4 Stages of Long Travel/ Cross Travel gear box Pinion wheel with shaft and reassembling the New bearings and oil seals by hydraulic Jack. This work involves removing the existing wornout bearings-8 Nos from Long Travel/Cross Travel gear box 4 stages Pinion wheel with stage-I,Main gear box with gear wheel shaft stage-II,main gear box gear wheel Pinion with drive shaft stage-III and Main gear box drive shaft stage-IV connected with motor and reassembling the New bearings and oil seals by hydraulic jack. (2 sets of bearings will be supplied by board)	1	No	11547	11547	12124	12702
796	TL20368	TM	d) Welding, the Main gear box drive shaft gear coupling in key seating area and Matching the welding area and fixing the coupling with perfect machining. This work involves welding Key seating area and matching grinding the area and prepare the new key and fixing with key perfect matching.	1	No	13200	13200	13860	14520
797	TL20369	TM	e) Reassembling the main gear box gear Wheel with long Travel /Cross Travel drive shaft main gear box pinion with shaft stage-I, Main gear box stage-2 with gear wheel, Maingear box stage-3 gear wheel pinion with shaft and main gear box stage-4 gear shaft connected with motor. This work involves complete taking reading and assembling of gear teeth wheels, shafts, bearings by using oil heating. and refilling the gear oil and grease.	1	No	17514	17514	18390	19265
798	TL20370	TM	e) Reassembling the complete gear box (Long / cross Travel gear box) assembly and Lifting the Long Travel gear box from 'o' Mtr repair Bay in Unit -II EOT crane No-I & II Top side. This work involves The complete gear box to be lifting from 'o' Mtr repair bay in Unit-II to 32 Mtr height Eot crane after replacing the bearings, oil etc and assembling the Main output coupling both ends, assembling the motor Drive coupling , planetary gear coupling and fixing Main gear box bed bolts,alignment checking ,coupling the motor, wheel coupling and planetary gear coupling and trail run.	1	No	11547	11547	12124	12702
799	TL20371	TM	DISMANTLING,EXAMINING,CLEANING AND CHANGING OF BEARING OF THE WHEELS AND REASSEMBLING: 1. Arresting of Crane Long Travel Wheels. 2. L.T.wheel shat coupling Dismantling and supporting of main shaft. 3. Scaffolding arrangements for working platform. 4. TBeam welding or lifting purpose of wheels. 5. Dismantling of wheel mat. 6. Arrangement of chainblock for wheel dismantling. 7. Wheel bolt plumber block removing. 8. Wheels taken to Repair Bay using chain block for cleaning and bearing changing. 9. Removal of wheel grease cup and bearing releasing. 10. Bearing seating releasing checking, Inspection of bearing and both and reassembling. 11.Metal filling of wheel rib and machining.	1	set	66000	66000	69300	72600
800	TL20372	TM	ALIGNMENT OF GANTRY RAILS WITH REFERENCE TO PIANO WIRE (COMMON FOR BOTH CRANES) 1. Checking the alignment of rails for the track with respect to piano wire on one side (i.e) "B" row column. 2. Checking the parallelism of the another rail (i.e)"A" row column for the track with respect to "B" row column rails with respect to piano wire. 3. All the clips provided for rails for full bay length has to be checked and tightened. 4. Checking the welded bottom plates of the rails clamps and carrying out rectification works wherever required to keep the rails in proper position. 5. Fish plates on the Joints are to be tightened and packing are provided. 6.Checking the tightening of gantry base bolts and side bolts.	10	M	11960	1196	1256	1316
			MILL PLANT						
801	MP2001	MP	a.Draining of Mill gearbox oil completely, cleaning the gearbox internals like worm shafts and worms wheel. After inspection filling the gearbox with new/old oil including devolution of old oil to stores etc, (Department vehicle will be provided for drawl of oil at free of cost)	1	No	3963	3963	4161	4359

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
802	MP2002	MP	b.Charges for cleaning the gearbox internals like worm shaft and worm wheel. Draining the cooling water from cooling coil, cleaning and inspection of worm wheel teeth, cleaning the cooling coil and reconditioning the coil . Arresting the leakages in the water line, assembling back the cooling coil covers, filling the gearbox oil up to normal level.	1	No	9247	9247	9709	10172
803	MP2003	MP	Charges for providing wedges between lower skirt and Mill insulation cover plate firmly, removal of gearbox bottom cover flange bolts, lowering the thrust bearing and pump housing after supporting lower radial bearing housing. Lowering the thrust bearings and reassembling of all the above parts, providing SS shims at the bottom cover flange. Blue matching the worm shaft and worm wheel engagement till we get 20 to 50% pattern by trial method releasing/ providing thin SS shim sheet at the bottom cover flange and to get proper running clearance and centering of engagement.	1	No	11207	11207	11767	12328
804	MP2004	MP	Charges for dismantling and removing worn out thrust bearing of Mill vertical shaft by gas heating the racer, cleaning the bearing seating area in the vertical shaft and assembling back new thrust bearing after heating the racer in oil bath.	1	No	6559	6559	6887	7215
805	MP2005	MP	Charges for Renewal of thrust bearing adopter by oil heating and using necessary fixture for assembling the adopter in correct position after positioning the shims below the worm gear hub lock nut. Removing the thrust bearing adopter (worn out) and assembling the new adopter by heating.	1	No	5019	5019	5270	5521
806	MP2006	MP	Charges for Dismantling of upper skirt assembly, lower skirt assembly, Mechanical face seal assembly, dust guard and blue matching of seal runner, renewal of seal(bronze), air seal, dismantling of Mill bottom cover, upper bearing housing cover, oil seals etc., Complete overhauling, assembling back the lower skirt assembly, scrapper assembly and arresting the oil leakages in the return line and also spillage's at the rear side of gearbox to prevent Mill fire including cleaning and tapping the threaded holes.	1	No	12245	12245	12857	13469

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
807	MP2007	MP	Charges for dismantling the triangular liners, cutting the bulged Mill bottom plate, applying refractory cement at the Mill bottom plate 1 set by providing bolts and welding.	1	No	14172	14172	14881	15589
808	MP2008	MP	Charges for removing the old coupling halves from the motor and worm shaft ends. The charges includes gas heating the new/old coupling halves in the motor shaft and worm shaft and assembling the new/ old coupling in motor shaft and worm shaft.	1	No	8982	8982	9431	9880
809	MP2009	MP	Charges for dismantling the gear coupling bolts, gear coupling (worm shaft only), distance piece, unscrewing the worm shaft extension cover bolts and bearing housing cover bolts, removing the worm shaft extension cover, lowering to ground floor, releasing the worm shaft assembly from its position and assemblies providing back the overhauled worm shaft assembly in the gear box and fitting back the worm shaft extension cover, bolting and tightening the bolts to the required torque level and assembling back the gear coupling bolts, distance piece etc.	1	No	13473	13473	14147	14820
810	MP2010	MP	Charges for checking the bearing clearance after dismantling the thrust bearing and radial bearing housing covers, removing the bushes, springs etc. thoroughly cleaning the bearing housings and other components inspecting the thrust bearings, resetting the axial clearance by reducing the thickness of shims in the thrust bearing housing cover, providing of new shims and by trial method adjusting the clearance to 0.10 mm to 0.15 mm. Assembling back the thrust and radial bearing housing properly and renewing the gland studs and gland packing in the worm shaft assembly.	1	No	18415	18415	19336	20257
811	MP2011	MP	Charges for changing the worm shaft thrust bearing after gas heating and releasing the old bearings from the worm shaft, heating the new bearing in oil bath and providing the new bearing in the worm shaft in proper position	1	No	10038	10038	10540	11042
812	MP2012	MP	Charges for renewing radial bearing in the worm shaft after gas heating and releasing the old bearing and providing new bearing in the worm shaft after heating the bearing in oil bath.	1	No	4325	4325	4541	4758
813	MP2013	MP	Charges for checking the axial and radial alignment between the motor and mill worm shaft by making use of 3 Nos. dial gauges, mounting the dial gauge fixtures on the shaft and setting the dial gauges on the fixtures and adjusting the motor and completing the alignment with in the prescribed limits.	1	No	11911	11911	12506	13102
814	MP2014	MP	Charges for dismantling the radial bearing after removing the oil pump hub and oil pump bushing and reassembling the new radial bearing in the new/old radial bearing housing and assembling the new/old pump hub and bushing.	1	No	6260	6260	6573	6886
815	MP2015	MP	Charges for Removal of worn out side liner assembly and top liners, air intake vanes, etc. and assembling new liners including drawl of new liners from stores and devolution of old liners to stores.	1	No	14970	14970	15719	16467
816	MP2016	MP	Charges for changing worn out scraper pin, bush, pin cover, re conditioning of scrapper, cleaning of under bowl, checking of clearance, inspection and welding of wheels support lugs, wall side liners etc in mill under bowl.	1	No	3756	3756	3944	4132
817	MP2017	MP	Dismantling of worn out classifier assembly, inspection of deflector blade, cleaning, replacing of worn out deflector blade components renewal and assembling of new classifier assembly with its links. The overhauled classifier assembly was checked from 0 to 6 positions and ensured that the deflector blades, links move correspondingly to its position without any malfunction.	1	No	9448	9448	9920	10393
818	MP2018	MP	Dismantling the mill top, cutting the centre feed pipe to the required length so as to lift eroded inner cone and brought it to 4.5 Mt. level as per the direction of Engineer in charge.	1	No	9448	9448	9920	10393
819	MP2019	MP	Charges for dismantling the eroded inner cone from mill top and assembling the new / reconditioned inner cone.	1	No	10209	10209	10719	11230
820	MP2020	MP	Charges for dismantling the drum section of inner cone from mill top and replacing the new/ reconditioned one	1	No	8358	8358	8776	9194
821	MP2021	MP	a) Charges for dismantling venturi outlet assembly from mill top with the removal of venturi outlet, venturi vanes, venturi outlet conical collar assembly, coal feed pipe and devolution of scrap to stores.	1	No	6699	6699	7034	7369

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
822	MP2022	MP	b) Charges for fixing of new venturi vane and assembling the venturi outlet assembly, venturi outlet conical collar assembly with coal feed pipe and the mill top.	1	No	8932	8932	9379	9825
823	MP2023	MP	Charges for lifting, leading the dismantled mill top separator body and kept down in opposite position on mill repairbay and return back to mill after completion of work.	1	No	14886	14886	15630	16375
824	MP2024	MP	Charges the Clearing the burrs by grinding and finishing the damaged portion of the mill top separator body.	1	No	1730	1730	1817	1903
825	MP2025	MP	Charges for Fabrication of curved shape cover plate of size 1000x330 mm by using 10mm thick M.S plate.	1	No	2025	2025	2126	2228
826	MP2026	MP	Charges for Welding and finishing the fabricated plate on mill top separator body.	1	No	2657	2657	2790	2923
827	MP2027	MP	Charges for arresting the coal pipe firmly, dismantling victaulic coupling and lowering down the mill outlet elbows to 4.5 m. floor including charges for scaffolding.	1	No	1673	1673	1757	1840
828	MP2028	MP	Charges for inspection of mill outlet elbows and changing the deflector block if any lifting the elbows and assembling with proper alignment with the existing pipe line and removing coal pipe supports and devolution of scraps to stores.	1	No	1673	1673	1757	1840
829	MP2029	MP	Labour charges for including drawl of materials from stores and removal of old eroded coal pipe after arresting the coal pipes firmly and providing necessary supports or platform and welding new coal pipe pieces in MOE/coal pipes below MOE / MPO & Transition piece devolution of scraps to stores.	10	M ²	1264	126	133	139
830	MP2030	MP	Charges for dismantling the Spool pieces, multiple port outlet bodies and transition pipes 4 Nos. each after assembling the coal pipe inspection with center feed pipe structures including transportation of supporting material from stores to site and refixing the Spool piece, MPO bodies and transition pieces and assembling to its original position and carrying out necessary related works. And devolution of scraps to stores etc. for a mill	1	No	11165	11165	11723	12282
831	MP2031	MP	Charges for removal of orifice 1 No. after dismantling the victaulic coupling, inspecting and inverting the same orifice or new orifice and assembling in position.	1	No	242	242	254	266
832	MP2032	MP	Labour charges for cutting the coal pipe to required size and grinding both the ends to suit the coal pipe collars.	1	No	2025	2025	2126	2228
833	MP2033	MP	Cutting the worn out pipes of varied length, grinding edges and welding with coal pipe collars in the respective area inclusive of cutting the new coal pipe of same length and devolution of scraps to stores. (Vertical portion)	1	No	3906	3906	4101	4297
834	MP2034	MP	Charges for removing the existing damaged hanger support assembly arrangements in the coal pipes for Assembly.	2	No	1881	941	988	1035
835	MP2035	MP	Rectification of hanger support rod fixture eye, strengthening the pin and its nuts for Assembly.	2	No	1881	941	988	1035
836	MP2036	MP	Charges for re fixing the hanger supports arrangements in its original position of the coal pipes without changing its elevation for Assembly.	2	No	1881	941	988	1035
837	MP2037	MP	(a) Charges for hard facing of MPO inside the body in longitudinal direction of coal air mixture Flow direction as per the instructions of Engineer in charge.	1	No	1476	1476	1550	1624
838	MP2038	MP	(b) Charges for hard facing of old Transition piece inside body in diamond pattern of 25 mm size diamond pattern as as per the direction of the engineer in charge.	1	No	1896	1896	1991	2086
839	MP2039	MP	Cutting of 10mm thick patches of various sizes and prepare the patches to suit the eroded portions of coal bends, inner Cone assembly and welding these patches including devolution of scraps to stores as per the direction of the engineer in charge.	10	M	1264	126	133	139
840	MP2040	MP	Charges for hard facing of Mill Discharge valve inside (lengthwise and circle wise) at 15mm equal distance, 2 runs overlapping	1	No	3936	3936	4133	4330
841	MP2041	MP	Charges for cutting the worn-out pipelines of various lengths, lowering it down to the respective floor at various location and assembling new pipe. (Horizontal portion)	1	No	2786	2786	2925	3065
842	MP2042	MP	Charges for arresting the coal pipe firmly, dismantling the eroded ceralin (Less than 900) or MS bend by gas cutting, lowering the bends to the respective floor, assembling the new bend by welding after setting alignment and removing all coal pipe supports including charges for scaffolding.	1	No	6699	6699	7034	7369

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
843	MP2043	MP	Dismantling the existing eroded coal pipes along with bends of length at about 15mtr length after arresting at both end of the rest of the pipe near boiler corner at elevation 16mtr and lowered to 'O'mtr,. arresting and disconnecting hanger supports	1	No	11165	11165	11723	12282
844	MP2044	MP	Fabrication of pipe with fabricated bends and welding with collar (15mtr length) including Cutting the coal pipes for required length, grinding both the ends to suit the pipes,with bends, collars and welding all joints to suit the rest of the ends. Without deviating from the original configuration.	1	No	25850	25850	27143	28435
845	MP2045	MP	Assembling the fabricated coal pipe with collar (15mtr length) and providing hanger supports removing the supports provides for arresting the rest of the pipe and devolution to stores.	1	No	10662	10662	11195	11728
846	MP2046	MP	Charges for making scaffolding arrangements and landing platform at the bottom of the coal pipe at 14 mtr height at boiler corner 1 to 4 for easy dismantling and assembling the coal pipe. The dismantling of scaffolding arrangements supports and landing platform.	1	No	17169	17169	18027	18886
847	MP2047	MP	Charges for arresting the coal pipe firmly, dismantling the victaulic coupling of 1 mtr length coal pipe, removing the eroded/damaged coal pipes and lowering the pipe to 0 mtr level including devolution the eroded coalpipe to central stores.	1	No	5428	5428	5699	5971
848	MP2048	MP	Charges for cutting the coal pipe to required size in various location and grinding both the ends to suit the coal pipe collars and welding both the collars to the pipe.	1	No	2025	2025	2126	2228
849	MP2049	MP	Charges for lifting the coal pipe and assembling in proper position with the existing coal pipe line and removing coal pipe tempoary supports and devolution of scraps to stores	1	No	5428	5428	5699	5971
850	MP2050	MP	Charges for fabrication of 1No. M.S. bend including marking the segments from straight pipe , gas cutting, the segment 'V' groove forming grinding & welding all segments together.	1	No	6075	6075	6379	6683
851	MP2051	MP	Cutting the new coal pipe at required length and suit by welding both end of the fabricated M.S bend to suit the rest of the straight pipe (Inlet pipe length 0.6m, outlet pipe length 1.427m) and welding with correct position of the coal pipe and without any deviation of the coal pipes.	1	No	2510	2510	2635	2760
852	MP2052	MP	Charges for hard facing of 1No. M.S Bend inside (lengthwise and circle wise) at 20mm equal distance, 2 runs overlapping	1	No	1968	1968	2066	2165
853	MP2053	MP	Charges for arresting the coal pipe firmly, dismantling the Victaulic coupling and removing the fuel inlet elbow and placing it in the nearest elevation.	1	No	1601	1601	1681	1761
854	MP2054	MP	Charges for lifting the reconditioned or new elbows after inspecting / renewing the kicker block and assembling of the same with victualic coupling and removing all coal pipe supports including transporting of new bends from the stores and devolution of old bends to the stores.	1	No	1953	1953	2051	2148
855	MP2055	MP	Charges for including drawl of materials from stores and removal of old eroded portion of fuel inlet elbow and coal pipe after arresting the coal pipes firmly and providing necessary supports or platform and welding new coal pipe patch in FIE and coal pipes below FIE and devolution of scraps to stores.	10	M	1321	132	139	145
856	MP2056	MP	Dismantling of coal pipes of varied lengths before fuel inlet elbows and assembling back with old / new coal pipes	1	No	2510	2510	2635	2760
857	MP2057	MP	Charges for hard facing of Fuel inlet elbow (long) inside (lengthwise and circle wise) at 20mm equal distance, 5 runs overlapping	1	No	4164	4164	4372	4580
858	MP2058	MP	Charges for hard facing of Fuel inlet elbow (Short) inside (Length and circle wise at 20mm equal distance 5 runs overlapping.	1	No	3123	3123	3279	3435
859	MP2059	MP	Charges for arresting the coal pipe firmly, dismantling the eroded Cast steel bend 45 0 by gas cutting, lowering the bends to the respective floor, assembling the new bend by welding after setting alignment and removing all coal pipe supports including charges for scaffolding.	1	No	6699	6699	7034	7369
860	MP2060	MP	Cutting the coal pipe to required size and grinding both the ends to suit the coal pipe collars and welding both the collars to the pipe.	1	No	2025	2025	2126	2228

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
861	MP2061	MP	Charges for opening the manhole doors, dismantling the cold air damper links, Shaft, flaps, cleaning the above, applying grease, changing if necessary and assembling the above parts and confirming free movement of flaps etc.	1	No	3435	3435	3607	3779
862	MP2062	MP	Charges for dismantling man hole doors variant link flaps, flap shaft damper flaps side, grinding for free movement links flap checking for efficient link power transmission and reassembling the above parts as per the direction of engineer in charge in Hot air damper. Dismantling of hot air gate cylinder, dismantling the end caps, shaft and piston and cleaning of cylinder inside, changing piston seals, checking the gate side ways and grinding for free movement and assembling above parts.	1	No	6255	6255	6567	6880
863	MP2063	MP	Charges for dismantling the cold air gate, gear box, chain links and gates cleaning the above, applying grease changing the worn out parts and complete O/H of gear box and assembling the above parts and confirming free movement of gates etc.	1	No	3015	3015	3166	3317
864	MP2064	MP	Charges for cutting & removing the old eroded gate seal frame, arranging the new gate seals in orderly and seal welding to form leaf edge seal assembly in the HAG.(Top seal outer 2 Nos. per gate)	1	set	1730	1730	1817	1903
865	MP2065	MP	Charges for Renewal of Top seals inner (2 Nos. per gate)	1	set	2362	2362	2480	2598
866	MP2066	MP	Charges for Renewal of Bottom seals inner (2 Nos. per gate)	1	set	2362	2362	2480	2598
867	MP2067	MP	Charges for Renewal of Left & Right side seals inner (4 Nos. per gate)	1	set	2362	2362	2480	2598
868	MP2068	MP	a). Charges for dismantling from the frame, lower down the power cylinder and opening the top & bottom port square block and remove the piston shaft with flange, jam nut etc., after disconnecting the air line and supports	1	No	4190	4190	4399	4608
869	MP2069	MP	Charges for assembling of piston shaft, port flange, piston flange, working seals, air pipe lines, fitting the cylinder with frame and checking and setting the open close operation by setting the air pressure.	1	No	2850	2850	2993	3135
870	MP2070	MP	Charges for welding of eroded and worn out portion of duct joints, and welded joints by welding with ms welding electrodes.	10	M	1982	198	208	218
871	MP2071	MP	Fabrication and erection of guard plates for the expansion joints in the Hot air ducts by new MS Plates after providing necessary platforms in innerside of the duct.	10	M	2642	264	277	291
872	MP2072	MP	charges for eroded portion of hot air duct side walls by cutting, grinding and fabrication and welding new m.s plats.	10	M ²	2642	264	277	291
873	MP2073	MP	Insulation work for the areas where approach platform is available and height of working area in 'O' mtr. to 5 mtr. from the ground from the approach platform for providing approach including re-Insulation and covering with G.I. sheet.	10	M ²	1321	132	139	145
874	MP2074	MP	a) Insulation work for the area where the work area is above 5 mtr. from the ground or from the approach platform.	1	No	969	969	1017	1066
875	MP2075	MP	b)DISMANTLING OF INSULATION. ESTIMATE FOR 10 SQ. MTR	10	M ²	1321	132	139	145
876	MP2076	MP	c) REINSULATION	10	M ²	1982	198	208	218
877	MP2077	MP	Charges for dismantling and reassembling the man hole doors with asbestos gland ropes at 4.5mtr&18 mtr floor level horizontal portions of the hot air duct.	1	No	485	485	509	533
878	MP2078	MP	Charges for removal of accumulated fly Ash deposited inside the horizontal portion of the hot air duct at 4.5 mtr& 18 mtr area for the entire duct area. The collected ash to backed in gunny bags and disposed it to ash slurry trenches at '0' mtr level	1	No	4480	4480	4704	4928
		MP	Charges for replacing the damaged head pulley shaft in 1 No. Head Pulley of 36" Gravimetric feeder						

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
		MP	FABRICATION CHARGES						
879	MP2079	MP	Charges for gas cutting 30 mm thick plate to required size ϕ 310mm	1	No	521	521	547	573
880	MP2080	MP	Charges for drilling , machining the centre bore of ϕ 85 mm fixture arrangements for loading the plate in the lathe @ Rs.550/- per machine hour for 0.6 m/c hour	0.6	M/C Hours	0	330	347	363
881	MP2081	MP	Charges for machining the outer diameter of the 30 mm thick plate to 308 mm @ Rs. 550/-per machine hour for 0.6 m/c hour	0.6	M/C Hours	0	330	347	363
882	MP2082	MP	Charges for facing the 30 mm thick plate to final thickness 25 mm with necessary surface finish and true ness @ Rs.550/- per m/c hour for 1 m/c hours	1	M/C Hours	0	550	578	605
883	MP2083	MP	Charges for machining ϕ 90 mm shaft of length120 mm to ϕ 85 mm with smooth surface finish and facing both ends @ Rs.550/- per m/c hour for 1 m/c hours.	1	M/C Hours	0	550	578	605
884	MP2084	MP	Charges for inserting the newly machined shaft one end with a machined Centre hole in the plate with tight fit and full welding both sides.	1	No	1041	1041	1093	1145
885	MP2085	MP	Loading the head pulley on the lathe, machining and removing the old damaged plate from the pulley pipe @ Rs.550/- per m/c hour for 2 m/c hours	2	M/C Hours	0	1100	1155	1210
886	MP2086	MP	Inserting the newly machined plate with shaft fitted assembly in to the pulley pipe and full welding with proper axial alignment.	1	No	1041	1041	1093	1145
887	MP2087	MP	Machine the bearing seating , oil seal seating, steps in hub radius and welding joints excess weldment etc, ground polishing the steps with necessary surface finish and tolerance @ Rs.550/- per m/c hour for 4 m/c hours	4	M/C Hours	0	2200	2310	2420
888	MP2088	MP	Providing 3 Nos. M6 X 25 mm tapped locking holes at PCD 35 mm at the shaft face and unloading the pulley @ Rs.550/- per m/c hour for 0.6m/c hour.	0.6	M/C Hours	0	330	347	363
889	MP2089	MP	Charges for dismantling of journal door and roller assembly after disconnecting seal air line and assembling the same as before, after attending works inside the mill & setting ring roller clearance	1	No	5026	5026	5277	5529
890	MP2090	MP	Labour chargers for checking / setting spring compression after cleaning the spring compression studs and cleaning or renewal of stop bolt assemblies	1	No	625	625	656	687
891	MP2091	MP	Dismantling of clamping ring, removing the worn out bull ring segment, cleaning threaded holes using M24 tap set, preparing the bowl for fixing bull ring segments, assembling the bull ring segments, making wedges, fixing the clamping ring and bowl hub cover	1	No	10856	10856	11399	11942
892	MP2092	MP	Charges for patch welding in the eroded portion for 10 mtr length.	10	M	1041	104	109	115
893	MP2093	MP	Charges for hard facing the Airport ring assembly Segments (6 Nos.) and bowl extension rings (6 Nos.) etc. in one mill.	1	No	3792	3792	3982	4171
894	MP2094	MP	Charges for Hard facing clamping ring and Bowl hub cover.	1	No	316	316	332	348
895	MP2095	MP	Charges for cutting and removing the existing worn out airport ring assembly and erecting new airport assembly.	1	No	13930	13930	14627	15323
896	MP2096	MP	Charges for dismantling the old roller from the journal assembly, replacing it with new/old roller including transporting charges from Stores to site and devolution of old rollers to Stores as per the direction of site engineer.	1	No	4020	4020	4221	4422
897	MP2097	MP	Charges for removal of journal head assembly upper housing, journal shaft with bearings, inspection, cleaning, replacing the worn out parts such as metal clad oil seal, O rings etc. and assembling the above & setting of bearing clearances, filling up of oil, including lead, lift, and devolution of scraps to stores.	1	No	4668	4668	4901	5135
898	MP2098	MP	Dismantling the worn out journal bearings, and re fixing the new bearings.	1	No	1881	1881	1975	2069
899	MP2099	MP	Charges for cutting and removal of eroded mill separator body curved liners. (6 nos. in one mill)	1	No	1321	1321	1387	1453
900	MP2100	MP	Charges for erection of newly fabricated Mill body liners of size 700 x 950mm of 6 Nos. properly positioning and full welding the liners .	1	No	12150	12150	12758	13365
901	MP2101	MP	Charges for cutting the upper journal housing liner and journal header guard support bracket assy , refixing and welding new / old plate for the protection of journal shaft assembly.	1	No	661	661	694	727

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
902	MP2102	MP	Charges for releasing the journal spring assembly from the journal door, dismantling the assembly for inspection , complete overhauling of journal spring assy , changing the worn out parts, cleaning the moving parts with smooth emery , polishing , re assembling the same and setting the spring compression, including cost of consumables.	1	No	3346	3346	3513	3681
903	MP2103	MP	Cleaning the worn out portion of journal shaft and deposit weld metal by dissimilar rod and machining to correct dimension (239 mm OD) cleaning of thread in the lock nut portion and oil plug area filling up of dissimilar electrode metal in the other worn out area and machining the keeper plate arresting bolt and cleaning of lube oil parts and holes.	1	No	1264	1264	1327	1390
904	MP2104	MP	Charges for dismantling of one journal door after disconnecting the seal air line and changing the position of the cam of the journal assembly on both sides and assembling journal door and setting the ring roll clearance as per the direction of Engineer In/charge	1	No	2161	2161	2269	2377
905	MP2105	MP	Charges for Dismantling of separator body top along with classifier assembly and reassembling the separator body top as per direction of engineer in charge. This includes making the fixture for lifting arrangements, lead, lift retaping and cleaning the threaded holes in the flange etc.	1	No	39630	39630	41612	43593
906	MP2106	MP	Charges for Dismantling of bowl hub with bowl from the vertical shaft and assembling new bowl and bowl hub as per the direction of engineer in charge. This includes making necessary fixture and supporting for lifting arrangements and lead, lift and reaming of holes in the bowl and bowl hub etc.	1	No	35581	35581	37360	39139
907	MP2107	MP	Charges for gas heating the bowl and bowl hub assembly using 3 Nos. cutting set in order to expand the bowl hub for releasing it from the vertical shaft and also providing ice bag in the vertical shaft above the upper radial bearing to cool the shaft portion.	1	No	1264	1264	1327	1390
908	MP2108	MP	Lharges for dismantling of upper bearing housing cover with bearing housing, removing the vertical shaft along with upper radial bearing, lower bearing, worm wheel, dismantling of wornout worm wheel and changing new worm wheel and inserting the vertical shaft after inspecting the bearings, providing wedges for the vertical shaft lock nut and fitting as per direction of engineer in charge. This includes making suitable fixture for lifting arrangements.	1	No	33488	33488	35162	36837
909	MP2109	MP	Charges for Dismantling of mill bottom after removing broken M 24 size –16 Nos. bolt by drilling / gouging , tapping all the holes and assembling as per the direction of Engineer in charge. This includes making necessary fixture and supporting for lifting arrangements and lead, lift and transporting of materials from stores, reaming of holes in the mill bottom etc.	1	No	17488	17488	18362	19237
910	MP2110	MP	Charges for dismantling of Gear housing cover with Upper bearing housing and if necessary to replace the broken M24 studs - completely removing, tapping all the holes and assembling back.	1	No	9153	9153	9611	10068
911	MP2111	MP	Loading mill rejects / released chocked Coal Collected Near Mill / Feeder Area from, weighing in departmental weigh bridge and transporting to reject yard "G"/ switch yard area / coal yard/ by using Contractor's vehicle and unloading the same and return.	30	MT	2240	75	78	82
912	MP2112	MP	Complete overhauling and replacement of break coil, break shoe, push buttons, etc. and Load testing of the 5 Ton capacity electrical hoist in Mill Plant	1	No	12492	12492	13117	13741
913	MP2113	MP	Overhauling of LT Motors (Hoist motor & LT micro hoist motor) Decoupling of gear coupling removal of motor side coupling, removal of end shields, removal of motor, inspection of stator, rotor and bearings, apply insulation varnish, changing of bearings, carbon brushes if needed , lubricating the bearings, slip rings positioning and assembling the motor bearings and shields etc. and coupling the motor complete.	1	No	2756	2756	2894	3032
914	MP2114	MP	Charges for overhauling, load testing and certifying of chain pulley block of 7.5 / 10 ton capacity.	1	No	6092	6092	6397	6701

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
915	MP2115	MP	Charges for overhauling and load testing of 3 ton max puller.	1	No	2284	2284	2398	2512
916	MP2116	MP	Charges for dismantling and bring down the 7.5 ton capacity trolley above the mill to mill floor, overhauling including cleaning and checking the bearing and gears in the trolleys replacement of wornout parts such as gears and bearings and assembling back for free movement of 7.5 ton capacity overhead movable trolleys with beams above mill floor at 8 mtr level.	1	No	9765	9765	10253	10742
917	MP2117	MP	Charges for cleaning the accumulated coal dust , fly ash and other waste materials and air washing of the bunker and its platforms, belt beams, lateral surface of the bunker, coal valve area, down spout assembly, feeder and feeder floor, hot air duct and its gate, and damper and platforms, cold air ducts and its gate, damper and platforms & structural areas etc..	1	Time	1120	1120	1176	1232
918	MP2118	MP	Charges for clearing the accumulated coal dust, fly ash and other waste materials and air washing of the feeder discharge chutes and its platforms, structural areas, coal pipes from mill to boiler, Centre feed pipe and its fittings, mill tops, mills, mill floor, below mill floor, gear box areas and ground floor, seal air system, cleaning the oil leakage in gear box area and ground floor etc . (one time per day)	1	Time	1960	1960	2058	2156
919	MP2119	MP	Fabrication & fixing the fixture & cutting the down spout pipe for emptying the coal from the Bunker (Iron & steel materials will be supplied by the Board at free of cost)	1	No	4020	4020	4221	4422
920	MP2120	MP	Operation (i.e.) Open & closing the bunker gate for emptying the bunker and removing the choking for free flow of coal.	1	No	3360	3360	3528	3696
921	MP2121	MP	Emptying the coal in the Bunker and loading by using contractors vehicle and unloading the same including feeders reject coal.	30	MT	2240	75	78	82
922	MP2122	MP	Collecting the spillage coal from Feeder floor, Mill floor, 'O' metre area and the road upto weigh bridge from mill plant	1	No	11200	11200	11760	12320
923	MP2123	MP	Dismantling the fixture from the down spout pipe & welding the cut portion of the down spout pipe & bunker by S.S. welding.	1	No	1938	1938	2035	2132
924	MP2124	MP	Charges for removing of coal Chocking in Gravimetric Feeder's discharge chutes, under bowl area in Coal mills and Tramp iron reject Chutes.	1	DAY	8832	8832	9274	9715
925	MP2125	MP	Charges for setting the radial drilling machine under the mill gear box and after fixing the radial drilling machine to drill upward direction for increase the hole dia from M39 X 120mm to M 42X120mm for a Mill	1	No	969	969	1017	1066
926	MP2126	MP	Charges for Increase the thread holes to suit M42 X 120mm bolt in bottom gear housing. This works to be done under the gear housing and the height is very less (Standing space is less) and the drilling work is to be done in upward direction. Charges for 1 No hole	1	No	1041	1041	1093	1145
927	MP2127	MP	Charges for taping (M42 X 120mm) the mill bottom gear housing cover flange(16+6) for a Mill	1	No	2900	2900	3045	3190
928	MP2128	MP	Charges for setting the radial drilling machine to drill the damaged M16 X 40mm to M16X80mm at mill bottom gear housing cover.	1	No	689	689	723	758
929	MP2129	MP	Charges for taping (M16 X 80mm) the mill Gear Housing flange for a Mill	1	No	1450	1450	1523	1595
930	MP2130	MP	Charges for leading, lifting and transporting the gear housing cover from Millplant site to local workshop to enlarge the bolt holes and return back to Millplant site after completion of work.	1	Time	3936	3936	4133	4330
931	MP2131	MP	Charges for welding of deformed portion in the raw coal bunkers in Mill plant by providing additional stiffeners and patches by 10/12 mm thick MS plates and patch welding to arrest coal leakages. (Required Iron & Steel materials will be supplied by Board)	10	M ²	1982	198	208	218
932	MP2132	MP	Charges for Cutting & removing the deformed and cracked plates and twisted stiffener plates providing the above with new and welding in cracked portions of Girders and providing the additional bracing in bunker corners at various elevation from 31.75 mtr to 34.25 mtr.	1	location	16135	16135	16942	17749

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
933	MP2133	MP	Charges for dismantling the bottom side knife edge gate valve assembly from tramp iron spout assembly, dismantling of tramp iron spout assembly, to facilitate release of knife edge gate valve at mill side (Top side) assembly from mill gear box after disconnect is the air line (pneumatic line) from knife edge gate valve , air valves box and air headers. Assembling back after overhauling of knife edge gate valve assembly.(Material will be supplied by boards)	2	Nos	4164	2082	2186	2290
934	MP2134	MP	Complete overhauling of knife edge gates valves (Two valves) Charges for complete dismantling of knife edge gate valves, inspection and rectification and renewal of wornout parts, assembling and checking its operation	2	Nos	5019	2510	2635	2760
935	MP2135	MP	Charges for providing 'L' angle and laying the copper tube with ferrules (pneumatic line) on ' L ' angle supports from knife edge gate valves to Air (switch) valve box to Air line headers. (Materials supplied by the board)	1	No	2090	2090	2194	2298
936	MP2136	MP	Charges for cutting the existing wornout under bowl door frame and door, welding both inside and outside of the new door/existing door frame and fixing the under bowl door with out any hot air leakage in Mill.	1	No	10038	10038	10540	11042
937	MP2137	MP	Charges for cutting, grinding,threading of various length of cooling water pipe line and thread cleaning of cooler cover inlet / outlet with existing suitable flanges welding and assembling in the mill cooler cover.	1	No	2786	2786	2925	3065
938	MP2138	MP	Charges for cleaning, surface, edge preparation, metal filling, cutting MS plate to the required size 300x300x40mm thick, and welding the gap in between mill base and MS Plate.	1	No	6965	6965	7313	7662
939	MP2139	MP	Charges for pre heating and welding the cracked portion of mill base and gear housing outside the mill near reject chute mouth area.	1	No	6692	6692	7027	7361
940	MP2140	MP	Charges for flushing of coal pipe lines. Providing Scaffolding arrangements, opening the coal pipe by cutting at Various locations, flushing the coal pipe completely and closing the openings by patch welding made at various locations by welding. Charges for flushing of coal pipe lines.	1	location	3908	3908	4103	4299
941	MP2141	MP	Charges for making scaffolding arrangements and landing platform at the bottom of the orifice of pipes located at 14 mtr height at boiler corner 1 2, 3 and 4 for easy dismantling and assembling of orifice.	1	location	17836	17836	18728	19620
942	MP2142	MP	Charges for arresting the existing coal pipes bottom to top at 11m and 13m and 15m & 17m location for providing rigid support and for easy removal of orifices and replacing 1mtr eroded pipe.	1	location	12537	12537	13164	13791
943	MP2143	MP	Charges for dismantling the victaulic couplings and replacing of worn out orifice by cutting and welding of 1 meter length eroded coal pipe before and after orifice location, proper inspection and aligning with victaulic coupling.	1	No	17836	17836	18728	19620
944	MP2144	MP	Charges for drawl of I beams, channels, angles and MS plates for scaffolding arrangements and landing platform and pipe arresting supports and devolution of scraps and dismantled supporting materials to stores as per the direction of engineer in-charge.	1	Time	4724	4724	4960	5196
		MP	A.C. Plant – A.C.Chill water pump, Model BNB 50/80 / A.C.Condenser water pump & Air washer circulating water pump, Model SDC 100 / 125 in Beacon weir make - Over hauling of the pump & commissioning.						
945	MP2145	MP	i). De-coupling the pump and its motor, removing the pump from suction and discharge pipe flanges and removing of motor.	1	No	969	969	1017	1066
946	MP2146	MP	ii). Cleaning the bed frame & painting (paint will be supplied by board), Cleaning the Suction strainer & NRV Flap and assembling.	1	No	969	969	1017	1066
947	MP2147	MP	iii). Pump complete overhauling and changing the worn out spares parts if necessary.(Spares will be supplied by Board)	1	No	4134	4134	4341	4547
948	MP2148	MP	iv). Refitting the pump with both suction and discharge pipe flanges with new gasket, coupling the motor with pump, checking axial and radial misalignment between pump and motor and completing the alignment within the prescribed limits and commissioning satisfactory.	1	No	4134	4134	4341	4547

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
		MP	A.C. Plant – A.C Compressor System (Model No: AC 1670, Kriloskar Pneumatic) - Overhauling of AC Reciprocating Compressor Model AC1670 – De-scaling of AC Condensers – Pressure testing by Nitrogen gas - AC Chiller, AC condenser leak testing – Nitrogen gas flushing in AC Condenser, AC Chiller, Refrigerant line - Refrigerant Charging and commissioning.						
949	ACP2001	MP	Evacuation of the Mettron gas in the entire system by using the evacuation kit. Dismantling the Compressor suction valve, Stop valve, vertical valve, liquid line valves –3 nos. overhauling the valves and changing the seating if necessary and dismantling the refrigerant line then cleaning and assembling the line .	1	No	27140	27140	28497	29854
950	ACP2002	MP	Draining the lub.oil with necessary precautions from the crank case, dismantling of all inspection covers and all header covers and dismantling of connecting rod assembly 16 Nos. from the crank shaft for checking and cleaning and replacement of spare if necessary and re-assembling.	1	No	8142	8142	8549	8956
951	ACP2003	MP	Dismantling of piston assembly (16 Nos.) from connecting rod assembly and checking and cleaning of piston rings clearance replacement of spares if necessary and re-assembling.	1	No	13570	13570	14249	14927
952	ACP2004	MP	Dismantling of suction and discharge valve assembly (16 sets) and checking & cleaning of valve seating, adjustment of valves replacement of spares if necessary and re-assembling.	1	No	21712	21712	22798	23883
953	ACP2005	MP	De-coupling of motor from compressor, then dismantling of suction strainer assembly, discharge valve NRV for checking and cleaning, replacement of spares and 'O' rings changing if necessary and re-assembling.	1	No	10856	10856	11399	11942
954	ACP2006	MP	Dismantling of crank shaft, shaft seal, oil pressure line assembly, end bearing and intermediate bearing suction & discharge lub. Oil filters from the crank case, checking & cleaning and replacement of spares if necessary and re-assembling.	1	No	16284	16284	17098	17912
955	ACP2007	MP	Charges for the following works. i) Condenser tubes 256 nos. de scaling.ii) Condenser shell oil flushing. iii) Pressure testing by using nitrogen gas. iv)Chiller leak test v) Condenser leak test. vi) Nitrogen gas flushing to remove the moisture from the entire system.	1	No	40710	40710	42746	44781
956	ACP2008	MP	After assembling of all spares filling up of lub oil in the crank case, re- coupling of motor with compressor, alignment the motor with compressor etc., vacuum pulling in Compressor, then leak test and then Mettron gas charging.	1	No	5428	5428	5699	5971
957	ACP2009	MP	Checking of final alignment and operations, Re-commissioning of compressor and made trial run satisfactorily	1	No	5428	5428	5699	5971
		MP	A.C. Plant - Air washer System (Model No:BZN660 DWDI, Make: Kirloskar Pneumatic Co Ltd., Capacity: 165000 M3/Hr) – Epoxy painting a blower & Spray system completely.						
958	ACP2010	MP	Charges for dismantling AWS Blower casing cover for painting and reassembling after completion of painting works.	1	No	3906	3906	4101	4297
959	ACP2011	MP	Charges for cleaning, then painting of epoxy zinc chromate premier one coat and epoxy smoke grey painting two coat for structureses spray room tank pipes, eliminator frame, water strainer structure, AWS blower.	10	M²	944	94	99	104
		MP	A.C. Plant – Air handling unit - Model 7 – Dismantling the AHU outer cover, coil, fan – Cleaning the casing cover, fan, filters , coil & fins – Changing the damaged canvas cloth -Painting the AHU casing cover, fan, etc – Assembling – commissioning.						
960	ACP2012	MP	i) Charges for dismantling air handling unit like covers, shaft , vanes, pulleys, fins , coil and filters.	1	No	5572	5572	5851	6129
961	ACP2013	MP	ii) Charges for brush cleaning the fins and water washing the fan and coil section of the unit on both sides and air filters	1	No	3747	3747	3934	4122
962	ACP2014	MP	iii) Charges for changing the canvas cloth { 2Nos. out let damper in a AHU } (including cost of materials)	1	No	1522	1522	1598	1674
963	ACP2015	MP	iv) Charges for reassembling the full unit.	1	No	7926	7926	8322	8719
964	ACP2016	MP	v) Alignment and commissioning the AHU Blower unit satisfactorily	1	No	3346	3346	3513	3681
		MP	A.C. Plant – Air handling unit - Model 5 – Dismantling the AHU outer cover, coil, fan – Cleaning the casing cover, fan, filters , coil & fins – Changing the damaged canvas cloth -Painting the AHU casing cover, fan, etc – Assembling – commissioning.						

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
965	ACP2017	MP	i) Charges for dismantling air handling unit covers, shaft , vanes, pulleys, fins coil and filters, .	1	No	2786	2786	2925	3065
966	ACP2018	MP	ii) Charges for brush cleaning the fins and water washing the fan and coil section of the unit on both sides and air filters	1	No	2498	2498	2623	2748
967	ACP2019	MP	iii) Charges for changing the canvas cloth { 1No out let damper in a AHU } (including cost of materials)	1	No	761	761	799	837
968	ACP2020	MP	iv) Charges for reassembling the full unit .	1	No	5284	5284	5548	5812
969	ACP2021	MP	v) Charges for Alignment and commissioning the AHU Blower unit satisfactorily	1	No	3346	3346	3513	3681
		MP	AC Plant -Overhauling of 3T capacity EOT crane, load testing and commissioning						
970	ACP2022	MP	(i) Overhauling of 3T capacity EOT crane.	1	No	34750	34750	36488	38225
971	ACP2023	MP	(ii)Transporting the material & arranging for load testing of EOT crane	1	No	7302	7302	7667	8032
		MP	A.C. Plant -- UCB stage I & II, Conference Hall & CE chamber - Dismantling the supply air diffuser (700mm, 550mm, 450mm) and return air grill (900 x 250mm, 700 x 250mm, 600 x 250mm) – closing the opened mouth portion with GI sheet dummy by providing air holes temporarily - reconditioning the open and close leaf mechanism – cleaning and painting the diffusers – and re-fixing						
972	ACP2024	MP	Charges for Dismantling supply air diffuser and return air grill and then closing the opened mouth portion with GI sheet dummy by providing air holes temporarily	10	No	3747	375	393	412
973	ACP2025	MP	Charges for reconditioning the open close mechanism of supply air grill leaf (if necessary)	10	No	3963	396	416	436
974	ACP2026	MP	Charges for cleaning and painting the diffusers with two coat white enamel paint.	10	M ²	406	41	43	45
975	ACP2027	MP	Charges for removing the temporarily closed mouth portion GI sheet and then re-fixing the painted reconditioned diffusers.	10	No	3747	375	393	412
		MP	A.C. Plant – Air Washer System (Model No:BZN660 DWDI, Make: Kirloskar Pneumatic Co Ltd., Capacity: 165000 M3/Hr)– Dismantling the discharge duct of Blowers , Damper box and Canvass cloth of blower - Fabricating & Erecting new discharge duct for Blowers , New Damper box with leaves and Changing the canvas cloth for blower - Erecting the blower by assembling the new shaft, impeller, inlet cone Flushing the Spray System pipe line - Devolution the Scrap Material to Central Stores.						
		MP	Charges for dismantling the existing Air washer System damper unit and fabrication and erection of discharge damper box full unit for air washer blower						
976	ACP2028	MP	i) Cutting the MS Plate of 5mm thickness to the required size for damper box.	1	No	7926	7926	8322	8719
977	ACP2029	MP	ii) Fixing the MS angle inside the damper box to hold the leaves and drilling for holes for damper box	1	No	2642	2642	2774	2906
978	ACP2030	MP	iii) Welding the MS plate drilling holes in the damper bolts.	1	No	6605	6605	6935	7266
979	ACP2031	MP	iv) Dismantling the existing damper box from blower unit for damper box.	1	No	4754	4754	4992	5229
980	ACP2032	MP	v) Erecting the new damper leaves with the blower unit for damper box.	1	No	6678	6678	7012	7346
981	ACP2033	MP	Charges for fixing the canvass cloth bellow joint in the Air washer fan discharge line inside the Air washer room	1	No	4996	4996	5246	5496
		MP	Charges for dismantling the damaged portion of existing discharged air washer duct by gas cutting bolts & angles and fabrication of the discharged duct by cutting the GI sheet as required size and the angles of size 45 x 45 x 6mm as required size erection of the air washer duct and renewing the hanging support.						
982	ACP2034	MP	a) Charges for dismantling the damaged portion of existing Air washer duct by gas cutting the bolt , nuts and angles.	24	M ²	3346	139	146	153
983	ACP2035	MP	b) Charges for fabrication of the air washer discharge duct by cutting the GI sheet as required size and drilling the angle of size 45 x 45 x 6 mm required size.	24	M ²	7287	304	319	334
984	ACP2036	MP	c)Charges for erection of the air washer duct and renewing the hanging support and also closing the wind box gap.	24	M ²	5406	225	237	248
985	ACP2037	MP	Charges for flushing the spray system pipe line	1	No	5019	5019	5270	5521
986	ACP2038	MP	Charges for Transporting the new shaft, impeller, inlet cone, pulley, plumber block from stores.	1	No	6336	6336	6653	6970

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
987	ACP2039	MP	Charges for erection of the New Truncated inlet cone and welding the cone with the existing MS angle.	1	No	5019	5019	5270	5521
988	ACP2040	MP	Charges for placing the impeller in casing cover by chain pulley then fixing the shaft into impeller by chain pulley tightening the hub bolts and assembling the lock nut, bearing and bearing housing and pulley	1	No	11885	11885	12479	13074
989	ACP2041	MP	Charges for providing manual door along with handle at the center of the rear side blower door with bolts and nuts arrangements(as per sample)	1	No	3346	3346	3513	3681
990	ACP2042	MP	Charges for balancing the blower and commissioning the unit. Devolution of scrap materials of the damaged blower unit to CS/ MTPS	1	No	8005	8005	8405	8806
		CA	Static Balancing Works of CT ID fans of Cooling towers of Paharpur of Model 1514-11& L&T make of Model WNC 2310.						
991	ACP2043	CA	(a) Charges for dismantling the existing hub hood, fan blades and hub with arm sleeves assembly from the gearbox and lead outside the fan stack. (Cooling towers of Paharpur of Model 1514-11& L&T make of Model WNC 2310	1	set	6030	6030	6332	6633
992	ACP2044	CA	(b) Charges for leading the hub with the respective arm sleeves, fan blades assembly & hub hood inside the fan stack and assembling the hub, arm sleeves, fan blades assembly and hub hood over the gearbox one by one (Cooling towers of Paharpur of Model 1514-11& L&T make of Model WNC 2310)	1	set	6030	6030	6332	6633
993	ACP2045	CA	c) Assembling the blades with the respective arm sleeves (after Weighing the individual blades and respective arm sleeves) separately and fixing the hub assembly with blades to the balancing kit mounted in the Cooling Tower.(Cooling towers of Paharpur of Model 1514-11& L&T make of Model WNC 2310)	1	set	8040	8040	8442	8844
994	ACP2046	CA	d) Static balancing of the fan blade assembly: (Cooling towers of Paharpur of Model 1514-11& L&T make of Model WNC 2310)	1	set	7208	7208	7568	7929
995	ACP2047	CA	e) Dismantling of fan blades and hub assembly from the balancing kit one by one after marking proper identification.(Cooling towers of Paharpur of Model 1514-11& L&T make of Model WNC 2310)	1	set	8040	8040	8442	8844
996	ACP2048	CA	f) Charges for transporting of hub, arm sleeves and fan blades (8 Nos./ set) from cooling tower-top to ground floor and lifting the same to 12 m elevation of fan stack floor.(Necessary Transport Vehicle will be provided by TANGEDCO)(Cooling towers of Paharpur of Model 1514-11& L&T make of Model WNC 2310)	1	set	3648	3648	3830	4013
		CA	COMMON AUXILIARIES DIVISION						
		CA	Overhauling of CT ID fan Gear Box (Cooling towers of Paharpur make Model 1514-11)						
997	ACP2049	CA	a) Charges for dismantling of top & bottom cover and all three (fan shaft, inter-stage and pinion assy.) Sub-assemblies from gear box casing, cleaning, inspection and replacing the worn-out spares if necessary and reassembling the same. Checking and adjusting the bearing clearance in fan shaft, inter-stage and pinion assembly. [Including the cost of 3.5 mm dia 'O' ring for 4 m length and 0.5 mm/1mm oil gasket of size 1.5 m x1 m](Cooling towers of Paharpur make Model 1514-11)	1	set	21414	21414	22485	23555
998	CTIDF2001	CA	b) Charges for cutting and removal of worn-out bearings from fan shaft,inter-stage and pinion assembly. Heating the new bearings and mounting properly in the same fan shaft, inter- stage and pinion assembly (Cooling towers of Paharpur make Model 1514-11)	1	No	1081	1081	1135	1189
		CA	Overhauling of Flow control valve (Cooling towers of Paharpur make Model 1514-11)						
999	CTIDF2002	CA	a) Charges for dismantling of inspection doors provided at Flow Control Valve assembly casing . Dismantling of Flow control valve assembly (about300 kg weight) from tapping pipe flange of hot water header line. Reassembling the same by using Rubber gasket properly without water leakage. Open/close operation checking works.(Cooling towers of Paharpur make Model 1514-11)	1	No	1601	1601	1681	1761
1000	CTIDF2003	CA	b) Charges for Dismantling of Flow control valve spares from Flow Control Valve assembly, cleaning, inspection and renewal of worn-out spares like guide bush, stem, CI disc, lock nut, locking bar and operating handle etc. and reassembling the Flow Control Valve assembly (Cooling towers of Paharpur make Model 1514-11)	1	No	1378	1378	1447	1516

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1001	CTIDF2004	CA	c) : Charges for reconditioning Flow control valve casing for fixing inspection doors by Drilling and removal of existing 8 Nos of eroded M10 / M12 stud, making 8 Nos of new M 10 / M12 thread on the valve body by using tap set.(Cooling towers of Paharpur make Model 1514-11)	3	No	1378	459	482	505
		CA	Reconditioning of GRP / FRP Fan blade . (Cooling towers of Paharpur of Model 1514-11& L&T make of Model WNC 2310.)						
1002	CTIDF2006	CA	a) Charges for cleaning of blades with wire brush and acid washing. Grinding and removing of existing resin, putty and chopped strand mat over the arm and bladesurface of entire blade.(Cooling towers of Paharpur of Model 1514-11& L&T make of Model WNC 2310.)	1	No	4610	4610	4841	5071
1003	CTIDF2007	CA	b) Charges for smooth leveling by grinding and sander machine, applying putty on the arm and blade surface, smooth leveling by emery sheet. After that the chopped strand mat to be wounded on the blade and arm surface area mixed with Isobathic resin, Catalyst, Accelerator & pigment as recondition work .[Cost of Isobathic resin, catalyst, accelerator and pigment are on contractor scope (Cooling towers of Paharpur of Model 1514-11& L&T make of Model WNC 2310.)	1	No	4610	4610	4841	5071
1004	CTIDF2008	CA	c) :- Charges for applying two coats of Isobathic resin for smooth finishing over the entire surface of blade, weighing of blade should be maintained 65Kgs+/-0.5 and marking the weight. [Cost of Isobathic resin on contractor scope] (Cooling towers of Paharpur of Model 1514-11& L&T make of Model WNC 2310.)	1	No	2657	2657	2790	2923
1005	CTIDF2009	CA	Charges for leading, lifting, loading and transporting of 500 mm dia Disc type angular valve assembly from central stores to cooling tower stage-II ground floor and lifting to the 12 m height of fan stack floor and transported to the required area of hot water basin cells, dismantling of existing deteriorated 500 mm dia Disc type angular valve assembly from respective hot water pipe nozzle, cleaning the pipe nozzle flange surface, lifting, positioning, fixing of new valve assembly to the required pipe nozzle flange height by means of fasteners, unloading of 500 mm dia Disc type angular valve assembly from 12 m height of fan stack floor of cooling tower stage-II and devoluted to central stores.	1	No	7236	7236	7598	7960
1006	CTIDF2010	CA	Charges for dismantling the existing Sun Shield roof with structure provided over the flow control valve in Cooling Tower – and place the roof structure on the fan floor to facilitate for O/H of flow control valve and re-erect the Sun shield roof with structure including the cost of screws for mounting sun shield roofing sheets	1	No	1321	1321	1387	1453
1007	CTIDF2011	CA	Removal of existing worn-out / damaged straight turret nozzles and fixing of new straight turret nozzles in Hot Water Basins of cooling tower stage-II	864	No	2498	3	3	3
1008	CTIDF2012	CA	Charges for leading, lifting, positioning and inserting the stop log gate in the cold water Outlet canal of CT to facilitate the cold water dewatering work. After completion of dewatering work removing , leading and placing the stop log gate on the floor	1	set	7323	7323	7689	8055
		CA	Renewal of PVC Fills						
1009	CTIDF2013	CA	Charges for renewal of the existing damaged PVC fill bars & grids with new fills properly Cooling Tower-I, including the charges for drawl of new fills and devolution of scrap at Central Stores/MTPS-I.	150	M	1529	10	11	11
1010	CTIDF2014	CA	Charges for rearranging the existing hanging fills with GRP grid properly in all other tire with necessary scaffolding arrangements in all tires on both east and west side of Cooling Tower-I, including the charges for devolution of scrap at Central Stores/MTPS-I.	150	M	1249	8	9	9
1011	CTIDF2015	CA	Charges for providing and dismantling of scaffolding arrangements with platform for required area for 11 m height Cooling Tower-I for renewal / rearranging of PVC fills	25	M	8400	336	353	370
1012	CTIDF2016	CA	Charges for renewal of 3" PVC pipe GRp / SS grid including grouting and filling the pipe with concrete.	10	M	998	100	105	110
1013	CTIDF2017	CA	Charges for replacement of ST nozzles with new / cleaned nozzles , including basin area cleaning with Sodium hypochorite in Hot water basin CT of Stage I , including transporting of materials from stores to site & devolution of materials to stores for Hot Basin	1	No	3747	3747	3934	4122

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1014	CTIDF2018	CA	Charges for leading, lifting, loading and transporting of 500 mm dia Disc type angular valve assembly from central stores to cooling tower stage-II ground floor and lifting to the 12 m height of fan stack floor and transported to the required area of hot water basin cells, dismantling of existing deteriorated 500 mm dia Disc type angular valve assembly from respective hot water pipe nozzle, cleaning the pipe nozzle flange surface, lifting, positioning, fixing of new valve assembly to the required pipe nozzle flange height by means of fasteners, unloading of 500 mm dia Disc type angular valve assembly from 12 m height of fan stack floor of cooling tower stage-II and devoluted to central stores.	1	No	9174	9174	9633	10091
1015	CTIDF2019	CA	Charges for dismantling the existing Sun Shield roof with structure provided over the flow control valve in Cooling Tower – and place the roof structure on the fan floor to facilitate for O/H of flow control valve and re-erect the Sun shield roof with structure including the cost of screws for mounting sun shield roofing sheets	1	No	912	912	958	1003
1016	CTIDF2020	CA	Charges for the existing half round S.S. wire mesh with the frame structure of two halves of condenser ball catcher assembly provided over the flow control valve in Cooling Tower and dismantling and place the C.B. catcher assembly on the fan floor to facilitate for O/H of flow control valve and reassembly the condenser ball catcher assembly over the FCV	1	No	969	969	1017	1066
1017	CTIDF2021	CA	Charges for dismantling of the existing Sun Shield roof with the structure provided over the hot water basins to facilitate the renewal of deteriorated hot water header line at Cooling Tower and place the roof structure on the fan floor and re-erect the Sun shield roof with necessary structure by providing scaffolding arrangement .	1	M	3762	3762	3950	4138
		CA	Renewal of Safety Grills						
1018	CTIDF2022	CA	charges for loading of required materials from Central Stores and transporting to Cooling Tower. Unloading, leading , lifting and placing at Cooling Tower floor (11 m height). Leading and lowering the scrap material from Cooling Tower floor to ground level. Loading, transporting and devolution of scrap material at Central stores	1	Ton	2944	2944	3091	3238
1019	CTIDF2023	CA	Charges for cutting and removal of existing eroded/ corroded safety grills ,safety hand rails & structural materials and placing the scrap materials out side the fan stack area.	854	Kg	3088	4	4	4
1020	CTIDF2024	CA	Charges for renewal (positioning, fixing & welding) of fabricated grills in the newly fabricated [frame] structure at the existing grill area & extension of grill area inside of the fan stack of Cooling Tower.	120	Kg	1601	13	14	15
1021	CTIDF2025	CA	Charges for dismantling of drive shaft from motor and gear box , inspection and renewal of worn out flexible element / fastners etc. Re assembling the drivw shaft with motor and gear box , checking the alignment and conducting trail run for a fan	1	No	8811	8811	9252	9692
		CA	Fabrication , supply and erection of Hot water header Pipes of various sizes MS Pipe of 10 mm Thickness , 1600 mm Ø, 1400mm Ø,1000 mm Ø,700 mm Ø & 457mm Ø , eccentric reducer 1000 mm Ø / 700 mm Ø ,1400 mm Ø / 1000 mm Ø ,1600 mm Ø / 1400 mm Ø) including dismantling & devolution of eroded pipe in Cooling Tower						
1022	CTIDF2026	CA	a) Charges for marking , cutting and bending the MS Pipe of 10 mm Thickness , 1600 mm Ø, 1400mm Ø,1000 mm Ø,700 mm Ø & 457mm Ø	200	Kg	2966	15	16	16
1023	CTIDF2027	CA	b) Edge preparation and welding Cost MS Pipe of 10 mm Thickness , 1600 mm Ø, 1400mm Ø,1000 mm Ø,700 mm Ø & 457mm Ø	4	M	1070	268	281	294
1024	CTIDF2028	CA	c) Erection Cost includes dismantling the eroded pipes , erecting the new pipe and devoluting the dismantled pipe etc	100	Kg	2284	23	24	25
1025	CTIDF2029	CA	Charges for patch welding includes marking, cutting and bending the MS plateof 8 mm thick to pipes of 1600 mm Ø, 1400mm Ø,1000 mm Ø,700 mm Ø & 457mm Ø pipe plates for patch welding , edge preparation and welding in Hot water header pipes in Cooling tower.	5	M²	3145	629	660	692
		CA	Overhauling of Flow control valve for Cooling Tower of L&T make of model WNC 2310 .						
1026	CTIDF2030	CA	a) Charges for dismantling the existing Sun Shield roof with structure provided over the flow control valve in Cooling Tower and place the roof structure on the fan floor to facilitate for O/H of flow control valve and re-erect the Sun shield roof with structure including the cost of screws for mounting sun shield roofing sheets .Cooling Tower of L&T make of model WNC 2310 .	1	M	1321	1321	1387	1453

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1027	CTIDF2031	CA	b) Charges for dismantling of existing deteriorated 500 mm dia Disc type angular valve assembly from respective hot water pipe nozzle, cleaning the pipe nozzle flange surface, lifting, positioning, and reassembling the valve.Cooling Tower of L&T make of model WNC 2310 .	1	No	3618	3618	3799	3980
1028	CTIDF2032	CA	c) Charges for dismantling, cleaning & examining of valve internal components and renewal of other worn out components such as spindle support with bush / disc support M.S. bush by cutting, removing and welding with new M.S. bush, removing the existing damaged & worn out rubber seal of the disc, cleaning and fixing the new rubber seal over the disc by using proper adhesives if necessary, and reassembling and re-commissioning of the valves in the hot water pipe lines of cooling tower Cooling Tower of L&T make of model WNC 2310 .	1	No	2114	2114	2220	2325
		CA	Overhauling of CT ID fan Gear BoxCooling Tower of L&T make of model WNC 2310 .						
1029	CTIDF2033	CA	a) Charges for complete dismantling of gear box internals one by one, cleaning, inspection & renewal of gear box internals if necessary, reassembling, aligning of drive shaft assembly and re-commissioning of I.D fan gearboxes Cooling Tower of L&T make of model WNC 2310 .	1	No	33488	33488	35162	36837
1030	CTIDF2034	CA	b) Charges for renewal of worm shaft bearing after dismantling the existing worn-out / damaged worm shaft bearing. Cooling Tower of L&T make of model WNC 2310 .	1	No	969	969	1017	1066
1031	CTIDF2035	CA	c)Charges for renewal of wheel shaft bearing after dismantling the existing worn-out / damaged wheel shaft bearing.Cooling Tower of L&T make of model WNC 2310 .	1	No	1249	1249	1311	1374
		CA	Clari-flocculator						
1032	CFL2001	CA	(a) Charges for de-watering of clarifier, mixing the mud / fine sludge deposits with water while de-watering in clarifier of size 18 M radius x 6.5 M depth.	1	No	6720	6720	7056	7392
1033	CFL2002	CA	(b) Charges for removing sludge and other foreign particles from the clarifier of size 18 M x 6.5 M depth.	1	No	10080	10080	10584	11088
1034	CFL2003	CA	c) Charges for cleaning the algae deposits on the side walls of both inner and outer rings of clarifier and bottom surface with coir/wire brush. Applying and cleaning with bleaching powder on both side walls of inner ring & outer rings and also at bottom surface in clarifier [Bleaching powder will be supplied by TANGEDCO at free of cost] clarifier of size 18 M x 6.5 M depth	1	No	10080	10080	10584	11088
1035	CFL2004	CA	d) Charges for de-watering of sludge disposal pit, removal of sludge from sludge disposal pit, and also tunnel pipes from clarifier to sludge pit. Cleaning of algae deposits with coir / wire brush, and applying & cleaning with bleaching powder on inside walls of sludge pit, flash mixing chamber in clarifier [Bleaching powder will be supplied by TANGEDCO at free of cost] clarifier of size 18 M x 6.5 M depth	1	No	4480	4480	4704	4928
1036	CFL2005	CA	Charges for dismantling and reassembling of roofing the G.I. corrugated sheet over the fabricated M.S. structural truss including cost of materials such as G.I. J – bolt & nut, cup washer of size 150 mm length with bituminous washer	10	M ²	2461	246	258	271
		CA	Sludge disposal pump unit Clarifier / Misc Clarifier						
1037	CFL2006	CA	Charges for overhauling of Sludge disposal pump includes dismantling of pump components, cleaning, inspection and renewal of worn-out parts and reassembling.	1	No	15624	15624	16405	17186
1038	CFL2007	CA	Complete alignment & checking the operation of clarifier sludge disposal pumps motor, sludge disposal pumps and its suction & delivery pipe lines and its150 mm gate valves.	1	No	5170	5170	5429	5687
		CA	Traction Drive Unit clarifier / Misc Clarifier						
1039	CFL2008	CA	Charges for complete dismantling of Chain & sprockets, Bearings with Plummer Block , Supporting structure, Driven shaft with pinion etc in Traction drive mechanism in Traction drive assembly of Clarifier including transporting of Traction drive shaft & Sprocket to workshop	1	No	9220	9220	9681	10142
1040	CFL2009	CA	Renewal of Traction drive driven shaft bearings along with Plummer Block including attending minor defects in the shaft and assembling back in Traction drive assembly	1	No	9220	9220	9681	10142
1041	CFL2010	CA	Charges for removal of worn out Traction drive wheels assembly for clarifier with necessary structure supports, dismantling & cleaning of bearings and fixing of new wheels with existing shaft and bearings properly	1	No	6075	6075	6379	6683

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1042	CFL2011	CA	Charges for dismantling of existing sludge disposal pump assembly from pump bed and leading, lifting & positioning the new pump assembly in the bed ,complete alignment of sludge disposal pump with motor , and connecting the pump suction & discharge pipe to the existing pipe lines and finally to check the smooth operation of sludge disposal pump including transportation of materials from stores to site.	1	No	18440	18440	19362	20284
1043	CFL2012	CA	Charges for breaking the concrete to replace the eroded and corroded sludge disposable pump suction line at Misc. clarifier-II [PWD schedule of rate sl. No. 35(38) page no. 22 is Rs. 3040/ m3] and finishing with cement mortar after suction pipe erection including cost of all material and curing etc.,[New work]	1	No	11718	11718	12304	12890
1044	CFL2013	CA	Charges for fabrication of M.S 150NB spool piece with flanges as suitable to the existing sludge disposable pump suction end and bend pipe including charges for providing and dismantling of scaffolding arrangements and platform inside the sludge pump suction line at Misc. clarifier-II of 4m height and 3 M Length X 3 M Width, with Face Legs, Out Rigger(Scaffolding materials are contractor scope) (New Work).[M.S pipe will be supplied by TANGEDCO] .[New work]	1	No	4768	4768	5006	5245
		CA	Traction wheel reconditioning						
1045	CFL2014	CA	Charges for reconditioning of clarifier traction drive wheel includes old nitrile rubber material removing, Checking & cleaning, machining the wheel outer dia with new threading . complete shape in clarifier traction drive wheel of Unit clarifier / Misc Clarifier	1	No	15942	15942	16739	17536
1046	CFL2015	CA	Charges for traction wheel outer dia moulding with new nitrol rubber material filling , heating & pre heating to obtain shore Hardness– 60–70 ^at finishing the actual diameter & static balancing at complete shape in clarifier traction drive wheel	1	No	24300	24300	25515	26730
		CA	Mis.clari-flocculater overhauling						
1047	CFL2016	CA	a)Charges for de-watering of Clarifier, mixing the mud / fine sludge deposits with water while de-watering. For Clarifier of Size 16 M Radius X 7 M Depth	1	No	5040	5040	5292	5544
1048	CFL2017	CA	b) Charges for removing sludge and other foreign particles from the Clarifiers .For Clarifier of Size 16 M Radius X 7 M Depth	1	No	10080	10080	10584	11088
1049	CFL2018	CA	c).Charges for cleaning the algae deposits on the side walls of both inner and outer rings of Mis.Clarifier and bottom surface with coir / wire brush. Applying and cleaning bleaching powder on both side walls of inner ring & outer rings and also on bottom surface. [Required quantity of bleaching powder will be on contractor scope]For Clarifier of Size 16 M Radius X 7 M Depth	1	No	8400	8400	8820	9240
1050	CFL2019	CA	d).Charges for de watering of sludge disposal pit, flash mixing chamber and Removal of sludge from sludge disposal pits, flash mixer , sludge pump suction sump and flushing of tunnel pipes. Cleaning of algae deposits with coir / wire brush, and applying & cleaning of bleaching powder on inside walls of sludge pit, flash mixing chamber, sludge pump suction sump and valve chamber. [Required quantity of Bleaching powder will be contractor scope]For Clarifier of Size 16 M Radius X 7 M Depth	1	No	3360	3360	3528	3696
1051	CFL2020	CA	e).Charges for dewatering of flash mixer and removal of algae deposited on the side walls of flash mixer, weld mesh , etc., and applying then cleaning the flash mixer and inside chamber of Mis. clarifiers I & II by using bleaching powder. [Required quantity of Bleaching powder will be on contractor scope]For Clarifier of Size 16 M Radius X 7 M Depth	1	No	2240	2240	2352	2464
1052	CFL2021	CA	f) .Charges for cutting and removal of existing deteriorated bolts of scrappers, removing damaged scrapers, cutting of scrapper rubber to required dimension from old Conveyor Belt, marking and making holes on scrapper rubber and fixing with new G.I Bolts and nuts in the traction drive in Misc Clarifier I & II[G.I. hex. M 12 x 70 mm (104 Nos.) bolts with nuts and 2 Nos. plain washers on contractor scope] (of Clarifier of Size 16 m radius / 18 M radius)	1	No	3762	3762	3950	4138
		CA	Overhauling Cooling Water pump of Capacity 16,000 M3/ Hr , Single Stage , VMF Model, 1175 KW motor						

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1053	CWP2001	CA	a)Charges for dismantling the cooling water pump motor from motor stool assembly, moving to repair bay and positioning on the spare motor stool assembly. Again lifting and moving towards the cooling water pump, positioning and reassembling the motor after completion of cooling water pump overhaul works. Of Cooling Water pump Capacity 16,000 M3/ Hr , Single Stage , VMF Model, 1175 KW motor	1	No	11718	11718	12304	12890
1054	CWP2002	CA	b) Charges for dismantling the flexible coupling assembly, lock nut, bearing plate, thrust bearing, cooling coil & its cooling coil water lines and bearing oil pan. Cleaning and inspection of the components, renewing the worn-out components and reassembling Of Cooling Water pump Capacity 16,000 M3/ Hr , Single Stage , VMF Model, 1175 KW motor	1	No	9867	9867	10360	10854
1055	CWP2003	CA	c) Charges for dismantling of motor stool with pump components of Thrust block, Discharge elbow, Drive shaft, Element – III & II, Intermediate shaft top half coupling, Intermediate shaft, Element – I, pump shaft half coupling, Pump casing, Bearing housing, Pump shaft with impeller, Suction bell mouth assembly, Bell mouth liner, etc Of Cooling Water pump Capacity 16,000 M3/ Hr , Single Stage , VMF Model, 1175 KW motor	1	No	39120	39120	41076	43032
1056	CWP2004	CA	d) Charges for cutting and removal of existing worn-out shaft sleeves (SS) in impeller shaft bottom / impeller shaft top / Intermediate shaft / Drive shaft stuffing box sleeve and assembling of new sleeves by gas flame heating.Of Cooling Water pump Capacity 16,000 M3/ Hr , Single Stage , VMF Model, 1175 KW motor	1	No	1601	1601	1681	1761
1057	CWP2005	CA	e) Charges for lifting of impeller along with pump shaft, setting to the impeller stand, removing the impeller from the pump shaft by using hydraulic jack and gas flame heating over the impeller stem portion and reassembling of existing/new impeller with existing / new pump shaft and finally tightening of impeller lock nut and deflector with S.S. Allen screws and tag welding.[S.S. Allen cap screws of size: M12 x 70 mm, full thread – 6 Nos., are under contractor's scope]Of Cooling Water pump Capacity 16,000 M3/ Hr , Single Stage , VMF Model, 1175 KW motor	1	No	8644	8644	9076	9508
1058	CWP2006	CA	f)After completion of overhaul works, charges for measuring overall lift, providing correct lift and locking with lock nut. Alignment of cooling water pump with motor after tightening of motor bed bolts and finally observation and attending of minor defects noticed during trial run of cooling water pump.Of Cooling Water pump Capacity 16,000 M3/ Hr , Single Stage , VMF Model, 1175 KW motor	1	No	14216	14216	14927	15638
1059	CWP2007	CA	g)Charges for loading and un loading the shafts and bushes to out side work shop. Of Cooling Water pump Capacity 16,000 M3/ Hr , Single Stage , VMF Model, 1175 KW motor	1	No	5019	5019	5270	5521
		CA	Intake screen						
1060	CWP2008	CA	Charges for lifting the screen, positioning, cleaning of existing wornout meshes and for placing the screens in its position after completion of painting works (for a pump)	1	No	5600	5600	5880	6160
		CA	Overhauling Auxiliary Cooling Water pump / Service Water , Vertical pump of Capacity 500 M3/ Hr / 550 M3/ Hr						
1061	CWP2009	CA	a). Charges for complete dismantling and cleaning of pump parts such as pump stool, motor stool, column pipes , pump shaft , shaft coupling , impellers and pump casing etc .,and re assembling work .Vertical pump of Capacity 500 M3/ Hr / 550 M3/ Hr	1	No	27344	27344	28711	30078
1062	CWP2010	CA	b).Charges for cutting ,removal and fixing of existing worn-out wear rings, renewal of worn out line shaft sleeves ,line shaft bearings, inter bowl bearings, inter bowl sleeves, pack box bearing and top shaft sleeves etc., and checking of line shafts trueness etc.,Vertical pump of Capacity 500 M3/ Hr / 550 M3/ Hr	1	No	3123	3123	3279	3435
		CA	Overhauling of Fire Hydrant Pump of Capacity 275 M3/ Hr ,VMF 6 stage , Motor : 125 KW						
1063	CWP2011	CA	a) Charges for dismantling, cleaning, and replacement of worn out parts of Fire hydrant pump, reassembling and re-commissioning etc., (including the consumables etc.) for dismantling, cleaning, and replacement of worn out parts of Fire hydrant pump, reassembling and re-commissioning etc., (including the consumables etc.) Pump of Capacity 275 M3/ Hr ,VMF 6 stage , Motor : 125 KW	1	No	27344	27344	28711	30078
		CA	Overhauling of RWP of Capacity 3800 M3/ Hr , VMF - 36" ,Motor : 320 KW						

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1064	CWP2012	CA	a) De coupling of RWP, complete dismantling the entire pump, cleaning, examination and replacement of damaged components, changing of Shafts, Bearing housing, Bearings, Impeller, Impeller housing & neck rings , reassembling the pump and re commissioning satisfactorily after aligning the pump and motor. (Transporting vehicle and rubber chord will be arranged by Contractor Scope) of Capacity 3800 M3/ Hr , VMF -36" ,Motor : 320 KW	1	No	63900	63900	67095	70290
1065	CWP2013	CA	b) Charges for cleaning and changing of existing gland sleeve, intermediate and pump shaft sleeves and Finostos 'B' bushes. Transporting of existing Shafts with sleeves to MTPS workshop for checking shaft trueness, Machining and matching of sleeves and Finostos 'B' bushes to the required dimensions and also return back to Raw water pump house. (Transporting vehicle will be arranged by Contractor scope.) Pump of Capacity 3800 M3/ Hr , VMF -36" ,Motor : 320 KW	1	No	1673	1673	1757	1840
1066	CWP2014	CA	c) Charges for cutting and removal of existing worn-out Gland sleeve, Intermediate shaft sleeves and pump shaft sleeve and re fixing new machined sleeves on the shafts after preheating of sleeves if necessary. Pump of Capacity 3800 M3/ Hr , VMF -36" ,Motor : 320 KW	1	No	1041	1041	1093	1145
		CA	Overhauling of Water Treatment pump 70 M3 , vertical Single stage /Jockey pump vertical 7 stage						
1067	CWP2015	CA	a)De-coupling, Dismantling, Examination, Cleaning, Replacing of worn out parts, reassembling and re – commissioning of pump satisfactorily.	1	No	18255	18255	19168	20081
1068	CWP2016	CA	b) Charges for cutting , welding and machining of new column pipes & face out the column flanges for replacing of corroded column pipes and to suit with existing column pipes etc .,	1	No	2082	2082	2186	2290
		CA	Overhauling Of Valves						
1069	CWP2017	CA	Charges for Overhauling of 600 mm size 150 /300 Class Gate valves in clarifier inlet & outlet valves of CWS including dismantling the valve, clearing all the parts checking the seating surface and lapping the gate/seat/flap and reassembling the valve with bonnet gasket and gland packing.	1	No	10280	10280	10794	11308
1070	CWP2018	CA	Charges for Overhauling of 150 /200 mm size 150 /300 Class Gate valves of cold & Hot water Tunnel Vent in Cooling Water system I/II including dismantling of vent pipe , complete dismantling the valve, Lapping the valve disc & seat area , renewal of spares , Gland Packing and rubber gasket and assembling.	1	No	3123	3123	3279	3435
		CA	Replacing the eroded / corroded pipes size 350 NB pipe lines of over head tank out vertical line at the critical area up to 35 mtrs elevation and painting works						
1071	CWP2019	CA	a) Transporting of 350 NB pipe from stroes to site including devolution	1	No	1824	1824	1915	2006
1072	CWP2020	CA	b) Cutting the existing damaged 350NB MS pipe & lowering the pipe from 20 Mtr elevation to ground floor	1	No	5859	5859	6152	6445
1073	CWP2021	CA	c) Providing & dismantling of Scaffolding & Plat form arrangements arround the pipe at 20mtr height	1	No	8400	8400	8820	9240
1074	CWP2022	CA	d) Erection of New 350NB pipe including lifting and rigging to 20 M height by chain pulley block , aligning ,arresting , welding work.	1	No	8068	8068	8471	8874
		CA	Painting Works						
1075	CWP2023	CA	Painting charges for two coats of enamel light / smoke grey, black, green paint including cleaning the surface.	10	M ²	406	41	43	45
1076	CWP2024	CA	i) Charges for removing the rust and old paint from the structure immersed in the water of clarifier.	100	M ²	1507	15	16	17

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1077	CWP2025	CA	ii) Charges for painting with one coat of rust convertor , one coat of epoxy red oxide primer and one coat of epoxy high build coal tar one over the other with proper intervals for clarifier structures immersed in the water and structure frame inside flash mixing chamber.	10	M ²	944	94	99	104
		CA	Overhauling of 1600 MM Butter fly valve						
1078	CWP2026	CA	a) Overhauling of gear box assembly of 1600 mm B.F.V , including removal of Actuator, dismantling the gear box assembly, inspection, renewal of spare and reassembling the same, Butter fly valve size 1600 mm	1	No	9220	9220	9681	10142
1079	CWP2027	CA	b) Overhauling of B.F.V of size 1600 mm provided at CWP discharge line including dismantling the bearing assembly at both ends renewal of spares and reassembling .Butter fly valve size 1600 mm	1	No	18440	18440	19362	20284
1080	CWP2028	CA	c) Removal of RC valve in CWP of size 200 mm along with R.C. pipe and manhole door and fitting the same after completion of work .	1	No	6692	6692	7027	7361
1081	CWP2029	CA	d) Renewal of Nitrile rubber Seal in 1600 mm Butterfly valve in Cooling Water pump, renewal of seal clamping pad , rethreading of worn-out threads in the seal mounting disc and clamping the seal with the disc. Checking the open / close operation of 1600 mm butterfly valves of Cooling Water pump.	1	No	4996	4996	5246	5496
1082	CWP2030	CA	Overhauling of 900mm butterfly valve:Complete overhauling of gearbox , Inspection and scale cleaning of valve seat and changing of rubber seal,etc., Attending the butterfly valve parts and actuator parts for repairs and servicing.	1	No	6776	6776	7115	7454
1083	CWP2031	CA	Overhauling of 300m Gate valve / Globe valve / NRV of 150 / 300 Class	1	No	3346	3346	3513	3681
		CA	Renewal of Rubber Expansion Joint of Size 1600 mm Size.						
1084	CWP2032	CA	a)Charges for dismantling existing Rubber expansion bellow by loosening of flange bolts 104 Nos, after applying rust remover or heating by cutting gas ,dismantling the Rubber expansion bellow assembly and bring it to the floor. Size 1600 mm Size.	1	No	13096	13096	13751	14406
1085	CWP2033	CA	b) Charges for cleaning all the loosened bolts and nuts with kerosene, cleaning the top and bottom flanges and allied works.	1	No	7524	7524	7900	8276
1086	CWP2034	CA	c)Charges for loading the new expansion joint to the position, providing tie rods , bolts, nuts and tightening all the bolts mounting bolts , nuts and retention plates properly and other allied works.	1	No	13928	13928	14624	15321
1087	CWP2035	CA	d) Charges for drawls of new bellows from Central Office MTPS-I and devolution of retrieved bellows at Central Stores/ MTPS-I [Lorry and crane will be provided by TANGEDCO at free of cost.] .	1	No	12004	12004	12604	13204
		CA	Fire Protection						
1088	FPS2001	CA	Charges for erection of new M.S ERW 80/100 NB pipe by cutting & welding	10	M	2082	208	219	229
1089	FPS2002	CA	Charges for erection of 150 NB dia New M.S ERW pipe by cutting & welding	10	M	2994	299	314	329
1090	FPS2003	CA	Charges for fabrication of 1 No M.S bend out of 150 NB ERW M.S pipe by cutting & welding.	1	No	2090	2090	2194	2298
1091	FPS2004	CA	Charges for fabrication of 1 No M.S bend out of 200 NB ERW M.S pipe by cutting & welding .	1	No	2090	2090	2194	2298
1092	FPS2005	CA	Charges for fabrication of 1 No M.S bend out of 300 NB ERW M.S pipe by cutting & welding.	1	No	2786	2786	2925	3065
1093	FPS2006	CA	Charges for erection of 150 mm gate valve in newly erected line.	1	No	1378	1378	1447	1516
1094	FPS2007	CA	Charges for erection of 200 mm gate valve in newly erected line including cost of gaskets and Bolts & nuts.	1	No	1938	1938	2035	2132
1095	FPS2008	CA	Charges for erection of 300 mm gate valve in newly erected line including cost of gaskets and Bolts & nuts.	1	No	2498	2498	2623	2748
1096	FPS2009	CA	Charges for fabrication of MS reducer of 200/150NB , 150/100 NB &100/80NB ERW MS pipe by cutting and welding (M.S. pipe will be supplied by board)	1	No	2090	2090	2194	2298
1097	FPS2010	CA	Charges for fabrication of MS reducer 300/200 NB ERW MS pipe by cutting and welding (M.S. pipe will be supplied by board)	1	No	2618	2618	2748	2879
1098	FPS2011	CA	Charges for cutting, grinding, cleaning and welding of 150 / 100/ 80 NB bend, flange and fabricated reducers with new erected M.S ERW pipe per Joint	1	No	1321	1321	1387	1453
1099	FPS2012	CA	Charges for dismantling of 100 NB dia damaged M.S ERW pipe by cutting & welding	20	M	2082	104	109	115
1100	FPS2013	CA	Charges for dismantling of 150 NB dia damaged M.S ERW pipe by cutting & welding	20	M	2994	150	157	165

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1101	FPS2014	CA	Charges for conducting Hydraulic test on Water CO2 type , 9 lit capacity extinguishers including painting the date of Hydraulic test conducted transporting of fire extinguishers from field to test room and vice versa. (Hydraulic test pump will be provided by TANGEDCO)	8	No	1747	218	229	240
1102	FPS2015	CA	Charges for conducting Hydraulic test on mechanical foam type , 9 lit capacity extinguishers including painting the date of Hydraulic test conducted transporting of fire extinguishers from field to test room and vice versa. (Hydraulic test pump will be provided by TANGEDCO)	8	No	1747	218	229	240
1103	FPS2016	CA	Charges for conducting Hydraulic test on mechanical foam type , 50 lit capacity extinguishers including painting the date of Hydraulic test conducted transporting of fire extinguishers from field to test room and vice versa. (Hydraulic test pump will be provided by TANGEDCO)	2	No	1658	829	870	912
1104	FPS2017	CA	Charges for conducting Hydraulic test on mechanical foam type , 150 lit capacity extinguishers including painting the date of Hydraulic test conducted transporting of fire extinguishers from field to test room and vice versa. (Hydraulic test pump will be provided by TANGEDCO)	1	No	1658	1658	1741	1824
1105	FPS2018	CA	Charges for conducting Hydraulic test on DCP type , 5 Kg capacity extinguishers including painting the date of Hydraulic test conducted transporting of fire extinguishers from field to test room and vice versa. (Hydraulic test pump will be provided by TANGEDCO)	10	No	1414	141	148	156
1106	FPS2019	CA	Charges for cleaning the water spray nozzles in emulsifire system of size 1"/ 3/4 " BSPT.	35	No	969	28	29	30
1107	FPS2020	CA	Checking of deluge valve and its trimmings and its accessories like spring, piston, piston O ring etc. and replacement of O ring , gaskets, corroded and worn-out fitting in Emulsifire system .	1	No	1938	1938	2035	2132
1108	FPS2021	CA	Disconnection of cables, dismantling of limit switches, pressure switches & pressure gauges, cleaning and re-fixing after calibration (pressure switches & pressure gauges only) (6 Nos pressure switches,4 Nos pressure gauges & 3 limit switches) in emulsifire system.	1	LS	689	689	723	758
1109	FPS2022	CA	Charges for renewal of gaskets in all unions and flanges in the deduction line (1" GI line) and worn out /corroded clamp fittings etc in emulsifire system.	35	No	992	28	30	31
1110	FPS2023	CA	Checking the operation of deluge valve of size 100 NB / 150NB in Emulsifyre system	4	No	969	242	254	266
1111	FPS2024	CA	Charges for cleaning and testing of smoke detectors / heat detectors and attending fault in the circuits in fire alarm system .	10	No	992	99	104	109
1112	FPS2025	CA	Charges for cleaning and testing of smoke detectors / heat detectors , attending fault in the circuits and replacement of defective detector in fire alarm system.	7	No	992	142	149	156
		CA	Heat sensing Cable						
1113	FPS2026	CA	Laying of linear Heat sensing cable along with steel wire and GI conduit pipe including support & and other accessories for sprinkler system in tunnel conveyers	15	M	998	67	70	73
1114	FPS2027	CA	Charges for testing of Heat sensing cable for sprinkler system in tunnel conveyers for a Conveyor	1	No	4090	4090	4295	4499
		CA	Diesel engine Model-MWM TD232 V12						
1115	FPS2028	CA	a) Charges for dismantling of engine assembly from the water pump and refitting of the engine assembly after overhauling	1	No	3228	3228	3389	3551
1116	FPS2029	CA	b) Charges for inside engine assembly Top dismantling, cleaning and inspection	1	No	4140	4140	4347	4554
1117	FPS2030	CA	c) Charges for Engine block acid washing by using a fabricated tub	1	No	4197	4197	4407	4617
1118	FPS2031	CA	d) Charges for extracting of the old liners from the engine and inserting new liner by using specially fabricated puller	1	No	30270	30270	31784	33297
1119	FPS2032	CA	e) Charges for Extracting of old cam bush from the engine and fixing of new cam bush by using special boring bar	1	No	8457	8457	8880	9303
1120	FPS2033	CA	f) Charges for Cam shaft bend checking	1	No	5310	5310	5576	5841
1121	FPS2034	CA	g) Charges for cylinder heads surfacing including metal spraying	1	No	10672	10672	11206	11739
1122	FPS2035	CA	h) Cylinder head crack checking and pressure checking and correction	1	No	6738	6738	7075	7412
1123	FPS2036	CA	i) Charges for valve seat removing, new seat inserting, lapping and valve seating	1	No	6738	6738	7075	7412

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1124	FPS2037	CA	j) Charges for Extracting of old guides and inserting new guides	1	No	5898	5898	6193	6488
1125	FPS2038	CA	k) Charges for Assembling of new valves by putting springs and locks	1	No	11504	11504	12079	12654
1126	FPS2039	CA	l) Charges for push rod bend checking and bend removing	1	No	5682	5682	5966	6250
1127	FPS2040	CA	m) Charges for Fuel injector pressure testing and F.I Pump pressure recalibration including fuel leak attending work	1	No	28567	28567	29995	31424
1128	FPS2041	CA	n) Charges for Lub oil cooler servicing, pressure testing, leakage testing	1	No	6128	6128	6434	6741
1129	FPS2042	CA	o) Charges for Heat exchanger servicing and pressure testing	1	No	3372	3372	3541	3709
1130	FPS2043	CA	p) Charges for `Self starter reconditioning ,Rim gear and Bendex replacement	1	No	9513	9513	9989	10464
1131	FPS2044	CA	q) Charges for Engine Top complete assembling and idle running	1	No	10740	10740	11277	11814
1132	FPS2045	CA	r) Charges for radiator servicing	1	No	8365	8365	8783	9202
1133	FPS2046	CA	s) Charges for exhaust pipe modification work and turbo charger re- conditioning	1	No	20820	20820	21861	22902
1134	FPS2047	CA	t) Charges for engine oil and Gear box oil replacement	1	No	1673	1673	1757	1840
1135	FPS2048	CA	u)Engine alignment and timing set based on firing order	1	No	15975	15975	16774	17573
1136	FPS2049	CA	Transportation of Engine to the outside work shop- Loading and unloading Charges	1	No	6201	6201	6511	6821
		CA	Diesel engine Model-MWM TD232 V6						
1137	FPS2050	CA	a) Charges for dismantling of engine assembly from the water pump and refitting of the engine assembly after overhauling	1	No	3228	3228	3389	3551
1138	FPS2051	CA	b) Charges for inside engine assembly Top dismantling, cleaning and inspection	1	No	4140	4140	4347	4554
1139	FPS2052	CA	c) Charges for Engine block acid washing by using a fabricated tub	1	No	4197	4197	4407	4617
1140	FPS2053	CA	d) Charges for extracting of the old liners from the engine and inserting new liner by using specially fabricated puller	1	No	20180	20180	21189	22198
1141	FPS2054	CA	e) Charges for Extracting of old cam bush from the engine and fixing of new cam bush by using special boring bar	1	No	5638	5638	5920	6202
1142	FPS2055	CA	f) Charges for Cam shaft bend checking	1	No	5310	5310	5576	5841
1143	FPS2056	CA	g) Charges for cylinder heads surfacing including metal spraying	1	No	8004	8004	8404	8804
1144	FPS2057	CA	h) Cylinder head crack checking and pressure checking and correction	1	No	4492	4492	4717	4941
1145	FPS2058	CA	i) Charges for valve seat removing, new seat inserting, lapping and valve seating	1	No	4492	4492	4717	4941
1146	FPS2059	CA	j) Charges for Extracting of old guides and inserting new guides	1	No	3932	3932	4129	4325
1147	FPS2060	CA	k) Charges for Assembling of new valves by putting springs and locks	1	No	8628	8628	9059	9491
1148	FPS2061	CA	l) Charges for push rod bend checking and bend removing	1	No	3788	3788	3977	4167
1149	FPS2062	CA	m) Charges for Fuel injector pressure testing and F.I Pump pressure recalibration including fuel leak attending work	1	No	20405	20405	21425	22446
1150	FPS2063	CA	n) Charges for Lub oil cooler servicing, pressure testing, leakage testing	1	No	6128	6128	6434	6741
1151	FPS2064	CA	o) Charges for Heat exchanger servicing and pressure testing	1	No	3372	3372	3541	3709
1152	FPS2065	CA	p) Charges for `Self starter reconditioning ,Rim gear and Bendex replacement	1	No	6342	6342	6659	6976
1153	FPS2066	CA	q) Charges for Engine Top complete assembling and idle running	1	No	7160	7160	7518	7876
1154	FPS2067	CA	r) Charges for radiator servicing	1	No	5019	5019	5270	5521
1155	FPS2068	CA	s) Charges for exhaust pipe modification work and turbo charger re- conditioning	1	No	12492	12492	13117	13741
1156	FPS2069	CA	t) Charges for engine oil and Gear box oil replacement	1	No	1673	1673	1757	1840
1157	FPS2070	CA	u)Engine alignment and timing set based on firing order	1	No	9585	9585	10064	10544
1158	FPS2071	CA	Transportation of Engine to the outside work shop- Loading and unloading Charges	1	No	4134	4134	4341	4547
		CA	Re condition of Clarified Water Tank Gates (Inlet & outlet) and strengthening of plate valve mechanism including modification of existing valve supports, seating arrangement etc., at Miscellaneous Pump House						
1159	FPS2072	CA	a) Charges for dismantling of eroded and corroded Gate valve supporting structure by cutting and providing new valve supporting structure above water level	1	No	40164	40164	42172	44180

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1160	FPS2073	CA	b) Charges for reconditioning the eroded and corroded valve gates by lifting the gates with the use of Derrick & Hoist arrangements from under ground water level about 8m	1	No	35244	35244	37006	38768
1161	FPS2074	CA	c) Charges for removing of corroded and eroded valve rack/seat arrangements by gas cutting below the ground level 8m and reconditioning the same valve rack / seat , etc.,	1	No	40164	40164	42172	44180
1162	FPS2075	CA	d) Charges for Re- condition the valve gate by providing bronze/ gun metal /SS liner and connecting the stem and valve gate with suitable joint for matching the valve gate with valve seat/rack by lapping process etc.,	1	No	26360	26360	27678	28996
1163	FPS2076	CA	e) Charges for assembling of valve gate with valve seat by lowering the valve gate in to the under water level 8m and matching with valve gate with valve seat/rack etc., by Derrick & Hoist arrangements	1	No	40164	40164	42172	44180
1164	FPS2077	CA	f) Charges for Trial study conducted [To evacuate any gases inside tank] by lowering the water level of Clarified water tank [both the tanks] and cleaning of sludge and sediments from valve gate and valve seat before lifting the valve and valve seat below 8m ground level. Also Trial study conducted by lowering the water level in one part of tank[one by one] by isolation and another tank is in filled condition for running pumps and ensure no valve passing.	1	No	37920	37920	39816	41712
1165	FPS2078	CA	g) Charges for dismantling and assembling of air vents and Reconditioning of air vents & Man hole doors.	1	set	22984	22984	24133	25282
		CA	Load Testing of Hoist & Cranes						
1166	FPS2079	CA	Charges for load testing of 1 Ton hand operated trolley mounted type hoist by using test weights in the presence of the competent authority and site Engineer in-charge , loading, transporting and unloading of test weights (Mill rollers) from central stores to the respective hoist at cooling tower cold water outlet stop log gate and return back the test weights to central stores after completing the load test. (Necessary Transport vehicle & crane, test weights will be supplied by TANGEDCO at free of cost).	1	No	1824	1824	1915	2006
1167	FPS2080	CA	Charges for load testing of 2 T / 3 T / 5 T/ 7.5 T / 10 T / 15 T, Hand operated / Electrical hoists by using test weights with the presence of the competent authority and site Engineer in-charge , loading, transporting and unloading of test weights (Mill rollers) from MTPS-I mill area to the respective hoist and return back the test weights to MTPS-I mill area after completing the load test. (Necessary Transport vehicle, crane & test weights will be supplied by TANGEDCO at free of cost).	1	No	2736	2736	2873	3010
1168	FPS2081	CA	Charges for Load testing of 10 T Semi gantry E.O.T Crane by using Stop log gates as test weights including loading and un loading from raw water screen yard. [Transporting of concrete ballast is not easily accessed]	1	No	1824	1824	1915	2006
1169	FPS2082	CA	Charges for Load testing of 20 T E.O.T Crane by using concrete ballast including transport of test weights (Concrete ballast) from central stores to Raw water pump house and then transporting of test weights return back to central stores. (Transport vehicle & crane will be supplied from TANGEDCO at free of cost).	1	No	5472	5472	5746	6019
1170	FPS2083	CA	Charges for Load testing of 30 Ton EOT crane 1No. at CWPH including transporting 10 T concrete ballast 3 Nos from stores yard / central stores / MTPS to CWPH, for load testing of 30 Ton EOT crane at CWPH. After load testing of same 3 Nos of 10 T concrete ballast and plates from CWPH to storage yard / central stores.(Necessary Transport vehicle & crane, test weights will be supplied by TANGEDCO at free of cost.	1	No	18312	18312	19228	20143
		CA	Overhauling of Hoist 10 Ton / 15 T						
1171	FPS2084	CA	Complete removing of 10 T /15 T capacity Electrical hoist from the mono rail by providing "A" frame / Derrick & chain block arrangement , loading and un loading and transporting to the workshop , erection of the Hoist after completion of the repair work , testing and commissioning etc.	1	No	19734	19734	20721	21707

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1172	FPS2085	CA	Overhauling of main gearbox of 10 Ton / 15 T capacity electrical hoist including the dismantling of gear couplings, gear box top cover, inspection of gears & gear coupling, changing of hoist gear box assembly in put pinion shaft and input pinion mating gear wheel and gear box shaft made of special grade and hardened material and bearings and assembling back all the above internals etc., and normalizing	1	No	39468	39468	41441	43415
1173	FPS2086	CA	Overhauling of Cross travel gearbox of 10 Ton / 15 T capacity electrical hoist including the dismantling of gear box top cover, and inspection of gears, bearings & changing of C.T drive wheel assembly- 2Nos, changing of C.T out put pinion assembly and changing of output pinion mating gear wheel assembly and changing of C.T input pinion and bearings and, assembling back all the above internals and normalizing	1	No	19734	19734	20721	21707
1174	FPS2087	CA	Charges for dismantling of rope drum, inspection, cleaning and applying compound & re winding the steel wire rope and assembling the drum with hoist	1	No	8811	8811	9252	9692
1175	FPS2088	CA	Charges for Overhauling of Hoist Hook Assembly, Compensating pulleys and changing of hook pulley bearings.	1	No	19734	19734	20721	21707
1176	FPS2089	CA	Charges for complete overhauling of 15 HP & 2 HP, 415 volts LT Motors. Releasing the motor from bed, removing the gear, dismantling of motor, cleaning the rotor, stator core and stator winding, checking the tightness of wedges, insulating the stator winding portion by spraying one coat of Dr.Beck insulating varnish drying out the stator by preheating, checking of IR value and winding resistance and assembling the motor and testing.	1	set	8328	8328	8744	9161
1177	FPS2090	CA	Charges for Servicing of Electrical Panel of 10 T / 15 T Capacity electrical Hoist including renewal of wiring and renewal of spares.	1	set	6246	6246	6558	6871
1178	FPS2091	CA	Fitting of Hoist system operating powder coated steel pendant switch	1	No	1041	1041	1093	1145
1179	FPS2092	CA	Fitting of Hoist system rotary geared type limit switch for lifting operation	1	No	1041	1041	1093	1145
		CA	CT Base frame channel renewal CT of L&T make of Model WNC 2310.						
1180	FPS2093	CA	a) Charges for taking initial alignment readings in the existing gear box with motor and decoupling of the gearbox. Then, dismantling of existing Cooling Tower fan which includes dismantling of hub cover, fan blades and hub assembly etc, from the gearbox. Then removing gearbox assembly from the bed and keep the gearbox outside the fan stack	1	No	25104	25104	26359	27614
1181	FPS2094	CA	b)Charges for Dismantling the existing damaged corroded hand rails & grill structure (portion area), cutting the existing Gear box base frame corroded channels with base plate & leading outside the fan stack after providing the necessary supports (scaffolding arrangements) inside the fan stack.	1	No	41936	41936	44033	46130
1182	FPS2095	CA	c)Charges for leading and transporting the scrap items by walk such as damaged gear box base frame channels, base plate, hand rail pipes, released from respective fan working area to the tail end (13 m elevation) of Cooling tower - III or IV and unloading of above scrap materials from tail end of the fan stack floor to ground floor and also loading, transporting and unloading the scrap materials to central stores	1	No	6656	6656	6989	7322
1183	FPS2096	CA	d) Charges for loading, transporting and unloading of Newly fabricated base frame channel items from central stores to cooling tower-III or IV ground floor and lifting the above items from ground floor to the tail end (13 m elevation) of fan stack floor and also transporting the newly fabricated items from tail end to the respective fan working area in cooling tower	1	No	7474	7474	7848	8221
1184	FPS2097	CA	e)Charges for leading the fabricated base frame from outside to inside fan stack, taking accurate measurement in the existing Gear box base frame channels bed bolt holes over the RCC beam and providing of holes in the RCC beam channels bed bolt & plummer block pedestal, cutting the accurate channel length size of Newly fabricated Base frame, segment of base frame channel, positioning over the RCC beam, joining the segment base frame channels to the front motor side existing base frame by using joint splice plate (4 Nos.), welding with 3 runs to the base frame, segment of base frame channel Gear box side frame with safety grills – 2 sets to the RCC beam channel & cutting & welding the New hand rails as per the existing height.	1	No	47260	47260	49623	51986

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1185	FPS2098	CA	f) Charges for moving the existing gear box inside the fan stack, positioning and fixing in the bed and aligning the gearbox horizontally and exactly at the center of fan stack. Then, refixing of the hub assembly, fan blades hub cover etc., in the existing gearbox and alignment of gearbox with motor, draining of existing oil in the new gearbox and filling it with fresh oil if necessary.	1	No	30616	30616	32147	33678
1186	FPS2099	CA	Charges for providing & dismantling of scaffolding arrangements and platform at every 1 m height around the hot water riser pipe of dia 1600 mm upto 14 m height and 11 m horizontal length for the same height of hot water riser pipe upto cooling tower civil structure in cooling tower by using Casurina poles and wooden planks.	1	No	11200	11200	11760	12320
		CA	Reconditioning of Suction bell mouth of CWP Stage - II						
1187	FPS2100	CA	a) Charges for proper cleaning and taking initial measurements of existing retrieved worn out suction bell mouth assembly of size :1.584 m height and 1.978 m dia., grinding to remove the fatigue materials over the inner & outer surface etc...	1	No	6999	6999	7349	7699
1188	FPS2101	CA	b) Charges for rebuilt the worn out suction bell mouth liner seating whole surface, 20 Nos. of damaged liner seating bed bolt holes and liner seating circlip groove portions as required height by using specilized Ni hard hi chrome low heat input base layer welding electrodes like Micro alloy 2290 for bonding with proper fusion and good weldability without cracks or distortion / warping using sufficient quantity.	1	No	21410	21410	22481	23551
1189	FPS2102	CA	c) Charges for rebuild the worn out suction bell mouth liner seating whole surface, 20 Nos. of damaged liner seating bed bolt holes and liner seating circlip groove portions and to enhance the hardness and life of the weld metal by using sufficient quantity Micro alloy 890 welding electrodes and to grind the weld metal rough surface either sides of all the wanes evenly after welding the base layer of Micro alloy 2290 welding electrode. During welding most important to allow the weld zone to be cooled at every interposes by welding small weld lengths by using highly skilled specialized long experience welder to deploy the similar type of jobs	1	No	21410	21410	22481	23551
1190	FPS2103	CA	d)Charges for leading, loading the heavy mass suction bell mouth assembly in VTL machine, proper setting with necessary supporting fixtures for holding job, machining the re built surface area of suction bell mouth assembly liner seating taper portion, liner seating circlip groove portions, bottom surface area are to be machined evenly and to give the final finishing to the original size and contour, providing of 20 Nos. of dia 18 mm hole at bottom surface & 3 Nos. of M 16 mm jack bolt holes and thread forming etc.. and unloading of the above same from the lathe bed.	1	No	7800	7800	8190	8580
		CHP	COAL HANDLING PLANT - RAILWAY SIDING						
1191	CHP2001	CHP	Repairing and calibration Cummins VTA1710L of Locomotive engine Fuel Pump	1	No	10410	10410	10931	11451
1192	CHP2002	CHP	Labour charges for dismantling inspection decorburising and assembling of turbo charger	1	No	10448	10448	10970	11492
1193	CHP2003	CHP	Labour Charges for removing of wornout shaft bearing and seal and seat kit.	1	No	6692	6692	7027	7361
		CHP	Reconditioning of Radiators:						
1194	CHP2004	CHP	1) Removing bolts 12 Nos. from side of the radiators without any damage.	1	No	2756	2756	2894	3032
1195	CHP2005	CHP	2)Charges for overhauling the radiators by acid cleaning per radiator.	1	No	4164	4164	4372	4580
1196	CHP2006	CHP	3)Reconditioning and conducting pressure test per radiator. This work involves brazing on the damaged portion of the radiator and conducting pressure test.	1	No	4164	4164	4372	4580
1197	CHP2007	CHP	4) Charges for 4 Nos. of neck and neck brazing with radiator including materials and Labour.	1	No	1170	1170	1229	1287
1198	CHP2008	CHP	5) Charges for fabrication of bottom chamber after removing the eroded support frame and re-tapping work.	1	No	1522	1522	1598	1674
1199	CHP2009	CHP	6) Charges for replacement of gaskets. Providing 2 Nos. gasket in the upper tank of radiator and 2 Nos. of gasket the lower tank of the radiator.	1	No	818	818	859	900
1200	CHP2010	CHP	7) Labour Charges for reassembling the radiator and conducting leak test. This work involves fixing the upper tank, gasket, wire, side plate with bolts and nuts.	1	No	2756	2756	2894	3032

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
		CHP	Lubricating oil cooler assembly repair work.						
1201	CHP2011	CHP	b) Labour Charges for inspection, acid cleaning, pressure testing, tube plugging and repair works.	1	No	12492	12492	13117	13741
		CHP	After cooler assembly repair work.						
1202	CHP2012	CHP	b) Labour Charges for inspection, acid cleaning, conducting leak testing and repair works.	1	No	12492	12492	13117	13741
		CHP	Overhauling of Locomotive air compressors TRC 1000B ELGI make						
1203	CHP2013	CHP	a)Charges for dismantling of air compressor.	1	No	4164	4164	4372	4580
1204	CHP2014	CHP	b) Charges for assembly of compressor with new parts and checking	1	No	6246	6246	6558	6871
		CHP	Overhauling of locomotive Air compressor (Ingersoll rand make model 2545)						
1205	CHP2015	CHP	a) charges for dismantling the compressor.	1	No	4164	4164	4372	4580
1206	CHP2016	CHP	b) charges for assembling the air compressor with new parts and checking.	1	No	6246	6246	6558	6871
		CHP	Replacement of Liner, Piston Rings with Cylinder head.						
1207	CHP2017	CHP	a) charges for removing the silencer assembly, turbo charger, after cooler and lub oil cooler etc from engine.	1	No	4164	4164	4372	4580
1208	CHP2018	CHP	b)charges for removing the valve door, rocker housing and removing 02 No. cylinder head from Locomotive No:1.	1	No	7086	7086	7440	7795
1209	CHP2019	CHP	c).Charges for removing 01 No wornout liner, piston and piston rings with connecting rod and fixing the new or space liner , piston and piston rings etc.,	1	No	4164	4164	4372	4580
1210	CHP2020	CHP	d).Charges for fixing 1 No. Cylinder head on engine rocker housing and valve door etc.,	1	No	2434	2434	2556	2677
1211	CHP2021	CHP	e).Charges for fixing Turbo charger, after Cooler Silencer assembly and loco Commissioning etc.,	1	No	10568	10568	11096	11625
		CHP	Replacement of Traction Motor in BHEL Locomotive						
1212	CHP2022	CHP	I) Charges for dismantling the nose suspension arrangement to facilitate to remove the traction motor from locomotive by compressing the rubber sandwich unit by tightening the end bolts gradually and removing the nose suspension arrangement and re-fixing the same after overhauled traction motor fixing work.	1	No	18738	18738	19675	20612
1213	CHP2023	CHP	II. a) Charges for removing 2 Nos. of brake collar assemblies	1	No	3346	3346	3513	3681
1214	CHP2024	CHP	b) Charges for removing the traction motor bearing housing and guard cover releasing the servo coat 17OT compound.	1	No	5019	5019	5270	5521
1215	CHP2025	CHP	c) Charges for lifting the Locomotive on one side by using hydraulic jack and proper wooden packing to facilitate to remove the locomotive axle one side so as to release the traction motor from supporting bed.	1	No	10038	10038	10540	11042
1216	CHP2026	CHP	d) Charges for removing the both side fulcrum by removing pins and suspension spring guide and all supports with convertor by gas cutting if required.	1	No	6692	6692	7027	7361
1217	CHP2027	CHP	e. Charges for dismantling the terminal connections and duct boot and releasing the half round gun metal bush releasing the traction motor from wheel shaft and positioning the axle in the bogies, fixing the convertor etc. and releasing the supports from the bogie and resting the Locomotive in axle.	1	No	10856	10856	11399	11942
1218	CHP2028	CHP	III.a) Charges for lifting the Locomotive to the required height by using hydraulic jack with proper wooden packing and positioning to facilitate assemblies the rraction motor in the axle shaft of the Locomotive.	1	No	10038	10038	10540	11042
1219	CHP2029	CHP	b) Charges for fixing the half split bush bearing on the axle with traction motor, positioning the pinion with drive gear rubber pad and fixing the duct boot and terminal connections etc.,	1	No	16730	16730	17567	18403
1220	CHP2030	CHP	c) Charges for leading the axle with traction motor and positioning and resting the bogie on the axle convertor	1	No	10856	10856	11399	11942
1221	CHP2031	CHP	d). Charges for fixing the both side fulcrum suspension spring guide and all supports with convertor etc.	1	No	6692	6692	7027	7361
1222	CHP2032	CHP	e) Charges for fixing the traction motor housing and guard cover and applying servo coat 17T compound.	1	No	5019	5019	5270	5521
1223	CHP2033	CHP	f). Charges for fixing 2 nos. brake collars assemblies and releasing the hydraulic jack, wooden packing and Locomotive Commissioning etc.	1	No	6692	6692	7027	7361
		CHP	Replacement of Traction motor Pinion in BHEL Locomotive						

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1224	CHP2034	CHP	1. Charges for removing the lubrication compound sump cover and worn out pinion and cleaning of traction motor shaft.	1	No	1938	1938	2035	2132
1225	CHP2035	CHP	2. Charges for heating the pinion in oil path and fixing the pinion over the traction motor shaft and refittment of lubrication sump cover and load testing	1	No	3316	3316	3482	3648
		CHP	WAGON TIPPLER						
1226	CHP2036	CHP	Charges for supporting the wagon tippler in the front and rear side of Wagon Tippler at drive and non drive end frames by ISMB 450 X 150 mm, 350 x 140mm, 200 X 100mm channels, angles and packing of wooden sleepers to avoid swing of tippler platform and making stability and safety arrangements and after attending all works, dismantling of supporting arrangements after completion of work.	1	No	13156	13156	13814	14472
1227	CHP2037	CHP	Charges for checking the operation of the Wagon Tippler and alignment after completion of the works.	1	No	20820	20820	21861	22902
1228	CHP2038	CHP	I. Charges for dismantling the DE side end frame rack segments and placing on the wagon tippler floor.	2	Nos	7755	3878	4071	4265
1229	CHP2039	CHP	II. Charges for fixing of rack segments in DE & NDE on the end frame and refixing of bolts and nuts (The bolts & nuts M 30 X 120 mm HSFG will be supplied by board at free of cost).	2	Nos	11976	5988	6287	6587
		CHP	Replacement of Split spur wheel in Wagon Tippler						
1230	CHP2040	CHP	I. Charges for removal of top cover, bottom cover, single piece pillow block, cleaning of split spur wheel, and removal of split spur wheel from the drive shaft by splitting the two halves of the split spur wheel and lifting them to the Wagon Tippler floor from main shaft drive pit.	1	No	9198	9198	9658	10118
1231	CHP2041	CHP	II. Charges for mounting of split spur wheel in the drive shaft and checking the operation of the Wagon Tippler after completion of all works.	1	No	15020	15020	15771	16522
		CHP	Replacement of spur gear shaft in wagon tippler						
1232	CHP2042	CHP	I. Charges for removal of drive shaft from drive pit and also dismantling the drive side plummer blocks, removal of rack segment - 2Nos for easy removing and lifting drive shaft to Wagon Tippler floor (Crane will be supplied by the TANGEDCO at free of cost.)	1	No	15624	15624	16405	17186
1233	CHP2043	CHP	II. Charges for removal of Plummer block (near pinion) top & bottom fixing bolts & nuts, removing of rigid coupling bolts, removal of intermediate shaft near the drive shaft from the other intermediate shaft and dismantling the drive shaft.	1	No	17864	17864	18757	19650
1234	CHP2044	CHP	III. Charges for Lowering the spur gear shaft into the drive pit leading and positioning the shaft, lifting and matching the rigid coupling, fixing the single piece pillow block with shaft, assembling of split spur wheel and tightening. Fixing and tightening the pillow bocks top halves and base plate bolts, tightening of intermediate shaft rigid coupling bolts, elevation checking, checking centre line of shaft, both at axial and radial side by master level and correction if required, tightening the split spur wheel top and bottom fixing bolts, applying servo coat 140 grease, trial run checking, measuring the base plate movement by dial gauge and fixing top & bottom cover of split spur gear wheel.	1	No	44660	44660	46893	49126
		CHP	Replacement of intermediate shaft in wagon tippler						
1235	CHP2045	CHP	I. Charges for removal of Plummer block (near pinion) top & bottom fixing bolts & nuts, removing of rigid coupling bolts and intermediate shaft.	1	No	17864	17864	18757	19650
1236	CHP2046	CHP	II. Charges for fixing the intermediate shaft after positioning drive shaft, final pinion shaft and refixing the coupling, (other end) plummer blocks and rack segment – 4 Nos. and related assemblies, greasing and tightening all plummer blocks top and bottom halves, fixing bolts and tightening all rigid coupling bolts after putting HSFG bolts.	1	No	13398	13398	14068	14738
		CHP	Replacement of final pinion shaft in wagon tippler.						
1237	CHP2047	CHP	I. Charges for removal of final pinion shaft from drive pit and also dismantling the drive side plummer blocks, removal of rack segment - 2Nos for easy removing and lifting drive shaft to Wagon Tippler floor (Crane will be supplied by the TANGEDCO at free of cost.)	1	No	15624	15624	16405	17186

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1238	CHP2048	CHP	II. Charges for lowering the final pinion shaft into the drive pit leading and positioning the shaft, lifting and matching the rigid coupling, fixing the single piece pillow block with shaft, assembling with intermediate shaft. Fixing, tightening the pillow blocks top halves and base plate bolts, tightening of intermediate shaft rigid coupling bolts, elevation checking, checking centre line of shaft, both at axial and radial side by master level and correction if required, applying servo coat 140 grease, measuring the base plate movement by dial gauge etc.	1	No	35728	35728	37514	39301
		CHP	Replacement of worn out pivot shaft assembly and bearing plate inhaul end frame-1 set and out haul end frame – 1 set of the Wagon Tippler.						
1239	CHP2049	CHP	I. Charges for dismantling of pivot shaft and bearing plate.	1	No	51700	51700	54285	56870
1240	CHP2050	CHP	II. Charges for assembly of new pivot shaft with bearing plate.	1	No	80670	80670	84704	88737
		CHP	Replacement of pawl and pawl lever assembly in Wagon Tippler						
1241	CHP2051	CHP	I. Charges for dismantling the pawl and pawl lever assembly LH -1 set & RH -1 set and lifting and leading to the floor and inspection etc,. (1 set= 2Nos)	1	Sets	19644	19644	20626	21608
1242	CHP2052	CHP	II. Charges for assembling of pawl & pawl lever assembly LH -1 set & RH -1 set. (1set= 2 Nos)	1	Sets	23436	23436	24608	25780
		CHP	Replacement of table platform support and table alignment in wagon Tippler						
1243	CHP2053	CHP	I. Charges for dismantling of platform support bush, roller shaft, both LH- 1 set & RH-1 set and top locating blocks and bottom locating blocks etc.	2	Nos	4803	2402	2522	2642
1244	CHP2054	CHP	II. Charges for assembling of new platform support arrangement and top locating blocks and bottom locating blocks.	2	Nos	12580	6290	6605	6919
1245	CHP2055	CHP	III) Charges for alignment of wagon tipper table with end frame and wagon tippler table with weigh bridge and checking the paw lever engagement with top stop locking gear assembly and alignment etc.	1	No	13548	13548	14225	14903
1246	CHP2056	CHP	Charges for replacement of 1 set of collar bushes in Wagon Tippler including supporting and lifting of top stop arm by using hydraulic jack and removing and fixing of new bush and normalizing the top stop arm.	1	No	20570	20570	21599	22627
1247	CHP2057	CHP	Charges for inspection of main drive shaft bushes in Wagon Tippler including dismantling of both top and bottom of plummer block by using hydraulic jack and removing and fixing of bush with new one if necessary and also the normalizing after completion of work.	1	No	10052	10052	10555	11057
1248	CHP2058	CHP	Charges for removing of worn out side beam rubber blocks by removing the sheared blocks fixing bolt & nuts using spanner and cutting gas, cleaning, fixing new rubber blocks with new bolt & nuts with flat washer.	45	Nos	16080	357	375	393
1249	CHP2059	CHP	Charges for removing the worn out top stop arm rubber blocks, removing of worn out and sheared allen screws cleaning, tapping with arm body and fixing new allen screws in Wagon tippler (120 Nos/ tippler) and fixing of new rubber blocks.	6	Sets	17964	2994	3144	3293
1250	CHP2060	CHP	Charges for transporting the drive shaft with coupling & pinion and making arrangements for removing pinion in the tail end shaft in heavy duty 'H' column at PCR area, lifting and positioning in 'H' column, fixing 100 ton capacity hydraulic jack and by heating with 3 Nos oxy acetylene gas and applying 100 ton hydraulic jack load and removing of rigid coupling and spur pinion. (For lifting and lowering of the main drive shaft TANGEDCO crane will be provided at free of cost)	1	No	20592	20592	21622	22651
1251	CHP2061	CHP	Charges for transporting the drive shaft coupling & pinion, positioning the final pinion shaft on 'H' column at PCR area, fixing of pinion and coupling in the final pinion shaft by heating in hot oil bath, heating around one barrel of waste oil bath, lifting and shrink fitting, after cleaning of spur gear shaft.	1	No	17864	17864	18757	19650
1252	CHP2062	CHP	Charges for removal of head end hood of easy access of Apron Feeder chain links and refixing the same after completion of work.	1	No	4466	4466	4689	4913
1253	CHP2063	CHP	I. Charges for removing both side Apron feeder chain links and apron pan – 6Nos cleaning and assembling after completion of work.	1	No	3554	3554	3732	3909

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1254	CHP2064	CHP	III. Charges for removing of gear wheel from the head shaft assembly by using 100MT hydraulic jack after heating the gear wheel by gas using the fixture.	1	No	10756	10756	11294	11832
1255	CHP2065	CHP	I. Charges for removal of Top and bottom cover of open spur pinion for easy access of apron feeder Gear box and refixing the same after completion of work.	1	No	3346	3346	3513	3681
1256	CHP2066	CHP	II. Charges for decoupling of gear box on motor side (RMW 400) and dismantling the plumber block bed bolt and nuts, top cover also dismantling of gear box bed. bolts and nuts and its top cover from the bed lifting and placing on the apron feeder floor and refixing the same after completion of work.	1	No	5026	5026	5277	5529
1257	CHP2067	CHP	III. Charges for dismantling of open spur pinion shaft with gear box assembly and brought outside from the apron feeder floor and transporting the same to wagon ppler floor area and to remove the open spur pinion lock ring from the gear box shaft.	1	No	5170	5170	5429	5687
1258	CHP2068	CHP	IV.Charges for fixing the open spur pinion in the new gear box shaft and inspection of gear box KCN 400 by cleaning and fixing of new oil seals, gear box casing and oil view glass replacing and blue match checking of internal gears, back lash checking and assembling of gear box.	1	No	20550	20550	21578	22605
1259	CHP2069	CHP	V.Charges for alignment checking of motor ,gear box ,open spur pinion & open spur wheel in apron feeder including trail run checking.	1	No	5586	5586	5865	6145
1260	CHP2070	CHP	I. Charges for removing of 136 Nos. Apron Feeder pans by cutting the worn out / damaged bolts & nuts removing the pans from chain link after cleaning the chain link and water washing, brining to floor.	136	Nos	39102	288	302	316
1261	CHP2071	CHP	II. Charges for lowering and lifting of new pans from floor to chain link, mounting positioning and fixing of M16x100mm HSFG bolts & nuts with washer to the chain link and tag welding of all 8 Nos bolts & nuts per pan.	136	Nos	47950	353	370	388
1262	CHP2072	CHP	II. Charges for removing of Apron Feeder chain links (272 nos) from Apron Feeder and bringing out side the tunnel area from (-)7.693 mtr to ground level.	272	Nos	37026	136	143	150
1263	CHP2073	CHP	III. Charges for erection of Apron Feeder chain links (272 Nos/1 set) in head and tail shaft of Apron Feeder and checking the tightness of chain and making trial run successful commissioning.	272	Nos	35728	131	138	144
1264	CHP2074	CHP	I. Charges for removal of 1 set (66 Nos.) worn out flanged rollers by gas cutting the bolt & nuts and cleaning etc.	66	Nos	39102	592	622	652
1265	CHP2075	CHP	II. Charges for mounting of new/ reconditioned flanged rollers – 66 Nos in the I beam structure (Flanged roller fixing bolts & nuts will be supplied by Board at free of cost)	66	Nos	41216	624	656	687
1266	CHP2076	CHP	Charges for loosening chain link tension screw and tightening the tension screw and alignment checking after completion of work	1	No	4466	4466	4689	4913
1267	CHP2077	CHP	Charges for making plat form arrangements for dismantling and removal of head shaft assembly by using 250 X 125 X , 200 X 100 I beams channels , angles and cutting and removal of plat form arrangements from apron feeder at tunnel area and dismantling the platform arrangement after completion of work.	1	No	17190	17190	18050	18909
1268	CHP2078	CHP	I. Charges for dismantling of head shaft assembly and brought out side from the Apron Feeder floor and transporting the same to PCR area, where the fixture is available to remove the gear wheel from the head shaft assembly.	1	No	16566	16566	17394	18223
1269	CHP2079	CHP	III. Charges for releasing of head shaft bearings one by one and inspecting and assembling if it is required to be replaced by new one.	1	No	4466	4466	4689	4913
1270	CHP2080	CHP	IV. Charges for heating the gear wheel in the hot oil bath fixing the same over the head shaft assembly.	1	No	6706	6706	7041	7377
1271	CHP2081	CHP	V. Charges for erection of head shaft assembly with gear wheel in the Apron Feeder after shifting from the fixture near PCR area.	1	No	15078	15078	15832	16586
1272	CHP2082	CHP	I. Charges for dismantling of tail shaft assembly and brought out side from the Apron Feeder floor and transporting the same from Apron Feeder tunnel area to Wagon Tippler top floor.	1	No	16566	16566	17394	18223
1273	CHP2083	CHP	II. Charges for erection of replaced tail shaft assembly with bearing blocks in the Apron Feeder tail shaft assembly.	1	No	13398	13398	14068	14738
1274	CHP2084	CHP	I. Charges for dismantling of apron feeder gear box KCN 400 from the bed and lifting to Wagon Tippler floor by using chain pulley block/electrical hoist	1	No	11115	11115	11671	12227
1275	CHP2085	CHP	II. Charges for erection of Apron feeder KCN400 gear box after over hauling by lowering the gear box from Wagon Tippler to gear box bed.	1	No	11172	11172	11731	12289

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1276	CHP2086	CHP	I. Charges for decoupling of WT gear box KCN 400 and lifting to ground floor area by using chain pulley blocks /electrical hoist.	1	No	6706	6706	7041	7377
1277	CHP2087	CHP	II. Charges for erection of WT gear box KCN 400 and alignment checking for motor with gear box and drive shaft with gear box.	1	No	10491	10491	11016	11540
1278	CHP2088	CHP	Charges for dismantling of 50 Nos. / set dust suppression nozzles in Wagon tippler hopper and brought out side from hopper and cleaning the nozzles, jet, filter using water jet and assembling of jet, filter with nozzle body, assembling the nozzles with dust suppression nipples in wagon tippler hopper and dust suppression tower.	50	Nos	2498	50	52	55
1279	CHP2089	CHP	Charges for removal of skirt board, cutting and removal of torn out belt of size 2000 mmx 30mtr from Dribble Conveyor leading, lifting the belt scrap from tunnel area to 'O'mtr, Ground floor and devaluating to Central stores/MTPS-I. Cutting & removal of 32 mtrs. belt from belt roll leading, lowering to the Dribble Conveyor-I tunnel working area. Adjusting the tension screw, position the pulley, laying new conveyor belt of size 2000mm width x 32 mtrs length in Dribble Conveyor of Apron Feeder Clamping the belt, arranging platform,& assistance for making 1 No cold vulcanizing joint. After completion of belt joint removing belt clamp, fixing skirt board, adjusting the tension screw for tension the belt and trail run the in Dribble Conveyor.	1	Nos	37770	37770	39659	41547
1280	CHP2090	CHP	I. Charges for dismantling of 1 No. return roller assembly from Apron feeder structure by dismantling 2 Nos. pillow block assembly, cutting and removal of skirt boards to the required size and lifting of chain links with pans by using 3 Tonne chain pulley blocks and electrical hoist for easy removal of return roller assembly, lowering and placing the same at apron feeder floor (- 9 mtr tunnel area).	1	No	5314	5314	5580	5845
1281	CHP2091	CHP	II. Charges for inspection, releasing, cleaning, mounting and checking of 1 No. Apron feeder return roller bearings.	16	Nos	25932	1621	1702	1783
1282	CHP2092	CHP	III. Charges for leading and lifting the return roller shaft assembly by using electrical hoist and chain pulley blocks from Apron feeder floor (-9 mtr tunnel area) to wagon tippler floor, and lowering reconditioned return roller / new assemblies and placing in Apron feeder floor.	1	No	1544	1544	1621	1698
1283	CHP2093	CHP	IV. Charges for assembling of reconditioned return roller / new assembly in Apron feeder structure with 2 Nos. pillow blocks assembly and fabrication & erection of skirt board (already removed) in Apron feeder at -9 mtr tunnel area and lowering the chain links with pans on the rollers alignment checking and conducting trial run of apron feeder	1	No	7956	7956	8354	8752
1284	CHP2094	CHP	I. Charges for removing, lifting to ground floor, dismantling for overhauling assembling of sump pump, lowering down the sump pump to tunnel area, erection, alignment checking and successful commissioning and trial run.	1	No	5026	5026	5277	5529
1285	CHP2095	CHP	Charges for dismantling of sump pump, inspection, and cleaning of pump, removing of worn out bearing, collar impeller gland, shaft sleeve, gun metal bush, coupling sleeve set and other damaged parts etc.	1	No	7539	7539	7916	8293
1286	CHP2096	CHP	Charges for dismantling overhauling of 3 Ton capacity chain pulley blocks including replacement of spares during overhauling such as ratchet, bearings, spring lock, teeth profile sector etc. and any other connected works and commissioning as per the direction of Engineer in charge.	1	No	4183	4183	4392	4601
1287	CHP2097	CHP	Charges for dismantling & overhauling of 1 Ton capacity chain pulley blocks including replacement of spares during overhauling such as ratchet, bearings, spring lock, teeth profile sector etc and other connected works and commissioning as per the direction of Engineer in charge.	1	No	2510	2510	2635	2760
1288	CHP2098	CHP	Charges for overhauling of electrical hoist 3 tonnes capacity 2 Nos. located of Apron feeder entrance including replacement of spares like springs, cotter pin, lock nut, bolt & nut, washer etc., and any other connected works and commissioning as per the direction of Engineer in charge.	1	No	8365	8365	8783	9202
		CHP	PRIMARY CRUSHER A & B						
1289	CHP2099	CHP	Labour charges to close the Primary Crusher hopper bottom area at conveyor tail end by using channel, angles, plates etc. for safe working environment and dismantling, normalizing after completion of Primary Crusher spares replacement work.	1	No	21414	21414	22485	23555

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1290	CHP2100	CHP	Labour charges for dismantling the Primary Crusher floor side sheet, support angle etc. according to the erection convenience and erect the structural arrangement for fitting the 2 Nos., 25T capacity chain block for erection of new Primary Crusher spares and for unloading the released Primary Crusher spares to the ground floor and normalizing it after complet in of erection.	1	No	109272	109272	114736	120199
1291	CHP2101	CHP	Labour charges for dismantling the Primary Crusher side, top, end cover plate, refuse chute, chain covers etc. leading, lifting, lowering to the Primary Crusher floor etc.	1	No	57090	57090	59945	62799
1292	CHP2102	CHP	Labour charges for removal of drive chain and gear box after decoupling the motor and fluid coupling.	1	No	29960	29960	31458	32956
1293	CHP2103	CHP	Labour charges for removal of 1No screen plate/ lifting shelf/ deflector plates after cutting and removal of fasteners, leading, lowering and stacking in the ground floor. (Lorry & Crane will be supplied by Board at free of cost).	229	Nos	164448	718	754	790
1294	CHP2104	CHP	Labour charges for erection of 1No screen plate/ lifting shelf/ deflector plates in Primary Crusher using fasteners M24 bolts of various sizes including leading, lifting from ground floor and preparing, positioning with the rail beam and tightening.	229	Nos	464478	2028	2130	2231
1295	CHP2105	CHP	Labour charges for removal of support wheel from the bed and dismantling its assembly cleaning and storing useful spares in the section store.	4	Nos	31884	7971	8370	8768
1296	CHP2106	CHP	Labour charges for fitting the support wheel assembly on the bed, including lifting, measuring, checking, preparing and assembling spares, positioning on bed, checking its alignment etc.	4	Nos	60221	15055	15808	16561
1297	CHP2107	CHP	Labour charges for supporting the spider cone 2 Nos. and dismantling 18 Nos. rail beams, lowering and stacking the rail beam in the ground floor dismantling feed end spider, discharge end spider and lowering the discharge end spider cone into the ground floor including fabrication of necessary supports required. (Lorry will be supplied by Board at free of cost).	1	No	149190	149190	156650	164109
1298	CHP2108	CHP	Labour charges for checking, measuring, cleaning and surface preparation of 2 Nos. spider cones. Lifting 18 Nos. rail beams to the Primary Crusher floor one by one. (Lorry and Crane will be supplied by Board at free of cost)	1	No	107070	107070	112424	117777
1299	CHP2109	CHP	Labour charges for lifting the discharge end spider cone/ feed end spider cone from the ground floor to the Primary Crusher floor, moving near to the Primary Crusher bed area with necessary supports etc. including the hire charges for higher capacity crane, special tools and plants etc.	1	No	45282	45282	47546	49810
1300	CHP2110	CHP	Labour charges for lifting, positioning discharge end spider cone/ feed end spider cone on the support wheel and providing temporary supports to the spider cones, lifting, positioning, alignment checking and assembling the rail beams with the spider cones using M36x180mm bolts and nuts one by one. After normalizing removing the temporary support and checking the float etc.	1	No	228220	228220	239631	251042
1301	CHP2111	CHP	Labour charges for assembling the sprocket wheel on gearbox output shaft, new fluid coupling on gearbox input shaft. Lifting and positioning on the bed, checking and carrying out alignment with motor and Primary Crusher by adding or removing shims, cleaning and lifting the drive chain and positioning on the drive and driven sprocket and to link with the gear box. (Lorry and Crane will be spared by Board at free of cost)	1	No	213000	213000	223650	234300
1302	CHP2112	CHP	Labour charges for checking and correcting the crusher alignment, balancing, float adjusting etc. and to provide 2 Nos. guide roller to the Primary Crusher tyres.	1	No	186280	186280	195594	204908
1303	CHP2113	CHP	Labour charges for fitting the side, top & end cover plates, chain covers, refuse chute etc. including lifting from ground floor, reconditioning the damaged MS plates, positioning, fitting the cover plate using new bolts and nuts etc. providing gasket around the crusher ends.	1	No	205398	205398	215668	225938
1304	CHP2114	CHP	Labour charges for loosening & removing the 1 No check nut & tightening of entire M36 X 180 mm HTFG bolts & nuts by using torque wrench. Replace the damaged bolts & nuts. Fixing & tightening the castle nuts of PCR.	72	Nos	8932	124	130	136
1305	CHP2115	CHP	b) Labour charges for loosening and removing 1 No self locking nuts checking and tightening of screen plates connecting bolts & nuts of size M 24 by torque wrench. Re-fixing the self lock nut and normalizing PCR.	1080	Nos	13384	12	13	14

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1306	CHP2116	CHP	Labour charges for inspecting and aligning the support wheel position and contact surface of support wheel with spider cone tire by adjusting the bed bolts of support wheels and lock bolts. Conducting trail run of PCR.	1	No	3346	3346	3513	3681
1307	CHP2117	CHP	Labour charges for dismantling 1 No rail beam, lowering and stacking the rail beam in the ground floor. (Lorry will be supplied by Board at free of cost)	18	Nos	119352	6631	6962	7294
1308	CHP2118	CHP	Labour charges for preparation, lifting, positioning and assembling 1 No rail beam with the spider cones using M36x180mm bolts and nuts.	18	Nos	165680	9204	9665	10125
		CHP	CONVEYORS						
1309	CHP2119	CHP	Charges for removing the existing fixed type carrying idler / Impact idler from the stand, transporting the new idler from pocket store to conveyors and assembling new idler of size 159.3 mm dia x 530, 193.7 mm dia x 530mm, 159.3 mm dia x 600mm and 193.7mm dia x 600mm.	15	Nos	1938	129	136	142
1310	CHP2120	CHP	Charges for removing the existing return idler of size 159.3 dia x 800, 159.3 dia x 900, 159.3 dia x 1600 mm, 159.3 dia x 2000mm long from the stand, transporting the new idler from pocket store to conveyors assembling new idlers.	10	Sets	2010	201	211	221
1311	CHP2121	CHP	Charges for removing the damaged carrying / self aligning / impact idler frames and fixing new idler frames in the conveyor structure by positioning and erecting the same in an appropriate place and aligning the conveyor belt.	1	No	1321	1321	1387	1453
1312	CHP2122	CHP	Charges for unloading counter weight from counter weight box arranging chain block and belt clamps, lifting counter weight box to the required level and after completion of belt joint work, releasing the counter weight box loading the counter weight in all conveyors	1	No	8258	8258	8671	9084
1313	CHP2123	CHP	Charges for removing the carrying idlers and return idlers, clamping the belt on conveyor bottom side - 2 sets and top side - 2 sets to arrest the belt and removing the clamps on conveyor top and bottom side after completion of work.	1	No	5113	5113	5369	5624
1314	CHP2124	CHP	Charges for assisting for carrying out one number cold vulcanizing joint in 1400mm width conveyor belt which includes removing of idlers from the idler stand, idler frame of above 15 nos. cutting and removal of worn out/damaged joint and excess elongated belt, pulling by using steel wire rope positioning the belt arranging platform and after completion of cold vulcanizing, releasing belt clamp, fixing idlers, idler frame and assisting for trial run of the conveyor.	1	No	13443	13443	14115	14787
1315	CHP2125	CHP	Charges for transporting and positioning of new 1400mm conveyor belt drum near junction towers arranging pulleys, cutting & removal of worn out damaged belt from 1400mm width conveyor, releasing the belt from drum including lead lift, laying and tensioning the conveyor belt etc. rolling the released worn out/damaged belt, devoluting the belt scrap to central stores/MTPS.	100	M	24100	241	253	265
1316	CHP2126	CHP	Replacement of 1800mm width conveyor belt work in belt feeders a) Charges for dismantling Belt Feeder pulley hood, skirt board, cutting removal of wornout /damaged belt. Removing idler, idler frame. Adjusting the tension screw and position the tail pulley. Cutting removal of 1800mm width new conveyor belt from roll, transporting, leading, lowering to Belt Feeder tunnel floor. Removing belt scrap from tunnel area and devoluting to Central Stores/MTPS.	1	No	17235	17235	18097	18959
1317	CHP2127	CHP	b) Charges for laying new belt on Belt Feeder.Clamping the belt. Assistance for making 1 No. cold vulcanizing joint. After completion of work releasing belt clamps fixing idler, idler frames, skirt board, pulley hood etc., adjusting the belt tension and trial run of the Belt Feeder.	1	No	15339	15339	16106	16873
1318	CHP2128	CHP	For 2000mm width conveyor belt work in tunnel area for dribble conveyor 1,2,3,4 a). Charges for removal of skirt board, cutting removal of wornout belt of size 2000mm x 30mtr from dribble conveyor, leading, lifting the belt scrap from tunnel area to 'O' mtr. ground floor and devoluting to Central Stores/MTPS. From 2000mm width belt roll cutting removal of 30 mtr belt, leading lowering to the dribble Conveyor tunnel working area.	1	No	16804	16804	17644	18484

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1319	CHP2129	CHP	b). Charges for Adjusting the tension screw, position the pulley, laying new Conveyor belt of size 2000mm width x 30 mtr length in Dribble Conveyor of Apron Feeder. Clamping the belt. Arranging plat form. Assistance for making 1 No. cold vulcanizing joint. After completion of belt joint removing belt clamp, fixing skirt board, adjusting the tension screw, tensing the belt and trial run the dribble Conveyor.	1	No	25206	25206	26466	27727
1320	CHP2130	CHP	Charges for decoupling the slow speed coupling from gear box to head pulley and removal of flexible rubber elements and assembling the coupling after completion of belt joint work (damaged flexible rubber element has to be replaced by new one) and all bolts tightening checking etc.	1	No	4724	4724	4960	5196
1321	CHP2131	CHP	Charges for complete loosening the belt feeder tensioning device for loosen the belt and lifting the non drive pulley by using chain pulley block and wire rope along the two piece pillow block dismantling of tensioning device for attending repair work at work spot or replacement of new belt tensioning device in position erection of pulley along with two piece pillow block positioning and tightening on all belt feeders.	1	No	7812	7812	8203	8593
1322	CHP2132	CHP	Charges for positioning the belt ends arranging platform and clamps, assistance for making 1 No. cold vulcanizing joint in 1400mm width conveyor belt on ground floor.	1	No	5056	5056	5309	5562
1323	CHP2133	CHP	Replacement of SBN 250 gear box a). Labour charges for drawal of new gear box SBN 250 from central stores, transporting, unloading at new location and lifting to conveyor head end floor (Lorry and crane will be supplied by Board at free of cost).	1	No	2585	2585	2714	2844
1324	CHP2134	CHP	b). Labour charges for de-coupling conveyors gear box from head pulley, coupling, dismantling and removing LT motor bed bolt, lifting and lowering the LT motor along with fluid coupling from motor bed, removing brake assembly, draining oil from gear box, arranging chain block, removing gear box lowering on the floor, using heavy duty jack removing brake drum	1	No	6806	6806	7146	7487
1325	CHP2135	CHP	c). Labour charges for arranging supporting plates and jacking assembly, positioning 100 tonnes hydraulic jack on the fixture, heating the slow speed coupling fitted with the final reduction gear shaft using 2 nos. gas cutting torch using hydraulic jack removing the coupling from shaft removing fixture plate and hydraulic jack.	1	No	10038	10038	10540	11042
1326	CHP2136	CHP	d). Labour charges for measuring and preparing new shaft, positioning and tightening fixture plates, arranging tank and waste oil available at site heating the released coupling in oil bath to the required temperature lifting positioning and shrink fitting the coupling with new shaft, normalizing the fixture. After cooling draining the oil and storing in barrel cleaning storing the oil tank.	1	No	6692	6692	7027	7361
1327	CHP2137	CHP	e). Labour charges for removing brake shoe 2 nos., from brake assembly, assembling the new brake shoe in the brake assembly (removal of bearings on both ends removal of grease control rings from the head pulley shaft, putting the above rings on the head pulley shaft after proper cleaning	1	No	4164	4164	4372	4580
1328	CHP2138	CHP	f). Labour charges for cleaning and assembling new gear box SBN 250 in position, arranging chain blocks, lifting positioning the new gear box SBN 250 in conveyor bed fixing RMT 2500 rubber element in slow speed flexible coupling, using dial gauge, feeler gauge and shims, checking & correcting the alignment of new gear box output shaft and conveyor head pulley shaft tightening the gear box bed bolt and gear box output shaft and head pulley connecting coupling bolt, lifting and positioning, tightening the brake assembly on bed making brake shoe arrangement for uniform contact filling gear box oil to the gear box assisting for trial run.	1	No	13384	13384	14053	14722
1329	CHP2139	CHP	Overhauling of SBN 250 gear box a). Labour charges for Un-loading of released SBN 250 gear box from conveyor head end floor and dismantling the gear box, internals and cleaning of internals and gears and scrapping the parting plane using scrapper.	1	No	13384	13384	14053	14722
1330	CHP2140	CHP	b). Labour charges for assembling of all internal and gears, fixing new oil seals, painting the gear box and devoluting the overhauled gear box to the central stores to keep it as spare .	1	No	13384	13384	14053	14722

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1331	CHP2141	CHP	Replacement of KCN 400 / 450 / 500 / SBN 400 / SCN 315 gear box (a) Charges for decoupling gear box from head pulley slow speed coupling, removing RMT flexible element, and brake assembly from bed. Drain oil from gear box, removing gear box bed bolt, removing the cooling fan cover from input shaft, leading and lifting the gear box from the bed	1	No	12492	12492	13117	13741
1332	CHP2142	CHP	(b) Charges for arranging supporting plates of fixture to the required position. Providing 50Tonne hydraulic jack on the fixture and tighten its bolt and nuts, heating the slow speed coupling fitted with the output gear shaft assembly by using 3 nos. gas cutting torch and removing the coupling from the damaged gear box out put shaft. Remove the fixture plate, hydraulic jack and coupling from the fixture etc.	1	No	21712	21712	22798	23883
1333	CHP2143	CHP	(c) Charges for measuring and preparing output shaft, transporting of waste oil about 1 barrel available at site heating the released slow speed coupling in oil bath by fire wood to the required temperature, lifting, positioning and shrink fitting the coupling with spare gear box shaft. After cooling of waste oil stored in drums and kept inside the site.	1	No	9448	9448	9920	10393
1334	CHP2144	CHP	(d)Charges for arranging supporting plates of fixture to the required position providing 50 Tonne hydraulic jack on the fixture and tighten its bolt and nuts heating the brake drum fitted with the input gear shaft assembly by using 3 nos. gas cutting torch & hydraulic jack removing the brake drum from the damaged gear box input shaft. Remove the fixture plate, hydraulic jack and brake drum from the fixture etc.	1	No	9198	9198	9658	10118
1335	CHP2145	CHP	(e) Charges for removing brake shoe 2 nos. from brake assembly, removing worn out liner from the shoe, marking, cutting and drilling new liner. Fixing & riveting the new liner with shoe assembly and lead the existing brake drum to ground floor, taking it to the MTPS site workshop and machining the outer dia of drum for uniform surface in order to removal of scorings if necessary. Assemble the shoe with the brake drum assembly.	1	No	12120	12120	12726	13332
1336	CHP2146	CHP	(f) Charges for measuring and preparing input shaft, transporting of waste oil about 1 barrel available at site heating the released brake drum/new brake drum in oil bath by fire wood to the required temperature lifting, positioning and shrink fit the brake drum with the spare gear box input shaft. After cooling the waste oil store in drums and keep inside the site.	1	No	9448	9448	9920	10393
1337	CHP2147	CHP	(g) Charges for arranging the chain block, leading, lifting the spare gear box after assembling the slow speed coupling on output shaft and brake drum on input shaft of the spare gear box and positioning the overhauled gear box on the bed, filling SP 320 oil to the required level.	1	No	13384	13384	14053	14722
1338	CHP2148	CHP	Overhauling of KCN 400 / 450 / 500 / SBN 400 / SCN 315 gear box a) Charges for draining the contaminated oil from defective gear box, opening the top cover of the gear box by removing the bolt & nuts, dismantling the internal from the gear box	1	No	11094	11094	11649	12203
1339	CHP2149	CHP	b) Charges for cleaning the (spiral bevel input pinion, spiral bevel wheel and it is bearing & oil seals) dismantling the input assembly, removing the input bearing by using special type of puller inspecting the spiral bevel input pinion, spiral bevel wheel input bearing and oil seal, replacing if required.	1	No	14792	14792	15532	16271
1340	CHP2150	CHP	c) Charges for cleaning the 1 st intermediate pinion,2nd intermediate wheel,2nd intermediate pinion inspecting the 1 st intermediate pinion,2nd intermediate wheel,2nd intermediate pinion.	1	No	13384	13384	14053	14722
1341	CHP2151	CHP	d) Charges for dismantling of output shaft, output wheel and its bearings & oil seal by using special type of puller and inspecting output shaft, output wheel and its bearings & oil seal Replacing if required.	1	No	16200	16200	17010	17820
1342	CHP2152	CHP	e) Charges for assembling spiral bevel input pinion & wheel,1st & 2nd intermediate shaft & wheel and output shaft & wheel in the gear box casing.	1	No	18152	18152	19060	19967
1343	CHP2153	CHP	f) Charges for setting the gear back lash, fixing the top cover of the gear box after applying the anabond, tightening the bolt & nuts with proper gasket, filling gearbox oil upto the required level.	1	No	15624	15624	16405	17186

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1344	CHP2154	CHP	Replacement of SMWR 12 / 14"/KBH 225/BDAH200/KEA200/KZAU180 TYPE gear box a. Labour charges for drawal of spare gear box SMWR 12/14" from central store and unloading near location and lifting the same to the BFD floor. Lorry and crane will be supplied by board at free of cost	1	No	5170	5170	5429	5687
1345	CHP2155	CHP	b. Preparation of new gear box SMWR 14" by dismantling, inspection, cleaning and preparation for erection of the new gear box before assembling in the position	1	No	1321	1321	1387	1453
1346	CHP2156	CHP	c. Dismantling the old gear box assembly SMWR 14". It includes decoupling the gear box from motor and removing the gear box.	1	No	5026	5026	5277	5529
1347	CHP2157	CHP	d. Assembling the gear box in position and alignment work which includes assembling the gear box in the bed, mounting the coupling in position and alignment with the motor.	1	No	10227	10227	10738	11250
1348	CHP2158	CHP	Overhauling of retrieved gear box SMWR 12/14"/KBH 225/BDAH200/KEA200/KZAU180 TYPE gear box. This work includes dismantling the gear box, inspection of gear box internals, bearings & oil seals etc. cleaning and re-assembling.	1	No	15510	15510	16286	17061
1349	CHP2159	CHP	Replacement of damaged pulley with proper alignment in conveyor a) Charges for removal of the damaged gravity main pulley from its position in the take up tower area of conveyor by dismantling the plummer blocks, placing on conveyor floor.	1	No	17864	17864	18757	19650
1350	CHP2160	CHP	b). Charges for arranging chain block at gravity main pulley, lifting the pulley, removing the bearing, sleeve, plummer blocks, preparing and assembling bearing, sleeve in the new pulley, greasing, checking up for free rotation etc. and normalizing the pulley in conveyor.	1	No	6692	6692	7027	7361
1351	CHP2161	CHP	c). Charges for erection of new gravity main pulley in its position in the take up tower area with proper alignment in the plummer blocks.	1	No	22330	22330	23447	24563
		CHP	Reconditioning of worn-out pulleys						
1352	CHP2162	CHP	a) Charges for loading & transporting pulley from Central stores/ MTPS to private work shop for reconditioning and transporting back the finished pulley and retrieved scraps to CS / MTPS	1	No	2528	2528	2654	2781
		CHP	Replacement of shell & end plates						
1353	CHP2163	CHP	b) Charges for cutting and removal of worn out outer shell and end plates 2 Nos from the pulley by using cutting gas without damaging the shaft and hub	1	No	10410	10410	10931	11451
1354	CHP2164	CHP	c) Charges for sizing of new MS plate by cutting machine and rolling to the required size. Cutting & sizing the end plates 2 Nos.	1	No	19370	19370	20339	21307
1355	CHP2165	CHP	d) Charges for preparation of end plates (i.e) 'V' groove taking by grinding and inserting the new end plates and shaft into shell without any damage (or) distortion to the end plate (or) shaft and welding the shell with the end plates, with shaft hub	1	No	20820	20820	21861	22902
1356	CHP2166	CHP	e) Charges for fabrication of reinforcement frame by using 16 mm thick M.S. plate and 75 x 40 M.S. channels to provide centre of the pulley. Machine the frame on both inner and outer side to position the same on outer dia of shaft and inner dia of shell. Fitting and welding the frame on inside the pulley	1	No	17983	17983	18882	19781
1357	CHP2167	CHP	f) Charges for fabricating a fixture to hold the pulley for turning works on the lathe	1	No	14604	14604	15334	16064
1358	CHP2168	CHP	g) Charges for turning the shell width and machining to required dimension on the lathe	1	No	27550	27550	28928	30305
1359	CHP2169	CHP	h) Charges for static balancing of pulley and static balancing to be carried out in presence of Board Engineer.	1	No	2082	2082	2186	2290
		CHP	Reconditioning of bearing seating area in pulley shaft						
1360	CHP2170	CHP	Charges for loading the pulley on lathe, machining and preparing the worn out shaft to reduce the bearing dia 5 mm for welding penetration on both ends. Weld the machined shaft area by supprathreme welding electrode on both sides	1	No	17622	17622	18503	19384
1361	CHP2171	CHP	Charges for loading the pulley on lathe after completion of welding work, machining the shaft of the pulley to bearing dia on both ends	1	No	15414	15414	16185	16955
1362	CHP2172	CHP	Charges for replacing the existing oil leakage/damaged fluid coupling in conveyor with a spare fluid coupling(including alignment)	1	No	37608	37608	39488	41369
1363	CHP2173	CHP	a. Charges for dismantling the fluid coupling, removal of bearing oil seal impeller etc inspection and cleaning the internals	1	No	5314	5314	5580	5845
1364	CHP2174	CHP	b.Charges for assembling the fluid coupling, removal of bearing(new/old impeller)	1	No	5874	5874	6168	6461

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1365	CHP2175	CHP	Charges for dismantling the DSS pump, checking and correcting the shaft trueness and checking wearing ring clearance and machining if required, assembling the pump with impeller, diffuser and stage body and renewal of bearing, gland rope and gasket etc. and alignment of the pump with motor and conducting trial run and commissioning.	1	No	11600	11600	12180	12760
1366	CHP2176	CHP	Charges for dismantling head pulley plummer block by cleaning inspecting the plummer block, shaft, bearing, sleeve and checking the tightness. Assembling the plummer block and greasing.	1	No	11144	11144	11701	12258
1367	CHP2177	CHP	Charges for dismantling plummer block of bend pulley/gravity main pulley/tail pulley. Cleaning & inspecting the plummer block, shaft, bearing, sleeve and checking the tightness, assembling plummer block and greasing.	1	No	8358	8358	8776	9194
1368	CHP2178	CHP	Charges for arranging scaffolding for cutting and removal of worn out layers of S.S. liner plates/ CCC wear resistant plates and MS mother plates in inner / outer of discharge chutes.	1	Time	3232	3232	3394	3555
1369	CHP2179	CHP	Charges for cutting and removal of existing supports, bolts & nuts of flange joints, MS mother plates, S.S liner plate / CCC liner plates. Lifting and unloading the eroded chute plates. Cutting the M.S. & liner plates separately and devoluting to central Stores.	3.5	M²	29584	8453	8875	9298
1370	CHP2180	CHP	Charges for fabrication, cutting, marking & drilling flange from 8mm thick MS plate, marking & cutting of 10 mm thick MS mother plate, marking & cutting of SS liner plates, edge grinding, setting & welding of flange angles and liner plates with MS mother plate	3.5	M²	45530	13009	13659	14309
1371	CHP2181	CHP	Charges for loading, leading, lifting & positioning the fabricated chute on position. Fitting and fixing bolts & nuts on top & bottom side of chute plate. Fitting & welding the chute plates and resuming the system.	3.5	M²	23526	6722	7058	7394
1372	CHP2182	CHP	Charges for removing the existing garland idlers sets from the stand, transporting, loading the new reconditioned idlers to the conveyor 17/ Conveyor 13 stretch, removing U clamp, pin and plates and assembling the new reconditioned idlers as set and re-fixing the new assembled set in the appropriate place in conveyor 17/ Conveyor 13 and transporting the defective worn out idlers from coal yard to the specified location as directed by the Engineer in-charge (idler fixing pins, plates and U clamp will be provided by TANGEDCO at free of cost). Open yard conveyors (for a whole Idler)	15	No	2290	153	160	168
1373	CHP2183	CHP	Charges for unloading of counter weights from counter weight box(40 Tons), arranging chain block, belt clamps, lifting counter weight box to the required level and after completion of pulley replacement work, releasing the counter weight box, loading the counter weight pieces in the box in conveyors 13 & 17. This includes special T&P and consumables etc.	1	No	12868	12868	13511	14155
1374	CHP2184	CHP	Charges for loosening and smantling the worn-out screw take up device in the intermediate / boom conveyor and assembling the new screw take up device in an appropriate manner in the conveyor structure and aligning etc including the transporting the new take up device to the work spot and devolution of the released one in SCR Machine etc.	1	No	5170	5170	5429	5687
1375	CHP2185	CHP	Charges for renewal of the damaged impact table chute idler stands with idler size 183 dia x 530 mm long rubber idlers and fixing the new idler stand in the centre Chute of SCR machine and fixing the rubber idlers in the idler stand in an appropriate manner and aligning etc.	1	No	3460	3460	3633	3806
		CHP	OVERHAULING OF BUCKETWHEEL GEAR BOX FOR SCR MACHINES MAKE;DORSTENER TYPE:AKVP 75/320 RATIO: 1 : 175.26						
1376	CHP2186	CHP	a. Labour charges for providing platform to dismantle the motor, fluid coupling, circulation pump, gear box and Plummer blocks and removing the platform after assembling.	1	No	7842	7842	8234	8626

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1377	CHP2187	CHP	b. Labour charges for disconnecting the motor, removing the fluid couplings, brake unit gear wheel, pump, filter unit and assembling after completion of overhauling works.	1	No	15510	15510	16286	17061
1378	CHP2188	CHP	c. Labour charges for dismantling the circulation pump and filter unit, cleaning, overhauling, inspection and reassembling.	1	No	10491	10491	11016	11540
1379	CHP2189	CHP	d. Labour charges for providing chain block fixing supports in order to dismantling and handling the gear box.	1	No	7842	7842	8234	8626
1380	CHP2190	CHP	e. Labour charges for dismantling the gear box part by part after providing necessary support to the bucket wheel assembly, cleaning the parts, inspection and dimension checking of internals.	1	No	27610	27610	28991	30371
1381	CHP2191	CHP	f. Labour charges for assembling the gear box after checking float, clearance, blue matching of gear box.	1	No	24328	24328	25544	26761
1382	CHP2192	CHP	g. Labour charges for alignment setting between motor and gear box etc.	1	No	13398	13398	14068	14738
		CHP	Secondary crusher house						
1383	CHP2193	CHP	Charges for cleaning of spillage coal from roller screen A1, B1 & B2, secondary crusher A1,A2,B1 & B2, belt feeders and all floors of Secondary crusher house complete.	1950	M ²	3919	2	2	2
1384	CHP2194	CHP	Charges for opening the man hole door of secondary crusher and releasing the iron pieces, foreign materials and coir gunny bags from secondary crusher A1,A2,B1 & B2 and closing door, tightening all the bolts & nuts of secondary crusher A1/A2/B1/B2.	1	No	2434	2434	2556	2677
1385	CHP2195	CHP	Charges for greasing of secondary crushers A1,A2,B1&B2 plummer block and pillow block bearings, belt feeders 7A1,7A2,7B1,7B2 & 13A2 plummer block bearings, Roller screen A1,B1&B2 driveshaft and roller shaft bearings and DXT 13 & 14 bearings.	1	No	6692	6692	7027	7361
1386	CHP2196	CHP	Charges for opening the top cover of secondary crusher, after removing the floor cover of roller screen, DXT pipe line bend, checking and tightness of all the bolts & nuts, inspection of all the internal parts and hammer rings, closing the top cover, floor cover, DXT pipe bend and conducting trial run in secondary crusher A1/A2/B1/B2.	1	No	5988	5988	6287	6587
1387	CHP2197	CHP	Charges for by-passing (removal of 5 nos. roller shaft) in RS A1/B1/B2 after the dismantling of top cover & side cover 2 nos. top gear casing and refixing the same.	1	No	9448	9448	9920	10393
1388	CHP2198	CHP	Charges for by-pass closing (assembling of 5 nos. roller shaft) after the dismantling of top & side cover in Roller screen A1/B1/B2.	1	No	9448	9448	9920	10393
1389	CHP2199	CHP	a) Charges for dismantling and lowering the electrical hoist from RS joint to roller screen floor, dismantling its gear box needle bearing, rope guide, rope drum, intermediate shaft coupling, motor etc cleaning and overhauling the hoist.	4	No	14172	3543	3720	3897
1390	CHP2200	CHP	b) Charges for assembling and refixing the gear with flange, bearings, rope drum, rope guide, couplings shafts etc complete and conducting trial run in the electrical hoist at secondary crusher house.	4	No	9448	2362	2480	2598
1391	CHP2201	CHP	Charges for dismantling of DXT pipe flanges of various sizes of dia from 115 cm to 180 cm at various elevations in A and B stream of Secondary Crusher house and cleaning the choke manually by using the man holes provided and re erection of all pipe flanges complete.	240	M	23436	98	103	107
1392	CHP2202	CHP	Charges for opening the coal supply chute top cover of secondary crusher, after removing the floor cover of roller screen, DXT pipe line bend, loosening bolt & nuts and releasing the coal choke by manually and closing the top cover, fixing and tightening all the bolts and nuts, DXT pipe bend and closing the floor cover of roller screen and conducting trial run in secondary crusher A1/A2/B1/B2.	1	No	3346	3346	3513	3681
1393	CHP2203	CHP	Renewal of V belts in secondary crusher (30 Nos)	1	No	14504	14504	15229	15954
1394	CHP2204	CHP	b) Charges for alignment of counter shaft assembly and fluid coupling with HT motor the guard and conducting trial run in SCR.	1	No	5874	5874	6168	6461
1395	CHP2205	CHP	Charges for dismantling the suspension bars, removal of all worn out hammer rings weighing new hammers, balancing and fixing the new hammer rings along with suspension bars and tightening of dummy plug in SCR.	1	No	17340	17340	18207	19074
1396	CHP2206	CHP	Charges for removing all the existing hammer rings weighing and balancing with retrieved hammer rings (if not available new hammers) and fixing the same along with suspension bar in SCH A1/A2/B1/B2.	1	No	18180	18180	19089	19998

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1397	CHP2207	CHP	Charges for dismantling the worn out breaker plate (1 set) and fixing new available spares in SCH A1/A2/B1/B2 including cage plates welding and adjusting works, lead and lift etc.	1	No	4868	4868	5111	5355
1398	CHP2208	CHP	Charges for dismantling the worn out screen plates (35mm slot and 50mm slot) after the dismantling of breaker plates and fixing new spare screen plates in SCH including cage assembly plates welding adjusting and aligning works.	1	No	9736	9736	10223	10710
1399	CHP2209	CHP	a) Charges for removing the top and side covers, top gear casing 8 nos. oil pipe line, worn out roller shaft –24 nos. and cleaning the bearing seated area in the bottom gear casing in roller screen including checking the end liners, chute plates side doors, plummer block bearings replacement if necessary.	1	No	11934	11934	12531	13127
1400	CHP2210	CHP	b) Charges for assembling the spare roller shaft 24 nos. in its position, checking the alignment of bevel gear top gear casing –8 nos. oil pipe top and side covers and checking its free rotation of roller assemblies.	1	No	11934	11934	12531	13127
1401	CHP2211	CHP	Charges for skirt rubber, scrapper rubber replacement and adjustment in belt feeders 7A1,7A2,7B1,7B2 & 13A2.	1	No	5428	5428	5699	5971
1402	CHP2212	CHP	a) Labour charges for renewal of gear box of SBN 225 in any one of roller screen, decoupling motor, dismantling and removing LT motor from bed lifting and lowering the LT motor along with fluid coupling from motor bed. Arranging supporting plates, fixture and jacking assembly positioning 100 tonnes hydraulic jack on the fixture, heating the slow speed coupling with the final reduction gear shaft using gas cutting torch and hydraulic jack removing the coupling from shaft.	1	No	6246	6246	6558	6871
1403	CHP2212	CHP	b) Charges for measuring and preparing new shaft positioning and tightening fixture, arranging tank and waste oil about ½ barrel available at the site. Heating the oil by fire wood, heating the released coupling in oil bath to the shrink fitting the coupling with new shaft normalizing the fixture. After cooling draining the oil and storing in barrel.	1	No	3066	3066	3219	3373
1404	CHP2213	CHP	C) Labour charges for cleaning and assembling new gear box SBN 225 in position, arranging chain block lifting positioning the new gear box SBN 225 in bed, fixing RMT 2500 rubber element in slow speed flexible coupling, using dial gauge, feeler gauge and shims checking correcting the alignment of new gear box output shaft and drive pulley shaft tightening the gear box bed bolt and gear box output shaft and drive pulley connecting coupling bolt filling gear oil to the gear box and assisting for trial run.	1	No	3066	3066	3219	3373
1405	CHP2214	CHP	Labour charges for dismantling SBN 225 gear box, removal of all internal gear assemblies and cleaning of internals store drawal of new internals and bearings. Removal of worn out internals/bearings in gear assembly by using pullers. Fixing new internals/bearings assemblies. Assembling of all internal internals and fixing the oil seals and painting the gear box.	1	No	10038	10038	10540	11042
1406	CHP2215	CHP	a) Dismantling of worn out roll bodies including removal of end fittings namely bevel gear, bearing housing spacer etc for one set (i.e 6 nos. roller bodies 1 No. spacer and 2 Nos. distance piece etc)	1	No	1041	1041	1093	1145
1407	CHP2216	CHP	b) Charges for metal build up by ARC welding over the worn out portion of the non drive end (including cost of welding electrode) and under cutting of shaft for 10 MM.	1	No	1264	1264	1327	1390
1408	CHP2217	CHP	c) Charges for turning, thread cutting key way cutting etc in the reconditioned roller shafts.	1	No	984	984	1033	1082
1409	CHP2218	CHP	a) Labour charges for loosening the motor bed bolts pushing the entire motor bed towards crusher removing "V" belts 30 nos. dismantling of top cover DXT pipe bend crusher supply chute and removing of hammer rings, removal of crusher side frames dismantling of plummer blocks half and lifting the existing worn out rotor shaft assembly in crusher	1	No	24210	24210	25421	26631
1410	CHP2219	CHP	b) Labour charges for dismantling "V" groove pulley from the worn out rotor shaft of secondary crusher and releasing the locking ring assembly and dismantling of locking nuts, washers middle disc spacers, end disc and keys from the released rotor shaft assembly.	1	No	62788	62788	65927	69067
1411	CHP2220	CHP	c) Labour charges for assembling the spares such as "V" belts drive pulley, bearings plummer blocks with rotor shaft assembly.	1	No	12506	12506	13131	13757

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1412	CHP2221	CHP	d) Labour charges for positioning the newly assembled rotor shaft assembly balancing and fixing new hammer rings, fixing side frames top cover arranging 30 nos. "V" belts in position in driven pulley aligning the crusher with motor pushing outward to crusher assembling DXT pipe bend re-erection of supply chute, commissioning the crusher conducting trial run complete in secondary crusher	1	No	42868	42868	45011	47155
1413	CHP2222	CHP	Charges for dismantling the worn out kick off plates and fixing new spares in secondary crusher including checking of cage assembly plates welding adjusting lead and lift etc	1	No	5406	5406	5676	5947
1414	CHP2223	CHP	Charges for dismantling the worn out tramp iron plate and changing new one in secondary crusher A1/A2/B1/B2.	1	No	3604	3604	3784	3964
1415	CHP2224	CHP	Charges for dismantling the worn out liners in secondary crushers A1,A2, B1 & B2 and fixing new spares	1	No	7302	7302	7667	8032
1416	CHP2225	CHP	Charges for dismantling the counter shaft assembly and releasing the fluid coupling CDIR 760 from the existing counter shaft assembly and mounting with new counter shaft assembly and replacing in secondary crusher	1	No	25886	25886	27180	28475
1417	CHP2226	CHP	a) Charges for removing the top and side cover of roller screen, top gear casing, oil pipe line and roller shaft-6 nos. decoupling the drive shaft and released the worn out bottom gear casing	1	No	7510	7510	7886	8261
1418	CHP2227	CHP	b) Charges for cleaning the bed of roller screen, assembling the spare bottom gear casing-1 no. drive shaft roller shaft 6 nos. top gear casing, top and side covers and checking the alignment of bevel gears and conducting trial run	1	No	7510	7510	7886	8261
1419	CHP2228	CHP	Charges for dismantling the top gear casing, checking of roller screen drive shaft bevel gears, bearings, couplings and roller shaft assembly in roller screen A1/B1/B2, tightening all the bolt & nuts in drive shaft and roller shaft, closing the same and conducting trial run. (Estimate for one roller screen)	1	No	5428	5428	5699	5971
1420	CHP2229	CHP	Charges for dismantling of drive shaft assembly and de couple the couplings and dismantling of bevel gears and bearings, cleaning and assembling the new drive shafts with bearing, plummer block and coupling the drive shafts in position in Roller screen. Including lead, lift and transportation of drive shaft assembly from Central Stores to Secondary crusher house of CHP-II. (Board lorry and crane will be provided at free of cost)	1	No	17660	17660	18543	19426
1421	CHP2230	CHP	Charges for mounting of new spare roll bodies, spacers and its end fittings on roller shaft including lead lift, transportation etc.	1	No	1601	1601	1681	1761
		CHP	BULLDOZER (Models : D155 / D 120 / D 80 / PD 220Y-1)						
1422	CHP2231	CHP	Charges for removal of blade assembly with frames from lifting cylinders and trunnion assembly in the dozer and reassembling the same, as directed by the engineer incharge at site.	1	Time	9384	9384	9853	10322
1423	CHP2232	CHP	Charges for Dismantling the trackshoe assembly by removing the locks and master pin etc. in LH or RH of the Bulldozer and assembling the same, then tensioning the track shoe assembly by applying grease as directed by the engineer incharge at site.	1	Time	6198	6198	6508	6818
1424	CHP2233	CHP	Charges for removal of front idler wheel assembly from LH or RH side in the dozer, cleaning, inspection and replacing if any got damaged and reassembling the same as directed by the engineer incharge at site.	1	Time	4018	4018	4219	4420
1425	CHP2234	CHP	Charges for removal of carrier roller assembly with support from LH or RH of the dozer, cleaning, inspection and replacing if any got damaged (or) worn out and reassembling the same as directed by the engineer incharge at site. Including cost of T&Ps and consumables.	1	Time	4578	4578	4807	5036
1426	CHP2235	CHP	Charges for removal of track frame assembly from LH or RH side of the bulldozer by lifting of cross bar ,carrier roller, idler wheel by using Jack and providing proper support for the dozer and assembling the same after completion of repair works as directed by the engineer incharge at site.	1	Time	6745	6745	7082	7420
1427	CHP2236	CHP	Charges for dismantling of track roller assembly by removing of Track roller guards, cleaning, inspection and replacing if any got damaged (or) worn out and assembling as directed by the engineer incharge at site. Including cost of T&Ps and consumables.	1	Time	5023	5023	5274	5525

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1428	CHP2237	CHP	Charges for removal of grease seal piston assembly by lifting of cross bar, removing , idler wheel by means of proper support and removing the carrier roller bed etc cleaning, inspection and replacing the grease seal and assembling the same as directed by the engineer incharge at site. Including cost of T&Ps and consumables.	1	Time	5165	5165	5423	5682
1429	CHP2238	CHP	Charges for removing the recoil spring complete assembly from spring housing by removing the cover assembly by means of Hydraulic Jack. Cleaning, inspection of recoil spring Tension, Position etc. and also replacing the oil as directed by the engineer incharge at site. Including cost of T&Ps and consumables.	1	Time	13490	13490	14165	14839
1430	CHP2239	CHP	Charges for replacement of Hydraulic lifting cylinder Operating lever Seal in Hydraulic tank assembly by draining the oil and opening the Hydraulic tank, cleaning and assembling the same after changing the oil seal, as directed by the engineer incharge at site.	1	Time	8094	8094	8499	8903
1431	CHP2240	CHP	Charges for removal of cover assembly, lock nut, collar, support sprocket, sprocket nut, bushings, sprocket wheel assembly etc by using special T&P's, fixtures etc, cleaning, inspection and replacing the sprocket wheel assembly if existing got worn out (pinions and bearings) and assembling the same after replacement of sprocket wheel sealing assembly, as directed by the engineer incharge at site. Including cost of T&Ps and consumables.	1	Time	21828	21828	22919	24011
1432	CHP2241	CHP	Charges for replacement of existing seal ring assembly between sprocket wheel assembly and final drive support sprocket assembly by a new one, as directed by the engineer incharge at site.	1	Time	8094	8094	8499	8903
1433	CHP2242	CHP	Charges for removal of Universal joint assembly by removing of all accessories such as sunshade hood, platform, driver seat, battery cover, cross bar, linkages of brake and steering system and other required oil lines etc from the dozer. Cleaning, inspection and replacing the all bushes, Universal joint assembly if existing got damaged and assembling the same, as directed by the engineer incharge at site.	1	Time	10330	10330	10847	11363
1434	CHP2243	CHP	Charges for removal of gear box assembly from the dozer and removing oil lines valve assembly etc from the gear box cleaning, inspection and replacing the shaft drive oil seal, joint oil seal if adjusting got damaged and assembling the same after completion of repair works as directed by the engineer incharge at site. Including cost of T&Ps and consumables.	1	Time	10330	10330	10847	11363
1435	CHP2244	CHP	Charges for dismantling the gear box assembly, cleaning, inspection and replacement of worn out gears, bearings, 'O' rings and gaskets in intermediate shaft, main shaft and counter shaft etc. as directed by the engineer incharge at site.	1	Time	21114	21114	22170	23225
1436	CHP2245	CHP	Charges for replacement of clutch disc, plate and clutch main shaft seal by removal of clutch cover assembly, couplings and complete assembly from the dozer and assembling the same after changing of oil seal, as directed by the engineer incharge at site.	1	Time	11445	11445	12017	12590
1437	CHP2246	CHP	Charges for dismantling of Inertia brake band assembly from the dozer and reconditioning by replacement of new shoe assembly, rivets etc. and assembling in the dozer then brake adjustment to be carriedout, as directed by the engineer incharge at site. Including cost of materials, T&Ps and consumables.	1	Time	2754	2754	2892	3029
1438	CHP2247	CHP	Charges for complete overhauling of one set(RH & LH) hydraulic blade lifting cylinder assembly, piston assembly, valve assembly, etc. by dismantling, cleaning, inspection and replacing the service kit contains 'O' rings, piston rings, dust seals, 'U' packing, Back up rings , snap ring etc and refitting the same. Replacing all 'O' rings in Hydraulic cylinder oil line hoses and pipings, as directed by the engineer incharge at site.	1	Time	10564	10564	11092	11620
1439	CHP2248	CHP	Charges for dismantling, the blade cutting edges by removing the old bolts and nuts, replacing the cutting edges (or) blade crack welding and reassembling the same as directed by the engineer incharge at site.	1	Time	8040	8040	8442	8844
1440	CHP2249	CHP	Charges for replacement of steering pump/clutch pump/hydraulic pump, booster assembly by dismantling the platform and required oil pipelines in the dozer and assembling the same as directed by the engineer incharge at site.	1	Time	2868	2868	3011	3155
1441	CHP2250	CHP	Charges for dismantling 1 set (RH & LH) track shoe link by removing the track shoes assembly and pin through gouging and then assembling the same in the dozer as directed by the engineer incharge at site.	1	Time	7144	7144	7501	7858

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1442	CHP2251	CHP	Charges for removal of sprocket assembly, lock nut, collar, support sprocket etc, cleaning, inspection and replacing the seal ring assembly between cover assembly and sprocket nut assembly then assembling the same as directed by the engineer incharge at site.	1	Time	10564	10564	11092	11620
1443	CHP2252	CHP	Charges for dismantling of brake booster assembly by removing the cover, stopper, spring, links etc and assembling the same with necessary 'O' rings and gasket etc after completion of repair works, as directed by the engineer incharge at site.	1	Time	9156	9156	9614	10072
1444	CHP2253	CHP	Charges for removal of steering control valve system assembly by dismantling of all accessories like diesel tank, cross bar, battery box and all required oil lines, links etc in the dozer and assembling the same after completion of repair works as directed by the engineer incharge at site.	1	Time	10564	10564	11092	11620
1445	CHP2254	CHP	Charges for removal of brake band assembly, steering clutch assembly from the dozer and replacing the steering clutch assembly, Ring seals, 'O' rings, Gaskets and assembling the same as directed by the engineer incharge at site.	1	Time	24282	24282	25496	26710
1446	CHP2255	CHP	Transporting of Gear Box/Motor/Pulley from Central Stores to CHP-I area including Lifting/Lowering of Gear Box/Motor/Pulley in PCR/SCR Top (or) in Tunnel area.	1	No	1544	1544	1621	1698
		CHP	ELECTRICAL MAINTENANCE (CHP- II)						
1447	CHPE2001	CHP	Charges for cleaning of cable and cable trays	150	M	1641	11	11	12
1448	CHPE2002	CHP	Cleaning the light fittings, shades, glass, ballast and other related accessories of various ratings like 70W, 125W, 250W, 400W & TFL fittings are in service below 6 Mtrs height.	25	Nos	1025	41	43	45
1449	CHPE2003	CHP	Defective replacement of light fittings, shades, glass, ballast and other related accessories of various ratings like 70W, 125W, 250W, 400W & TFL fittings are in service below 6 Mtrs height.	8	Nos	1025	128	135	141
1450	CHPE2004	CHP	Cleaning of light fitting, shades, glass, ballast and accessories related to fittings of various ratings like 70W, 125W, 250W, 400W & TFL fittings are in service above 6 metre height.	20	Nos	1333	67	70	73
1451	CHPE2005	CHP	Defective replacement of light fitting, shades, glass, ballast and accessories related to fittings of various ratings like 70W, 125W, 250W, 400W & TFL fittings are in service above 6 metre height.	7	Nos	1333	190	200	209
		CHP	CHP - Annual maintenance and checking of IR values of HT A & B buses.						
1452	CHPE2006	CHP	Labour charges for releasing the back doors (top and bottom), inner door, racking out of all 19 Nos.HT Breakers and cleaning of all the covers (22 Panels) and checking of IR value.	1	No	4688	4688	4922	5157
1453	CHPE2007	CHP	Labour charges for complete cleaning of Horizontal, vertical busbars, 22 Nos Panels and supporting insulators with the help of air blower and Acetone, tightness ecking of Horizontal, vertical busbars and outgoing power cable terminals.	1	No	4504	4504	4729	4954
1454	CHPE2008	CHP	Labour charges for cleaning and lubricating of all moving parts of HT Breakers-19 Nos and cleaning of Upper and lower supporting insulators, Insulated couplers, upper and lower pole arms, vacuum bottles with Acetone. All bolts and nuts tightness checking, checking healthiness of Interrupters, closing/Tripping operations mechanically and checking of IR value.	1	No	3824	3824	4015	4206
1455	CHPE2009	CHP	Labour charges for refixing of back doors(top and bottom),inner doors by providing all bolts and nuts ,racking in all HT breakers and checking of IR value and satisfactory commissioning.	1	No	3686	3686	3870	4055
1456	CHPE2010	CHP	Labour charges for checking final IR value of Busbars, refixing of inspection covers and satisfactory commissioning & checking of Top cover gaskets, rubber bellows and replacement if necessary.	1	No	5672	5672	5956	6239
		CHP	CHP- Electrical-I-Annual maintenance and checking of IR value of LT Bus 'A' and LT Bus 'B' at MCC-I switchgear.						
1457	CHPE2011	CHP	Charges for releasing of all LT modules, releasing the top covers and side covers of the busbar chamber, releasing of separator plates in certain LT modules and removing of Hylem sheets in all LT modules, racking out LT breakers complete.	1	No	3038	3038	3190	3342

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1458	CHPE2012	CHP	Charges for checking of IR value of LT bus before cleaning and then cleaning the main (Horizontal) busbars, vertical busbars and its support insulators with the help of blower and CTC/IPA, checking the tightness of busbar joints, cleaning the entire area of bus chamber, checking the tightness of outgoing cable, cleaning all the modules, cleaning and healthiness checking of power contactor tips and replacing if necessary, termination tightness of all components, checking and cleaning of finger contacts in breaker with IPA, checking healthiness of spring charging motors and mechanisms, termination tightness of all components of breakers and checking their operations and assisting for MRT testing works.	1	No	6076	6076	6380	6684
1459	CHPE2013	CHP	Charges for checking of IR value after complete cleaning, refixing of Hylem sheets in all the modules, refixing of all the modules and breakers in the respective panels, refixing the top covers and side covers of bus chambers and successful commissioning of LT bus.	1	No	3346	3346	3513	3681
		CHP	CHP-II- E-I-Bunker Top – Travelling Tripper B – Replacement of existing damaged trailing cable and devolution of released cables to Central Stores / MTPS-I.						
1460	CHPE2014	CHP	Charges for transporting of new trailing cable with drum-1No., empty steel drum and cable drum stand-4 Nos. from Central Stores to Mill Plant Unit-II repair bay 0 mtr. and unloading the same.	1	No	1809	1809	1899	1990
1461	CHPE2015	CHP	Charges for removing the terminal connection of the trailing cable from the junction box and unwind the old cable from cable reeling drum and lay it on the ground to release the twist. Also removing the terminal connections from the slip ring assembly. Then rewind the same in the empty steel drum.	1	No	969	969	1017	1066
1462	CHPE2016	CHP	Charges for giving terminal connection to the slip ring assembly from the one end of new cable and unwinding the new cable from the wooden drum and rewind the same on the cable reeling drum. Then refixing the cable clamps and give terminal connection to the junction box.	1	No	1529	1529	1605	1682
1463	CHPE2017	CHP	Charges for lift down the old cable with drum from bunker top Mill Plant Unit-II repair bay 0 mtr. and transport the cable with steel drum- 1 No., wooden drums, wooden scrap, cable drum stand - 4 Nos. from Mill Plant Unit-II repair bay 0 mtr. to Central Stores/MTPS. Measuring the length of the released old damaged cable at Central Stores/MTPS and devolution of the above materials including all lead lift etc.	1	No	1809	1809	1899	1990
		CHP	CHP – Complete overhaul of 1.6 MVA Service transformers 1A & 1B at MCC-I area. Make: Radio Electric Ltd., Madras.						
1464	CHPE2018	CHP	Disconnection of HV/LV cables, earth flats & LT ducts and coolers	1	No	1416	1416	1487	1558
1465	CHPE2019	CHP	Releasing the old transformer oil from the tank	1	No	689	689	723	758
1466	CHPE2020	CHP	Releasing the top cover and coolers of the transformer	1	No	1953	1953	2051	2148
1467	CHPE2021	CHP	Disconnecting the HV/LV leads from Bushings and lifting the core along with winding	1	No	1344	1344	1411	1478
1468	CHPE2022	CHP	Complete cleaning of the Trf.Core, Winding and Sludge removing	1	No	992	992	1042	1091
1469	CHPE2023	CHP	Complete cleaning of the tank and removing the old gasket	1	No	1378	1378	1447	1516
1470	CHPE2024	CHP	Dismantling & Re-connection of HV/LV Bushings for changing the old gasket work.	1	No	3620	3620	3801	3982
1471	CHPE2025	CHP	Repositioning of the core with winding and reconnecting the HV/LV leads	1	No	1344	1344	1411	1478
1472	CHPE2026	CHP	Complete cleaning of the Conservator tank	1	No	560	560	588	616
1473	CHPE2027	CHP	Complete cleaning of the Tap switch and attending defects.	1	No	969	969	1017	1066
1474	CHPE2028	CHP	Providing New Gasket at top cover, HV/LV Bushing, Buchholz Relay, conservator tank and LT bus duct and cooler valves.	1	No	3060	3060	3213	3366
1475	CHPE2029	CHP	Fixing of the top cover.	1	No	689	689	723	758
1476	CHPE2030	CHP	Refilling the new oil in the transformer tank.	1	No	969	969	1017	1066
1477	CHPE2031	CHP	Charges for hot oil circulation.	1	No	3560	3560	3738	3916
1478	CHPE2032	CHP	Connecting HV/LV cables, earth flats and LT ducts.	1	No	2048	2048	2150	2253
1479	CHPE2033	CHP	Labour charges for Painting the Entire Transformer	10	M ²	3812	381	400	419
1480	CHPE2034	CHP	DATA-I – Disconnection of HV/LV cables, earth flats & LT ducts and coolers	1	No	1416	1416	1487	1558
1481	CHPE2035	CHP	Connecting HV/LV cables,earth flats and LT ducts	1	No	2048	2048	2150	2253
		CHP	CHP- Replacement of HT motors 160KW to 750KW by spare motor.						
1482	CHPE2036	CHP	a) Charges for removing conveyor 8B1 motor bed bolts and nuts. Arranging chain block. Releasing the motor with fluid coupling from gearbox. Removing fluid coupling from the motor shaft using puller.	1	No	8811	8811	9252	9692

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1483	CHPE2037	CHP	b) Charges for decoupling gearbox pulley flexible coupling. Removing brake assembly for alignment checking. Normalizing the above after completion of the work	1	No	5730	5730	6017	6303
1484	CHPE2038	CHP	c) Charges for assembling the fluid coupling in the new motor shaft, lifting, positioning the motor with gear box, checking and correcting alignment of motor and gear box. Motor bed bolt tightening. Filling fluid coupling oil to the required level and conducting trial run of conveyor 8B1.	1	No	8811	8811	9252	9692
1485	CHPE2039	CHP	d) Charges for alignment of motor with gear box and checking the trial run.	1	No	3906	3906	4101	4297
1486	CHPE2040	CHP	e) Charges for disconnection of 6.6 KV power cable of existing motor and reconnection of 6.6 KV power cable in new spare motor.	1	No	8100	8100	8505	8910
1487	CHPE2041	CHP	Charges for disconnection of 6.6 KV power cable of existing motor and reconnection of 6.6 KV power cable in new spare motor.	1	No	4050	4050	4253	4455
1488	CHPE2042	CHP	Charges for alignment of motor with gear box and checking the trial run	1	No	3906	3906	4101	4297
		CHP	CHP-I- Replacement of LT motors by spare motor						
1489	CHPE2043	CHP	a) Removing the existing LT motor from its bed of conveyor location including disconnection of power cables.	1	No	2104	2104	2209	2314
1490	CHPE2044	CHP	b) Removing the fluid coupling from the LT motor and fixing the fluid coupling in the spare motor and erection of spare motor in its bed in conveyor location and reconnection of power cables.	1	No	8595	8595	9025	9455
1491	CHPE2045	CHP	c) Charges for alignment of motor with gear box and checking the trial run.	1	No	3906	3906	4101	4297
1492	CHPE2046	CHP	Painting of motor with two coat of enamel Grey paint	10	M ²	406	41	43	45
		CHP	CHP.I – Complete overhauling of HT motors 160 KW to 750 KW						
1493	CHPE2047	CHP	Releasing the fan & end cover, threading out the rotor for inspection, through cleaning of stator and rotor.	1	No	20250	20250	21263	22275
1494	CHPE2048	CHP	Checking the tightening of all the loose wedges, replacement of damaged toxolite strip and wedges, drying out stator and pre-heating, spraying one coat of Dr.Beck protective enamel and packing the same.	1	No	17964	17964	18862	19760
1495	CHPE2049	CHP	Cleaning the cooler, cooler tubes with compressor air and pull through, checking of bearings and replacing (Bearing will be supplied by Board)	1	No	5019	5019	5270	5521
1496	CHPE2050	CHP	Assembling of the motor and threading in of the rotor, assembling of bearings, cooler fan, cooler and end cover after overhauling.	1	No	14172	14172	14881	15589
1497	CHPE2051	CHP	Painting of motor with two coat of enamel Grey paint.	17	M ²	406	24	25	26
		CHP	OVERHAULING OF THREE PHASE LT MOTOR CAPACITY UPTO 55 KW						
1498	CHPE2052	CHP	Charges for disconnection of Motor coupling, power and control cable, removal of foundation bolts and lifting the motor to a convenient location. Dismantling of motor, releasing of the rotor for inspection and cleaning of stator and stator winding. Checking the tightness of wedges and insulation of the overhang portion. Spraying one coat of Dr. Beck's insulating varnish, drying out the stator, preheating and checking the IR Value and winding resistance.	1	No	2050	2050	2153	2255
1499	CHPE2053	CHP	Charges for inspection and cleaning of Rotor, checking the position of stamping, cleaning of corroded parts if any, checking the bearings and replacing the bearings if necessary.	1	No	2050	2050	2153	2255
1500	CHPE2054	CHP	Charges for assembling of the rotor and erection of the motor on the bed, cleaning and painting of the motor with 2 coats of smoke Grey enamel paint. Checking the alignment of the motor. Reconnection of the Power cable and space heater cable. Checking of IR value and winding resistance, trial run of the motor.	1	No	2050	2050	2153	2255
1501	CHPE2055	CHP	DATA – II: Labour required per shift for Metal filling, machining and repairing of worn out shafts /bearing seating surfaces on DE & NDE sides, checking of bearings housings, iding sleeves in the end covers on DE & NDE if necessary.	1	No	1918	1918	2014	2110
		CHP	OVERHAULING OF THREE PHASE LT MOTOR CAPACITY RANGE FROM 55 KW TO 75 KW						

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1502	CHPE2056	CHP	Charges for disconnection of Motor coupling, power and control cable, removal of foundation bolts and lifting the motor to a convenient location. Dismantling of motor, releasing of the rotor for inspection and cleaning of stator and stator winding. Checking the tightness of wedges and insulation of the overhang portion. Spraying one coat of Dr. Beck's insulating varnish, drying out the stator, preheating and checking the IR Value and winding resistance.	1	No	2050	2050	2153	2255
1503	CHPE2057	CHP	Charges for inspection and cleaning of Rotor, checking the position of stamping, cleaning of corroded parts if any, checking the bearings and replacing the bearings if necessary.	1	No	2050	2050	2153	2255
1504	CHPE2058	CHP	Charges for assembling of the rotor and erection of the motor on the bed, cleaning and painting of the motor with 2 coats of smoke Grey enamel paint. Checking the alignment of the motor. Reconnection of the Power cable and space heater cable. Checking of IR value and winding resistance, trial run of the motor.	1	No	2050	2050	2153	2255
1505	CHPE2059	CHP	DATA – II:Labour required per shift for Metal filling, machining and repairing of worn out shafts /bearing seating surfaces on DE & NDE sides, checking of bearings housings, providing sleeves in the end covers on DE & NDE if necessary.	1	No	1918	1918	2014	2110
		CHP	OVERHAULING OF THREE PHASE LT MOTOR FROM 75 KW to 120 KW						
1506	CHPE2060	CHP	Charges for disconnection of Motor coupling, power and control cable, removal of foundation bolts and lifting the motor to a convenient location. Dismantling of motor, releasing of the rotor for inspection and cleaning of stator and stator winding. Checking the tightness of wedges and insulation of the overhang portion. Spraying one coat of Dr. Beck's insulating varnish, drying out the stator, preheating and checking the IR Value and winding resistance.	1	No	2050	2050	2153	2255
1507	CHPE2061	CHP	Charges for inspection and cleaning of Rotor, checking the position of stamping, cleaning of corroded parts if any, checking the bearings and replacing the bearings if necessary.	1	No	2050	2050	2153	2255
1508	CHPE2062	CHP	Charges for assembling of the rotor and erection of the motor on the bed, cleaning and painting of the motor with 2 coats of smoke Grey enamel paint. Checking the alignment of the motor. Reconnection of the Power cable and space heater cable. Checking of IR value and winding resistance, trial run of the motor.	1	No	2050	2050	2153	2255
1509	CHPE2063	CHP	II) DATA – II:Labour required per shift for Metal filling, machining and repairing of worn out shafts /bearing seating surfaces on DE & NDE sides, checking of bearings housings, providing sleeves in the end covers on DE & NDE if necessary.	1	No	1918	1918	2014	2110
		OAH	OIL &ASH HANDLING PLANT						
		OAH	Overhauling of Scrapper Feeder						
1510	AHP2001	OAH	Charges for dismantling the worn-out scrapper bars, 'C' clamps and link chain sprocket and assembling the new modified scrapper bars, 'C' clamps, 'L' bracket and link chain sprocket etc.	1	No	11044	11044	11596	12148
1511	AHP2002	OAH	Charges for dismantling main shaft, landing on ground, removing worn out drive sprocket, link chain sprocket from main shaft, refixing drive sprockets, link chain sprocket & gear coupling and mounting etc.	1	No	16566	16566	17394	18223
1512	AHP2003	OAH	Charges for removing the worn out scrapper bar guide plates, supporting channels and fixing the new scrapper bar guide plates and supporting channels	1	No	5019	5019	5270	5521
1513	AHP2004	OAH	Charges for removal and inspection of bearings main drive shaft assembly and take up shaft assembly, replacement of bearings if necessary and reassembling.	1	No	8932	8932	9379	9825
1514	AHP2005	OAH	Charges for dismantling of submerged wheels, Idler wheels, inspection of bearings, shafts, oil seals and replacement of bearings, shafts, oil seals if necessary and reassembling.	1	No	4974	4974	5223	5471
1515	AHP2006	OAH	Charges for cutting and removing the worn out feeder discharge chute plates, supporting channels, fixing & welding new feeder discharge chute plates and supporting channels.	1	No	6692	6692	7027	7361
1516	AHP2007	OAH	Charges for cutting and removing the worn out feeder side door, fabrication and fixing of new side door. (12 mm plate)	4	M ²	5019	1255	1317	1380
1517	AHP2008	OAH	Charges for fabrication new SS scrapper bar as per the existing modified scrapper feeder. (Required SS & MS plate will be supplied by TANGEDCO).	36	Nos	16716	464	488	511
1518	AHP2009	OAH	Charges for machining the main drive shaft, idler wheel shaft, jack shaft & providing keyway and assembling the wheels for a shaft	1	No	2082	2082	2186	2290

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1519	AHP2010	OAH	Charges for painting with one coat of Aluminium paint to outer surface area of feeder	10	M ²	258	26	27	28
1520	AHP2011	OAH	Charges for removing wornout drive sprocket teeth in main shaft and Jack shaft and refixing new drive sprocket teeth with suitable packing piece in the both shafts for BAH-IV.	1	No	15510	15510	16286	17061
1521	AHP2012	OAH	Dismantling of clinker grinder: This work involves removal of driven sprocket, gear wheels, bearing housing cover, bearing housing gland assembly, bearing housing base plate, clinker grinder drive and driven shaft with rollers, Apron plate and guide plates and seal water line, etc.	1	No	11165	11165	11723	12282
1522	AHP2013	OAH	ASSEMBLY OF CLINKER GRINDER:• Inspection of SS sleeve, apron plate and guide plate for wear and tear and replacement if necessary. • Assembling of drive / driven roller with shaft assembly. • Fixing of bearing housing base plate assembly. • Inspection of pressure ring and lantern ring for wear and tear and replacement if necessary. • Packing of graphite rope and fixing of gland by gland packing nut. • Fixing and tightening of sleeve lock nut. • Inspection of oil seal (inner) and bearing for wear and tear and replacement if necessary, fixing of bearing housing and tightening using lock nut. • Inspection of oil seal (outer) for wear and tear and replacement if necessary and fixing the bearing cover. • Assembling of driven sprocket, fixing of lock nut and tightening. • Mounting of gear wheel and tightening using lock nut. • Assembling of seal water line.	1	No	11286	11286	11850	12415
1523	AHP2014	OAH	Charges for cleaning the outer surface of clinker grinder and painting with one coat of Red oxide paint 2 coats of enamel paint	10	M ²	812	81	85	89
1524	AHP2015	OAH	Charges for reconditioning of clinker grinder rollers and rebuilding the roller teeth with special welding electrodes as specified by the Engineer-in-charge, grinding the teeth with the required dimensions and trimming including the cost of special welding electrodes, etc. (The rebuilding work is to be carried out at the site and the welding supply for the same will be provided by the TANGEDCO at free of cost).	1	No	10800	10800	11340	11880
1525	AHP2016	OAH	a) Charges for metal filling of worn-out shaft (Both ends)	1	No	2644	2644	2776	2908
1526	AHP2017	OAH	b) Charges for preparing the roller and shaft for welding:	1	No	969	969	1017	1066
1527	AHP2018	OAH	c) Welding of shaft with roller	1	No	1350	1350	1418	1485
		OAH	Plastering of fire Crete refractory inside the Bottom Ash Hopper						
1528	AHP2019	OAH	Charges for applying refractory inside Bottom Ash hopper	1	M ²	1009	1009	1059	1109
1529	AHP2020	OAH	Transportation of refractory from central STORES	4	Ton	1680	420	441	462
1530	AHP2021	OAH	Erection and dismantling of Scaffolding arrangement	1	time	3576	3576	3755	3934
1531	AHP2022	OAH	Charges for dismantling all hoppers distance pieces with poking holes, adopters and bellows of ESP, Economiser and Air Pre heater mixing apparatus and nozzle assemblies	56	Nos	19788	353	371	389
1532	AHP2023	OAH	Charges for cleaning all 56 nos. mixing apparatus, distance pieces with poking holes, adopters, bellows, nozzle assemblies and all bolt & Nuts.	56	Nos	17920	320	336	352
1533	AHP2024	OAH	Charges for dismantling the 300 NB chain operated gate valve assembly from Economiser Hoppers, removal of flanges welded with distance piece by gas cutting and lowering down the same to ground floor, reconditioning the valve by servicing and providing of 8 nos. 20 mm F Bolt hole in outer flange of gate valve to fix with the distance piece & poking pipe, erection and welding including scrap materials devolution to Central Stores / MTPS-I and consumables like cutting gas, MS welding electrodes, etc.	1	No	2930	2930	3077	3223
1534	AHP2025	OAH	Charges for reconditioning of worn-out distance pieces and adopters and supporting structures of down comers of Economiser Hoppers, Unit I to II.	1	No	6246	6246	6558	6871
1535	AHP2026	OAH	Charges for assembling of all mixing apparatus with bellows, distance pieces with poking holes, providing holes for fixing of distance pieces with mixing apparatus, adopters, bellows, nozzle assemblies in ESP, Economiser and Air Pre heater including consumables like MS Bolt & Nuts 75 kg. of various sizes.	56	Nos	28002	500	525	550
		OAH	Cutting and removal of eroded and damaged existing 150 NB, 200 NB & 300 NB MS ERW HP & LP Main pipe lines with its supports and fabrication & erection of new 150 NB, 200 NB & 300 NB MS ERW pipe lines along with bends and supports i						

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1536	AHP2027	OAH	a) Charges for removal of concrete slabs laid over the trench, transferring and positioning the same at nearby place as per the direction of Engineer-in-charge including lead, lift and transportation, etc.	20	No	1264	63	66	70
1537	AHP2028	OAH	b) Charges for removal of existing worn-out HP & LP 200 NB & 300 NB ERW MS pipe line provided in the trench	40	M	5472	137	144	150
1538	AHP2029	OAH	c) Charges for fabrication, erection and welding of HP main pipe lines with new 200 NB & 300 NB MS ERW pipes	40	M	20680	517	543	569
1539	AHP2030	OAH	d) Charges for fabrication of 90° Bend in 300 NB / 200NB MS ERW Pipe	3	No	1393	464	488	511
1540	AHP2031	OAH	e) Charges for cutting and removing of eroded supports provided along the HP & LP water pipe lines	2	location	1673	837	878	920
1541	AHP2032	OAH	f) Charges for relaying the concrete slabs laying over the trench as per the direction of Engineer-in-charge	20	No	1264	63	66	70
		OAH	ESP Hoppers - Erection and commissioning of 8 nos. new mixing apparatus of capacity 10 MT / Hr. with new adopter, distance and spool pieces, metallic bellows along with LP water supply pipe lines and its supports, etc.						
1542	AHP2033	OAH	a) Charges for dismantling of existing damaged mixing apparatus from its structure along with adopter & distance pieces with poking holes, metallic bellows, etc., lead, lift and transporting and positioning the place as per the site Engineer's instruction	1	No	8704	8704	9139	9574
1543	AHP2034	OAH	b) Charges for cutting and removal of existing eroded 50 NB and fabrication & fixing of new 50 NB pipe line	200	M	10320	52	54	57
1544	AHP2035	OAH	c) Charges for cutting & removal of existing eroded header pipe line dia. 150 NB pipe and fabrication & erection of 150 NB pipe line	200	M	20982	105	110	115
1545	AHP2036	OAH	d) Charges for removal of existing eroded bed frame, fabrication and erection of new bed frame to withhold the mixing apparatus by using the channel of size 200 x 75 x 8 mm – 2.5 m. long (2 nos.) and cross support angle of size 75 x 75 x 6 mm – 1.2 m. long (2 nos.)	1	No	12150	12150	12758	13365
1546	AHP2037	OAH	e) Charges for lead, lift, positioning and fixing the new SS 10 Tonne capacity mixing apparatus over the new bed frame	1	No	5170	5170	5429	5687
1547	AHP2038	OAH	f) Charges for aligning and fixing of new adopter & distance pieces with poking holes, spool piece, metallic bellows over the mixing apparatus in such a way that the bottom portion of this spool piece lowered inside the mixing apparatus to the required depth for proper sealing	1	No	10340	10340	10857	11374
1548	AHP2039	OAH	g) Charges for erecting 32 nos. 10 mm jetting nozzles in the tip of newly fixed 50 NB MS pipelines	15	No	632	42	44	46
1549	AHP2040	OAH	h) Charges for fabrication and fixing of 1 no. 90° Bend / box in 200 NB MS ERW Pipe with spool piece to a length of 0.5 m	3	No	1393	464	488	511
1550	AHP2041	OAH	i) Charges for fabrication and fixing of 50 NB flanges with suitable holes for connecting the pipe line	10	No	1874	187	197	206
1551	AHP2042	OAH	j) Charges for dismantling and erection of 1 no. / row 150 NB isolating gate valve in the newly erected 150 NB MS ERW pipelines	2	No	1393	697	731	766
		OAH	Bottom Ash Hopper – Retrieval of useful spares by dismantling and scrapping the old scrapper feeder						
1552	AHP2043	OAH	Charges for dismantling any useful spares like scrapper chains, submerged wheel assemblies, idler wheel assemblies, take-up jack wheel assembly, gearbox, duplex sprocket, drive motor, main drive shaft assembly, base wheels, etc. from old scrapper feeder (for whole feeder)	1	No	29940	29940	31437	32934
1553	AHP2044	OAH	Charges for cutting the eroded skeleton of old scrapper feeder side plates, support channels, main frame channels, I Beams, base plates, slope plates and removal of SS plates, etc.(for a whole feeder)	1	No	47400	47400	49770	52140
		OAH	Air Pre-heater Hoppers - Erection and commissioning of 8 nos. new mixing apparatus of capacity 5 MT / Hr. after cutting and removal of existing damaged mixing apparatus along with its water & slurry line pipes and replaing of adopter & distance pieces with poking holes with 300 NB MS ERW pipe, etc.						

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1554	AHP2045	OAH	Charges for replacing 8 nos. mixing apparatus. The following works are to be carried out. i) Dismantling of existing mixing apparatus from its structure along with water lines, cutting and removal of 300 NB distance piece with flanges and fixing it over the mixing apparatus in such a way that the bottom portion of this pipe lowered inside the mixing apparatus to the required depth for proper sealing. ii) Providing of semi spherical shaped door with hinges on the top portion of mixing apparatus for easy removal of foreign materials, etc. from mixing apparatus. iii) Fixing the 5T capacity mixing apparatus in position by perfectly matching it with the bottom flange of expansion joint. iv) Providing of water lines to the mixing apparatus with necessary valves as per site condition.(for a mixing Apparatus)	1	No	5019	5019	5270	5521
		OAH	Renewal of wornout Bottom Ash Hopper seal trough						
1555	AHP2046	OAH	Charges for dismantling of wornout BAH seal trough	10	M ²	10112	1011	1062	1112
1556	AHP2047	OAH	Removing the quenching nozzle 80 NB pipe line which is hindrance to the seal trough renewal work after dismantling the flange of nozzle pipe by gas cutting and refixing after completion of above work.	7	shift	15631	2233	2345	2456
1557	AHP2048	OAH	Charges for positioning the HFO pump/Decanting Pump house LT Motor, coupling the motor with pump, aligning the motor with Pump with the bed bolts in full tight condition tools and plants as per the direction of Engineer-in-charge	1	No	6246	6246	6558	6871
1558	AHP2049	OAH	Charges for load testing of 1 no. EOT crane of capacities 3 tonne, 5 tonne, 6 tonne & 7.5 tonne at various locations	1	No	5622	5622	5903	6184
1559	AHP2050	OAH	Charges for load testing of 1 no. EOT crane of capacity 1 tonne at DCPH.	1	No	4134	4134	4341	4547
1560	AHP2051	OAH	Charges for dismantling of 5 tonne capacity chain block, inspecting, repairing, replacing and rectification of worn-out parts such as ratchet, bearings, spring lock, teeth profile sector bolt & nut, etc., commissioning, carrying out load testing by a competent authority including the charges for T&P, consumables, spares and testing fee.	1	No	5019	5019	5270	5521
1561	AHP2052	OAH	Charges for dismantling of 3 tonne capacity chain block, inspecting, repairing, replacing and rectification of worn-out parts such as ratchet, bearings, spring lock, teeth profile sector bolt&nut, etc., commissioning, carrying out load testing by a competent authority including the charges for T&P, consumables, spares and testing fee.	1	No	3123	3123	3279	3435
1562	AHP2053	OAH	Charges for draining oil from Heat Exchanger(tube length-4773mm,64 pair of U tubes,21mm dia) removing steam and condensate connecting pipe from Exchanger, removing steam box of Heat Exchanger, renewal of steam side and oil side gasket and tightening bolts and nuts in sequence, providing gaskets to the interconnecting pipe lines and assembling the steam box after completing all the works inside the shell (Gaskets 40 kg. will be supplied by Contractor).	1	No	14172	14172	14881	15589
1563	AHP2054	OAH	Charges for removal of 'U' tube bundle from the heating shell without making any damage to the bundles and resting on the support including charges for required consumables, hire charges for T&Ps, etc.	1	No	3755	3755	3943	4131
1564	AHP2055	OAH	Charges for cleaning the outer surface of the 'U' tube bundle and inner surface of the shell and disposing the oil sediments to the area shown by the Engineer – in – charge.	1	No	6418	6418	6739	7060
1565	AHP2056	OAH	Charges for cleaning inner side of each tube of the 'U' tube bundle one by one by admitting fresh water and cleaning mechanically by long size nylon brushes thoroughly till all the sledge inside the tubes are flushed away.	1	No	6404	6404	6724	7044
1566	AHP2057	OAH	Charges for performing hydraulic test for 'U' tube bundle with fresh water including fabrication of suitable nipples, bends, etc. to suit the pump and the steam box fittings.	1	No	12808	12808	13448	14089
1567	AHP2058	OAH	Charges for overhauling of 100 mm / 80 mm steam valves available in the heating steam line leading to respective oil heating station including dismantling, inspection, rectification of defects by lapping valve disc and seat, renewal of sealing ring, gland packing and cleaning of all parts of valves and reassembling including cost of all consumables. (Sealing rings, packing rings will be supplied by Board at free of cost)	1	No	3604	3604	3784	3964
1568	AHP2059	OAH	Charges for fabrication and fixing of new insulation boxes for valve size 80 mm / 100 mm including charges for cutting the Aluminium / G.I. sheet bending to the required shape, all consumables, T&Ps, etc. as per the direction of Engineer-in-charge.	1	No	1378	1378	1447	1516

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1569	AHP2060	OAH	Charges for De-coupling the seal water pump from motor, disconnecting the suction and delivery lines and seal water lines.	1	No	3123	3123	3279	3435
1570	AHP2061	OAH	Charges for complete dismantling of ash slurry pump to carryout maintenance works.	1	No	5428	5428	5699	5971
1571	AHP2062	OAH	Charges for dismantling of bearings and inspection of shaft for its trueness and reassembling of new set of bearings.	1	No	8328	8328	8744	9161
1572	AHP2063	OAH	Charges for assembling of ash slurry pump after renewal of wornout spares.	1	No	14172	14172	14881	15589
1573	AHP2064	OAH	Charges for coupled the pump with motor and made alignment of pump with motor of ash slurry prmps and attend minor defects after conducting the pump trial run.	1	No	8040	8040	8442	8844
1574	AHP2065	OAH	Charges for attending routine maintenance works in all the Ash slurry pumps, HP, LP, FWP,SWP, sump pumps, cable trench pump and its accessories etc., and Drawl of materials & Devolution of scraps..	1	day	1759	1759	1847	1935
1575	AHP2066	OAH	Charges for replacement of existing worn out oil seals in the non drive end side of the Ash Slurry pump, belt tension and alignment works.	1	No	3963	3963	4161	4359
1576	AHP2067	OAH	Charges for replacement of existing worn out spares/oil seal in the drive end side of the Ash Slurry pump , belt tension and alignment works.	1	No	13570	13570	14249	14927
1577	AHP2068	OAH	Charges for worn out spares dismantling , assembling and alignment works the HP, LP,FWP or sump pump(A).	1	No	16656	16656	17489	18322
1578	AHP2069	OAH	Charges for worn out spares dismantling, assembling and alignment works the cable trench pump, SWP or sump pump (B).	1	No	8328	8328	8744	9161
1579	AHP2070	OAH	Charges for replacement of worn out bearing, and alignment works in NDE bearing in the HP, LP,FWP or SW Pumps	1	No	1321	1321	1387	1453
1580	AHP2071	OAH	Charges for replacement of worn out bearing and alignment works in DE bearing / shaft sleeves in the HP,LP,FWP or SW Pumps.	1	No	3963	3963	4161	4359
1581	AHP2072	OAH	Charges for replacing the worn out (or) punctured M.S. spool piece by dismantling the sleeve joint, flange joint, fabrication of new spool piece, erection and line joining work in the Ash slurry pipe lines.	1	No	2025	2025	2126	2228
1582	AHP2073	OAH	Charges for patch welding works in the worn out (or) punctured portion of the Ash slurry pipeline by dismantling the sleeve joint, flange joint in the Ash handling pump house..	1	No	1321	1321	1387	1453
1583	AHP2074	OAH	Charges for patch welding works in the worn out (or) punctured portion of the 'Y' bend in the Ash slurry stream (300 NB)	1	No	4050	4050	4253	4455
1584	AHP2075	OAH	Charges for dismantling the worn out (or) punctured MS ERW new bend and fabrication, erection by cutting and welding including cost of consumables such as cutting gas, welding electrodes, etc.. (300 NB)	1	No	4050	4050	4253	4455
1585	AHP2076	OAH	Charges for dismantling the worn out (or) punctured 200 /250/ 300 NB valves, repairing and reassembling in the existing pipe lines.	1	No	1465	1465	1538	1612
1586	AHP2077	OAH	Charges for replacing the existing worn out 80/100/200 /250/ 300 NB valves in the Ash handling pump house as directed by the Engineer in charge at site.	1	No	1393	1393	1463	1532
1587	AHP2078	OAH	Charges for replacing the existing worn out / punctured seal water line for Ash slurry pump, erection of new line and related valves in the Ash handling pump house as directed by the Engineer in charge at site.	1	No	2082	2082	2186	2290
1588	AHP2079	OAH	Charges for replacement of damaged / worn out bearings in the ash slurry pumps including of de-coupling the pump from the motor dismantling of suction and delivery spool pieces ,outer casing ,bracket side, wear plate ,bracket side door ,impeller, dismantling of driven pulley from shaft, gland housing, liquid thrower inner and outer bearing caps etc...and reassembling of the above spares with new bearing including the pump alignment etc I.Dismantling of Ash slurry pump	1	No	13930	13930	14627	15323
1589	AHP2080	OAH	II. Reassembling of the ash slurry pumps	1	No	14604	14604	15334	16064
1590	AHP2081	OAH	Charges for dismantling worn-out 300 NB Ash slurry discharge pipes, bends, sleeve couplings, supports and Valves. (1 set)	1	No	4050	4050	4253	4455
1591	AHP2082	OAH	Charges for fabrication of M.S. flanges dia cost for transportation to outside work shop and return.	1	No	1465	1465	1538	1612
1592	AHP2083	OAH	Charges for fabrication of 300 NB MS bends of 90° and 60° including marking, gas cutting, 'V' groove forming, grinding and welding as per site requirement	1	No	2786	2786	2925	3065
1593	AHP2084	OAH	Charges for welding of M.S. flanges with 300 NB MS ERW pipes and newly fabricated bends.	6	No	2377	396	416	436
1594	AHP2085	OAH	Charges for strengthening of suction and discharge spool pieces of Ash Slurry Pumps full round patch welding of overlapping pipe bits.(Pipe dia 300mm & pipe length 1 meter	1	No	2082	2082	2186	2290

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1595	AHP2086	OAH	Charges for filling in ash bags, stacking of ash bags in the slurry trench at the entry of the sump, dismantling suction side gate valves and spool pieces in of suction lines and providing dummy plate, dewatering of slurry sump with the help of centrifugal mono block pump, dismantling and removal of grills provided in the slurry sump and removal of wet ash deposit from sumps	1	No	44485	44485	46709	48934
1596	AHP2087	OAH	Replacement of eroded 300NB Ash Slurry pipe(Cutting and welding 2 joints)	1	No	6030	6030	6332	6633
1597	AHP2088	OAH	Charges for reconditioning of grills, removing the eroded portion by gas cutting and welding with the grills supporting structures etc., and removal of dummy plate and fixing the gate valves in the suction line	1	No	6075	6075	6379	6683
1598	AHP2089	OAH	Charges for taking out the stacked Ash bags in the Ash slurry trench leading to Ash slurry sump after completion of work and charging the Ash slurry sump with Ash slurry and checking the suction pipes for leakage of any.	1	No	2944	2944	3091	3238
1599	AHP2090	OAH	Charges for dismantling of one No. sleeve joint and flange joint in punctured M.S. pipe, half round patch welding work and assembling work, etc.	1	No	2506	2506	2631	2757
1600	AHP2091	OAH	Charges for dismantling the sleeve and flange joint, cutting the punctured M.S. pipe, fabrication of new spool piece and erection and line joining work, etc.	1	No	2506	2506	2631	2757
1601	AHP2092	OAH	Charges for dismantling the leaked sleeve joint and aligning with pipes and line joining works, etc.	1	No	1393	1393	1463	1532
1602	AHP2093	OAH	Charges for interchanging of dummy plates for diversion of ash slurry from one point to another point	1	No	2082	2082	2186	2290
1603	AHP2094	OAH	Charges for dismantling the punctured / heavily worn-out 'T' joint and erection of newly fabricated M.S. 'T' joint and line joining work	1	No	2618	2618	2748	2879
1604	AHP2095	OAH	Charges for fabrication of new M.S. 'T' joint with proper alignment work etc.	1	No	4754	4754	4992	5229
1605	AHP2096	OAH	Charges for loading and unloading of 355.6 mm O D new ERW MS pipes in trailer truck from central store/MTPS to work site.	200	M	5458	27	29	30
1606	AHP2097	OAH	Charges for dismantling of existing heavily wornout ash slurry M.S. ERW pipes lines of dia. 355.6 mm OD	30	M	3081	103	108	113
1607	AHP2098	OAH	Charges for erection of 355.6 mm O.D. New MS ERW pipes	30	M	3490	116	122	128
1608	AHP2099	OAH	Charges for dismantling the existing heavily wornout MS bend and erection of newly fabricated M.S bend	1	No	2618	2618	2748	2879
1609	AHP2100	OAH	Stage – I & II – Round the Clock Watch and Ward of the ash Slurry lines IA, IB, IC, ID, IIA, IIB, IIC and IID streams up to Upper Ash Dyke discharge point and cleaning the bushes below the slurry lines	1	day	3497	3497	3672	3847
1610	AHP2101	OAH	Dismantling of MS flange and sleeve couplings for rotation of 350 NB MS ERW pipes by 90°	20	No	2082	104	109	115
1611	AHP2102	OAH	Rotation of MS ERW pipes dia. Of 350 NB ash slurry lines	30	M	3289	110	115	121
1612	AHP2103	OAH	Cutting and removal of existing deteriorated holding hooks ['U' clamps] & cleats and erection of new cleats & hooks	10	set	2865	287	301	315
		OAH	PDFAC System						
1613	AHP2105	OAH	Charges for removal of existing worn out 150 NB MS ERW ash conveying pipe lines with all kinds of bends provided at 8.5metres height from ESP to respective silo along with bends	1	No	4000	4000	4200	4400
1614	AHP2106	OAH	Charges for fabrication of 200NB, 90/45 degree MS bends suitable for Ash conveying pipe lines	1	No	1393	1393	1463	1532
1615	AHP2107	OAH	Charges for erection of 150 NB MS ERW pipes with bends for fly ash conveying pipe lines at about 8 Metres height elevation from ESP to respective silo,	18	M	3497	194	204	214
		OAH	Labour Charges for operation and Maintenance of PDFACS Equipments for one unit						
1616	AHP2108	OAH	a) Labour Charges for operation of PLC, switch gear panels, modules, breakers, transformers, Fly ash conveying air compressors ,Instrument air compressors, and its connected Accessories	1	day	3945	3945	4142	4340
1617	AHP2109	OAH	b). Labour charges for maintenance of PLC, Switch gear, modules, breakers and transformer, Ash conveying compressors, Instrument air compressors & its related equipments etc. (General Shift)	1	day	1123	1123	1179	1235
1618	AHP2110	OAH	c) Labour charges for maintenance of PLC, Switch gear, modules, breakers and transformer, Ash conveying compressors, Instrument air compressors & its related equipments etc. (Night Shift)	1	day	1123	1123	1179	1235

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1619	AHP2111	OAH	d) Labour Charges for operation of PDFACS equipments in ESP area , cleaning ESP and its surrounding areas, cleaning of ash slurry trenches from ESP to Ash handling pump house ,stage-II . Attending Ash conveying pipe line puncture works, and Replacement of switch valve seals, bellows etc.	1	day	8940	8940	9387	9834
1620	AHP2112	OAH	e) Labour Charges for maintenance of PDFACS equipments in ESP area ,silo equipments and petty maintenance works of fly ash conveying pipe lines with all bends from ESP to silo and including of ESP 48 nos of mixing apparatus, distance pieces, bellows, low pressure, high pressure water pipe lines, flushing water pipe lines, and required valves, gaskets, bolts and nuts, etc(General Shift)	1	day	4657	4657	4890	5123
1621	AHP2113	OAH	f) Labour Charges for maintenance of PDFACS equipments in ESP area ,silo equipments and petty maintenance works fly ash conveying pipe lines with all bends from ESP to silo and including of ESP 48 nos of mixing apparatus, distance pieces, bellows, low pressure, high pressure water pipe lines, flushing water pipe lines, and required valves, gaskets, bolts and nuts, etc (Night Shift)	1	day	1891	1891	1986	2080
1622	AHP2114	OAH	g) Labour charges for operation of Silo compressors, Silo unloading chutes blowers and loading the fly ash vehicles , cleaning of bag filters etc.	1	day	3174	3174	3333	3491
1623	AHP2115	OAH	h) Labour charges for cleaning of spillage ash in silo and surrounding area , silo approach road and underneath of pipe rack & Hill area etc. cleaning should be carried out all 365 days.	1	day	1860	1860	1953	2046
1624	AHP2116	OAH	i) Labour charges for attending Annual overhauling works in PLC switch gear panels, modules, breakers, transformers, Fly ash conveying air compressors Instrument air compressors, PDFACS equipments and related Accessories Dismantling of 48 nos Mixing apparatus cleaning and painting and reassembling, replacing worn out flushing water lines and valves, LP & HP waterlines & painting the same. Maintenance of wornout Ash conveying pipe lines from ESP to silo, over hauling of silo rotary feeders, chutes,blowers, bag filters, dust extraction fan and silo maintenance works etc .	1	day	21861	21861	22954	24047
		EM	ELECTRICAL MAINTENANCE						
1625	EM2001	EM	Charges for Revisioning of Differential Pressure Regulator	1	No	1199	1199	1258	1318
1626	EM2002	EM	Charges for Revisioning of Pressure Oil Regulator	1	No	1199	1199	1258	1318
1627	EM2003	EM	Charges for Revisioning of Seal Oil Filter	1	No	799	799	839	879
1628	EM2004	EM	Charges for Complete Cleaning of the Seal oil system pipelines	1	No	616	616	647	678
1629	EM2005	EM	Revisioning of Damper Tank	1	No	1199	1199	1258	1318
1630	EM2006	EM	Charges for dismantling the seal oil pipe lines, seal body and seal liner, slope cutting of seal liner, replacing seal liner silicon rubber cords and seal body gasket, revisioning of dismantled parts, checking the clearance between seal body & seal liner, connecting the seal oil pipe lines and connecting the seal oil pipe lines conducting the Seal slide test.	1	No	24006	24006	25206	26407
1631	EM2007	EM	Charges for Dismantling, Rectification, overhaul and reconnecting One number (25NB / 40NB /50NB) Globe valve/NRV.	1	No	1025	1025	1076	1128
1632	EM2008	EM	Charges for Dismantling, Rectification, overhaul and reconnecting One number (80NB / 100NB) Globe valve/NRV.	1	No	1538	1538	1614	1691
		EM	STATOR WATER SYSTEM						
1633	EM2009	EM	Charges for Revisioning of Reserve Tank	1	No	1199	1199	1258	1318
1634	EM2010	EM	Charges for Revisioning of Stator Water Filter	1	No	799	799	839	879
1635	EM2011	EM	Charges for Revisioning of Magnetic Filter	1	No	799	799	839	879
1636	EM2012	EM	Charges for (dismantling lifting and leading the Polishing unit from 4.5mtr. area to DM Plant for regeneration of the resin, Dismantling of outlet flanges, Cleaning of the mesh and reassembling with new gaskets, and back to its original position)	1	No	2565	2565	2693	2822
1637	EM2013	EM	Charges for Revisioning of Expansion Tank	1	No	799	799	839	879
1638	EM2014	EM	Charges for Complete Cleaning of the Stator Water system pipelines	1	No	616	616	647	678
1639	EM2015	EM	Charges for Complete cleaning of Expansion Tank Float Valve	1	No	1199	1199	1258	1318
1640	EM2016	EM	Dismantling the stator water cooler.	1	No	2108	2108	2213	2319
1641	EM2017	EM	Removing the top cover of stator water cooler, cleaning of tubes, plugging of defective tubes (if necessary), replacing the rubber cord (12x12mm) & gaskets, painting with anti corrosive paint and re-assembling.	1	No	6774	6774	7113	7451
1642	EM2018	EM	Dismantling the stator water cooler nest, replacing the all HRR flaps with SS strips, gaskets and re-assembling the cooler tube with shell.	1	No	11290	11290	11855	12419

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1643	EM2019	EM	Hydraulic testing of stator water cooler.	1	No	2724	2724	2860	2996
1644	EM2020	EM	Charges for Fabrication of 1 No. SS strips for fixing HR Rubber flaps by grinding, drilling holes of 6mm dia to suit the circumference of the stator water cooler nest.	1	No	381	381	400	419
1645	EM2021	EM	Assembling the stator water cooler in its bed and satisfactory commissioning.	1	No	1362	1362	1430	1498
1646	EM2022	EM	Charges for drying out the stator winding by circulating hot air and puffing work	1	No	3380	3380	3549	3718
1647	EM2023	EM	Charges for Stator water pump overhauling	1	No	3870	3870	4064	4257
1648	EM2024	EM	Charges for Stator Water Pump and Motor Alignment	1	No	2903	2903	3048	3193
		EM	HYDROGEN GAS SYTEM						
1649	EM2025	EM	Charges for Revisioning of the Hydrogen gas Drier	1	No	1199	1199	1258	1318
1650	EM2026	EM	Charges for conducting Air Tightness Test and attending miner leaks of H2 gas system.	1	No	2397	2397	2517	2637
1651	EM2027	EM	Charges for Purging of H2 gas in TG casing	1	No	1598	1598	1678	1758
1652	EM2028	EM	Charges for filling of H2 gas in TG casing	1	No	3321	3321	3487	3653
1653	EM2029	EM	Charges for Diaphragm replacement in 50NB Diaphragm valve	10	No	717	72	75	79
1654	EM2030	EM	Charges for replacement of 50NB Diaphragm Valve	5	No	1598	320	336	352
1655	EM2031	EM	Charges for removing of H2 cooler inlet & outlet bends and providing Dummy plates.	2	No	495	247	260	272
1656	EM2032	EM	Charges for dismantling 1 No.H2 cooler from Generator and placing at convenient location.	4	No	6856	1714	1800	1885
1657	EM2033	EM	Charges for Dismantling of water boxes of the released coolers, removing of scales in tubes by brush and flushing of cooler tube with water, replacing the gaskets with new one, reassembling the water boxes, replacing the damaged HRR flaps.	4	No	9320	2330	2447	2563
1658	EM2034	EM	Charges for Complete Inspection of 1 No. Hydrogen cooler tunnels and cleaning the inner side of tunnels, inspection of Hydrogen diffusing system nozzles & pipes and cleaning of oil fumes inside the casing.	1	No	3153	3153	3311	3468
1659	EM2035	EM	Charges for checking the healthiness by conducting hydraulic test.	4	No	6664	1666	1749	1833
1660	EM2036	EM	Labour charges for assembling the 1 No. cooler in the Generator	4	No	6914	1729	1815	1901
1661	EM2037	EM	Charges for checking gas leakage by applying soap water solution and U tube Manometer.	4	No	4660	1165	1223	1282
1662	EM2038	EM	a) Charges for dismantling the dummy plates and Assembling of inlet and outlet bends with new gaskets in H2 Cooler	4	No	4660	1165	1223	1282
1663	EM2039	EM	b) Assembling of inlet and outlet bends with new gaskets and satisfactory commissioning of coolers.	4	No	4044	1011	1062	1112
1664	EM2040	EM	Dismantling and reassembling of seal oil pipe lines, bearing top cover ,Seal body, Seal liner, Intermediate ring after revisioning the dismantled parts and replacing the Silicon Rubber cords and checking the clearances at one end.	1	No	16004	16004	16804	17604
1665	EM2041	EM	Dismantling the oil catchers, end shield top and bottom, revisioning the dismantled parts, replacing the Vacuum Rubber cords etc., and reassembling top and bottom end shields,oil catcher at one end.	1	No	61952	61952	65050	68147
1666	EM2042	EM	Charges for revisioning of Turbo Generator Bottom manhole cover & inside side covers and inspection & cleaning of inside casing bottom.	1	No	6306	6306	6621	6937
1667	EM2043	EM	Charges for dismantling and Reassembling inlet and outlet tool piece-2 Nos and connecting between stator water Bushing and stator water pipe lines providing dummies for conducting hydraulic test	1	No	3380	3380	3549	3718
1668	EM2044	EM	Charges for releasing the 1 No. stator water bushing.	1	No	4845	4845	5087	5330
1669	EM2045	EM	Charges for checking and cleaning the bushing Insulator by acetone thoroughly and replacing the worn-out gaskets, checking of sealing washers, sealing ring and replacement etc.	2	No	12920	6460	6783	7106
1670	EM2046	EM	Charges for re-assembling the 1 No. stator water bushing.	1	No	6460	6460	6783	7106
1671	EM2047	EM	Charges for dismantling and Reassembling the impulse line coupling inside the bottom casing with new gasket.	1	No	3380	3380	3549	3718
1672	EM2048	EM	Charges for dismantling and Reassembling inlet / outlet tool piece (internal) -1 No with new gasket.	2	No	7336	3668	3851	4035
1673	EM2049	EM	Conducting Hydraulic test of TG Stator Winding	1	No	2724	2724	2860	2996
1674	EM2050	EM	Charges for loading of 100 Nos. empty H2 Gas Cylinder to board lorry for sending to M/s Chemplast plant III/MTPS-II for H2 Gas filling.	100	No	2873	29	30	32
1675	EM2051	EM	Charges for Unloading of 100Nos. empty H2 Gas Cylinder at H2 gas plant / MTPS-II for filling H2 gas.	100	No	2873	29	30	32

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1676	EM2052	EM	Shifting of empty H2/ CO2 cylinder from Gas room of 4 units to Central gas storage room and transporting filled H2/ CO2 cylinders to gas room of 4 units from central gas storage room.	50	No	1817	36	38	40
1677	EM2053	EM	Charges for Releasing & Refixing of existing H2/CO2 gas cylinder valve by New Valve	10	No	4293	429	451	472
		EM	EXCITATION SYSTEM						
1678	EM2054	EM	Charges for dismantling Brush Gear cable, removing the carbon brushes, Brush holders, releasing the brush gear assembly and cleaning the same	1	No	5400	5400	5670	5940
1679	EM2055	EM	Charges for measuring the dimensions of slip rings, fixing the lathe machine, Groove cutting and polishing the slip ring to the required dimensions.	1	Set	37800	37800	39690	41580
1680	EM2056	EM	Charges for surface Grinding of all four arms using suitable Grinding stone.	1	No	2140	2140	2247	2354
1681	EM2057	EM	Charges for re-fixing the Brush gear assembly, aligning the radial clearances, re-fixing the brush holders, carbon brushes and brush gear cable	1	No	5400	5400	5670	5940
1682	EM2058	EM	Charges for dismantling and re-assembling the terminal links in Turbo Generator-1 for conducting test by MRT wing.	3	No	16368	5456	5729	6002
1683	EM2059	EM	Charges for dismantling and re-assembling the terminal Bus Bar links of phase side of Turbo Generator (per phase) for conducting statutory test	1	No	4092	4092	4297	4501
1684	EM2060	EM	Charges for dismantling and re-assembling the terminal Bus Bar links of neutral side of Turbo Generator (per phase) (Each phase consists of 2 Nos. bushings) for conducting statutory test.	1	No	6138	6138	6445	6752
1685	EM2061	EM	Charges for removing the 15.75KV Bus links and connecting shorting bar across the bus for Generator SC test purpose and removing the shorting bar and normalizing the Bus.	1	No	16755	16755	17593	18431
1686	EM2062	EM	Dismantling & Reassembling of HT/LT Terminal links of Excitation Transformer	1	No	1333	1333	1400	1466
1687	EM2063	EM	Cleaning of Excitation Transformer & its Cooling fan & its Ducts (4 Nos.),	1	No	3282	3282	3446	3610
1688	EM2064	EM	Charges for connecting and disconnecting the 1Cx185sq.mm-3 nos. cable in the primary side of excitation transformer & 6.6KV HT panel end to carry out testing turbo generator load curves by separate excitation and self excitation process	1	No	821	821	862	903
1689	EM2065	EM	Charges for inspection & pole rotation of the spare Turbo Generator Rotor	1	No	15852	15852	16645	17437
1690	EM2066	EM	Charges for painting with 2 coats for any electrical equipments	10	M ²	406	41	43	45
		EM	GENERATING TRANSFORMER						
1691	EM2067	EM	Charges for Dismantling and Assembling of HT/LT Terminal links for 250MVA GT.	1	No	10896	10896	11441	11986
1692	EM2068	EM	Charges for Dismantling and Assembling of all the inspection covers, Checking tightness & healthiness of supporting insulators and internal cleaning of 15.75KV Bus-duct of GT.	1	No	11565	11565	12143	12722
1693	EM2069	EM	Charges for replacement of HT Support insulator 1 no. of GT.	1	No	3077	3077	3231	3385
1694	EM2070	EM	Charges for replacement of 1 no current transformer/ potential transformer of GT.	1	No	5538	5538	5815	6092
1695	EM2071	EM	Charges for replacement of seal- off bushing 1 no of GT.	1	No	2315	2315	2431	2547
1696	EM2072	EM	Charges for replacement LAS 1 no of GT.	1	No	3077	3077	3231	3385
1697	EM2073	EM	Charges for Inspection & cleaning of Bus PT cubicle, SP cubicle and checking tightness of Bus PT& SP.	1	No	3855	3855	4048	4241
1698	EM2074	EM	Charges for Inspection and checking tightness of generator Phase & Neutral side links.	1	No	3855	3855	4048	4241
1699	EM2075	EM	Charges for Transportation of 1 No. filter machine from repair bay -3 to Transformer yard and return back to its original position.	1	No	11133	11133	11690	12246
1700	EM2076	EM	Charges for Providing 3 Phase power connection and trial run of 1 No. Filter machine.	1	No	3711	3711	3897	4082
1701	EM2077	EM	Charges for Transportation of the 40KL oil storage tank from repair bay to transformer yard & return back to its original position.	1	No	12276	12276	12890	13504
1702	EM2078	EM	Charges for Transportation of the 15KL oil storage tank from repair bay to transformer yard & return back to its original position.	1	No	6138	6138	6445	6752
1703	EM2079	EM	Charges for Transportation of the 10 KL oil storage tank from repair bay to transformer yard & return back to its original position.	1	No	6138	6138	6445	6752
1704	EM2080	EM	Charges for Draining of Transformer oil from main tank of GT to storage tanks and Hot oil circulation.	1	No	14844	14844	15586	16328
1705	EM2081	EM	Charges for Dismantling and Assembling the equalizing pipe lines, inspection cover in the LV chamber 6 Nos and LV turret fixes in GT.	1	No	9604	9604	10084	10564

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1706	EM2082	EM	Charges for Dismantling the LV flexible links between LV bushing and LV winding of the GT.	1	No	9604	9604	10084	10564
1707	EM2083	EM	Charges for Dismantling the LV turret, LV Bushings, superficial cleaning of LV bushings and replacement of new gaskets and reassembling in GT.	1	No	19208	19208	20168	21129
1708	EM2084	EM	Charges for Dismantling and Assembling the Inspection covers of OLTC, Surge relays, OLTC diverter switch assembly with new gasket in GT.	1	No	5567	5567	5845	6123
1709	EM2085	EM	Charges for Checking the tightness of OLTC 1 no selector switch terminals in GT/ST.	1	No	1856	1856	1948	2041
1710	EM2086	EM	Charges for Dismantling and Assembling the HV leads and allied works of OLTC 1no selector switch in GT/ST.	1	No	3711	3711	3897	4082
1711	EM2087	EM	Charges for Dismantling and Assembling of OLTC Assembly with selector switch, transported to safe location, Renewing of Diverter Oil Vessel Assembly gaskets and fastners and oil leak test in one oltc assembly of GT/ST.	1	No	8508	8508	8933	9358
1712	EM2088	EM	Charges for Draining and Filling of Transformer Oil to the Transformer Conservator tank of GT.	1	No	7366	7366	7734	8103
1713	EM2089	EM	Charges for Vacuum pulling, Oil filling and hot oil circulation (main tank, radiators & combined circulation) up to reaching of parameters to the satisfactory level in GT/ST/UAT's	###	Ltrs.	44196	1	1	1
1714	EM2090	EM	Charges for N2 gas filling in air cells and testing healthiness.	1	No	3683	3683	3867	4051
1715	EM2091	EM	Charges for Transporting of 1No. New 230KV HV bushing from central stores to GT yard and return back to stores.	1	No	2981	2981	3130	3279
1716	EM2092	EM	Charges for releasing and erection of 1No 800A / 1250A HV Bushings with new gaskets in Generator Transformer HV turrets.	1	No	10038	10038	10540	11042
1717	EM2093	EM	Charges for Brazing of 1 No Bushing terminals with HV winding lead Tumble in Generator Transformer including brazing material.	1	No	10038	10038	10540	11042
1718	EM2094	EM	Charges for Dismantling and assembling of conservator tank, breather lines, valves and bucholz lines of GT.	1	No	15705	15705	16490	17276
1719	EM2095	EM	Charges for Providing of new Air cell in the conservator tank, testing and erection of the conservator tank on its bed at GT.	1	No	10470	10470	10994	11517
1720	EM2096	EM	Charges for releasing and erection of 1.2KW, 3 phase, 415V, 50Hz radiator cooling fan motor assembly in GT/UAT.	1	No	1401	1401	1471	1541
1721	EM2097	EM	Charges for dismantling of existing damaged One phase 230KV strung bus and vertical dropper by Moose conductor in Generator Transformer.(above 9 mtr. height)	10	M	1133	113	119	125
1722	EM2098	EM	Charges for stringing of new strung bus and vertical dropper by Moose conductor in One phase 230KV Generator transformer. (above 9 mtr. height)	10	M	2265	227	238	249
1723	EM2099	EM	Charges for dismantling and assembling of One phase strung bus Disc insulator.	10	No	6984	698	733	768
1724	EM2100	EM	Charges for fixing of new wedge connectors in the 230KV strung Bus and vertical dropper in One phase.	10	No	4656	466	489	512
1725	EM2101	EM	Charges for Transporting of New oil 1 KL in barrels from central stores which includes loading at central stores & unloading to transformer yard.	15	KL	4092	273	286	300
1726	EM2102	EM	Charges for releasing the defective 250NB/200NB valve and fixing the same size valve in GT.	1	No	1319	1319	1385	1451
1727	EM2103	EM	Charges for releasing the defective 80NB/50NB valve and fixing the same size valve in Transformer.	1	No	1039	1039	1091	1143
		EM	UNIT AUXILIARY TRANSFORMER						
1728	EM2104	EM	Charges for Dismantling and Assembling of HT/LT Terminal links in 16MVA UAT-A&B.	1	No	5448	5448	5720	5993
1729	EM2105	EM	Charges for Draining of oil in drain oil pipelines in UAT.	1	No	4322	4322	4538	4754
1730	EM2106	EM	Charges for Dismantling the UAT radiator cooling fans & Banks.	1	No	6483	6483	6807	7131
1731	EM2107	EM	Charges for Removing of control cables.	1	No	2161	2161	2269	2377
1732	EM2108	EM	Charges for Leading the existing UAT transformer from its bed to a convenient location in unit transformer Yard.	1	No	10038	10038	10540	11042
1733	EM2109	EM	Charges for Assembling the radiators with new gaskets in UAT.	1	No	8644	8644	9076	9508
1734	EM2110	EM	Charges for Dismantling and assembling HV/LV turrets in UAT.	1	No	6483	6483	6807	7131
1735	EM2111	EM	Charges for Replacement of HV/LV Bushing gaskets all inspection cover gaskets, oil filling in UAT.	1	No	6483	6483	6807	7131
1736	EM2112	EM	Charges for Inspection of OCTC, tightness, healthiness of its Moving/Fixed contact checking in UAT.	1	No	4322	4322	4538	4754

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1737	EM2113	EM	Charges for Dismantling and Assembling of conservator tank, breathers and Bucholz line in UAT.	1	No	4014	4014	4215	4415
1738	EM2114	EM	Charges for Inspection and cleaning of One Phase HV bushing termination in UAT.	1	No	4322	4322	4538	4754
1739	EM2115	EM	Charges for Providing of new Air cell in the conservator tank, testing and erection of the conservator tank on its bed at UAT.	1	No	8644	8644	9076	9508
1740	EM2116	EM	Charges for renewing the damaged rubber bellows One number in the 15.75 KV Bus-Duct PT cubicle at UAT.	1	No	2070	2070	2174	2277
		EM	STATION TRANSFORMER						
1741	EM2117	EM	Charges for Dismantling and Assembling of HT/ LT Terminal links of 31.5 MVA Station Transformer .	1	No	8172	8172	8581	8989
1742	EM2118	EM	Charges for general cleaning, water washing, cleaning of bushings, attending oil leaks and tightness checking of all bolts nuts, replacement of silica gel, changing oil in the thermo- pockets and other related works in ST and its NGT& NGR.	1	No	2724	2724	2860	2996
		EM	UNIT SERVICE TRANSFORMER						
1743	EM2119	EM	Charges for Releasing the old transformer oil from the tank of UST & Refilling the transformer tank with the released transformer oil.	1	No	2231	2231	2343	2454
1744	EM2120	EM	Charges for Dismantling and reassembling the top cover of the transformer with new gaskets in ST.	1	No	2010	2010	2111	2211
1745	EM2121	EM	Charges for Complete cleaning of the Tap switch and attending defects if any in ST.	1	No	3902	3902	4097	4292
1746	EM2122	EM	Charges for Removing of old gaskets and Providing New gaskets at Bucholz Relay, conservator tank and Radiator bank.	1	No	1822	1822	1913	2004
1747	EM2123	EM	Charges for Hot oil Circulation.	1	No	3412	3412	3583	3753
		EM	6.6KV HT SWGR						
1748	EM2124	EM	Annual Maintenance of 6.6 KV unit Bus and its bus ducts for stage-I & II HT Swgr.(1A,1B,2A,2B,3A,3B,4A&4B) Charges for releasing the back doors (top and bottom),Bus separator, racking out of all 18 Nos.HT Breakers and cleaning of all the released doors and checking of IR value of Bus for 1 No. panel.	20	No	4656	233	244	256
1749	EM2125	EM	Charges for complete cleaning of Horizontal, vertical busbars and supporting insulators with the help of air blower and Acetone/IPA, tightness checking of Horizontal, vertical bus bars and outgoing power cable terminals for 1 No. panel.	20	No	4504	225	236	248
1750	EM2126	EM	Charges for cleaning and lubricating of all moving parts of HT Breakers, upper and lower pole arms, vacuum bottles with Acetone/IPA. All bolts and nuts tightness checking, checking healthiness of Interrupters, closing/Tripping operations mechanically and checking of IR value for 1 No. breaker.	18	No	3838	213	224	235
1751	EM2127	EM	Charges for refixing of back doors(top and bottom) by providing all bolts and nuts racking in all HT breakers and checking of IR value and satisfactory commissioning for 1 No. panel.	20	No	3838	192	201	211
1752	EM2128	EM	Charges for releasing all inspection covers of Bus ducts ,checking of Initial IR value,thorough cleaning by applying Acetone/ IPA and checking healthiness of supporting insulators & tightness checking of bus bar joints and checking of Healthiness of Rubber bellows for the Incomer &Tie Bus Ducts of one bus.(MTPS-1 -1A,1B, 2A&2B HT bus)	1	No	4070	4070	4274	4477
1753	EM2129	EM	Charges for checking final IR value of Bus bars, refixing of inspection covers and satisfactory commissioning& checking of Top cover gaskets, rubber bellows and replacement if necessary.(MTPS-1 -1A,1B, 2A&2B HT bus)	1	No	5686	5686	5970	6255
1754	EM2130	EM	Charges for releasing all inspection covers of Bus-ducts- 2 nos (I/c bus duct &Tie bus duct) checking of Initial IR value, thorough cleaning by applying Acetone and checking healthiness of supporting insulators & tightness checking of bus bar joints and checking of Healthiness of Rubber bellows.(MTPS-1 -3A,3B, 3A&3B HT bus)	1	No	8140	8140	8547	8954
1755	EM2131	EM	Charges for checking final IR value of Bus-bars, re-fixing of inspection covers and satisfactory commissioning& checking of Top cover gaskets, rubber bellows and replacement if necessary.(MTPS-1 -3A,3B, 4A&4B HT bus)	1	No	5686	5686	5970	6255
1756	EM2132	EM	Annual Maintenance of 6.6 KV Station Bus and its bus ducts for Stage-I HT Swgr.(C1&C2) Charges for releasing the back doors (top and bottom), Bus separator, racking out of HT Breakers/Bus VT and cleaning of all the released doors and checking of IR value of Bus for 1 No. panel.	18	No	4656	259	272	285

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1757	EM2133	EM	Charges for complete cleaning of Horizontal, vertical busbars Panels and supporting insulators with the help of air blower and Acetone , tightness checking of Horizontal, vertical bus-bars and outgoing power cable terminals for 1 No. panel.	18	No	4504	250	263	275
1758	EM2134	EM	Charges for cleaning and lubricating of all moving parts of HT Breaker upper and lower pole arms, vacuum bottles with Acetone/IPA. All bolts and nuts tightness checking, checking healthiness of Interrupters closing/Tripping operations mechanically and checking of IR value for 1 No. breaker.	17	No	3838	226	237	248
1759	EM2135	EM	Charges for re-fixing of back doors(top and bottom) by providing all bolts and nuts racking in the HT breaker and checking of IR value and satisfactory commissioning for 1 No. panel.	18	No	3838	213	224	235
1760	EM2136	EM	Charges for releasing and Re-fixing all inspection covers of Bus-ducts, checking of Initial IR value, thorough cleaning by applying Acetone/ IPA and checking healthiness of supporting insulators & p tightness checking of bus bar joints and checking of Healthiness of Rubber bellows for the In-comer &Tie Bus Ducts of C2 Bus (MTPS-1)	1	No	4070	4070	4274	4477
1761	EM2137	EM	Annual Maintenance of 6.6 KV HT Buses and its bus ducts for RWPH Charges for releasing the back doors (top and bottom), inner door, racking out of HT Breakers and cleaning of all the covers of RWPH HT buses C1 & C2 and checking of IR value for 1 No. panel.	11	No	3492	317	333	349
1762	EM2138	EM	Charges for complete cleaning of Horizontal, vertical busbar of Panels and supporting insulators with the help of air blower and Acetone, tightness checking of Horizontal, vertical busbars and outgoing power cable terminals for 1 No. panel.	11	No	3378	307	322	338
1763	EM2139	EM	Charges for cleaning of upper and lower pole arms of MOCB & VCB with Acetone, lubricating of all moving parts of MOCB & tightness checking of all bolts and nuts ,checking of closing/Tripping operations both mechanically & electrically and checking of IR value for 1 No. breaker.	1	No	1919	1919	2015	2111
1764	EM2140	EM	Charges for refixing of back doors(top and bottom), inner doors by providing all bolts and nuts after checking the final IR value of Bus bars, HT cables, & breakers, pole resistance ,contact resistance, open and close timings of breakers, and racking in all HT breakers and satisfactory commissioning for 1 No. panel.	11	No	2879	262	275	288
1765	EM2141	EM	Complete Servicing of 6.6 KV Alind/ABB make VCB	1	No	11890	11890	12485	13079
1766	EM2142	EM	Complete Servicing of 6.6 KV Siemens make VCB	1	No	4983	4983	5232	5481
1767	EM2143	EM	Complete Servicing of 6.6 KV Alind make MOCB in RWPH	1	No	11890	11890	12485	13079
1768	EM2144	EM	Replacement of Spring charge motor in 6.6 KV HT breaker	1	No	1202	1202	1262	1322
1769	EM2145	EM	Replacement and Healthiness Checking of Vacuum Interruptor in 6.6 KV Alind/ABB/Siemens HT VCB /MOCB.	1	No	2404	2404	2524	2644
1770	EM2146	EM	Replacement of Drive Rod insulator in 6.6 KV Alind /ABB/Siemens make HT Breaker..	1	No	1969	1969	2067	2166
1771	EM2147	EM	Replacement of Mechanism in 6.6 KV ALIND/ABB /Siemens make HT Breaker.	1	No	5907	5907	6202	6498
1772	EM2148	EM	Charges for HT Bushing CT Replacement allied works in 6.6 KV HT VCB breaker Panel for stage I&II.	1	No	6885	6885	7229	7574
1773	EM2149	EM	Charges for Releasing and Re fixing the 6.6 KV power cable termination for breaker / motor end.	1	No	1025	1025	1076	1128
1774	EM2150	EM	Identification of fault in HT cables for various, Sizes including excavation of pit, releasing the fault cables.	1	No	1684	1684	1768	1852
1775	EM2151	EM	HT bus duct bellow renewal work	1	No	3242	3242	3404	3566
1776	EM2152	EM	HT Bus bar support insulator replacement works	1	No	2432	2432	2553	2675
1777	EM2153	EM	Replacement of vertical / Horizontal Bus bar in 6.6 KV HT Panels.	1	No	2868	2868	3011	3155
		EM	OVERHAULING OF LT SWGR						
1778	EM2154	EM	Complete overhauling of LT unit Bus (USSG) for stage-I Swgr. (for USSG-1A,1B , 2A & 2B) /MTPS-1 1) Releasing the Top covers and side covers of the bus chamber, checking IR value and releasing out all the modules. (120 Nos) (for 1 No. USSG LT bus)	1	No	3353	3353	3521	3688
1779	EM2155	EM	2) Cleaning the main (Horizontal) bus bars the vertical bus bars and its support insulators and checking the tightness of Bus bar joints, cleaning the entire area and checking the tightness of outgoing cable re-insulation/ termination wherever necessary.	1	No	8402	8402	8822	9242

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1780	EM2156	EM	3) Cleaning of all the modules, cleaning & healthiness checking of Power Contactor tips and replacing if necessary, terminal tightness of all components, Checking & cleaning of Finger contacts in Breaker with IPA, healthiness of spring charging motors and the mechanisms, terminal tightness of all components of Breakers and checking their operations.	1	No	6504	6504	6829	7154
1781	EM2157	EM	4) Refixing the Top covers and side covers of the bus chambers, checking the IR value and refixing the modules and breakers & satisfactory commissioning.	1	No	3353	3353	3521	3688
1782	EM2158	EM	Complete overhauling of LT station Bus (SSSG) for stage-I Swgr. 1) Releasing the Top covers and side covers of the bus chamber, checking IR value and releasing out all the modules. (89Nos) (for 1 No. LT SSSG bus)	1	No	2944	2944	3091	3238
1783	EM2159	EM	2) Cleaning the main (Horizontal) bus bars the vertical bus bars and its support insulators and checking the tightness of Busbar joints, cleaning the entire area and checking the tightness of outgoing cable and reinsulation / termination wherever necessary.	1	No	6968	6968	7316	7665
1784	EM2160	EM	3) Cleaning of all the modules, cleaning & healthiness checking of Power Contactor tips and replacing if necessary, termination tightness of all components, Cleaning the Breakers with IPA, checking and cleaning of finger contacts healthiness of spring charging motor and mechanism, terminal tightness of all components in the Breakers and checking its operations.	1	No	5070	5070	5324	5577
1785	EM2161	EM	4) Refixing the Top covers and side covers of the bus chambers, checking the IR value and refixing the modules and breakers & satisfactory commissioning.	1	No	2944	2944	3091	3238
1786	EM2162	EM	Complete overhauling of LT Bus VMCC A & B for Swgr. 1) Releasing the Top covers and side covers of the bus chamber, checking IR value and releasing out all the modules.(A-34Nos,B-34Nos) (for VMCC A & B bus)	1	No	2636	2636	2768	2900
1787	EM2163	EM	2) Cleaning the main (Horizontal) bus bars the vertical bus bars and its support insulators and checking the tightness of Busbar joints, cleaning the entire area and checking the tightness of outgoing cable .	1	No	4918	4918	5164	5410
1788	EM2164	EM	3) Cleaning of all the modules with IPA, cleaning & healthiness checking of Power Contactor tips and replacing if necessary, termination tightness of all components.	1	No	4302	4302	4517	4732
1789	EM2165	EM	4) Refixing the Top covers and side covers of the bus chambers, checking the IR value and refixing the modules and breakers & satisfactory commissioning.	1	No	2636	2636	2768	2900
1790	EM2166	EM	Complete overhauling of LT Bus BMCC-A & B for Swgr. 1) Releasing the Top covers and side covers of the bus chamber, checking IR value and releasing out all the modules.(A-58Nos& B -58Nos) (for BMCC A & B bus)	1	No	2944	2944	3091	3238
1791	EM2167	EM	2) Cleaning the main (Horizontal) bus bars the vertical bus bars and its support insulators and checking the tightness of Busbar joints, cleaning the entire area and checking the tightness of outgoing cable .	1	No	3792	3792	3982	4171
1792	EM2168	EM	3) Cleaning of all the modules, cleaning & healthiness checking of Power Contactor tips and replacing if necessary, termination tightness of all components, Cleaning the Breakers with IPA, healthiness of spring charging motor, termination tightness of all components and checking Breaker operations and refixing the modules and Breakers in the respective panels.	1	No	6504	6504	6829	7154
1793	EM2169	EM	4) Refixing the Top covers and side covers of the bus chambers, checking the IR value and satisfactory commissioning.	1	No	2944	2944	3091	3238
1794	EM2170	EM	Complete overhauling of LT Bus SBMCC for Swgr. 1) Releasing the Top covers and side covers of the bus chamber, checking IR value and releasing out all the modules.(96 Nos) (for 1 No. SBMCC LT bus)	1	No	2944	2944	3091	3238
1795	EM2171	EM	2) Cleaning the main (Horizontal) bus bars the vertical bus bars and its support insulators and checking the tightness of Busbar joints, cleaning the entire area and checking the tightness of outgoing cable .	1	No	3484	3484	3658	3832
1796	EM2172	EM	3) Cleaning of all the modules with IPA, cleaning & healthiness checking of Power Contactor tips and replacing if necessary, terminal tightness of all components, and refixing the modules in the respective panels.	1	No	5070	5070	5324	5577
1797	EM2173	EM	4) Refixing the Top covers and side covers of the bus chambers, checking theIR value and refixing the modules and breakers & satisfactory commissioning.	1	No	2944	2944	3091	3238

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1798	EM2174	EM	Complete overhauling of LT Bus N/E for Swgr. 1) Releasing the Top covers and side covers of the bus chamber, checking IR value and releasing out all the modules.(43Nos) (for 1 No. N/E LT bus)	1	No	2227	2227	2338	2450
1799	EM2175	EM	2) Cleaning the main (Horizontal) bus bars the vertical bus bars and its support insulators and checking the tightness of Bus bar joints, cleaning the entire area and checking the tightness of outgoing cable re-insulation /termination wherever necessary.	1	No	2050	2050	2153	2255
1800	EM2176	EM	3) Cleaning of all the modules, cleaning & healthiness checking of Power Contactor tips and replacing if necessary, termination tightness of all components, Checking & cleaning the Isolator switches.	1	No	3484	3484	3658	3832
1801	EM2177	EM	4) Refixing the Top covers and side covers of the bus chambers, checking the IR value and refixing the modules satisfactory commissioning.	1	No	2227	2227	2338	2450
1802	EM2178	EM	Complete O/H of 9 Nos LT Bus for all Units (Critical modules only) 1) Releasing and cleaning of critical modules, healthiness checking of power Contactor tips and replacing if necessary and terminal tightness of all components and refixing the modules in the respective panels.Checking of cable tightness at module end and motor end, replacing of lugs if necessary for 1 module)	33	No	27407	831	872	914
1803	EM2179	EM	2) Opening of all modules, complete cleaning of modules by air blowing and closing the modules for 1 No. LT bus.	9	No	14949	1661	1744	1827
1804	EM2180	EM	3) Releasing, checking and cleaning of finger contacts in breaker with acetone, healthiness of spring charging motors and mechanisms, tightness checking of all components of breakers and lubrication of all moving parts and checking their operations and re fixing the breakers. Opening of breaker panel back doors, checking cable tightness, cleaning and re fixing etc. for 1 No. LT breaker.	14	No	23254	1661	1744	1827
1805	EM2181	EM	Complete overhauling of LT unit Bus (USSG) for Swgr. 1) Releasing the Top covers and side covers of the bus chamber, checking IR value and releasing out all the modules (138 nos). (for 1 No. USSG LT bus)	1	No	4070	4070	4274	4477
1806	EM2182	EM	2) Cleaning the main (Horizontal) bus bars the vertical bus bars and its support insulators and checking the tightness of Busbar joints, cleaning the entire area and checking the tightness of outgoing cable.	1	No	9836	9836	10328	10820
1807	EM2183	EM	3) Cleaning of all the modules, cleaning & healthiness checking of Power Contactor tips and replacing if necessary, termination tightness of all components, cleaning the sliding contacts with IPA and in Breakers, checking & cleaning of Finger contacts, healthiness of spring charging motors and the mechanisms, termination tightness of all components of Breakers and checking their operations and refixing the modules and Breakers in the respective panels.	1	No	8554	8554	8982	9409
1808	EM2184	EM	4) Refixing the Top covers and side covers of the bus chambers, checking the IR value and satisfactory commissioning.	1	No	4378	4378	4597	4816
1809	EM2185	EM	Complete overhauling of LT station Bus (SSSG) for Swgr. 1) Releasing the Top covers and side covers of the bus chamber, checking IR value and releasing out all the modules(78 nos) . (for 1 No. SSSG LT bus)	1	No	2636	2636	2768	2900
1810	EM2186	EM	2) Cleaning the main (Horizontal) bus bars the vertical bus bars and its support insulators and checking the tightness of Busbar joints, cleaning the entire area and checking the tightness of outgoing cable and re-insulation / termination wherever necessary.	1	No	6968	6968	7316	7665
1811	EM2187	EM	3) Cleaning of all the modules, cleaning & healthiness checking of Power Contactor tips and replacing if necessary, termination tightness of all components, cleaning the sliding contacts with IPA and in Breaker checking & cleaning of Finger contacts, healthiness of spring charging motor and mechanism, termination tightness of all components in the Breakers and checking its operations and refixing the modules and Breakers in the respective panels.	1	No	5888	5888	6182	6477
1812	EM2188	EM	4) Refixing the Top covers and side covers of the bus chambers, checking the IR value and satisfactory commissioning.	1	No	2636	2636	2768	2900
1813	EM2189	EM	Complete overhauling of LT Bus VMCC A & B for swgr. 1) Releasing the Top covers and side covers of the bus chamber, checking IR value and releasing out all the modules (Total 92 nos). (for VMCC A & B bus)	1	No	2944	2944	3091	3238

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1814	EM2190	EM	2) Cleaning the main (Horizontal) bus bars the vertical bus bars and its support insulators and checking the tightness of Busbar joints, cleaning the entire area and checking the tightness of outgoing cable .	1	No	6968	6968	7316	7665
1815	EM2191	EM	3) Cleaning of all the modules, cleaning & healthiness checking of Power Contactor tips and replacing if necessary, termination tightness of all components, cleaning the sliding contacts with IPA and refixing the modules in the respective panels.	1	No	5272	5272	5536	5799
1816	EM2192	EM	4) Refixing the Top covers and side covers of the bus chambers, checking the IR value and satisfactory commissioning.	1	No	2636	2636	2768	2900
1817	EM2193	EM	Complete overhauling of LT Bus BMCC-A & B for swgr. 1) Releasing the Top covers and side covers of the bus chamber, checking IR value and releasing out all the modules (A-59 &B-58,Totally 117 nos). (for BMCC A & B LT bus)	1	No	3560	3560	3738	3916
1818	EM2194	EM	2) Cleaning the main (Horizontal) bus bars the vertical bus bars and its support insulators and checking the tightness of Busbar joints, cleaning the entire area and checking the tightness of outgoing cable.	1	No	4100	4100	4305	4510
1819	EM2195	EM	3) Cleaning of all the modules, cleaning & healthiness checking of Power Contactor tips and replacing if necessary, termination tightness of all components, cleaning the sliding contacts with IPA and in Breaker checking & cleaning of Finger contacts, healthiness of spring charging motor, termination tightness of all components and checking Breaker operations and refixing the modules and Breakers in the respective panels.	1	No	6504	6504	6829	7154
1820	EM2196	EM	4) Refixing the Top covers and side covers of the bus chambers, checking the IR value and satisfactory commissioning.	1	No	3252	3252	3415	3577
1821	EM2197	EM	Complete overhauling of LT Bus SBMCC for swgr. 1) Releasing the Top covers and side covers of the bus chamber, checking IR value and releasing out all the modules (89 modules). (for 1 No. SBMCC LT bus)	1	No	2636	2636	2768	2900
1822	EM2198	EM	2) Cleaning the main (Horizontal) bus bars the vertical bus bars and its support insulators and checking the tightness of Busbar joints, cleaning the entire area and checking the tightness of out going cable .	1	No	3484	3484	3658	3832
1823	EM2199	EM	3) Cleaning of all the modules, cleaning & healthiness checking of Power Contactor tips and replacing if necessary, termination tightness of all components, cleaning the sliding contacts with IPA and checking / refixing the modules in the respective panels.	1	No	6504	6504	6829	7154
1824	EM2200	EM	4) Refixing the Top covers and side covers of the bus chambers, checking the IRvalue and satisfactory commissioning.	1	No	2636	2636	2768	2900
1825	EM2201	EM	Complete overhauling of LT Bus N/E for swgr. 1) Releasing the Top covers and side covers of the bus chamber, checking IR value and releasing out all the modules (94 nos) . (for 1 No. N/E LT bus)	1	No	3560	3560	3738	3916
1826	EM2202	EM	2) Cleaning the main (Horizontal) bus bars the vertical bus bars and its support insulators and checking the tightness of Busbar joints, cleaning the entire area and checking the tightness of outgoing cable .	1	No	4100	4100	4305	4510
1827	EM2203	EM	3) Cleaning of all the modules, cleaning & healthiness checking of Power Contactor tips and replacing if necessary, termination tightness of all components, cleaning the sliding contacts with IPA and in Breaker checking & cleaning of Finger contacts, termination tightness of all components and checking Breaker operations and refixing the modules and Breakers in the respective panels.	1	No	5272	5272	5536	5799
1828	EM2204	EM	4) Refixing the Top covers and side covers of the bus chambers, checking the IR value and satisfactory commissioning.	1	No	2636	2636	2768	2900
1829	EM2205	EM	Annual Maintenance of LT Bus MCC-I & II in AC Plant. 1) Releasing and cleaning of critical modules, healthiness checking of power Contactor tips and replacing if necessary and terminal tightness of all components and re-fixing the modules in the respective panels. (26 released & 11 fixed modules) Checking of cable tightness at module end and motor end, replacing of lugs if necessary.	3	No	1992	664	697	730
1830	EM2206	EM	2) Opening of all modules, complete cleaning of modules by air blowing and closing the modules for all the 2 Nos LT buses.	1	No	1992	1992	2092	2191

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1831	EM2207	EM	3) Releasing, checking and cleaning of finger contacts in breaker with acetone, healthiness of spring charging motors and mechanisms, tightness checking of all components of breakers and lubrication of all moving parts and checking their operations and re fixing the breakers. Opening of breaker panel back doors, checking cable tightness, cleaning and re fixing etc.	1	No	1992	1992	2092	2191
1832	EM2208	EM	Annual Maintenance of 4 Nos LT Buses in DM Plant . 1) Releasing and cleaning of critical modules, healthiness checking of power Contactor tips and replacing if necessary and terminal tightness of all components and re-fixing the modules in the respective panels. (33 modules) Checking of cable tightness both at module end and motor end, replacing of lugs if necessary.	1	No	842	842	884	926
1833	EM2209	EM	2) Opening of all modules, complete cleaning of modules by air blowing and closing the modules for all the 4 Nos. LT buses.	1	No	1684	1684	1768	1852
1834	EM2210	EM	3) Releasing, checking and cleaning of finger contacts in breaker with acetone, checking of tie switch and mechanisms, tightness checking of all components of breakers and lubrication of all moving parts and checking their operations and re fixing the breakers. Opening of breaker panel back doors, checking cable tightness, cleaning and re fixing etc.	1	No	1684	1684	1768	1852
1835	EM2211	EM	Annual Maintenance of LT Bus in RWPH. 1) Releasing and cleaning of critical modules, healthiness checking of power Contactor tips and replacing if necessary and terminal tightness of all components and re-fixing the modules in the respective panels. (20 modules) Checking of cable tightness both at module end and motor end, replacing of lugs if necessary.	1	No	842	842	884	926
1836	EM2212	EM	2) Opening of all modules, complete cleaning of modules by air blowing and closing the modules for all the 1No. LT buses.	1	No	1684	1684	1768	1852
1837	EM2213	EM	3) Releasing, checking and cleaning of finger contacts in breaker with acetone, checking of tie switch and mechanisms, tightness checking of all components of breakers and lubrication of all moving parts and checking their operations and re fixing the breakers. Opening of breaker panel back doors, checking cable tightness, cleaning and re fixing etc.	1	No	1684	1684	1768	1852
1838	EM2214	EM	Complete O/H of RVF MCC – I & II. II) Labour charges for Racking out and cleaning of the all Roof Ventilation Fan Modules (48 modules),checking the tightness of all terminations of Bus bars & cables, Cleaning of all Contactor with CRC and checking of IR value of the bus bar in RVMCC of Unit I and Unit II.	1	No	13180	13180	13839	14498
1839	EM2215	EM	Complete O/H and Maintenance of LDB	1	No	1025	1025	1076	1128
1840	EM2216	EM	Complete servicing of 3750 A/4000 A EE/GE / L&T Make LT Breaker	1	No	6900	6900	7245	7590
1841	EM2217	EM	Complete servicing of 2000 A/1600 A/800A/630A Siemens/CG /L&T Make LT Breaker	1	No	3606	3606	3786	3967
1842	EM2218	EM	Charges for Replacement of I/C,O/G Lyra contact,Control Transformer,Power /Auxilliay contactor, OLR etc in LT Module (Up to 30 KW)	1	No	2404	2404	2524	2644
1843	EM2219	EM	Charges for Replacement of I/C,O/G Lyra contact,Control Transformer,Power /Auxilliay contactor, OLR etc in LT Module(Above 30 KW)	1	No	3606	3606	3786	3967
1844	EM2220	EM	Charges for Replacement of Vertical Dropper in LT Panel.	1	No	2868	2868	3011	3155
1845	EM2221	EM	Replacement of Industrial water Immersion Heater in Centrifuge System for Stage I & II.	1	No	3606	3606	3786	3967
1846	EM2222	EM	Replacement of Air Drier Heaters in Compressor Air drier System for Stage I.	1	No	3606	3606	3786	3967
1847	EM2223	EM	identification of fault in LT cables for various, Sizes including excavation of pit, releasing the fault cables.	1	No	1048	1048	1100	1153
1848	EM2224	EM	fixing of complete set of 4 ft 40 W/EE /T5/2 X2 LED light fittings including wiring, replacement of chokes, starter and extension of supply.	15	No	1434	96	100	105
1849	EM2225	EM	Replacement of 70 / 80 / 125/150 W/250 W HPSV/HPMV Lamp Fittings(Up to 6 Mtrs)	10	No	2007	201	211	221
1850	EM2226	EM	Replacement of 70 / 80 / 125 / 150 / 250 W HPSV/HPMV Lamp Fittings(above 6 Mtrs)	8	No	2007	251	263	276
1851	EM2227	EM	providing 1Phase, 230 V supply sources including wiring, cable laying, fixing of box with switches & sockets and extension of supply source.	5	No	1434	287	301	315
1852	EM2228	EM	providing 3phase, 415V supply sources including wiring, cable laying, fixing of main switches and extension of supply source.	5	No	1742	348	366	383

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1853	EM2229	EM	fixing of complete set of ceiling fan including wiring, releasing the existing defective fan and extension of supply source.	1	No	409	409	429	450
1854	EM2230	EM	fixing of complete set of Exhaust fan capacity up to 500 watts including wiring, releasing the existing defective fan and extension of supply source.	1	No	1025	1025	1076	1128
1855	EM2231	EM	New Window /Split A/C compressor Replacement	1	No	3572	3572	3751	3929
1856	EM2232	EM	Gas Charging of window / Split air conditioner of 1.5 / 2.0 Ton capacity, 1phase/3 Phase air conditioner	1	No	1377	1377	1446	1515
1857	EM2233	EM	Replacement of CT/PT in LT module and LT Breaker panel	1	No	1025	1025	1076	1128
1858	EM2234	EM	Chargess for replacement of I/C, O/G Lyra contact, control transformer, Bimetal OLR, Power/Auxiliary contactor, Heavy duty switch etc., n siemens M system / L&T swgr panel (Above 30KW & upto 110KW LT module	1	No	3606	3606	3786	3967
		EM	3500kW/6.6kV BFP MOTOR						
1859	EM2235	EM	Disconnection of power cable, De-coupling the motor from pump and checking alignment of the motor shaft with pump shaft.	1	No	3150	3150	3308	3465
1860	EM2236	EM	Removal of end covers and measuring the air gap and magnetic axis.	1	No	1069	1069	1122	1176
1861	EM2237	EM	Removal of water line pipes, cooler assembly and lifting the cooler unit to a convenient location.	1	No	2182	2182	2291	2400
1862	EM2238	EM	Removal of sleeve bearings, resting the rotor on the stator after placing rubber sheet.	1	No	4980	4980	5229	5478
1863	EM2239	EM	Removal of foundation bolts,Lifting the motor to a convenient location.	1	No	4980	4980	5229	5478
1864	EM2240	EM	Overhaul of motor a.Overhaul of stator : Inspection and cleaning and checking of stator windings, fastening of the stator winding to the end ring and also the inter coil spacers and packing in the overhang portion of the windings, tightening the wedges, spraying one coat of Dr.Beck protective enamel varnish, Drying out the stator, preheating, Checking the IR value, DC resistance and Tan delta.packing in the overhang portion of the windings, tightening the wedges, spraying one coat of Dr.Beck protective enamel varnish, Drying out the stator, preheating, Checking the IR value, DC resistance and Tan delta.	1	No	28203	28203	29613	31023
1865	EM2241	EM	b)Overhaul of rotor :Inspection and cleaning of released rotor, checking the position of stampings, cleaning of corroded parts, inspection of winding bars, cleaning of overheated and burnt places, applying one coat of Dr.Beck's insulating varnish and drying out.	1	No	7152	7152	7510	7867
1866	EM2242	EM	c) Cleaning the cooler tubes, checking the coolers by hydraulic testing, reconditioning of cooler flanges, replacement of gasket etc,	1	No	15292	15292	16057	16821
1867	EM2243	EM	d)Checking the bearing and preparation of bearing surface and blue matching the housing. (Bearings supplied by TANGEDCO)	1	No	6026	6026	6327	6629
1868	EM2244	EM	Lifting and Erection of the motor back on its bed after cleaning and checking healthiness of pedestal insulation.	1	No	4980	4980	5229	5478
1869	EM2245	EM	Assembling of sleeve bearings, Checking the interference between the bearings and housing, checking the clearance between shaft and bearing. (Bearings supplied by TANGEDCO)	1	No	4980	4980	5229	5478
1870	EM2246	EM	Assembling the end covers, checking air gap and magnetic axis.	1	No	1069	1069	1122	1176
1871	EM2247	EM	Lifting the cooler assembly ,fixing with motor and connecting the water line pipes, etc.,	1	No	2182	2182	2291	2400
1872	EM2248	EM	Termination of power cable, coupling the pump with motor and checking alignment of the motor shaft with pump shaft.	1	No	3150	3150	3308	3465
1873	EM2249	EM	Tightening the bed bolts, foundation bolts, Checking the IR value, DC resistance and trial run the motor in decouple/couple condition running the motor satisfactorily.	1	No	2182	2182	2291	2400
		EM	HT MOTORS BHEL make,6.6kV 1500 kW 744 rpm ID fan Motor						
1874	EM2250	EM	Charges for removal of roof, removal of hand rails, releasing power terminal box, releasing the BHEL make,6.6 kV 1500 kW 744 rpm ID fan Motor from its bed after giving proper packing to its bed bolts, assisting while lifting and lowering of the Motor and placing at repair bay-I and removing the coupling pulley	1	No	11226	11226	11787	12349
1875	EM2251	EM	Charges for dismantling of BHEL make , 6.6 kV 1500 kW 744 rpm ID fan Motor cooler, removing the fan cover, fan and end covers, threading out the rotor, cleaning the stator winding and rotor and cooler tubes using compressed air.	1	No	6504	6504	6829	7154

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1876	EM2252	EM	Charges for checking and tightening of all loose wedges in the stator of BHEL make, 6.6 kV 1500 kW, 744 rpm ID fan Motor by inserting additional glass textolite liners and replacing all damaged wedges by new ones, checking the tightness of rotor bars and supplying and spraying one coat of Dr. Beck insulating varnish on the stator and rotor.	1	No	7611	7611	7992	8372
1877	EM2253	EM	Charges for removing the BHEL make, 6.6 Kv, 1500 KW, 744 rpm ID fan Motor bearings from the shaft, checking the bearings and its clearance, inspecting the bearings and replacement of bearings if necessary (both DE & NDE) (Bearings will be supplied by TANGEDCO)	1	No	17008	17008	17858	18709
1878	EM2254	EM	Charges for threading in the BHEL make, 6.6 Kv, 1500 KW, 744 rpm ID fan Motor rotor, assembling the Motor and greasing the bearings	1	No	7563	7563	7941	8319
1879	EM2255	EM	Charges for supplying and painting 2 coat of light grey enamel paint on the BHEL make, 6.6 Kv, 1500 KW, 744 rpm ID fan Motor	1	No	1542	1542	1620	1697
1880	EM2256	EM	Charges for Fixing the coupling pulley in the BHEL make, 6.6 Kv, 1500 KW, 744 rpm ID fan Motor by oil heating and transporting the Motor from repair bay-I to location, Lifting and lowering of the Motor and placing in its bed for re-erection of Motor, refixing of power terminal box, re-erection of roof and refixing the hand rails of .(Lorry & Crane will be provided by TANGEDCO at free of cost.)	1	No	13122	13122	13778	14434
1881	EM2257	EM	Charges for alignment of BHEL make, 6.6 Kv, 1500 KW, 744 rpm ID fan Motor with Voith	1	No	12640	12640	13272	13904
1882	EM2258	EM	Charges for removal of roof, removal of hand rails, releasing power terminal box, releasing the ID fan motor from its bed after giving proper packing to its bed bolts, assisting while lifting and lowering of the motor and placing at '0' mtr and removing the coupling pulley of BHEL make, 6.6 Kv, 1500 KW, 744 rpm ID fan Motor	1	No	3871	3871	4065	4258
1883	EM2259	EM	Charges for dismantling of BHEL make, 6.6 Kv, 1500 KW, 744 rpm ID fan Motor cooler, removal of NDE side fan cover, fan and end cover.	1	No	3871	3871	4065	4258
1884	EM2260	EM	Charges for removing the BHEL make, 6.6 Kv, 1500 KW, 744 rpm ID fan Motor bearing from the shafts, checking the bearing, checking its clearance, inspecting the bearings and replacement of both DE & NDE bearings (Bearings will be supplied by Board)	1	No	17008	17008	17858	18709
1885	EM2261	EM	Charges for assembling the BHEL make, 6.6 Kv, 1500 KW, 744 rpm ID fan Motor motor and greasing the bearings.	1	No	15484	15484	16258	17032
1886	EM2262	EM	Charges for Fixing the coupling pulley in the BHEL make, 6.6 Kv, 1500 KW, 744 rpm ID fan Motor by oil heating, Lifting and lowering of the motor and placing in its bed for re-erection of motor, refixing of power terminal box, re-erection of roof and refixing the hand rails	1	No	11529	11529	12105	12682
1887	EM2263	EM	Charges for releasing Checking and replacement of existing bed bolts by new one in BHEL make, 6.6 Kv, 1500 KW, 744 rpm ID fan motor.	1	SET	5170	5170	5429	5687
		EM	Overhaul of BHEL make, 6.6 kV, 1250 kW, 1487 rpm PA / FD Fan Motor						
1888	EM2264	EM	Charges for Removal of roof, removal of hand rails releasing of power terminal box, releasing the BHEL make, 6.6 kV, 1250 kW, 1487 rpm PA / FD Fan Motor from its bed after giving proper packing to the bed bolts, assisting while lifting and lowering of the motor and placing in position at repair bay-I and removing the coupling pulley (Lorry & Crane will be provided by TANGEDCO at free of cost)	1	No	10470	10470	10994	11517
1889	EM2265	EM	Charges for dismantling of BHEL make, 6.6 kV, 1250 kW, 1487 rpm PA/FD Fan Motor cooler removing the fan cover, fan and end covers, threading out the rotor, cleaning the stator winding and rotor and cooler tubes using compressed air.	1	No	9630	9630	10112	10593
1890	EM2266	EM	Charges for checking and tightening of all loose wedges in the BHEL make, 6.6 Kv, 1250 KW, 1487 rpm PA / FD Fan Motor stator by inserting additional glass textolite liners and replacing all damaged wedges by new ones, checking the tightness of rotor bars and supplying and spraying one coat of Dr. Beck insulating varnish on the stator and rotor.	1	No	7908	7908	8303	8699
1891	EM2267	EM	Charges for removing the BHEL make, 6.6 Kv, 1250 KW, 1487 rpm PA / FD Fan Motor bearing from the shaft, checking the bearing, checking its clearance, inspecting the bearings and replacement of bearings if necessary (both DE & NDE) (Bearings will be supplied by TANGEDCO).	1	No	13244	13244	13906	14568

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1892	EM2268	EM	Charges for threading in the BHEL make,6.6 Kv,1250 KW,1487 rpm PA / FD Fan Motor rotor, assembling the motor and greasing the bearings	1	No	9630	9630	10112	10593
1893	EM2269	EM	Charges for supplying and painting 2 coat of light grey enamel paint on the BHEL make,1250 KW,1487 rpm PA / FD Fan Motor.	1	No	1137	1137	1193	1250
1894	EM2270	EM	Charges for Fixing the coupling pulley in the BHEL make,1250 KW,1487 rpm PA / FD Fan Motor, transporting the motor from repair bay-I to location, assisting while lifting and lowering of the motor, placing in its bed for re-erection of motor, refixing of power terminal box, re-erection of roof and refixing the hand rails.(Lorry & Crane will be provided by TANGEDCO at free of cost)	1	No	10686	10686	11220	11755
1895	EM2271	EM	Charges for alignment of BHEL make,6.6 Kv, 1250 KW,1487 rpm PA / FD Fan Motor with fan.	1	No	12640	12640	13272	13904
1896	EM2272	EM	Blue matching of BHEL make, 6.6 kV,1250 kW,1487 rpm PA/ FD fan motor with its bed.	1	No	8358	8358	8776	9194
		EM	Overhaul of 6.6 KV,1175 KW, BHEL make, 494 RPM - CWPHT HT MOTOR						
1897	EM2273	EM	Opening and closing of power cable terminal box cover and star point cover, disconnection and connection of power cable and star point, for measuring IR value, DC resistance of 6.6 KV, 1175 KW,RPM-494, BHEL make (Vertical mounted motor) during AOH period. Total area of the motor is 15m2 .	1	No	818	818	859	900
1898	EM2274	EM	Removal and cleaning of fan cover, fan, grill with soap water, cleaning of motor and coolers with forced air, removal of NDE & DE bearing housing cover for releasing old grease & applying new grease and assembling of all dismantled parts and external cleaning of 6.6 KV, 1175 KW,RPM-494, BHEL make (Vertical mounted motor) during AOH period.	1	No	1535	1535	1612	1689
1899	EM2275	EM	Decoupling of motor from pump by removing motor bed bolts, lifting of motor to repair bay, removal of cooler duct and pipes and lifting of cooler unit to a separate location, removing of seal cover assembly and threading out the rotor and assembling in complete shape of 6.6 KV, 1175 KW,RPM-494, BHEL make (Vertical mounted motor) during COH period.	1	No	20298	20298	21313	22328
1900	EM2276	EM	Inspection and cleaning of stator and rebinding and fastening of loosened stator winding to the end ring and also the inter coil spacers and packing in the overhang portion of the winding. Checking the tightness of the wedges and replacing if necessary and painting the stator with Bectol insulating varnish of 6.6 KV, 1175 KW,RPM-494, BHEL make (Vertical mounted motor) during COH period.	1	No	11256	11256	11819	12382
1901	EM2277	EM	Removing the NDE bearings from the capsule, checking the healthiness of bearing condition, changing and mounting the new or old bearing into the capsule 6.6 KV, 1175 KW,RPM-494, BHEL make (Vertical mounted motor) in CWPHT during COH period.	1	No	6766	6766	7104	7443
1902	EM2278	EM	Inspection and cleaning of rotor ,checking the position of stamping ,cleaning of corroded parts if any. Inspection of winding bars soldered to end rings and cleaning of over heated or burnt plates if any. Releasing of DE bearing with inner race ,mounting new or old bearing with inner race. Painting the rotor with one coat Bectol insulating varnish 6.6 KV, 1175 KW,RPM-494, BHEL make (Vertical mounted motor) in CWPHT during COH period.	1	No	6766	6766	7104	7443
1903	EM2279	EM	Removal of cooler assembly and cooling ducts , checking and complete cleaning of cooler tubes ,providing new gaskets to the cooling duct flanges, inspection window covers, motor terminal covers, motor end cover ,top cover and wherever required of 6.6 KV, 1175 KW,RPM-494, BHEL make (Vertical mounted motor) in CWPHT during COH period.	1	No	6150	6150	6458	6765
1904	EM2280	EM	Complete cleaning of the motor, painting of motor with two coats of DA grey enamel paint of 6.6 KV, 1175 KW,RPM-494, BHEL make (Vertical mounted motor) in CWPHT during Overhauling period.	1	No	4838	4838	5080	5322
1905	EM2281	EM	Lifting and placing the motor to its original place. Checking alignment with the pump and trial run of the motor on no load and coupling with the pump and trial run in load condition of 6.6 KV, 1175 KW,RPM-494, BHEL make (Vertical mounted motor)in CWPHT during Overhauling period.	1	No	6150	6150	6458	6765
		EM	Overhaul of BHEL make,6.6 Kv ,800 KW,990 rpm FD fan motor						

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1906	EM2282	EM	Charges for Removal of roof, removal of hand rails, releasing power terminal box, releasing the BHEL make,6.6 Kv ,800 KW,990 rpm FD fan motor from its bed after giving proper packing to its bed bolts, assisting while lifting and lowering of motor, transporting and placing in position at repair bay-I and removing the coupling pulley.(Lorry & Crane will be provided by TANGEDCO at free of cost)	1	No	9327	9327	9793	10260
1907	EM2283	EM	Charges for dismantling of BHEL make,6.6 Kv ,800 KW,990 rpm FD fan motor cooler removing the fan cover, fan and end covers, threading out the rotor, cleaning the stator winding and rotor and cooler tubes using compressed air.	1	No	7182	7182	7541	7900
1908	EM2284	EM	Charges for checking and tightening of BHEL make,6.6 Kv,800 KW,990 rpm FD fan motor loose wedges in the stator by inserting additional glass textolite liners and replacing all damaged wedges by new ones, checking the tightness of rotor bars and supplying and spraying one coat of Dr. Beck insulating varnish on the stator and rotor	1	No	5931	5931	6228	6524
1909	EM2285	EM	Charges for removing the BHEL make,800 KW, 6.6 Kv, 990 rpm FD fan motor bearing from the shafts, checking the bearing, checking its clearance, inspecting the bearings and replacement of bearings (both DE & NDE) (Bearings will be supplied by TANGEDCO).	1	No	12840	12840	13482	14124
1910	EM2286	EM	Charges for threading rotor in the BHEL make ,6.6 Kv , 800 KW,990 rpm FD fan motor , assembling the motor and greasing the bearings	1	No	7647	7647	8029	8412
1911	EM2287	EM	Charges for supplying and painting 2 coat of light grey enamel paint on the BHEL make,6.6 Kv, 800 KW,990 rpm FD fan motor	1	No	893	893	938	982
1912	EM2288	EM	Charges for Fixing the coupling pulley in the BHEL make, 6.6 Kv, 800 KW,990 rpm FD fan motor by oil heating and transporting the motor from repair bay-I to location, Lifting and lowering of the motor and placing in its bed for re-erection of motor, refixing of power terminal box, re-erection of roof and refixing the hand rails.(Lorry & Crane will be provided by TANGEDCO at free of cost)	1	No	10686	10686	11220	11755
1913	EM2289	EM	Charges for alignment of BHEL make, 6.6 Kv, 800 KW,990 rpm FD fan motor with fan.	1	No	12640	12640	13272	13904
		EM	Overhaul of 6.6 KV, 525 KW / 440 KW , 1487 RPM/1482 RPM, Kirloskar/Siemens make, foot mount type, Flushing water pump HT Motor						
1914	EM2290	EM	Disconnection of power cable,Decoupling , releasing the motor from its bed, shifting to repair bay.	1	No	2362	2362	2480	2598
1915	EM2291	EM	Dismantling of the motor pulley, fan hub, end covers,cleaning and threading out the rotor.	1	No	7086	7086	7440	7795
1916	EM2292	EM	Dismantling of the motor air cooler (Applicable to525 KW motor)	1	No	1181	1181	1240	1299
1917	EM2293	EM	Overhauling of coolers : Checking and cleaning of cooler tubes. (Applicable to 525 KW/440 KW motor)	1	No	2140	2140	2247	2354
1918	EM2294	EM	Overhaul of Stator: cleaning the stator windings, checking and tightening of loose wedges in the stator by inserting additional glass textolite liners and replacing all damaged wedges by new one and spraying one coat of Dr.Beck insulation varnish, drying out, & stator pre heating	1	No	6588	6588	6917	7247
1919	EM2295	EM	Overhaul of Rotor : Cleaning & inspection of the rotor, checking the position of stampings, inspection of winding bars, soldered end winding and spraying one coat of Dr.Beck insulation varnish in rotor and drying out.	1	No	4276	4276	4490	4704
1920	EM2296	EM	Labour charges for releasing the DE bearing ,Cleaning, checking and refixing with new one if found necessary or fixing the old bearings if found healthy	1	No	3044	3044	3196	3348
1921	EM2297	EM	Labour charges for releasing the NDE bearing,cleaning , checking and refixing with new one if found necessary or fixing the old bearings if found healthy	1	No	3044	3044	3196	3348
1922	EM2298	EM	Assembling the motor after threading in the rotor,fixing end covers & pulley.	1	No	7808	7808	8198	8588
1923	EM2299	EM	Providing rubber gasket and fixing cooler unit. (Applicable to 525 KW motor)	1	No	2082	2082	2186	2290
1924	EM2300	EM	Labour charges for shifting the motor to its bed, connection of power cable, alignment,coupling, and trial run	1	No	4164	4164	4372	4580
1925	EM2301	EM	Painting the motor with two coats of DA grey paint. Total area of the motor is 18 m2.	1	No	731	731	767	804
		EM	11.2)FOR 500/320 KW/6.6 KV HT MOTOR(CEP&RWP)						
1926	EM2302	EM	Disconnection of power cable, De-coupling the motor from pump and checking alignment.	1	No	2138	2138	2245	2352

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1927	EM2303	EM	Removal of foundation bolts, lifting the motor to a convenient location.	1	No	2956	2956	3104	3252
1928	EM2304	EM	a) Dismantling of motor pulley, cooler, end covers and Threading out the rotor.	1	No	4074	4074	4278	4481
1929	EM2305	EM	b) Checking and cleaning of cooler tubes.	1	No	3207	3207	3367	3528
1930	EM2306	EM	c) Overhaul of stator: Labour charges for inspection and cleaning of stator and winding of stator, fastening of the winding to the end ring and also the inter coil spacers and packing in the overhang portion of the winding, tightening of the wedges, spraying one coat of Dr.Beck's protective enamel and drying out, Stator preheating, checking the IR value and DC Resistance.	1	No	11420	11420	11991	12562
1931	EM2307	EM	d)Overhaul of rotor:Labour Charges for inspection and cleaning of rotor, checking the position of stampings, cleaning of the corroded parts, Inspection of winding bars, soldered end winding, cleaning of overheated burnt places and applying two coats of Dr.Becks protective enamel and drying out.	1	No	7734	7734	8121	8507
1932	EM2308	EM	e) Releasing the bearing, cleaning, checking, reassembling / replacing the bearing on both ends lubrication etc. (Bearings supplied by TANGEDCO)	1	No	3911	3911	4107	4302
1933	EM2309	EM	f) Assembling of motor after threading in the rotor, fixing end covers, providing rubber gasket and fixing of cooler unit, Checking the IR value, DC resistance and Tan delta.	1	No	4074	4074	4278	4481
1934	EM2310	EM	Lifting of motor, placing at motor bed and tightening of foundation bolts, bed bolts etc.	1	No	2138	2138	2245	2352
1935	EM2311	EM	Termination of power cable, coupling the motor with pump, Checking alignment and trial run.	1	No	2138	2138	2245	2352
		EM	Overhaul of BHELmake,6.6 Kv, 340 KW ,992rpm Coal Mill Motor						
1936	EM2312	EM	LabourCharges for removal of plates at 4.5 mtr. Level, releasing of powerterminal box, releasingthe BHELmake,6.6 Kv, 340 KW ,992rpm Coal Mill Motor from its bed after giving proper packing to its bed bolts, assisting while lifting and lowering of the motor and placing in the repair bay-I and removing the coupling pulley. (Lorry & Crane will be provided by TANGEDCO at free of cost)	1	No	8142	8142	8549	8956
1937	EM2313	EM	Labour Charges for removing the BHELmake,6.6 Kv,340 KW ,992rpm Coal Mill Motor fan cover, fan and end covers, threading out the rotor,Cleaning the stator winding and rotor using compressed air.	1	No	7742	7742	8129	8516
1938	EM2314	EM	LabourCharges for checking and tightening of all loose wedges in the BHELmake, 6.6 Kv,340 KW ,992rpm Coal Mill Motor stator by inserting additional glass textolite liners and replacing all damaged wedges by new one, checking the tightness of the rotor bars, supplying and spraying one coat of Dr.Beck insulating varnish on the stator and rotor.	1	No	7611	7611	7992	8372
1939	EM2315	EM	LabourCharges for removing the BHELmake, 6.6 Kv,340 KW ,992rpm Coal Mill Motor bearings from the shaft, replacing the bearings (both DE & NDE)	1	No	12840	12840	13482	14124
1940	EM2316	EM	LabourCharges for threading in the BHELmake, 6.6 Kv,340 KW ,992rpm Coal Mill Motor rotor assembling the Motor greasing the bearings and fixing the Fan and end covers and fan cover.	1	No	8403	8403	8823	9243
1941	EM2317	EM	Charges for supplying and painting 2 coat of light grey enamel paint on the BHELmake, 6.6 Kv,340KW,992rpm Coal Mill Motor .	1	No	517	517	542	568
1942	EM2318	EM	LabourCharges for transporting the BHELmake, 6.6 Kv,340 KW ,992rpm Coal Mill Motor from repair bay-I, fixing the coupling pulley in the motor shaft by oil heating, assisting while lifting and lowering of the motor and placing in mill bed, re-erection of motor, refixing of power terminal box and refixing of plates at 4.5 mtr. level. (Lorry & Crane will be provided by TANGEDCO at free of cost)	1	No	7302	7302	7667	8032
1943	EM2319	EM	Labour Charges for alignment of BHELmake,340 KW ,992rpm Coal Mill Motor with Coal Mill.	1	No	11316	11316	11882	12448
1944	EM2320	EM	Charges for releasing Checking and replacement of existing bed bolts by new one in BHELmake,340 KW ,992rpm Coal Mill Motor with Coal Mill.	1	set	3266	3266	3429	3593
		EM	Overhaul of 6.6 KV, 225 KW , 989 rpm, Kirloskar make, 12 Groove belt drive pulley, foot mount type, Ash Slurry Pump HT Motor						
1945	EM2321	EM	Disconnection of power cable,Decoupling , releasing the motor from its bed, shifting to repair bay.	1	No	2112	2112	2218	2323
1946	EM2322	EM	Dismantling of the motor pulley discs and pulley sleeve (12 Groove belt pulley)	1	No	3462	3462	3635	3808
1947	EM2323	EM	Dismantling of the motor's air cooler, fan hub, end covers, and threading out the rotor.	1	No	5602	5602	5882	6162

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							MTPS	TTPS	NCTPS
1948	EM2324	EM	Overhauling of coolers : Checking and cleaning of cooler tubes.	1	No	2140	2140	2247	2354
1949	EM2325	EM	Overhaul of Stator: cleaning the stator windings, checking and tightening of loose wedges in the stator by inserting additional glass textolite liners and replacing all damaged wedges by new one and spraying one coat of Dr.Beck insulation varnish, drying out, & stator pre heating.	1	No	5826	5826	6117	6409
1950	EM2326	EM	Overhaul of Rotor : Cleaning & inspection of the rotor, checking the position of stampings, cleaning the corroded parts,inspection of winding bars, soldered end winding and spraying one coat of Dr.Beck insulation varnish in rotor and drying out.	1	No	3515	3515	3691	3867
1951	EM2327	EM	Releasing the DE bearing, Cleaning, checking and refixing with new one if found necessary or fixing the old bearings if found healthy	1	No	2902	2902	3047	3192
1952	EM2328	EM	Releasing the NDE bearing, cleaning , checking and refixing with new one if found necessary or fixing the old bearings if found healthy	1	No	2902	2902	3047	3192
1953	EM2329	EM	Assembling the motor after threading in the rotor,fixing end covers, providing rubber gasket and fixing cooler unit.	1	No	5602	5602	5882	6162
1954	EM2330	EM	Fixing motor pulley sleeve, pulley discs in complete shape.	1	No	3462	3462	3635	3808
1955	EM2331	EM	Shifting the motor to its bed, connection of power cable, alignment, coupling the motor with pump and trial run	1	No	4224	4224	4435	4646
1956	EM2332	EM	Painting two coats with D.A grey enamel paint.Total area of the motor is 15m2.	1	No	609	609	639	670
		EM	FOR 200 KW/6.6 KV SOP HT MOTOR						
1957	EM2333	EM	Disconnection of power cable, De-coupling the motor from pump and checking alignment.	1	No	1434	1434	1506	1577
1958	EM2334	EM	Removal of foundation bolts, lifting the motor to a convenient location.	1	No	1434	1434	1506	1577
1959	EM2335	EM	a): Dismantling of motor pulley, cooler, end covers and Threading out the rotor.	1	No	4504	4504	4729	4954
1960	EM2336	EM	b)OVERHAULING OF COOLERS : Checking and cleaning of cooler tubes.	1	No	2151	2151	2259	2366
1961	EM2337	EM	c) : OVERHAUL OF STATOR: Inspection, cleaning of stator & its winding, fastening of the winding to the end ring & the inner coil spacers and packing in the overhang portion of the winding. Tightening of the wedges, spraying one coat of Dr.Beck's varnish preheating, checking the IR Value DC and resistance.	1	No	10484	10484	11008	11532
1962	EM2338	EM	d): OVERHAUL OF ROTOR: Inspection, cleaning of rotor, Cleaning of corroded parts, and applying one coat of Dr.Beck's insulating varnish and drying out.	1	No	2252	2252	2365	2477
1963	EM2339	EM	e): Releasing the bearing, cleaning, checking, reassembling / replacing the bearing on both ends lubrication etc. (Bearings supplied by TANGEDCO)	1	No	2560	2560	2688	2816
1964	EM2340	EM	f): Assembling of motor after threading in the rotor, fixing end covers, providing rubber gasket and fixing of cooler unit, Checking the IR value, DC resistance and Tan delta.	1	No	6756	6756	7094	7432
1965	EM2341	EM	Lifting of motor, placing at SOP bed and tightening of foundation bolts, bed bolts etc.	1	No	1434	1434	1506	1577
1966	EM2342	EM	Termination of power cable, coupling the motor with pump, Checking alignment and trial run.	1	No	2353	2353	2471	2588
		EM	Overhaul of 6.6 KV, 200 KW/190 KW, /1470 RPM /990 RPM, /Crompton Greaves /Siemens make , Foot mount type, Ash Slurry Pump HT Motor						
1967	EM2343	EM	Disconnection of power cable,Decoupling , releasing the motor from its bed, shifting to repair bay	1	No	1953	1953	2051	2148
1968	EM2344	EM	Dismantling of the motor pulley, fan hub , end covers,cleaning and threading out the rotor.	1	No	4538	4538	4765	4992
1969	EM2345	EM	Overhauling of coolers : Dismantling of the motor air cooler and Checking & cleaning (Applicable for 200 KW motor)	1	No	2801	2801	2941	3081
1970	EM2346	EM	Overhaul of Stator: cleaning the stator windings, checking and tightening of loose wedges in the stator by inserting additional glass textolite liners and replacing all damaged wedges by new one and spraying one coat of Dr.Beck insulation varnish, drying out, & stator pre heating	1	No	4392	4392	4612	4831
1971	EM2347	EM	Overhaul of Rotor : Cleaning & inspection of the rotor, checking the position of stampings, inspection of winding bars, soldered end winding and spraying one coat of Dr.Beck insulation varnish in rotor and drying out.	1	No	3207	3207	3367	3528
1972	EM2348	EM	Releasing the DE bearing Cleaning, checking and refixing with new one if found necessary or fixing the old bearings if found healthy	1	No	2958	2958	3106	3254

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1973	EM2349	EM	Releasing the NDE bearing cleaning , checking and refixing with new one if found necessary or fixing the old bearings if found healthy	1	No	2958	2958	3106	3254
1974	EM2350	EM	Assembling the motor after threading in the rotor,fixing end covers & pulley.	1	No	5098	5098	5353	5608
1975	EM2351	EM	Providing rubber gasket and fixing cooler unit. (Applicable for 200 KW motor)	1	No	2082	2082	2186	2290
1976	EM2352	EM	Labour charges for shifting the motor to its bed, connection of power cable, alignment,coupling, and trial run	1	No	4224	4224	4435	4646
1977	EM2353	EM	Charges for painting the motor with two coats DA grey colour synthetic enamel paint. Total area of the motor is 18m2.	1	No	731	731	767	804
		EM	Releasing of power cable and disconnection of neutral link of HT Motors (PA,ID,FD & Mill motor)						
1978	EM2354	EM	Charges for removing of power cable terminal box cover and neutral link covers, releasing of power cable and disconnection of neutral link 3 Nos. for MRT testing (BHEL make 6.6 Kv, 1500 KW 744rpm ID Fan motor, 1250 KW 1487rpm PA/FD Fan motor, 800 KW 990 rpmFD Fan motor & 340 KW 992rpm Coal Mill Motor)	1	No	409	409	429	450
1979	EM2355	EM	Charges for cleaning of power cable box and neutral box covers, reconnection of power cable and neutral link 3 Nos. after MRT testing and refixing of power cable terminal box cover and neutral link box covers. (BHEL make 6.6 Kv, 1500 KW 744 rpm ID Fan motor, 1250 KW 1487 rpm PA/FD Fan motor, 800 KW 990 rpmFD Fan motor & 340 KW 992 rpm Coal Mill Motor).	1	No	563	563	591	619
1980	EM2356	EM	Releasing of fan cover & fan for inspection of grease hose and replacement of damaged grease hose in DE & NDE side, cleaning and removing the expelled grease in DE & NDE side and refixing the fan and fan cover. (BHEL make 6.6 Kv, 1250 KW 1487rpm PA / FD Fan motor,800 KW 990 rpm FD Fan motor)	1	No	1529	1529	1605	1682
1981	EM2357	EM	Releasing of fan cover & fan inspection of grease hose and replacement of damaged grease hose in DE & NDE side, cleaning and removing the expelled grease in DE & NDE side and refixing the fan and fan cover in BHEL make, 6.6 Kv, 340 KW, 992 rpm Coal Mill Motors.	1	No	625	625	656	687
		EM	Complete overhaul of 150/125 KW LT motor - HP/LP motor at AHPH (Foot mount type)						
1982	EM2358	EM	Disconnecting the power cable, Decoupling, Releasing the motor from its bed,shifting to repair bay and complete dismantling and threading out the rotor	1	No	1916	1916	2012	2108
1983	EM2359	EM	Inspection and cleaning of the stator coils checking the tightness of the stator wedges and applying one coat of Dr.Beck insulating varnish .	1	No	1916	1916	2012	2108
1984	EM2360	EM	Inspection and cleaning the rotor bars and stamping and applying Dr.Beck Insulation varnish	1	No	1916	1916	2012	2108
1985	EM2361	EM	Releasing the DE & NDE bearings, cleaning, inspection and replacing by new bearings if required or fixing the old bearing if found healthy.	1	No	1916	1916	2012	2108
1986	EM2362	EM	Charges for painting the motor with two coats DA grey colour synthetic enamel paint . Total area of the motor is 15m2.	1	No	609	609	639	670
1987	EM2363	EM	Assembling of the motor and pulley in complete shape, shifting the motor to its bed, connecting the power cable, alingment, coupling and trial run.	1	No	3832	3832	4024	4215
		EM	Rewinding /overhaul of LT MOTORS - 135 KW,125 KW,75 KW & 67 KW						
1988	EM2364	EM	Rewinding of Kirloskar/ Siemens make,67/75 KW, 415V, 3 Ph,,LT motor	1	No	35473	35473	37247	39020
1989	EM2365	EM	Cleaning the outer surface and painting 2 coats of enamel paint for Rewinding of Kirloskar/ Siemens make,67/75 KW, 415V, 3 Ph,LT motor	1	No	369	369	387	406
1990	EM2366	EM	Rewinding of stator coil and dynamic balancing of rotor of 135KW, 415V, 3 phase, Jyothi/kirloskar make	1	No	44808	44808	47048	49289
1991	EM2367	EM	Cleaning the outer surface and painting 2 coats of enamel paint for Rewinding of stator coil and dynamic balancing of rotor of 135KW, 415V, 3 phase, Jyothi/kirloskar make .	1	No	369	369	387	406
1992	EM2368	EM	Charges for providing cast iron sleeves in both NDE & DE end shields for Rewinding of stator coil and dynamic balancing of rotor of 135KW, 415V, 3 phase, Jyothi/kirloskar make .	1	No	8104	8104	8509	8914
1993	EM2369	EM	Charges for dynamic balancing of rotor for Rewinding of stator coil and dynamic balancing of rotor of 135KW, 415V, 3 phase, Jyothi/kirloskar make .	1	No	6032	6032	6334	6635

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
1994	EM2370	EM	Labour charges for over hauling of LT motors 135KW, 1494 RPM ,1480 Rpm /125 KW, Rpm 1489, of ACWPH, SWP, FWP Verical mounted LT induction motors.	1	No	9480	9480	9954	10428
		EM	Complete Rewinding of 125 KW LT Motor - HP/LP Motor (Foot mount type)						
1995	EM2371	EM	Dismantling the motor, releasing the burnt coils and cleaning stator	1	No	9335	9335	9802	10269
1996	EM2372	EM	Rewinding of coil and position the coils into slots after providing necessary required insulation	1	No	20537	20537	21564	22591
1997	EM2373	EM	Interconnecting coils and applying insulation varnish and drying out	1	No	7468	7468	7841	8215
1998	EM2374	EM	Replacement of bearings and reassembling the motor and testing.	1	No	7468	7468	7841	8215
1999	EM2375	EM	i) Labour required per shift for Complete Overhaul of motor	1	No	8200	8200	8610	9020
2000	EM2376	EM	ii) Labour required per shift for Metal filling, machining and repairing of worn out shafts / Bearing seating surfaces on DE & NDE sides, checking of bearings housings, providing sleeves in the end covers on DE & NDE.	1	No	1918	1918	2014	2110
2001	EM2377	EM	Charges for rewinding of one number 90KW, 3 Phase, 415V, 50Hz, using standard make super enameled copper wire, 'F' class insulation materials such as paper sleeves, cotton and empire tape, Dr. Beck varnish, and PVC tag of end winding terminals (U1, U2, V1, V2, W1, & W2) and testing.	1	No	21432	21432	22504	23575
2002	EM2378	EM	REWINDING OF ONE NUMBER 109/110 KW MOTOR	1	No	46675	46675	49009	51343
2003	EM2379	EM	Charges for replacement of defective motor by spare motor 90 KW to 110 KW.	1	No	4355	4355	4573	4791
2004	EM2380	EM	i)Charges for Complete O/H LT Motor.	1	No	8200	8200	8610	9020
2005	EM2381	EM	ii) Labour required per shift for Metal filling, machining and repairing of worn out shafts / Bearing seating surfaces on DE & NDE sides, checking of bearings housings, providing sleeves in the end covers on DE & NDE.	1	No	1918	1918	2014	2110
2006	EM2382	EM	REWINDING OF 75 KW MOTOR.	1	No	21432	21432	22504	23575
2007	EM2383	EM	Labour Charges for replacement of defective motor by spare motor 75KW motor.	1	No	4355	4355	4573	4791
2008	EM2384	EM	i) Charges for Complete O/H of LT Motor	1	No	8200	8200	8610	9020
2009	EM2385	EM	ii) Charges for metal filling, machining and repairing of worn out shafts / bearing seating surfaces of one side, checking of bearing housings, providing sleeves in the end cover of one side.	1	No	1918	1918	2014	2110
2010	EM2386	EM	Charges for rewinding of one number 55KW, 3 Phase, 415V, 50Hz, using standard make super enameled copper wire, 'F' class insulation materials such as paper sleeves, cotton and empire tape, Dr. Beck varnish and PVC tag of end winding terminals (A1, A2, B1, B2, C1 & C2) and testing	1	No	21432	21432	22504	23575
2011	EM2387	EM	Labour Charges for replacement of defective motor by spare 55KW motor	1	No	3484	3484	3658	3832
2012	EM2388	EM	i)Charges for Complete O/H LT Motor	1	No	6150	6150	6458	6765
2013	EM2389	EM	i)Charges for metal filling, machining and repairing of worn out shafts / bearing seating surfaces of one side, checking of bearing housings, providing sleeves in the end cover of one side.	1	No	959	959	1007	1055
2014	EM2390	EM	Charges for Rewinding of above rating motor.	1	No	19646	19646	20628	21611
2015	EM2391	EM	Labour Charges for replacement of defective motor by spare above rating motor	1	No	2868	2868	3011	3155
2016	EM2392	EM	i) Labour Charges for Complete Overhaul of motor	1	No	6150	6150	6458	6765
2017	EM2393	EM	ii)Charges for metal filling, machining and repairing of worn out shafts / bearing seating surfaces of one side, checking of bearing housings, providing sleeves in the end cover of one side.	1	No	480	480	503	527
2018	EM2394	EM	REWINDING OF FIELD COILS (Interpole coils, Shunt and Series auxiliary Windings) for DC motor (SOP).	1	No	26091	26091	27396	28700
2019	EM2395	EM	Charges for Armature rewinding of DC motor (SOP).	1	No	38133	38133	40040	41946
2020	EM2396	EM	REWINDING OF 18.5 KW MOTOR, 2930 rpm rating.	1	No	16074	16074	16878	17681
2021	EM2397	EM	REWINDING OF 25 KW MOTOR, 980 rpm rating.	1	No	19646	19646	20628	21611
2022	EM2398	EM	Charges for replacement of defective motor by spare above rating motor.	1	No	2252	2252	2365	2477
2023	EM2399	EM	i) Charges for Complete O/H of LT Motor 1.2 KW to 9.3 KW. (If working on height Above 15 to 30 Mtr-20% Extra , Above 30Mtr-30% extra)	1	No	4100	4100	4305	4510
2024	EM2400	EM	ii) Charges for metal filling, machining and repairing of worn out shafts / bearing seating surfaces of one side, checking of bearing housings, providing sleeves in the end cover of one side.	1	No	240	240	252	264

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2025	EM2401	EM	Charges for rewinding of one number 9.3 KW, 3000 rpm rating.	1	No	10602	10602	11132	11662
2026	EM2402	EM	Charges for rewinding of one number 7.5 KW & 5.5 KW, 1440 rpm rating.	1	No	3585	3585	3764	3944
2027	EM2403	EM	Charges for rewinding of one number 3.7 KW	1	No	1853	1853	1946	2038
2028	EM2404	EM	Charges for Rewinding Of 1.2/1.5 KW LT Motors	1	No	1654	1654	1737	1819
2029	EM2405	EM	i) Charges for Complete O/H of LT Motor up to 1.1 KW.	1	No	1689	1689	1773	1858
2030	EM2406	EM	ii) Charges for metal filling, machining and repairing of worn out shafts / bearing seating surfaces of one side, checking of bearing housings, providing sleeves in the end cover of one side.	1	No	240	240	252	264
2031	EM2407	EM	Charges for rewinding up to 1.1KW	1	No	1038	1038	1090	1142
		EM	Complete Rewinding of 7.5 KW Motor - Scrapper Feeder / Clinker Grinder motor						
2032	EM2408	EM	Complete rewinding of 7.5 KW Clinker Grinder motor and reconditioning of damaged stator stampings by dismantling, releasing of defective coils cleaning of stator stampings bracing and reconditioning of stator stampings, rewinding and positioning of coils in stator after providing necessary insulation & interconnection of coils and applying varnish and drying out.	1	No	5912	5912	6208	6503
2033	EM2409	EM	Labour charges for replacement of DE & NDE Bearings of 7.5 KW Clinker Grinder motor	1	No	370	370	388	406
		EM	Complete Rewinding of 500 W, 410 W, 0.75 KW motor - Exhaust fan motor & Dragging Mechanism motor						
2034	EM2410	EM	Complete rewinding of Single phase 500W, 410 W,0.75 KW LT motor with class "F" Insulation by dismantling the motor, releasing the worn out coils, cleaning the stator slots,rewinding of coils applying Insulation varnish, replacing the bearings, assembling the motor and end termination	1	No	1378	1378	1447	1516
		EM	Battery works						
2035	EM2411	EM	Charges for transporting of DM water from DM plant to each battery room in 20 Litres can.	60	No	1994	33	35	37
2036	EM2412	EM	Charges for top up of electrolyte for 10Nos. battery cells. (1 set)	12	set	997	83	87	91
2037	EM2413	EM	Checking of termination tightness, and cleaning for 10 Nos. battery cells. (1 set)	9	set	409	45	48	50
2038	EM2414	EM	Charges for applying petroleum jelly for 10 Nos. battery cells. (1 set)	9	set	409	45	48	50
2039	EM2415	EM	Charges for discharging of 48V, 600 AH battery set during annual maintenance	1	No	2151	2151	2259	2366
2040	EM2416	EM	Charges for charging of 48V, 600 AH battery set during annual maintenance	1	No	2151	2151	2259	2366
2041	EM2417	EM	Charges for discharging of 220V, 1400 AH battery set during annual maintenance	1	No	3227	3227	3388	3549
2042	EM2418	EM	Charges for charging of 220V, 1400 AH battery set during annual maintenance	1	No	3227	3227	3388	3549
		EM	LDB RECTIFICATION WORKS						
2043	EM2419	EM	Dismantling the LDB from its fixtures, fabrication of LDB switch boxcover(315mm X 325mm, 1mm thick),providing holes on the new door to fix the hinges and padlock, remove the existing hinges from the switch box by grinding and fixing the new switch box door on the LDB.	1	No	937	937	984	1030
2044	EM2420	EM	Dismantling the LDB's switch boxes from its fixtures, fabrication of cable adopter box (1450mm X 55mm X 90mm, 1mm thick) . Providing holes on the adopter box for cable entries,removing the existing damaged box and fixing the new fabricated box	1	No	937	937	984	1030
2045	EM2421	EM	Disconnection of incoming supply cable, outgoing lighting circuit supply cable from the LDB, providing lug on the incoming and outgoing cable, removing MCB's (10 Nos) from rail, fixing new 63 A isolators, refixing the MCB and reconnect the incoming and outgoing cable and providing new phase & neutral bus bar and covering MCB & Isolator by hylum sheet after making proper cutting arrangements As per DATA III	1	No	979	979	1028	1077
		EM	230 KV Switchyard						
2046	EM2422	EM	Transporting of new 230KV SF6 breaker and it's accessories, Released 230 kV MOCB/SF6 Breaker and its accessories at 230KV outdoor switchyard for Replacement of existing 3 Nos SF6 breaker with New SF6 breaker at 230KV switchyard.	1	No	18960	18960	19908	20856
2047	EM2423	EM	Welding charges for alteration of breaker pedestal and earthing connection for replacement of existing SF6 breaker with new SF6 breaker at 230KV switchyard	1	No	4566	4566	4794	5023
2048	EM2424	EM	Charges for dismantling of existing SF6 breaker / MOCB and erection of New 230KV breaker & its accessories in the structure at 230KV switchyard.	3	No	25280	8427	8848	9269

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2049	EM2425	EM	Charges for providing moose ACSR conductor/bus bar for the New Breaker and fixing of new healthy clamps for replacement of existing SF6 breaker with new SF6 breaker at 230KV switchyard	3	No	3792	1264	1327	1390
2050	EM2426	EM	Welding charges for Existing earthing connection released and alteration of new Capacitive voltage transformers earthing connection for replacement of existing 230KV CVT with New CVT at 230KV switchyard.	1	No	1522	1522	1598	1674
2051	EM2427	EM	Charges for erection of 1 No. New 230KV Capacitive voltage transformers in the existing structure for replacement of existing 230KV CVT with New CVT at 230KV switchyard.	1	No	1896	1896	1991	2086
2052	EM2428	EM	Charges for erection of 1 No. New 230KV Capacitive voltage transformers in the existing structure and dismantling of existing 1 No old 230KV CVT at 230KV switchyard.	1	No	2844	2844	2986	3128
2053	EM2429	EM	Charges for providing and releasing of moose ACSR conductor between CVT to Wave trap and Kundah conductor between CVT to Line conductor and fixing of new healthy clamps in bay for replacement of existing 230KV CVT with New CVT at 230KV switchyard.	1	No	1724	1724	1810	1896
2054	EM2430	EM	Welding charges for alteration of Capacitive voltage transformers Existing bed frames for replacement of existing 230KV CVT with New CVT at 230KV switchyard.	1	No	1522	1522	1598	1674
2055	EM2431	EM	Transporting of new 245KV Current Transformers from central stores / MTPS to 230kv Swyd for replacement of existing 230KV CVT with New CVT at 230KV switchyard.	3	No	6320	2107	2212	2317
2056	EM2432	EM	Welding charges for alteration of current transformers earthing connection for replacement of existing 230KV CVT with New CVT at 230KV switchyard.	3	No	3044	1015	1065	1116
2057	EM2433	EM	Charges for erection of 3Nos . New 245KV current transformers in the existing structure for replacement of existing 230KV CT with New CT at 230KV switchyard.	3	No	9480	3160	3318	3476
2058	EM2434	EM	Transporting of 3Nos released 245KV current transformers from Switch yard to Central stores /MTPS for replacement of existing 230KV CT with New CT at 230KV switchyard.	3	No	6320	2107	2212	2317
2059	EM2435	EM	Charges for dismantling of existing 3Nos old 245KV current transformers for replacement of existing 230KV CT with New CT at 230KV switchyard.	3	No	4740	1580	1659	1738
2060	EM2436	EM	Charges for providing moose ACSR conductor between CT to line isolator and 'C' isolator and fixing of new healthy clamps for replacement of existing 230KV CT with New CT at 230KV switchyard.	3	No	3792	1264	1327	1390
2061	EM2437	EM	Labour charges for providing straight through cable joint with Heat shrinkable cable join kit for replacement of the defective 3C * 185 Sq.mm LT aluminum armored cable of CT area.	1	No	1025	1025	1076	1128
		EM	DG House area						
2062	EM2438	EM	Complete overhauling and testing of 5 tonne EOT crane at DG house including overhauling of all gear boxes breaker in LT .CT main hoist etc.	1	No	18100	18100	19005	19910
2063	EM2439	EM	Complete overhauling of Main hoist motor 10 HP for 5 tonne EOT crane overhauling at DG house area.	1	No	2107	2107	2212	2318
2064	EM2440	EM	For Micro hoist motor, Cross Travel motor, Long Travel motor having 0.9 HP each for 5 tonnes capacity crane overhauling at DG house area.	1	No	1843	1843	1935	2027
		EM	Overhaul of 1 MVA Service Tranformer						
2065	EM2441	EM	Disconnection of HV / LV Power cables , earth flats and releasing the old transformer oil from the tank, Dismantling the top cover of the transformer and Reconnecting the same of 1MVA/ 6.6KV/ 433V Service transformer during Overhauling period.	1	No	3215	3215	3376	3537
2066	EM2442	EM	Complete cleaning of the Transformer Core, Winding , Conservator tank and Sludge removing, Complete cleaning of the tank and removing the old gasket, Complete cleaning of the Tap switch and attending defects if any of 1MVA/6.6KV/433V Service transformer during Overhauling period.	1	No	6564	6564	6892	7220
2067	EM2443	EM	Dismantling of HV/LV Bushings, Providing New Gasket at top cover, HV/LV Bushing, Buchholz Relay and conservator tank & Re-erection of HV/LV Bushings & Fixing up the top cover of 1MVA/6.6KV/433V Service transformer during Overhauling period.	1	No	2920	2920	3066	3212
2068	EM2444	EM	Refilling the new oil in the transformer tank and Charges for hot oil circulation of 1MVA/6.6KV/433V Service transformer during Overhauling period.	1	No	4954	4954	5202	5449
2069	EM2445	EM	Transporting of new transformer oil and Filter machine of 1MVA/6.6KV/433V Service transformer during Overhauling period.	1	No	4365	4365	4583	4802

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2070	EM2446	EM	Painting the Entire Transformer with two coats of standard Grey enamel paint (45 sq.mt) of 1MVA/6.6KV/433V Service transformer during Overhauling period.	10	M ²	406	41	43	45
		EM	Overhaul of LT Switchgears at CWPB, ACW & CT						
2071	EM2447	EM	Releasing the top covers, side covers, racking out of all LT modules / Breakers, releasing of hylem sheets in the vertical busbars and cleaning of all the covers with soap water of CWPB, CT,ACWPB,MISC PH LT Switchgears Stage-I & II.	1	No	3070	3070	3224	3377
2072	EM2448	EM	Complete cleaning of Horizontal, vertical busbars, LT Breakers/ modules and supporting insulators with the help of air blower and CTC, tightness checking of Horizontal, vertical busbars, Incomer breaker terminals and outgoing power cable terminals of CWPB, CT,ACWPB,MISC PH LT Switchgears Stage-I & II.	1	No	2560	2560	2688	2816
2073	EM2449	EM	Cleaning of all power contactor tips in LT modules / Breakers, tightness checking of power cables, checking and cleaning of arc chutes etc of CWPB, CT,ACWPB,MISC PH LT Switchgears Stage-I & II.	1	No	2560	2560	2688	2816
2074	EM2450	EM	Refixing of SWGR top, side covers and racking in the Breakers / modules, and commissioning the SWGR of CWPB, CT,ACWPB,MISC PH LT Switchgears Stage-I & II.	1	No	2868	2868	3011	3155
		EM	Overhauling of LT Switchgear at ESP/AHPB						
2075	EM2451	EM	The labourers will complete the work of cleaning of 20 LT modules of size LT module size : 1/3, 1/5,1/6, 2/6, 1/7, 2/7, 1/8, 2/8, 1/9, 2/9, 3/9, 1/10, 2/10, 3/10, and checking the tightness of all components and terminals, lubrication and racking in, in the concerned racks in ESP/AHP LT Switchgear.	20	No	1353	68	71	74
2076	EM2452	EM	The labourers will complete the work of cleaning of 10 LT modules of size LT module size : ½, 2/5, 3/5, 3/7,4/7, ¾, 2/3,3/8, 4/8,6/8, 4/9, 5/9 & Full size, and checking the tightness of all components and terminals, lubrication and racking in, in the concerned racks in ESP/AHP LT Switchgear.	10	No	1441	144	151	159
2077	EM2453	EM	The labourers will complete the work of cleaning of 4 Nos. 150 KW LT Module checking the tightness of all components and terminals, lubrication and racking in, in the concerned racks, in AHP LT Switchgear.	4	No	1441	360	378	396
2078	EM2454	EM	The labourers will complete the work of cleaning of 2 Nos. LT Breaker checking the tightness of all components and terminals, lubrication and racking in, in the concerned racks, in ESP/AHP LT switchgear.	2	No	1441	721	757	793
2079	EM2455	EM	The labourers will complete the work of Cleaning, checking of the tightness of all bus bar joints, vertical dropper bus, cleaning of the bus bars, support insulators, FRB Insulation sheets and outgoing cable chamber in ESP/AHP LT switchgear.	15	No	1441	96	101	106
2080	EM2456	EM	The above labourers will complete the work of removing the top covers and cleaning the main bus, cleaning of Bus ducts from Service Transformer secondary terminal to Incomer panel in AHP LT switchgear.	1	No	2706	2706	2841	2977
2081	EM2457	EM	The labourers will complete the work of removing the top covers of LT Switch gear & Auxiliary control Panel, cleaning and tightness checking of main Bus & Incoming cable chamber in ESP LT switchgear.	1	No	5412	5412	5683	5953
2082	EM2458	EM	The labours will complete the work of cleaning of 10 Nos. Electronic control Panels & tightness checking of Power contactors & Switch fuse units in ESP control room.	10	No	1353	135	142	149
		EM	Cleaning of ESP HVRT, EERM & CERM						
2083	EM2459	EM	Complete cleaning of the oil sedimentation on the H.V.R. Transformer outer body, complete cleaning of the knife switch chamber & marshaling boxes of ESP	2	No	1120	560	588	616
2084	EM2460	EM	Cleaning of support insulators & its chambers of H.V.R. Transformer at ESP Roof top	9	No	1120	124	131	137
2085	EM2461	EM	Cleaning of Emitting & Collecting Electrode rapping motors at ESP roof top during overhauling	24	No	1120	47	49	51
		EM	Removal and Refixing of ESP Hopper Heater & Thermostat						
2086	EM2462	EM	Charges for disconnecting the power cable connection and removal of the hopper heaters from the heating chamber of ESP Hopper during Overhauling.	16	No	1434	90	94	99
2087	EM2463	EM	Charges for cleaning & Re-fixing the hopper heaters in to the heater chamber by replacing the old deteriorated neoprene rubber washer and providing power cable connection and testing at ESP Hopper during Overhauling.	16	No	1434	90	94	99

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2088	EM2464	EM	Labour charges for disconnecting the power cable connection and removal of thermostat, cleaning, testing and re-fixing the thermostat by replacing the worn-out screws, 'O' rings etc. at ESP Hopper during Overhauling.	12	No	1434	120	125	131
2089	EM2465	EM	Labour charges for disconnection & re-connection of the earth lead GI wire at ESP Hopper during Overhauling.	48	No	2304	48	50	53
		EM	Shifting of welding panel						
2090	EM2466	EM	Temporary Provision of LT welding panel during Unit overhaul.	1	No	1983	1983	2082	2181
		EM	Miscellaneous works at CWP,ACW & CT area.						
2091	EM2467	EM	Removal of power /control /space heaters cables from CT Fan motor terminals and re termination works after completion of CA Division works for damaged cable trays replacement in cooling tower areas.	11	No	2868	261	274	287
2092	EM2468	EM	Removal of cables from the cable trays and re- laying the same including dressing of cables for damaged cable trays replacement in cooling tower areas.	1	No	5332	5332	5599	5865
2093	EM2469	EM	Cutting and removal of damaged cable trays and supporting structures for damaged cable trays replacement in cooling tower areas.	1	No	5284	5284	5548	5812
2094	EM2470	EM	cutting of 70 X 40 X 5 mm size with 900 mm length channel for damaged cable trays replacement in cooling tower areas.	50	No	969	19	20	21
2095	EM2471	EM	Welding the MS channels on the existing anchoring plates grouted in the sides of tower main beams for damaged cable trays replacement in cooling tower areas.	25	No	1321	53	55	58
2096	EM2472	EM	Laying of 2600 X 850 X 100 mm size cable trays on supporting channels for damaged cable trays replacement in cooling tower areas.	50	No	969	19	20	21
2097	EM2473	EM	Charges for welding of cable trays with channels for damaged cable trays replacement in cooling tower areas.	25	No	912	36	38	40
2098	EM2474	EM	Loading of cable trays from stores, unloading at CT.I ground level, lifting from ground to CT.I top for damaged cable trays replacement in cooling tower areas.	60	No	2240	37	39	41
2099	EM2475	EM	Transporting of 150 Nos channels from ground to cooling tower top for damaged cable trays replacement in cooling tower areas.	150	No	1120	7	8	8
2100	EM2476	EM	Transporting of released cable trays and supporting angles from cooling tower top to ground, loading ,transporting to stores for devolution for damaged cable trays replacement in cooling tower areas.	1	No	1120	1120	1176	1232
2101	EM2477	EM	Overhauling of Trolley mounted 1 Tonne capacity Chain Block located at Cooling Tower I & II Top floor	1	No	1673	1673	1757	1840
2102	EM2478	EM	Releasing the high level 250W HPSV lamp fittings from structure , lowering to ground level , cleaning , Rectifying and Refixing in high level at Switch yard / MTPS.	3	No	1333	444	467	489
2103	EM2479	EM	Labour charges for cutting, removal of damaged earth spikes on top of the fan speak in cooling tower areas.	8	No	1377	172	181	189
2104	EM2480	EM	Cutting and removing of the existing damaged Earth flat for replacement of the existing damaged lightning earth spikes and earth flats in cooling tower area.	70	M	1041	15	16	16
2105	EM2481	EM	Fixing of new earth spikes on top of the fan speak by welding on the existing anchoring plate for replacement of the existing damaged lightning earth spikes and earth flats in Cooling tower.	6	No	1377	230	241	252
2106	EM2482	EM	Laying of new earth flats 25 x 6 sq.mm for replacement of the existing damaged lightning earth spikes and earth flats in Cooling tower.	70	M	1041	15	16	16
2107	EM2483	EM	Fixing the earth flat by providing clamps with 1 mtr interval including fabrication of the clamps, providing hole on the concrete slab for fixing the clamps by screw for 450 mtrs for replacement of the existing damaged lightning earth spikes and earth flats in cooling tower.	40	M	1843	46	48	51
2108	EM2484	EM	welding the earth flats on the top of the fan speak and earth mate for replacement of the existing damaged lightning earth spikes and earth flats in cooling tower.	22	location	912	41	44	46
		EM	Laying and releasing of cables						
2109	EM2485	EM	Laying / Releasing of 11 KV, 3CX120 Sq.mm HTUG. Aluminium armoured cable in the ground.	100	M	6111	61	64	67
2110	EM2486	EM	Laying / Releasing of LTUG. Aluminium armoured cable in the ground for the following size. 1). 1 C X 1000 sq.mm 2). 3½ C X 400 sq.mm 3). 3½ C X 240 sq.mm 4). 3½ C X 150 sq.mm	100	M	6111	61	64	67

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2111	EM2487	EM	Laying / Releasing of LTUG. Aluminium armoured cable in the ground for the following size. 1). 3½ C X 120 sq.mm 2). 3½ C X 70 sq.mm	100	M	4659	47	49	51
2112	EM2488	EM	Laying / Releasing of LTUG. Aluminium armoured cable in the ground for the following size. 1). 3½ C X 50 sq.mm 2). 3½ C X 35 sq.mm 3). 3½ C X 25 sq.mm	100	M	3056	31	32	34
2113	EM2489	EM	Laying / Releasing of LTUG. Aluminium armoured cable in the ground for the following size. 1). 3½ C X 16 sq.mm 2). 2 C X 6 sq.mm 3). 2 C X 10 sq.mm	100	M	2066	21	22	23
2114	EM2490	EM	Laying of cable in the existing cable tray above 9 mtrs is addition of 10% of cable laying charges in ground for each 10 metre height 10% to will be added. Rate per mtr + 10% of per mtr cable laying charge	10	M	6722	672	706	739
2115	EM2491	EM	Glanding & Termination charges for LTUG. Aluminium armoured cable for the following size. 1). 1 C X 1000 sq.mm 2). 3½ C X 400 sq.mm 3). 3½ C X 240 sq.mm 4). 3½ C X 150 sq.mm	10	No	2132	213	224	234
2116	EM2492	EM	Glanding & Termination charges for LTUG. Aluminium armoured cable for the following size. 1). 3½ C X 120 sq.mm 2). 3½ C X 70 sq.mm	10	No	1604	160	168	176
2117	EM2493	EM	Glanding & Termination charges for LTUG. Aluminium armoured cable for the following size. 1). 3½ C X 50 sq.mm 2). 3½ C X 35 sq.mm 3). 3½ C X 25 sq.mm	10	No	1227	123	129	135
2118	EM2494	EM	Glanding & Termination charges for LTUG. Aluminium armoured cable for the following size. 1). 3½ C X 16 sq.mm 2). 2 C X 6 sq.mm 3). 2 C X 10 sq.mm	12	No	1076	90	94	99
2119	EM2495	EM	The charges for De-Termination of LTUG Aluminium cable is 50% of charges of Glanding & Termination charges with respect to cable sizes. Glanding & Termination charges of LTUG Aluminium cable/ 2	10	No	1066	107	112	117
2120	EM2496	EM	Loading, Transporting and unloading of HTUG & LTUG. Aluminium armoured cable	1	shift	1320	1320	1386	1452
2121	EM2497	EM	Providing out door Straight through joint kit suitable for LTUG. Aluminium armoured cable for the following size. 1). 1 C X 1000 sq.mm 2). 3½ C X 400 sq.mm 3). 3½ C X 240 sq.mm 4). 3½ C X 150 sq.mm	1	No	1724	1724	1810	1896
2122	EM2498	EM	Providing out door Straight through joint kit suitable for 11KV HTUG. Aluminium armoured cable for the following size. 1). 3 C X 300 sq.mm 2). 3 C X 120 sq.mm	1	No	2337	2337	2454	2571
2123	EM2499	EM	Providing out door End termination kit suitable for 11KV HTUG. Aluminium armoured cable for the following size. 1). 3 C X 300 sq.mm 2). 3 C X 120 sq.mm	1	No	1724	1724	1810	1896
2124	EM2500	EM	Fixing of 63 A TPNMC Switch on suitable angle iron frame work with MS cable entry boxes with earth connections.	4	No	3261	815	856	897
2125	EM2501	EM	Fixin32 A TPNMC Switch on suitable angle iron frame work with MS cable entry boxes with earth connections.	4	No	2186	546	574	601
2126	EM2502	EM	Cleaning and rectification of street light bend poles of 30 ft height with single fittings and junction boxes including transporting of telescopic type ladder.	4	No	1765	441	463	485
2127	EM2503	EM	Cleaning and rectification of street light of single fittings and junction boxes.	5	No	1149	230	241	253
2128	EM2504	EM	Release the defective 400 W HPSV lamp fittings from 25 m security Tower light. All the components of the defective fittings should be checked and cleaned thoroughly. Replace the defective components with the healthy one. Then refix and illuminate the repaired fittings at their respective location	8	No	1598	200	210	220
2129	EM2506	EM	Excavation of pit for Pole strengthening including bushes cleaning, removing of stones & leveling (or) Cutting of and transporting of Tower Angles from pocket store to site, releasing the junction box and bushes cleaning around the pole (or) Cutting of and transporting of Tower Angles from pocket store to site, releasing the junction box and bushes cleaning around the pole	1	No	924	924	970	1016
2130	EM2507	EM	Strengthening of poles by fixing Channels at both sides by using bolts & nuts including transporting of channels, cutting & drilling	1	No	1584	1584	1663	1742
2131	EM2508	EM	Provision of 1:2:4 cement Concrete coping	10	M3	10429	1043	1095	1147

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2132	EM2509	EM	Strengthening of poles by welding Tower Angles around the poles.	12	No	1321	110	116	121
2133	EM2510	EM	Errection of 11 KV HT PSC or RSJ poles of 9 mtr height	5	No	3370	674	708	741
2134	EM2511	EM	Errection of LT PSC or RSJ poles of height 8 mtr	5	No	2710	542	569	596
2135	EM2512	EM	Excavation of pit for Pole Stay including bushes cleaning, removing of stones & leveling	2	No	924	462	485	508
2136	EM2513	EM	Providing stay set & erection of stay rod with stay plate and consolidation.	8	No	2066	258	271	284
2137	EM2514	EM	Fixing of street light fitting with complete set including fixing of clamp, ficture pipe, junction box at bottom	4	No	1866	467	490	513
2138	EM2515	EM	Clamping of LTUG Aluminium armoured cable on post of Tower or on wall with MS clamps for following LTUG Aluminum armoured cables including Transport. 1). 2C x 4 Sq.mm 2). 2C x 6 Sq.mm 3). 2C x 10 Sq.mm 4). 2C x 16 Sq.mm 5). 2C x 25 Sq.mm 6). 4C x 4 Sq.mm 7). 4C x 6 Sq.mm 8). 4C x 10 Sq.mm 9). 4C x 16 Sq.mm	45	M	4548	101	106	111
2139	EM2516	EM	Clamping of LTUG Aluminium armoured cable on post or Tower or on wall with MS clamps for following LTUG Aluminum armoured cables including Transport. 1). 3 1/2 C x 25 Sq.mm 2). 3 1/2 C x 35 Sq.mm 3). 3 1/2 C x 50 Sq.mm 4). 3 1/2 C x 70 Sq.mm 5). 3 1/2 C x 95 Sq.mm	45	M	4760	106	111	116
2140	EM2517	EM	Clamping of LTUG Aluminium armoured cable on post or Tower or on wall with MS clamps for following LTUG Aluminum armoured cables including Transport. 1). 3 1/2 C x 120 Sq.mm 2). 3 1/2 C x 150 Sq.mm 3). 3 1/2 C x 185 Sq.mm 4). 3 1/2 C x 225 Sq.mm 5). 3 1/2 C x 300 Sq.mm 6). 3 1/2 C x 240 Sq.mm 7). 3 1/2 C x 400 Sq.mm	45	M	5712	127	133	140
2141	EM2518	EM	Charges for Painting	10	M ²	406	41	43	45
2142	EM2519	EM	100, 250 and 500 KVA, 11 KV / 440 V Distribution transformer: Releasing the old transformer oil from DT and and refilling.	1	No	969	969	1017	1066
2143	EM2520	EM	Complete cleaning of 11 KV / 440 V Distribution transformer Replacement of gasket(Transformer top cover, HV & LV Bushings & Diaphragm)	1	No	1262	1262	1325	1388
2144	EM2521	EM	Lifting, loading and unloading a 11 KV / 440 V Distribution transform from transformer strecture to work spot.	1	No	1951	1951	2049	2146
2145	EM2522	EM	Disconnection/Connection of HV Aluminium conductor / LV power cables and earth flats in the 11 KV / 440 V Distribution transformer strecture	2	No	1542	771	810	848
		EM	OVERHAULING OF 2 MVA SERVICE TRANSFORMER						
2146	EM2523	EM	Disconnection of HV Power cable & its terminal box and earth flats	1	No	1069	1069	1122	1176
2147	EM2524	EM	Disconnection of LV Power cable & terminal box / LV bus duct termninal connection &Terminal Box	1	No	1585	1585	1664	1744
2148	EM2525	EM	Releasing the old transformer oil from tank and Releasing the radiator cooling fins, valves and cleaning by using forced oil method.	1	No	3346	3346	3513	3681
2149	EM2526	EM	Releasing the Buchholz relay, conservator tank,vent pipe,oil & winding temperature gauges,Disconnection of winding CT terminals.	1	No	2900	2900	3045	3190
2150	EM2527	EM	Removing the top cover of the transformer and Disconnecting the HV/LV leads from Bushings and lifting the core and winding	1	No	2246	2246	2358	2471
2151	EM2528	EM	Complete cleaning of the Transformer tank, Core, Winding, Sludge removing and removing old gasket..	1	No	1378	1378	1447	1516
2152	EM2529	EM	Complete cleaning of the Tap switch and attending defects if any during testing.	1	No	1951	1951	2049	2146
2153	EM2530	EM	Cleaning, servicing and gasket replacement to Buchholz relay, MOG,oil level gauge glass,explosion vent pipe,conservator tank, silicagel & replacement of diaphragm	1	No	3196	3196	3356	3516
2154	EM2531	EM	Dismantling of HV & LV Bushings, cleaning,checking the bushing rods, replacing the deteriorated O rings & gaskets by new,assembling and fixing in the transformer tank.	1	No	4014	4014	4215	4415
2155	EM2532	EM	Repositioning of the core & winding assembly in Transformer tank and reconnecting the HV/LV leads	1	No	1485	1485	1559	1634

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2156	EM2533	EM	Providing New Gasket at top cover and fixing the top cover.	1	No	1671	1671	1755	1838
2157	EM2534	EM	Fixing the radiator cooling fins, valves,conservator tank, Buchhloz relay, explosion vent pipe, WTI,OTI, winding CT bushings, breather pipe & breather in complete shape by replacing all deteriorated gaskets by new one.	1	No	3756	3756	3944	4132
2158	EM2535	EM	Leading the oil filter machine from its shed to transformer location and extending power supply, transport back to its shed after completion of hot oil circulation.	1	No	2642	2642	2774	2906
2159	EM2536	EM	Filling up the transformer with new transformer oil through oil filter machine	1	No	1025	1025	1076	1128
2160	EM2537	EM	Hot oil circulation till the IR value of the transformer winding & breakdown value of the oil reaches the required level and attending to the connected & related works..	1	No	3870	3870	4064	4257
2161	EM2538	EM	Connecting HV Power cables, fixing terminal box & earth flats	1	No	1069	1069	1122	1176
2162	EM2539	EM	Connecting LV Power cables & terminal box / LV Bus duct terminals and fixing terminal box and assisting in testing the transformer.	1	No	1585	1585	1664	1744
2163	EM2540	EM	Drawl of new transformer oil drum from stores & transporting to transformer location, Prehot oil circulation of newly drawn oil and devoluting of released oil drum to stores. (Lorry,crane, oil filter machine will be supplied by TANGEDCO)	10	Nos	4492	449	472	494
2164	EM2541	EM	Scrapping, cleaning and Painting the Entire Transformer surface with 2 coats of DA grey enamel paint.	10	M ²	406	41	43	45
		EM	Chimney I Lighting (130 Mtr Height)						
2165	EM2542	EM	LED Lamp fitting at (top most) Third tier : Releasing the existing LED based aviation obstruction lamp fittings, lowering to ground level, cleaning, checking, rectification, replacing, lifting and re-fixing at its position and Cleaning the junction boxes , checking the tightness of terminal connection and rectification if any in the junction boxes & testing at top most tiers of Chimney – I at a height of 130 mtr	3	No	5754	1918	2014	2110
2166	EM2543	EM	SV Lamp fitting at (top most) Third tier : Releasing the existing S.V.Lamp fittings (Non-Integral type) with ballast boxes from its position and lowering to the ground level and cleaning, checking, rectification of faults by replacing the bulb, ballast, ignitor ,holder, capacitor etc, if found defective and checking the fittings and lifting, re-fixing the same at its position & and Cleaning the junction boxes, checking the tightness of terminal connection and rectification if any in the junction boxes and testing at third tier of Chimney - I at aheight of 130 mtr.	3	Nos	7707	2569	2697	2826
2167	EM2544	EM	SV Lamp fitting at second tier : Same work as detailed in third tier of Chimney - I at a height of 130 mtr.	3	Nos	6867	2289	2403	2518
2168	EM2545	EM	SN lamp fitting at first tier : Same work as detailed in third tier of Chimney - I at a height of 130 mtr.	3	Nos	4578	1526	1602	1679
		EM	Chimney II Lighting (220 Mtr Height)						
2169	EM2546	EM	LED lamp fitting at (top most) fifth tier : Releasing the existing LED based aviation obstruction lamp fittings, lowering to ground level, cleaning, checking, rectification, replacing, lifting and re-fixing at its position and Cleaning the junction boxes , checking the tightness of terminal connection and rectification if any in the junction boxes & testing at top most tiers of Chimney – I I at a height of 220 mtr	3	Nos	7823	2608	2738	2868
2170	EM2547	EM	SV lamp fitting at (top most) fifth tier : Releasing the existing S.V.Lamp fittings (Non-Integral type) with ballast boxes from its position and lowering to the ground level and cleaning, checking, rectification of faults by replacing the bulb, ballast, ignitor ,holder, capacitor etc, if found defective and checking the fittings and lifting, re-fixing the same at its position & and Cleaning the junction boxes, checking the tightness of terminal connection and rectification if any in the junction boxes and testing at fifth tier of Chimney - II at a height of 220 mtr.	3	Nos	9387	3129	3285	3442
2171	EM2548	EM	SV lamp fitting at fourth tier : Same work as detailed in fifth tier of Chimney - II at a height of 220 mtr.	3	Nos	8547	2849	2991	3134
2172	EM2549	EM	SV lamp fitting at Third tier : Same work as detailed in fifth tier of Chimney - II at a height of 220 mtr.	3	Nos	7707	2569	2697	2826
2173	EM2550	EM	SV lamp fitting at second tier : Same work as detailed in fifth tier of Chimney - II at a height of 220 mtr.	3	Nos	6867	2289	2403	2518

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							MTPS	TTPS	NCTPS
2174	EM2551	EM	SV lamp fitting at first tier : Same work as detailed in fifth tier of Chimney - II at a height of 220 mtr.	3	Nos	4578	1526	1602	1679
		EM	ESP HVR Transformer defective replacement work.						
2175	EM2552	EM	Charges for releasing the failed HVRT from ESP roof top and shifting to ground floor.	1	No	10856	10856	11399	11942
2176	EM2553	EM	Charges for lifting the spare HVRT from ground floor to ESP roof top and erecting in place of failed HVR transformer.	1	No	13384	13384	14053	14722
		C&I	Control and Instrumentation						
		C&I	GAUGES, SWITCHES, TRANSMITTERS						
2177	CI2001	C&I	Charges for removal of the local Pressure/Temperature GAUGES and refixing them after calibration in Boiler, Turbine & Generator areas.	7	No	1378	197	207	217
2178	CI2002	C&I	Charges for Removal of Pressure/ Temperature/ Vacuum / flow SWITCHES and refixing them after calibration in Boiler, Turbine and Generator areas .	7	No	1378	197	207	217
2179	CI2003	C&I	Charges for removal of Pressure /Temperature TRANSMITTER ncluding disconnecting the control cables, removal of clamps & manifold and refixing them after calibration in Boiler, Turbine & Generator areas.	7	No	1378	197	207	217
2180	CI2004	C&I	Charges for dismantling, cleaning, replacement of gaskets(280x280mm) and re-fitting of level switch .	1	No	969	969	1017	1066
2181	CI2005	C&I	Charges for cutting of existing flange from stand pipe (4.5 inch) of LP Heater 3&4 and grinding the surface in stand pipe, Welding of new flange in the stand pipe, providing new metallic gasket(3 Nos.x240 X240)mm to new flange, fixing of Guided wave radar level transmitter	1	No	1321	1321	1387	1453
2182	CI2006	C&I	Charges for dismantling, cleaning, replacement of gaskets and re-fitting of displacement type level transmitter	1	No	1673	1673	1757	1840
		C&I	PNEUMATIC ACTUATORS & ITS ACCESSORIES						
2183	CI2007	C&I	Charges for removing from field, transporting to lab, cleaning, handing over to lab for calibration, and re fixing after calibration of AIR REGULATOR with gauges.	7	No	1378	197	207	217
2184	CI2008	C&I	Charges for removing from field, transporting to lab, cleaning, handing over to lab for calibration, and re fixing after calibration of I/P converter.	7	No	1378	197	207	217
2185	CI2009	C&I	Charges for removing and refitting of accessories in pneumatic control valves & dampers such as I/P converters, air lock relay, air regulators, positioners and position feedback transmitters sending to lab for testing, and receiving the tested instruments from lab .	1	No	982	982	1031	1080
2186	CI2010	C&I	Charges for Replacement of HAD/CAD cylinder (8" Bore and 8 " stroke)which involves following works.i) Removal of existing pneumatic cylinder and its accessories with copper tubings from its location to pocket store.ii) Loading, transporting and unloading of new pneumatic cylinder from central store to field location.iii) Fixing the new pneumatic cylinder and refixing the accessories such as air regulator, I/P converter with SS tubings.	1	No	2448	2448	2570	2693
2187	CI2011	C&I	Charges for Replacement of burner tilt cylinder(10" Bore and 16 " stroke) which involves following works.i) Removal of existing pneumatic cylinder and its accessories with copper tubings from its location to pocket store.ii) Loading, transporting and unloading of new pneumatic cylinder from central store to field location.iii) Fixing the new pneumatic cylinder and refixing the accessories such as air regulator, I/P converter with SS tubings.	1	No	3008	3008	3158	3309
2188	CI2012	C&I	Removal of existing Bailey make pneumatic actuator and its accessories with SS tubings from its location to pocket store.	1	No	2392	2392	2512	2631
2189	CI2013	C&I	Loading, transporting and unloading of new keltron make pneumatic actuator from central stores to PA fan location.	1	No	2644	2644	2776	2908
2190	CI2014	C&I	Digging of platform for bed arrangement and fabrication of MS plate suitable for actuator base including cutting, welding and drilling works for new bed bolt assembly	1	No	2039	2039	2141	2243
2191	CI2015	C&I	Fixing the keltron pneumatic actuator in the new bed bolt assembly and refixing the accessories such as Air regulator, I/P converter with SS tubings and making alignment for the same.	1	No	3036	3036	3188	3340
2192	CI2016	C&I	Cutting and welding of existing connecting rod as required for the new keltron actuator drive arm and also welding the shackle to another end of the connecting rod.	1	No	1759	1759	1847	1935
		C&I	RTD & THERMOCOUPLES						
2193	CI2017	C&I	Charges for releasing of Turbine casing Thermocouple.	1	No	154	154	162	169
2194	CI2018	C&I	Charges for releasing, drilling and refixing of RTD.	4	No	308	77	81	85

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2195	CI2019	C&I	Charges for tapping of existing threads and fixing of Turbine casing Thermocouple.	1	No	308	308	323	339
2196	CI2020	C&I	Charges for providing new holes in place of damaged holes and tapping the damaged threads in turbine casing for fixing of thermocouples.	1	No	727	727	763	800
2197	CI2021	C&I	Charges for termination and checking the healthiness of thermocouples by heating .	5	No	717	143	151	158
		C&I	SADC, PRDS, FSSS						
2198	CI2022	C&I	Charges for releasing of Electronic cards from the racks, cleaning of panels & reinserting the cards, terminal tightness checking of FSSS, SADC, PRDS, Feeder, HYDRASTEP, 110 V AC & 220 V DC distribution panels and CHARGER Panels.	3	Panels	1426	475	499	523
2199	CI2023	C&I	Charges for Providing fuse isolation with enclosure for 24V 500AH FSSS Battery sets to Battery chargers.	2	No	1730	865	908	952
2200	CI2024	C&I	Removing the Solenoids, Air regulators and SS tubes for fixing field enclosure in APH soot blowing valve.	2	No	1730	865	908	952
2201	CI2025	C&I	Removing, cleaning, transporting to work bench, servicing, air leak and operation checking, re fixing and checking of Retractor Assembly of HEA Ignitors.	12	No	18766	1564	1642	1720
2202	CI2026	C&I	Painting retractor assembly of HEA Ignitors and Power cylinders (Double coating)	12	No	738	62	65	68
2203	CI2027	C&I	Disconnecting the connectors of the flame scanners, removing from the Boiler guide pipe assembly, transporting to work bench, dismantling & Reassembling the scanner head assembly from scanners, removing, cleaning & refixing the lenses, servicing and checking of flame scanners.	32	Nos	18766	586	616	645
2204	CI2028	C&I	Removing, cleaning, servicing, refixing and checking of SADC positioners.	48	No	22178	462	485	508
2205	CI2029	C&I	Removing the cotter pins, disconnecting the air lines, removing the positioner from the boiler wall mountings, transporting to work bench, cleaning, replacing seal kits and bellows with new seal kits and new bellows,checking and re-fixing of SADC positioners.	48	No	29002	604	634	665
2206	CI2030	C&I	Charges for removing, cleaning solenoid valves, air filter cum lubricator & the air lines and replacing the 'O' rings in the solenoid valves and refixing the solenoid valves, air filter cum lubricator & the air lines in the HAGs.	6	No	6310	1052	1104	1157
		C&I	FIE,JBS & TBS,WIRINGS						
2207	CI2031	C&I	Removing the terminal connections, Replacing the broken Terminal Blocks and reconnecting the terminal connections and checking in Various Junction boxes at Boiler and mill area .	100	No	2559	26	27	28
2208	CI2032	C&I	Charges for replacing OFF/REMOTE/ SCAVANGE switches,TB's and JB's in all oil elevation corners with new one. (i) Removing the Junction boxes and terminal blocks.	12	No	853	71	75	78
2209	CI2033	C&I	(ii) Welding and fixing of new Junction boxes and terminal blocks with fixing plates for OFF/REMOTE/ SCAVANGE switches.	12	No	2468	206	216	226
2210	CI2034	C&I	Charges for rectification and welding of broken doors in junction boxes.	5	No	1321	264	277	291
2211	CI2035	C&I	Charges for painting (double coating) and lettering of FIEs (107x60x175 cm)and JBs (32x15x60cm)	10	M ²	714	71	75	79
		C&I	IMPULSE LINE & ROOT VALUE MODIFICATION (TUBING, CUTTING, WELDING ETC.)						
2212	CI2036	C&I	Charges for opening and cleaning of 1/2" impulse line and catch pot in mills, Flue gas, primary and secondary air paths.	8	No	1378	172	181	189
2213	CI2037	C&I	Charges for cutting and welding of take off catch pot in mills, flue gas, primary and secondary air path .	2	No	632	316	332	348
2214	CI2038	C&I	Charges for 3 Nos. of single point cutting and welding of pipe size 1/2" impulse lines of mills, flue gas, primary and secondary air path including cost of gas,welding electrodes & consumables such as cotton waste, hacksaw blade, etc.	3	No	632	211	221	232
2215	CI2039	C&I	Charges for replacement of defective 1" root valve in HP/LP heaters which involves the cutting and welding of 2 joints in 1" CS Impulse line .	1	No	1321	1321	1387	1453
2216	CI2040	C&I	Charges for supply and replacement of defective Drain valve / Isolation valve (3/8") for high pressure transmitter .	2	No	689	345	362	379
2217	CI2041	C&I	Charges for removing existing leaky 3/8" SS impulse line and worn out connectors, cutting and bending the new line as necessary, fixing SS connectors with nut and ferrules in the line and connection back the new line with out leaks in High pressure transmitter service	2	No	689	345	362	379
2218	CI2042	C&I	Charges for welding of 1/2" impulse line in APH soot blowing inlet steam line for the Provision of pressure gauge	1	No	661	661	694	727
2219	CI2043	C&I	Charges for Laying of 3/8" SS Tubing .	10	M	689	69	72	76

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2220	CI2044	C&I	Charge for Single point Cutting, Welding of ½”CS Impulse line	3	No	632	211	221	232
2221	CI2045	C&I	Charges for fixing of SS 3/8” male connector.	17	No	689	41	43	45
2222	CI2046	C&I	Charges for releasing of exisiting in 6mm copper tubing’s for CAD/HAD cylinders.	100	M	969	10	10	11
2223	CI2047	C&I	Charges for laying of 6mm SS tubing including bending and threading with suitable clamps/supports whenever necessary.	10	M	1378	138	145	152
2224	CI2048	C&I	Charges for fixing SS 6mm male connector.	17	No	689	41	43	45
2225	CI2049	C&I	Replacement of defective 1/2" ss instruments valves in various location.	4	Nos	689	172	181	189
		MRT	METER RELAY TESTING						

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
		MRT	VALVE ACTUATOR						
2226	MRT2001	MRT	Charges for cleaning, disconnection of power cables and control cables, terminal tightness checking of actuator terminal blocks, local push button and lubricating the limit switch mechanism as instructed by the maintenance Engineer incharge.	3	No	1193	398	418	438
2227	MRT2002	MRT	Charges for reconnection of power and control cables, setting of open/close limit/ torque switches, testing of modules, motors and checking of operations as instructed by the maintenance Engineer incharge.	2	No	1766	883	927	971
2228	MRT2003	MRT	Charges for replacement of limit switch assembly and actuator terminal blocks as instructed by the maintenance Engineer incharge.	1	No	1456	1456	1529	1602
2229	MRT2004	MRT	Charges for power/control cable jointing works for actuators as instructed by our maintenance Engineer incharge.	1	No	1813	1813	1904	1994
		MRT	SOOT BLOWER						
2230	MRT2005	MRT	Disconnection of cables of WWSB'S, LRSB'S and APH soot blowers cleaning and tightness checking terminal blocks, local push buttons and reconnection of cables & providing assistance to setting of limit switches as instructed by our maintenance Engineer incharge.	4	No	1193	298	313	328
		MRT	DIGITAL EXCITATION SYSTEM						
2231	MRT2006	MRT	Cleaning of Converter cubicles, Field Breaker cubicles, and Regulation Cubicle and Air conditioner units (6 Nos), checking the tightness of AC / DC bus bar joints, terminal blocks in Converter panels, Field Breaker panel and Regulation Panel.	1	No	4509	4509	4734	4960
2232	MRT2007	MRT	Opening/closing time and contact resistance measurement works of Field breaker main and FDR contacts, testing of relays, transformers & timers, carrying out the modification works for conducting the dummy load test in the Digital Excitation System and measurement of Generator stator IR value and DC resistance, Rotor DC resistance and impedance measurement at standstill, barring gear speed and various speeds during rolling of turbine.	1	No	3579	3579	3758	3937
		MRT	POWER TRANSFORMER						
2233	MRT2008	MRT	Charges for transporting the testing equipment to transformer yard, assisting for conducting OCC, SCC tests on GT, UAT's (A& B) and its NGT, terminal tightness checking in marshalling boxes, metering and protection CT's.	1	No	4772	4772	5011	5249
2234	MRT2009	MRT	Charges for transporting the testing equipment to transformer yard, assisting for conducting OCC, SCC tests on UST,SST and its NGR, terminal tightness checking in marshalling boxes, metering and protection CT's	1	No	3006	3006	3156	3307
2235	MRT2010	MRT	Charges for transporting the testing equipment to transformer yard, assisting for conducting OCC, SCC tests on ST1 & ST2 and its NGT, terminal tightness checking in marshalling boxes, metering and protection CT's	1	No	3006	3006	3156	3307
		MRT	HT-MOTORS TESTING						
2236	MRT2011	MRT	Charges for transporting the testing equipment & assisting for conducting the tests on HT motor locations.	3	No	1193	398	418	438
		MRT	HT PANEL RELAY TESTING						
2237	MRT2012	MRT	Charges for transporting the testing equipment, Cleaning & assisting for conducting the tests on HT Relay Panel	3	No	1193	398	418	438
		MRT	LT MOTORS TESTING						
2238	MRT2013	MRT	Charges for transporting the testing equipment & assisting for conducting the tests on LT motor locations.	6	No	1193	199	209	219
		MRT	LT PANEL RELAY TESTING						
2239	MRT2014	MRT	Charges for transporting the testing equipment, Cleaning & assisting for conducting the tests on LT Relay Panel	3	No	1193	398	418	438
		MRT	GENERATOR RELAY PANEL TESTING & GCDP PANEL METER CALIBRATION						
2240	MRT2015	MRT	Charges for transporting the testing equipment, Cleaning & assisting for conducting the tests on Generator Relay Panel testing & GCDP Panel Meter Calibration.	1	No	3579	3579	3758	3937
		MRT	GENERATOR TRANSFORMER BAY						
2241	MRT2016	MRT	Charges for cleaning and tightness checking/replacing the damaged terminal blocks, Main & Auxiliary contactor of GTs Breaker Marshaling Box, 3 Nos breakers individual control boxes, main marshaling box, Current Transformer secondary terminals, Bus/Line Isolator control boxes and SCP (Switch Yard control panels) at 230 KV Switch yard area.	4	No	9544	2386	2505	2625
2242	MRT2017	MRT	Charges for transporting all the measuring instruments to GTs Breaker / marshaling box location and for assisting the testing of opening/closing time, contact resistance of breaker and setting of open/close limit switches of bus and line isolators at switch yard and for relay testing at SCP (Switch Yard control panels).	4	No	9544	2386	2505	2625
		MRT	DIESEL GENERATOR HOUSE						

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2243	MRT2018	MRT	Charges for Cleaning and tightness checking/replacement of damaged terminal blocks Main & Auxiliary contactor and relays of DG set incoming/outgoing breakers, AMF panel and alternator.	2	No	4772	2386	2505	2625
2244	MRT2019	MRT	Charges for transporting the testing equipment to the DG set location from switchyard and assisting for testing of alternator, relays for AMF panel and DG set incoming/outgoing breakers.	2	No	2386	1193	1253	1312
		MRT	COOLING WATER PUMP HOUSE						
2245	MRT2020	MRT	Charges for Cleaning and tightness checking of Incomer Breakers of ACW SWGR , Cooling Tower SWGR, CWPH SWGR and all their LT modules, Local Push Buttons/Logic boxes and transformer local control boxes.	2	No	11930	5965	6263	6562
2246	MRT2021	MRT	Charges for transporting the testing equipments and tools to Cooling Tower transformer, ACW transformer, CWPH transformer , Switch Gears of CT, ACW, and CWPH , Motors of CT (top of the cooling tower),ACW, CWPH and for assisting the testing of all Motors, panels, transformers, Meters and Relays	5	No	16702	3340	3507	3674
		MRT	ELECTROSTATIC PRECIPITATOR						
2247	MRT2022	MRT	Charges for cleaning and tightness checking of incomer breaker of ESP swgr, Tie to ESP common Breaker and its LT modules of 12 Nos CERM, 24 Nos EERM, 24 Nos hopper heaters, 4 Nos support insulator heater, 4 Nos shaft insulator heater and 24 Nos HVRT control panels with 24 Nos Electronic controllers and 24 Nos HVRT Transformers local boxes (Top of ESP).	2	No	11930	5965	6263	6562
2248	MRT2023	MRT	Charges for transporting the testing equipments and tools to ESP service Transformer, Tie to ESP common Breaker,24 Nos ESP HVRT transformer both at ESP top & ESP Control room , Auxiliary control panels of CERM, EERM, Hopper Heaters, Support/Shaft Insulator heaters and for assisting the testing such as Calibration and testing of Meters/ Relays of ESP service Transformer, Tie to ESP control panels, 24 Nos ESP HVRT transformers at ESP top & its Control panels , Auxiliary control panels of CERM, EERM, Hopper Heaters, Support/Shaft Insulator heaters.	5	No	11930	2386	2505	2625
		MRT	ASH HANDLING PUMP HOUSE						
2249	MRT2024	MRT	Charges for transporting the testing equipments and tools to Ash handling swgr, Central Control panels, Ash handling transformer and Bottom Ash hopper and for assisting the testing of HT/LT breakers such as HT breakers pole Resistance/contact resistance, Opening / Closing timings, HT/LT motors, Relays /Meters and Checking the bottom ash hopper feed gate actuators and their operation.	4	Nos	9544	2386	2505	2625
2250	MRT2025	MRT	Charges for transporting the testing equipment & assisting for conducting the tests on HT and LT motors location, HT relay Panel .	6	Nos	14316	2386	2505	2625
		MRT	TRANSPORTING THE TESTING EQUIPMENTS AND ASSISTING FOR HT BREAKER POLE RESISTANCE						
2251	MRT2026	MRT	Charges for transporting the testing equipments and assisting for HT breaker pole resistance and opening/closing time measurement.	8	No	7064	883	927	971
2252	MRT2027	MRT	Charges for transporting the testing equipments and assisting for HT breaker contact resistance during BUS LC	2	No	1766	883	927	971
		MRT	TESTING OF TRANSFORMERS AT CHP AREA DURING AOH						
2253	MRT2028	MRT	Charges for transporting the testing equipments and assisting for testing of Transformers at CHP area during AOH	1	No	883	883	927	971
		MRT	TAN DELTA TESTING						
2254	MRT2029	MRT	Charges for transporting the testing equipments, cable connections and assisting for Tan-Delta testing of Generating Transformer, 230 KV Busings, 230 KV CTs, Generator ,230KV CVTs, UATs, Excitation Transformer, STs, HT Motors during AOH/LC.	5	No	4415	883	927	971
		MRT	FIELD TESTING						
2255	MRT2030	MRT	Charges for transporting the testing equipments and assisting for Testing of P.O/Spare/field equipment/ materials/cable fault locations at field / Central Stores.	3	No	883	294	309	323
		MRT	TELEPHONE KRONE JUNCTION BOX INSTALLATION & TERMINATION						
2256	MRT2031	MRT	Charges for Installing and Termination of 100 pair Telephone Krone Junction Box 1 No	1	No	1146	1146	1203	1261
2257	MRT2032	MRT	Charges for Installing and Termination of 50 pair Telephone Krone Junction Box 1 No	1	No	883	883	927	971
2258	MRT2033	MRT	Charges for Installing and Termination of 20 pair Telephone Krone Junction Box 1 No	1	No	573	573	602	630
2259	MRT2034	MRT	Charges for Installing and Termination of 10 pair Telephone Krone Junction Box 1 No	1	No	573	573	602	630
		MRT	EARTH EXCAVATION						

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2260	MRT2035	MRT	Charges for excavation of earth for 0.3 m width x 0.75 m depth x 10 m distance, providing Fly Ash cushion, covering the cable with Fly ash Bricks and refilling the excavated trench.	10	M3	620	62	65	68
		MRT	JUNGLE CLEARING						
2261	MRT2036	MRT	Charges for Clearing all type of jungles 1m width x 100m distance at working site per Mtr	30	M ²	280	9	9	10
		MRT	CABLE LAYING						
2262	MRT2037	MRT	Charges for Laying of 100 pair 0.5 mm Jelly filled armoured UG Telephone Cable per metre (Under ground)	100	M	2240	22	23	24
2263	MRT2038	MRT	Charges for Laying of 50 pair 0.5 mm Jelly filled armoured UG Telephone Cable per metre (Under ground)	100	M	1680	17	18	19
2264	MRT2039	MRT	Charges for Laying of 20 pair 0.5 mm Jelly filled armoured UG Telephone Cable per metre (Under ground)	100	M	1400	14	15	15
2265	MRT2040	MRT	Charges for Laying of 10 pair 0.5 mm Jelly filled armoured UG Telephone Cable per metre (Under ground)	100	M	1120	11	12	12
2266	MRT2041	MRT	Charges for Laying of 100 pair 0.5 mm Jelly filled armoured UG Telephone Cable per metre (Wall clamping/Tray rooting)	100	M	3540	35	37	39
2267	MRT2042	MRT	Charges for Laying of 50 pair 0.5 mm Jelly filled armoured UG Telephone Cable per metre (Wall clamping/Tray rooting)	100	M	2670	27	28	30
2268	MRT2043	MRT	Charges for Laying of 20 pair 0.5 mm Jelly filled armoured UG Telephone Cable per metre (Wall clamping/Tray rooting)	100	M	2080	21	22	23
2269	MRT2044	MRT	Charges for Laying of 10 pair 0.5 mm Jelly filled armoured UG Telephone Cable per metre (Wall clamping/Tray rooting)	100	M	1800	18	19	20
		MRT	CABLE DRUM LOADING, TRANSPORTING & UNLOADING						
2270	MRT2045	MRT	Upto 20 Pair 0.5 mm Jelly filled armoured UG Telephone Cable (drum)	1	No	840	840	882	924
2271	MRT2046	MRT	Above 20 Pair 0.5 mm Jelly filled armoured UG Telephone Cable (drum)	1	No	1120	1120	1176	1232
		MRT	DEBRIS CLEARING						
2272	MRT2047	MRT	Charges For Clearing all type of Debris and Hard rocks at working site	14	M ²	280	20	21	22
		MRT	TELEPHONE CABLE JOINT						
2273	MRT2048	MRT	Charges for Upto 50 Pair 0.5 mm Jelly filled armoured UG Telephone Cable per joint including jointing materials	100	No	560	6	6	7
2274	MRT2049	MRT	Charges for Above 50 Pair 0.5 mm Jelly filled armoured UG Telephone Cable per joint including jointing materials	100	No	1120	11	12	12
		MRT	CONTROL CABLE LAYING						
2275	MRT2050	MRT	Upto 7 core X 1.5/2.5 sq.mm cable Laying	100	M ²	1400	14	15	15
2276	MRT2051	MRT	Above 8 core X 1.5/2.5 sq.mm and above cable Laying	100	M ²	2240	22	23	24
2277	MRT2052	MRT	Upto 17 core X 1.5/2.5 sq.mm and above cable Laying	100	M ²	4200	42	44	46
		MRT	CONTROL CABLE GLANDING & TERMINATION						
2278	MRT2053	MRT	Upto 7 core X 1.5/2.5 sq.mm cable Glanding and Termination	4	M ²	280	70	74	77
2279	MRT2054	MRT	For 8 core X 1.5/2.5 sq.mm and above cable Glanding and Termination	4	M ²	560	140	147	154
2280	MRT2055	MRT	Upto 17 core X 1.5/2.5 sq.mm and above cable Glanding and Termination	2	M ²	840	420	441	462
		MRT	CONTROL CABLE JOINT						
2281	MRT2056	MRT	Upto 7 core X 1.5/2.5 sq.mm per cable Joint (Rate will be two times of the rate of end termination of the concerned size cable)	2	No	310	155	163	171
2282	MRT2057	MRT	For 8 core X 1.5/2.5 sq.mm per cable Joint (Rate will be two times of the rate of end termination of the concerned size cable)	2	No	620	310	326	341
		MRT	CONTROL CABLE DEGLANDING & DE-TERMINATION						
2283	MRT2058	MRT	Upto 7 core X 1.5/2.5 sq.mm per cable Joint (50% of the rate specified for glanding & termination.)	4	No	280	70	74	77
2284	MRT2059	MRT	For 8 core X 1.5/2.5 sq.mm per cable Joint (50% of the rate specified for glanding & termination.)	3	No	280	93	98	102
		CM	CIVIL MAINTENANCE						
2285	CM2001	CM	Up keeping of toilets by cleaning water closets, urinals, wash basins, cistern tank, side walls, flooring and passage etc., by applying detergents such as cine fresh Phenoyl for (two cleaning per toilets per day) as directed by the Engineer at site including cost of using tools like bucket, brooms, etc., and labour charges complete but excluding the cost of bleaching powder, Naphthalene balls, cine fresh phenoyl, cleaning strainer and water which will be supplied by the department at free of cost.	35	Nos	1400	40	42	44
2286	CM2002	CM	Cleaning of drains, running in the residential quarters area removal and disposal of silt, slush, including clearing bushes and debries etc, whenever necessary as directed by the Engineer at site including cost of all labour charges, all lead and lift, all T&P's, safety appliances, etc, complete.	300	RM	465	2	2	2

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2287	CM2003	CM	Cleaning of manholes inspection chambers, sewer lines in the residential area including removal of blockage and disposing the sludge away from the site once in a month as and when required as directed by the Engineer at site including cost of all materials, T&P's safety appliances and consumables all leads, lifts labour charges etc., complete.	10	Nos	620	62	65	68
2288	CM2004	CM	Cleaning of chute in the residential buildings daily by removal and disposal of house wastes and debris etc, and transporting the debris to the near by dust bins for disposal as directed by the Engineer at site, including cost of all labour charges, lead, lift, T&P's, safety appliances, etc, complete.	50	Nos	560	11	12	12
2289	CM2005	CM	Cleaning of cobwebs and coal dust etc, in the ceiling walls, columns and structural bracing, etc., in the T.G bay, Compressor rooms in the Power House Building using the Departmental crane wherever available including cost of all required cleaning materials, Tools and plants, labour charges, leads and lift, scaffolding & safety appliances etc., complete (excluding hire charges for the use of departmental crane which will be supplied by the board at free of cost).	750	M ²	1240	2	2	2
2290	CM2006	CM	Sweeping and cleaning of floor for service building, power house building roads etc., including cost of all required materials for sweeping and cleaning materials, Tools and plants, labour charges, leads and lift and safety appliances etc., complete	2000	M ²	420	0	0	0
2291	CM2007	CM	Moping and cleaning of floor for service building, power house building etc., including cost of all materials required for moping and cleaning materials, Tools and plants, labour charges and safety appliances etc., complete	2000	M ²	560	0	0	0
2292	CM2008	CM	Trimming of Korean grass provided in front of service building and center median of double Road using the Electric Lawn mover, cutting the edges evenly, disposing of debris away from the site, as directed by the Engineer at site including cost of Hire charges for lawn mover, labour charges, all T&P, lead & lift, etc, complete. (Power Supply will be given by departmentally at free of cost).	200	M ²	590	3	3	3
2293	CM2009	CM	Trimming the Border plants using Scissors to the required shape, size and as directed by the Engineer at site including cost of hire charges for all T & P materials, all labour charges for trimming, all lead, lift, transporting charges, disposing of debris away from the site etc, Complete.	50	RM	590	12	12	13
2294	CM2010	CM	Applying fertilizer and manure over the Korean lawn and border plants and around the flowering plants as directed by the Engineer at site including cost of manure,fertilizers, all labour charges, hire charges, safety appliances all T&P, lead etc., Complete.	1200	M ²	560	0	0	1
2295	CM2011	CM	Dewatering of Cold water and Hot water tunnel using pumps of required capacities including Hire charges for pumps, transporting charges of pumps and cost of all required accessories and assembling the pump set at site for dewatering work, labour charges for erection & operating the pump set, cost of pump accessories replaced, including cost of all labour charges, all lead & lifts, all T & P 's etc., complete.	300	M	3552	12	12	13
2296	CM2012	CM	Watering for Korean grass, border plants,flower plant daily and removal of unwanted weeds, dry leaves in the garden as directed by the Engineer at site including the cost of all materials, labour,lead,,T&P etc., complete. But excluding cost of water (water will be supply at free of cost by Board). (Observed Data)	460	M ²	280	1	1	1
2297	CM2013	CM	Removal of manhole cover of cold water tunnel / Hot water Tunnel and replace with new gasket and wornout bolt & nuts including cost of all material, all Tools &Plants, all labour charges, all lead and lift etc., complete., a) Removal of manhole cover at CWP	1	No	646	646	678	710
2298	CM2014	CM	b) Re fixing the manhole cover	1	No	529	529	555	582
2299	CM2015	CM	C) Cutting and fixing charges of Gasket	1	No	310	310	326	341
2300	CM2016	CM	Collection,loading of debris / slush / silt and wet ash from dust bin and from collecting spot transporting and disposal to a far away place as directed by the Engineer at site including of loading & unloading of waste materials , hire charges for vehicle , including all labour charges , T & P 's , safety appliances , cost of all lead, lift transporting charges etc., complete.	4	Loads	1180	295	310	325

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2301	CM2017	CM	Clearing of Weeds & Bushes in the embankment (inside) of UAD, LAD, Primary & Secondary bond, deepening the leading channel by way of excavating ash towards the shaft for easy flow including attending petty nature of work in the Ash dyke areas wherever necessary as directed by the engineer at site including cost of all materials, labour charges, T&P material cost, lead, lift etc.,	1	No	1180	1180	1239	1298
2302	CM2018	CM	Cleaning of bottom and sides of the service water tanks (OHT) in the residential area thoroughly including cost of Bleaching Powder, Brush etc, labour charges, removing and relaying of Cover-slabs, lead, lift etc complete.	87.4	M ²	1550	18	19	20
2303	CM2019	CM	Cleaning of Bottom and sides of Ground Level Water Tank in the residential areas thoroughly including dewatering the dead storage water, cost of Bleaching Powder, Brush etc, Labour Charges, Lead, Lift etc complete.	304	M ²	2480	8	9	9
2304	CM2020	CM	Removal of ash and slush from the IBD (inter connected blow down) drains of Unit I to IV and disposing the collected ash and slurry away from the site as directed by the Engineer at site inclusive of removal of cover slab of heavy weight and refixing the same after cleaning the ash deposits including labour charges, hire charges for T&P's safety applications cost of all loading & unloading for transporting the same through departmental vehicle. The vehicle will be arranged at free of cost by the department.	30	RM	1240	41	43	45
2305	CM2021	CM	Cleaning of ash and slush from inter connected manholes in boiler/mill plant area and ESP areas of Unit I to IV (in 'A' Zone) and disposing the collected ash and slurry away from the site as directed by the Engineer at site including removal and refixing of M.S Grills after cleaning of ash deposits including removal of blockages in the interconnected pipes and throwing the same for free of flow of water inclusive of all labour charges, hire charges for T&P, safety appliances cost of all lead, etc., complete.	8	Nos	1240	155	163	171
2306	CM2022	CM	Removal of ash and slush from the ash drain adjacent to the Power house North side wall and from 310E, 264N Road and disposing the collected ash and Slurry away from the site as directed by the engineer at site including labour charges, hire charges for T&P's Safety applications, cost of lead, lift, etc complete.	25	RM	620	25	26	27
2307	CM2023	CM	Removal of ash and silt and other waste materials from the drain leading from Unit IV to canteen (along the double road) and disposing the collected ash and other materials away from the site inclusive of removal of cover slab and refixing the same after cleaning the ash deposits including labour charges, hire charges for T&P's safety appliances all lead, lift, loading & unloading transporting the same through departmental vehicle etc complete. (The vehicle will be arranged at free of cost by the department wherever necessary)	50	RM	1240	25	26	27
2308	CM2024	CM	Removal of ash deposit, silt and other waste materials from the drain inside Power house building of unit I to IV including all labour charges for removal of existing M.S.Grill and refixing the same after completion of removal of slush from the drain etc., as directed by the Engineer at site and disposing the slush away from the site to the nearby dust bins and the cost includes and clean removal of slush from the drains by using hose and all head load lead, lift, Tools & Plants etc., complete.	80	RM	1240	16	16	17
2309	CM2025	CM	Dewatering of Cold water basins using pumps of required capacities including Hire charges for pump sets, transporting charges of pump set, cost of all required accessories and installing the pump set at site for dewatering work, labour charges for operating the pump set, cost of pump accessories replaced/used, dismantling charges of pump with required accessories on completion of work, including cost of all labour charges, all lead & lifts, all T&P's etc., complete. Labour charges for assembling and dismantling the 2 Nos motors accessories like hose, starter, cable etc.,	###	M3	4654	0	0	0
2310	OPN001	OPN	OPERATION Collection of coal samples from received wagons at an interval of one hour or for every 500 MT, transfer samples to sampling room, reduction of quantity by coning and quartering, crushing and preparation of final samples at sample preparation room. Cleaning and disposal of waste coal.	1	opn	554	554	582	610

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2311	OPN002	OPN	Collection of coal samples at an interval of one hour from the Bunker conveyer of running units, transfer samples to sampling room, reduction of quantity by coning and quartering, crushing and preparation of final samples at sample preparation room. Cleaning and disposal of waste coal.	1	opn	487	487	512	536
2312	OPN003	OPN	Collection of bottom ash & fly ash once in two hours from the running units, reduction of quantity by coning and quartering, crushing, drying and preparation of final samples at Fuel laboratory. Cleaning and disposal of waste.	1	opn	753	753	791	829
2313	OPN004	OPN	(i) Collection of MOT oil samples for all the units twice daily. (ii) Collection of DM water for Bomb calorimeter, preparation of pellets and filling up of Oxygen in bomb for calorific value determination of coal & fuel oils. (iii) Collection of pulverized coal samples for sieve analysis from any two units in a week. (iv) Collection of Mill Gear Box oil, Boiler feed pump oil, MOT oil once in a month from running units (v) Collection of Furnace oil and HSD oil monthly. Cleaning of testing equipment and area after completion of testing.	1	opn	420	420	441	462
2314	OPN005	OPN	(i) Collection of Raw Water and Cooling Water from Fore bay I & II, Clarifier I to IV daily twice. (ii) Collection of cooling water from Fore bay I & II, Cooling Tower I to IV for Residual chlorine test twice a day. (iii) Organophosphonate based chemical dosing in cooling water system daily twice. (iv) Collection of DM water for reagent preparations daily. (v) Cleaning of testing equipments and area daily. (vi) Collection of Feed water, CBD and Stator water samples monthly twice in all Units. (vii) Chemical drawl from stores monthly thrice and Collection of samples from bulk chemicals for check measurement. (viii) Collection of Hydrogen gas sample for moisture test in all Units. (ix) Collection of SH water for reagent preparations monthly five times.	1	opn	585	585	614	644
2315	OPN006	OPN	Testing Works related to Total Moisture, Inherent Moisture, Ash, Volatile Matter and Calorific Value of Bunker Coal Collected from all four units and coal samples collected from Wagons daily.	1	opn	1110	1110	1166	1221
2316	OPN007	OPN	(i) Testing of combustibles in fly ash & bottom ash daily from running units. (ii) Testing of Moisture & sediments from MOT oil samples for all the units daily twice. (iii) Testing work related to Sieve analysis of pulverized coal samples collected from any two units in a week. (iv) Testing of Moisture, Sediments, Specific gravity, Viscosity and Acidity in Mill Gear Box oil monthly in running units. (v) Testing of Moisture, Sediments, Specific gravity, Viscosity and acidity in Boiler feed pump oil monthly in running units. (vi) Testing of Specific gravity, Viscosity and acidity in MOT oil monthly in running units. (vii) Testing of oil samples from other stations of TANGEDCO and dirty oils (viii) Testing of Furnace oil, HSD oil monthly.	1	opn	675	675	709	742
2317	OPN008	OPN	Testing of conductivity, pH, turbidity, P value & M value, total Hardness, calcium hardness, Total & dissolved solids, Total Suspended solids in Raw Water and Cooling Water from Fore bay I & II, Clarifier I to IV daily twice.	1	opn	1123	1123	1179	1236
2318	OPN009	OPN	(i) Testing of Residual chlorine in cooling water from Forebay I & II, cooling tower I to IV twice a day (ii) Testing of ash dyke water daily for conductivity, pH, turbidity, Total suspended solids etc. (iii) Testing of effluents thrice a month from ash dyke, DM plant, stores area, main gate and fuel oil pump house locations for conductivity, pH, turbidity, suspended solids, oil & grease, BOD (iv) Testing of Hydrogen gas Moisture monthly twice in all Units. (v) Testing of stack emission in all the units and ambient air quality once in a month. (vi) preparation of reagents including testing of check measurement of bulk chemicals, deposit & water sample received from other stations of TANGEDCO (Hydro stations) for conductivity, pH, turbidity, P value & M value, total Hardness, calcium hardness, Total & dissolved solids, suspended solids, LOI, calcium & magnesium oxide, acid insoluble etc. (vii) Testing of Iron & copper monthly twice in Feed water, CBD and stator water samples in all Units. (viii) Testing of silica, phosphate and organic matter twice a month in Raw Water and Fore bay I & II.	1	opn	644	644	676	708
			210 MW KWU TURBINE/TTPS/NCTPS-I						
		TM	210 MW KWU TURBINE						
2319	TK2001	TM	Inspection and cleaning of BFP suction strainer element	1	No	1982	1982	2081	2180

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
		TM	Renovation of basket type suction strainer element in Boiler feed booster pump with new S.S wire mesh.						
2320	TK2002	TM	a)Charges for cutting of existing wire mesh(Including cutting of top & bottom plate)	2	Nos	1129	565	593	621
2321	TK2003	TM	b)Charges for surface grinding and acid cleaning the weldable surface of majaor mesh and surface preparation of strainer ring	2	Nos	3387	1694	1778	1863
2322	TK2004	TM	c)Charges for marking and cutting of S.S Wire mesh (250 µ)	2	Nos	689	345	362	379
2323	TK2005	TM	d)Charges for fixing of S.S wire mesh and welding with the body by resistance welding	2	Nos	3848	1924	2020	2116
2324	TK2006	TM	e)Charges for welding of top and bottom M.S Plate with element	2	Nos	1041	521	547	573
2325	TK2007	TM	Gasket renewal of 350 to 400 mm size flange .	2	Nos	3281	1640	1722	1804
2326	TK2008	TM	Valve bonnet / valve flange gasket renewal upto 300 mm.	2	Nos	1659	830	871	912
2327	TK2009	TM	Overhauling of 150 / 200 Nb safety valves including hydraulic testing	5	Nos	4610	922	968	1014
		TM	Renewal of 300 NB carbon steel worn out bend in deaerator to vent condenser line.						
2328	TK2010	TM	a)Charges for transportation of 300 NB carbon steel bend to deaerator floor at 27 mtr level.	1	No	2942	2942	3089	3236
2329	TK2011	TM	b)Charges for cutting the existing wornout carbon steel bend and spool piece to the required size and edge preparation of both ends of pipe line by grinding ('V' groove) including all consumables & T&P's etc.	1	No	5924	5924	6220	6516
2330	TK2012	TM	c)Charges for positioning the carbon steel bend and spool piece and aligning with the pipe line	1	No	5106	5106	5361	5617
2331	TK2013	TM	d)Charges for welding the carbon steel bend and spool piece with existing pipe line for 1 running meter welding with suprathem spl 7018 D & H	11	No	2059	187	197	206
		TM	TTPS – T.M.II – Breakdown Maintenance of dozing pump(model PR10 ,17 lpm & PR15 ,114lpm) system , dewatering pump , sump pump(capacity 100m³/hr) & cooler assembly in the compressor(compressor model 2HN2T37/22) of Units IV & V						
2332	TK2014	TM	Inter cooler disassembling,and taking out the tube nest cleaning and assembling.	8	Nos.	3896	487	511	536
2333	TK2015	TM	After cooler disassembling,and taking out the tube nest cleaning and assembling.	8	Nos.	3896	487	511	536
2334	TK2016	TM	Charges for welding work MS/CS for Emergency breakdown in running metre.	12	Nos.	2059	172	180	189
2335	TK2017	TM	Oil level checking and oil topping up in 3Nos hydrazine dozing pump, 3Nos Morpholine dozing pump, Removal oil seepages and dust from dozing pumps and tanks in Unit IV & V .	170	Nos.	465	3	3	3
2336	TK2018	TM	Choke releasing work of suction and discharge valves of Hydrazine and Morpholine dozing pumps	20	Nos.	529	26	28	29
2337	TK2019	TM	Attending flange leak in Ferrous sulphate dozing line from unit II to Unit V (4mtr elevation)	15	Nos.	529	35	37	39
		TM	Breakdown / Overhauling of Hydrazine dozing pumps.						
2338	TK2020	TM	1.Decoupling the pump from the motor, dismantling the pump assembly and valve assembly	2	Nos.	1100	550	578	605
2339	TK2021	TM	2.Checking the valve seat, valve disc , lapping of valve seat and removal of joint washers and other spares, reassembling and commissioning	2	Nos.	1171	586	615	644
2340	TK2022	TM	Inspection of gear box assembly Dismantling the worm and worm wheel , bearing ,crank shaft , connecting rod ,plunger etc., cleaning and inspection of internals ,renewal of spares if necessary and assembling back ,topping gear box oil	2	Nos.	2453	1227	1288	1349
		TM	Breakdown /Overhauling of Morpholine dozing pumps.						
2341	TK2023	TM	1.Decoupling the pump from the motor, dismantling the pump assembly and valve assembly	1	No.	1100	1100	1155	1210
2342	TK2024	TM	2.Checking the valve seat, valve disc , lapping of valve seat and removal of joint washers and other spares, reassembling and commissioning	1	No.	1171	1171	1230	1288
2343	TK2025	TM	Inspection of gear box assembly Dismantling the worm and worm wheel , bearing ,crank shaft , connecting rod ,plunger etc., cleaning and inspection of internals ,renewal of spares if necessary and assembling back ,topping gear box oil	1	No.	2453	2453	2576	2698
2344	TK2026	TM	Breakdown Maintenance of dewatering pump and its allied lines.	2	Nos.	4080	2040	2142	2244
2345	TK2027	TM	Choke releasing work of suction line and foot valve of dewatering pump	6	Nos.	529	88	93	97
		TM	Break down / overhauling of vertical sump pump of Unit IV & V						

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2346	TK2028	TM	Taking out the complete pump assembly from sump pit.	1	No.	2176	2176	2285	2394
2347	TK2029	TM	Disassembling of Drive Column pipe Drive shaft,Impeller and other components	1	No.	3112	3112	3268	3423
2348	TK2030	TM	Cleaning of internals,renewal of spares if necessary and assembling of pump.	1	No.	3028	3028	3179	3331
2349	TK2031	TM	Painting of sump and its alied lines	5	Sq.Mtr	55	11	12	12
2350	TK2032	TM	Re-erection of pump in the pit with delivery pipe base frame and completion of full shape including giving assistance for recommissioning.	1	No.	1246	1246	1308	1371
		TM	T.M II –TTPS – Breakdown / Periodical Overhauling of Instrument and service Air Compressor (Model no 2HN2T37/22)in Units IV & V						
2351	TK2033	TM	Dismantling of L.P. Cylinder head and taking out the LP piston (370 mm bore) renewal of internals such as LP piston half, piston rod, piston rings, Rider rings, packing rings, oil wiper rings and oil seal rings. Dismantling of LP Cylinder suction and discharge valves 12 nos. checking valve plates and damper plates renewal etc.	9	Nos.	8919	991	1041	1090
2352	TK2034	TM	Dismantling of H.P. Cylinder head and taking out the HP piston (220 mm bore) renewal of internals such as HP piston half, intermediate sleeve piston piston rings, rider rings, packing rings, oil wiper rings and oil seal rings. Dismantling of HP cylinder suction and discharge valves 4 Nos. and checking valve plates and damper plates renewal etc.	9	Nos.	6546	727	764	800
2353	TK2035	TM	Removing of flywheel, crank case top cover and draining of oil, cleaning of oil pump, cleaning oil sump, refitting the cover and topping the oil.	9	Nos.	1745	194	204	213
2354	TK2036	TM	Inspection and renewal of crankshaft main bearing including oil seal ring (Belt pulley end) renewal.	4	Nos.	7092	1773	1862	1950
2355	TK2037	TM	Renewal of stuffing box 'O' rings in HP Cylinder inner head assembly.	1	Nos.	8493	8493	8918	9342
2356	TK2038	TM	Changing of small end bushing and big end bearing of connecting Rod.	4	Nos.	10779	2695	2829	2964
2357	TK2039	TM	Cleaning of all cooling water line, water jacket, checking of all air and Water line for any leakage.	9	Nos.	1410	157	165	172
2358	TK2040	TM	Dismantling and cleaning of suction air filter, safety valve and refitting.	9	Nos.	1694	188	198	207
2359	TK2041	TM	Aligning motor with compressor, cleaning of the compressor	5	Nos.	1100	220	231	242
2360	TK2042	TM	Dismantling, cleaning of oil cooler tubes and reassembling	4	Nos.	1948	487	511	536
2361	TK2043	TM	Renewal of HP Cylinder / LP Cylinder assembly.	1	Nos.	5662	5662	5945	6228
2362	TK2044	TM	Oil level checking and topping up in 9Nos compressors,checking the moisture separator drain cocks and removal of oil seepage,attending any water leakage from CW line and control line air leakage,attending any emergencies during odd hours and removal of dust from compressor & cleaning of ADP system in Unit IV & V	170	Nos.	465	3	3	3
2363	TK2045	TM	Attending of partial unloding problem in IAC and SAC.Dismantling of LP&HP Cylinder suction anddischarge valves 16 nos.checking of valves plates, buffer plates,renewal,etc.,springs and O rings and assembling.	10	Nos.	2973	297	312	327
2364	TK2046	TM	Painting of Compressor with pipe lines of Unit IV & V	44	Sq.Mtr	55	1	1	1
		TM	TTPS – TMII – clearing the coal / ash dust from the repair bay floor, Turbine 5mtr,7.5mtr,10.5 mtr floor area,condenser pit and sump pit cleaning work (Unit IV&V)						
2365	TK2047	TM	Charges for clearing the coal / ash dust from the repair bay floor, (Unit IV&V) including cost of consumables.	170	Nos.	560	3	3	4
2366	TK2048	TM	Clearing of coal / ash dust from the Turbine 5mtr floor area (Unit IV&V) including cost of consumables.	150	Nos.	560	4	4	4
2367	TK2049	TM	Clearing of coal / ash dust from the Turbine7.5&10.5mtr floor area (Unit IV&V) including cost of consumables.	150	Nos.	560	4	4	4
2368	TK2050	TM	Cleaning of condenser pit in Unit IV & V	2	Nos.	10056	5028	5279	5531
		TM	Sump pit cleaning and its connected trenches.						
2369	TK2051	TM	Sump pit Cleaning	2	No.	2916	1458	1531	1604
2370	TK2052	TM	Trenches Cleaning	2	No.	2790	1395	1465	1535
		TM	Dismantling Overhauling & Refitting of Air drier plant (Capacity 5 cub mtr)and connected valves.						
2371	TK2053	TM	Dismantling of 3 way valve, cleaning, overhauling and refitting	1	Nos.	1678	1678	1762	1846
2372	TK2054	TM	Dismantling of 2 way valves, cleaning, overhauling and refitting	1	Nos.	1804	1804	1894	1984
2373	TK2055	TM	Dismantling of Pre filter, After filter and cleaning, inspection, renewal	1	Nos.	1804	1804	1894	1984
2374	TK2056	TM	Dismantling the silencer, cleaning, overhauling, renewing worn out parts and refitting	1	Nos.	1452	1452	1525	1597

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
		TM	Removal of Activated Alumina from the chamber A & B, cleaning and painting the chamber and transport of new Activated Alumina to site and filling the chamber & conducting Hydrostatic test.						
2375	TK2057	TM	Removal of Activated Alumina from the chamber A & B, cleaning and transport of new Activated Alumina to site and filling the chamber & conducting Hydrostatic test.	1	Nos.	4174	4174	4383	4591
2376	TK2058	TM	ADP Outer Wall painting	16	Sq.Mtr	18	1	1	1
2377	TK2059	TM	ADP inner Wall painting	6	Sq.Mtr	46	8	8	8
		TM	Hydrostatic testing of Air receiver tanks.(Capacity-5 cu.mtr)						
2378	TK2060	TM	Opening of air receiver tank manhole door , providing scaffolding arrangement, cleaning internal wall & conducting hydrostatic testing and closing the manhole door with new gasket	1	Nos.	2880	2880	3024	3168
2379	TK2061	TM	Receiver tank outer Wall painting	15.6	Sq.Mtr	18	1	1	1
2380	TK2062	TM	Receiver tank inner Wall painting	15.1	Sq.Mtr	46	3	3	3
		TM	Welding joints of various sizes						
2381	TK2063	TM	Upto 25 Nb CS welding joints	5	Joints	375	75	79	82
2382	TK2064	TM	Upto 50 Nb CS welding joints	5	Joints	462	92	97	102
2383	TK2065	TM	Upto 50 Nb SS welding joints	5	Joints	457	91	96	100
2384	TK2066	TM	Upto 100 Nb CS welding joint	4	Joints	571	143	150	157
2385	TK2067	TM	Attending Gland leak in High pressure valves	1	No	529	529	555	582
2386	TK2068	TM	Oil level checking and topping up in CEP, SWP and valve actuators, removal of oil traces and dust from MVP, CEP, SWP and SWVP	1	No	155	155	163	171
		TM	Removal & re-insulation of turbine casing and allied pipelines in Unit IV & V						
		TM	Removal						
2387	TK2069	TM	Single layer lagging and cladding	20	m²	50	2	3	3
2388	TK2070	TM	Double layer lagging and cladding	10	m²	137	14	14	15
2389	TK2071	TM	Double layer lagging, plastering and cladding	5	m²	274	55	57	60
		TM	Re-insulation						
2390	TK2072	TM	Single layer lagging and cladding	5	m²	282	56	59	62
2391	TK2073	TM	Double layer lagging and cladding	5	m²	417	83	88	92
2392	TK2074	TM	Double layer lagging, plastering and cladding	5	m²	560	112	118	123
		TM	Online arresting of steam leak in HP valves in Unit I,II,III,IV&V Turbine valves and allied pipe lines						
2393	TK2075	TM	i) Charges for attending steam leak in HP valve bonnet or gland by online leak arresting process of all types of valve/NRV's/flanges of valves of size 300/350 Nb	1	No	4584	4584	4813	5042
2394	TK2076	TM	ii) Charges for attending steam/oil leak in valve bonnet or gland by online leak arresting process of all types of valve/NRV's/flanges of valves of size upto 250 Nb	1	No	2292	2292	2407	2521
2395	TK2077	TM	Overhauling of 15mm to 25 mm hand operated Gate / Globe valves.	4	Nos	294	73	77	81
2396	TK2078	TM	Overhauling of 50mm hand operated Gate / Globe valves.	1	No	1275	1275	1339	1403
2397	TK2079	TM	Overhauling of 65mm to 150mm hand operated Gate / Globe valves.	1	No	2492	2492	2617	2741
2398	TK2080	TM	Overhauling of 100mm / 150mm Electrical operated Gate / Globe valves	1	No	4518	4518	4744	4970
2399	TK2081	TM	Overhauling of 200 Nb/ 250 Nb/300 Nb gate valve (hand operated)	1	No	2805	2805	2945	3086
2400	TK2082	TM	Overhauling of 200 Nb / 250 Nb Gate / Globe valve (Motor operated)	1	No	5056	5056	5309	5562
2401	TK2083	TM	Overhauling of 300 Nb / 350 Nb Gate / Globe valve (Motor operated)	1	No	7634	7634	8016	8397
2402	TK2084	TM	Overhauling of 350 Nb / 500 Nb gate valve (hand operated)	1	No	5874	5874	6168	6461
2403	TK2085	TM	Overhauling of 400Nb to 600 Nb gate / globe valve (motor operated)	1	No	8328	8328	8744	9161
2404	TK2086	TM	Overhauling of safety valves including hydraulic test in HP Heaters	1	No	3814	3814	4005	4195
2405	TK2087	TM	Welding joint Upto 200 Nb CS welding joint	3	Joints	878	293	307	322
		TM	Cutting and dismantling the existing 50 NB worn out pipe line in the HP Heaters 5 & 6 Air vent line at deaerator floor and erection of new 50 NB carbon steel pipe with fittings on the same route						
2406	TK2088	TM	i) Cutting & dismantling the 50 NB hand valves, orifices and NRV from the line and over hauling	1	No	1979	1979	2078	2177
2407	TK2089	TM	ii) Cutting & dismantling the existing 50 NB worn out pipe line with fittings at deaerator floor and devoluting the worn out pipe to store as scrap	26	m²	193	7	8	8

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2408	TK2090	TM	iii) Measuring, marking & cutting of spool pipes to suit for site condition out of new pipe, preparing the edges of the pipe / spool pipe / 90° bends to form "V" groove after drawal of materials from stores and leading to work spot, Lifting & positioning of the 50 NB edge prepared new pipe, 90° bends fabricated spool pipe over the temporary support, at deaerator floor aligning and providing temporary arrest.	13	Nos	515	40	42	44
2409	TK2091	TM	iv) Lifting, positioning of 50 NB hand valves, orifices & NRVs in the line 50 NB flanged valves, orifices & NRVs	6	Nos	664	111	116	122
2410	TK2092	TM	v) Charges for welding of 50 Nb CS welding joints	5	Joints	457	91	96	100
2411	TK2093	TM	vi) Attending incidents during the night shift hours	1	avty	748	748	785	823
		TM	Reconditioning of condenser water box drain valves 100 Nb size						
2412	TK2094	TM	i)Dismantling and assembling of valves	1	no	1436	1436	1508	1580
2413	TK2095	TM	ii)Under cut machining of eroded seat area in the valve body and fabrication of new ring for valve seat in SS 316	1	no	1264	1264	1327	1390
2414	TK2096	TM	iii)Fixing the SS ring in the valve body by welding and fixing the valve seat area by machining, valve globe, reconditioning by filling the material by weld and machining it to suit the valve seat	1	no	2528	2528	2654	2781
		TM	Modification of condenser water box man hole doors						
2415	TK2097	TM	i)Cutting and removing the existing man hole door assembly along with the seating flange from the condenser water box spool pipe, preparing the cutting surface by grinding and devolution of the relaxed material to store	1	no	2187	2187	2296	2406
2416	TK2098	TM	ii)Prepare the seating flange cutting and machining the plate to the required size	1	No	5136	5136	5393	5650
		TM	Decoupling of motor from both hydraulic coupling and booster pump and coupling of motor with hydraulic coupling and booster pump						
2417	TK2099	TM	a)Removal of coupling guard, spacer and element assembly from the flexible coupling in between motor with hydraulic coupling and in between motor with booster pump, removal of motor lub oil lines and fixing in position after aligning the motor.	1	No	1483	1483	1557	1631
2418	TK2100	TM	Cleaning of filtering screen of duplex filter	70	Nos	485	7	7	8
2419	TK2101	TM	Oil and water leak arresting works in glands and flanges of BFP and deaerator system	25	Nos	523	21	22	23
2420	TK2102	TM	Oil level checking , oil top up in boiler feed pumps, Attending any emergencies during odd hours and removal of oil - seepages from the boiler feed pump equipments.	170	Nos	560	3	3	4
2421	TK2103	TM	Attending the Breakdown works in 100 mm air operated RC valves in Boiler feed pump	2	Nos	5628	2814	2955	3095
2422	TK2104	TM	Cleaning of Bowl assembly of BFP portable centrifuge.	12	Nos	998	83	87	91
		TM	BFP OVERHAUL						
		TM	Overhauling of Deaerator, feed storage tank and painting of inner wall of feed storage tank.						
2423	TK2105	TM	a)Overhauling of Deaerator (2.4 ID X 5.5 m length)	1	No	5895	5895	6190	6485
2424	TK2106	TM	b)Overhauling of feed storage tank (3.5 ID X 15 m length)	1	No	3930	3930	4127	4323
2425	TK2107	TM	c)Painting of feed storage tank inner wall with two coats of paint on smooth surface	165	m2	46	0	0	0
2426	TK2108	TM	d)Cleaning the inner surface of feed storage tank after painting and closing back the doors with new gaskets.	1	No	1965	1965	2063	2162
2427	TK2109	TM	Overhauling of 100 Nb size BFP Recirculation hand valves and NRVs.	6	Nos	3728	621	652	683
2428	TK2110	TM	Overhauling of BFP discharge valve 200NB 2500 class	3	Nos	6735	2245	2357	2470
2429	TK2111	TM	Overhauling of BFP NRV 200NB 2500 class	3	Nos	3670	1223	1285	1346
		TM	I.Inspection, renewal of worn out parts and overhauling of BFP's voith hydraulic coupling (Model no:R16K1)						
2430	TK2112	TM	a)Decoupling the Voith from pump and motor – drain the oil- removing the AOP motor and unbolt the actuator and cam control from machine – opening the top cover – Removal of the input shaft, primary & secondary wheel assembly, AOP & main oil pump – disassemble the primary & secondary wheel assembly parts, main oil pump parts and AOP pump parts – complete cleaning and inspection of all parts & bearings – renewal of worn out parts / bearings if any- cleaning the oil sump	1	No	48730	48730	51167	53603

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2431	TK2113	TM	b)Overhauling and reassembling of AOP & main oil pump, input shaft and primary & secondary wheel assembly in the Voith – set the secondary wheel float – overhauling and reassembling of control valve and scoop tube assembly - checking all the thrust and journal bearings, correct the oil clearances and interference – closing the top cover and tightening- checking the manual scoop operation – centrifuging the drained oil and top up — starting of AOP and checking the oil flow to all bearings	1	No	38984	38984	40933	42882
		TM	II.Aligning the boiler feed pump and motor with Voith coupling – couple the pump – providing coupling guard – charging and commissioning the BFP						
2432	TK2114	TM	a)Alignment of motor with hydraulic coupling	1	No	9729	9729	10215	10702
2433	TK2115	TM	b)Alignment of boiler feed pump with Hydraulic coupling	1	NO	5164	5164	5422	5680
		TM	Overhauling of boiler feed pump cartridge assembly (model FK6D30) including dynamic balancing of rotating parts						
2434	TK2116	TM	Transporting of defective cartridge assembly from stores to work spot.	1	No	1749	1749	1836	1924
		TM	Disassembling of cartridge internals(i.e.) impellers, diffusers, and ring sections from the pump shaft and checking the dimensional accuracy						
2435	TK2117	TM	a)Disassembling of end cover, thrust pads with carrier ring, thrust collar lock nut, thrust collar by heating and pulling, journal bearing, bearing housing top and bottom, bearing bracket, oil guard, oil catcher, seal lock nut, seal, seal housing, water jacket by pulling from NDE side of cartridge.	1	No	7530	7530	7907	8283
2436	TK2118	TM	b)Disassembling of coupling lock nut, coupling hub, journal bearing, oil catcher, oil guard, bearing housing top and bottom, bearing bracket, seal lock nut, seal, seal housing, water jacket by pulling from DE side of cartridge.	1	No	3670	3670	3854	4037
2437	TK2119	TM	c)Dismantling of mechanical seals of DE & NDE – seal sleeve, grub screw, seal locking screws, compression springs, carbon ring, tungsten carbide ring, all 'O' rings, etc.	1	No	1526	1526	1602	1679
2438	TK2120	TM	d)Removal of discharge cover, spring disc, balance drum by heating, last stage diffuser, from the stage bodies after placing the whole stage body assembly on the stage body dismantling structure.	1	No	9426	9426	9897	10369
2439	TK2121	TM	e)Removal of impellers 1 to 6, diffusers 1 to 5 and stage body rings one by one in order by heating (in case of diffusers and stage bodies) and finally taking out.	1	No	18852	18852	19795	20737
2440	TK2122	TM	f)charges for checking the run out of the shaft and measuring the dimensions of all wearing rings.	1	No	4934	4934	5181	5427
2441	TK2123	TM	Removal of impeller wearing rings (neck & eye), fixing up with new wearing ring if necessary,machining to obtain required clearance that could be maintained with the ring section and diffusers on final assembly.	1	No	15078	15078	15832	16586
2442	TK2124	TM	Removal of existing wearing rings, fixing up with new wearing rings, machining the wearing rings with diffusers, stage body ring section, suction guide after setting the components separately with clamps so as to be concentric with already machined impellers with required clearances on the final assembly.	1	No	94464	94464	99187	103910
2443	TK2125	TM	Removal of balance drum bush from discharge cover using dry ice (or) cutting it out, reconditioning inside the discharge cover if necessary, fixing of new bush after setting with discharge cover to get required clearance with balance drum, machining the balance drum if necessary.	1	No	43560	43560	45738	47916
2444	TK2126	TM	Assembling of rotating parts on the shaft for dynamic balancing.	1	No	14718	14718	15454	16190
2445	TK2127	TM	Transporting of rotating parts with the shaft from work spot to stores.	1	No	1749	1749	1836	1924
2446	TK2128	TM	Transporting of balanced rotating parts from stores to work spot.	1	No	1749	1749	1836	1924
2447	TK2129	TM	Dismantling of rotating parts from the shaft after dynamic balancing.	1	No	14718	14718	15454	16190
		TM	Assembling of all parts up to discharge cover, water jackets, mechanical seals, thrust collar, bearings etc...						
2448	TK2130	TM	a)Cleaning of all impellers, diffusers, ring section, balance drum bush,discharge cover etc., for final assembly	1	No	8748	8748	9185	9623

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2449	TK2131	TM	b)Assembling of suction guide, impellers, diffusers and ring section one by one on the shaft by heating and inserting in case of impellers and placing and pressing in case of diffusers and ring sections renewing of all sealing 'O' rings and Teflon rings.	1	No	30096	30096	31601	33106
2450	TK2132	TM	c)Assembling of balance drum by heating and placing on the shaft, balance drum lock nut, spring disc and discharge cover.	1	No	13376	13376	14045	14714
2451	TK2133	TM	d)Assembling of mechanical seals of DE & NDE -- carbon ring, tungsten carbide ring, all 'O' rings ,compression springs, seal locking screws, seal sleeve, grub screw, etc.	1	No	3052	3052	3205	3357
2452	TK2134	TM	e)Assembling of water jacket, seal housing,seal,seal lock nut, bearing bracket, bearing housing top and bottom, oil catcher, oil guard, journal bearing, coupling hub, coupling lock nut, to DE side of cartridge.	1	No	5505	5505	5780	6056
2453	TK2135	TM	f)Assembling of water jacket, seal housing,seal,seal lock nut, bearing bracket, bearing housing top and bottom, oil catcher, oil guard, journal bearing,thrust collar, thrust collar lock nut,thrust pads with carrier ring, end cover to NDE side of cartridge.	1	No	10040	10040	10542	11044
2454	TK2136	TM	Transporting of reconditioned cartridge assembly from workspot to stores for devolution	1	No	1749	1749	1836	1924
		TM	Inspection and reconditioning of vent condenser shell						
2455	TK2137	TM	Dismantling of vent condenser water box and lowering to deaerator level floor	1	No	8319	8319	8735	9151
2456	TK2138	TM	Withdrawal of vent condenser tube stack and lowering down to deaerator platform level	1	No	18725	18725	19661	20598
2457	TK2139	TM	Cleaning the shell internal surface, tube stack by wire brush and inspect for erosion	1	No	4670	4670	4904	5137
2458	TK2140	TM	Rebuild the eroded inner surface of the shell by welding using S.S 316 welding electrodes and finishing by grinding including welding electrodes	19	mtr	589	31	33	34
		TM	Reconditioning of eroded baffle plate and impingement plates in the tube stack						
2459	TK2141	TM	a)Transporting of S.S .plates from store to site,marking and cutting the plates to shape, grinding and preparing the edges of the plates.	1	No	6933	6933	7279	7626
2460	TK2142	TM	b)Cutting and grinding the existing eroded baffle and impingement plates and preparing the edges for welding the tube stack baffle and impingement plates	1	No	4138	4138	4345	4552
2461	TK2143	TM	Welding the newly cut SS plates to the existing tube stack baffle plate and impingement plates.	5	mtr	294	59	62	65
2462	TK2144	TM	Lifting,inserting and refixing of tube stack in to vent condenser shell.	1	No	18725	18725	19661	20598
2463	TK2145	TM	Lifting and refixing of vent condenser water box with vent condenser shell	1	No	8319	8319	8735	9151
		TM	Replacement of defective NRV-2500 class in Boiler feed pump discharge line 219.1mm Dia and 28mm thickness						
2464	TK2146	TM	Cutting the spool piece for required length from the carbon steel pipe Dia 219.1mm and 28mm thickness and transportation to the site from the stores and devolution of the released piece to the stores.	1	No	9680	9680	10164	10648
2465	TK2147	TM	a) Arresting the boiler feed pump discharge pipe line Dia 219.1mm and 28mm thickness and releasing it after the works.	1	No	7744	7744	8131	8518
2466	TK2148	TM	b) Cutting, by grinding and removing the NRV from the BFP discharge line and removal of drain pipe line and grinding it to fit suitably into the piece.	1	No	11616	11616	12197	12778
2467	TK2149	TM	c) Edge preparation of BFP discharge line and spool piece (3 joints)	1	No	14912	14912	15658	16403
2468	TK2150	TM	d) Drilling and edge preparation of suitable hole for welding the drain line in the new spool piece.	1	No	6336	6336	6653	6970
2469	TK2151	TM	e) Positioning of spool piece in line with BFP discharge line and welding. Positioning of drain line and tag welding it with spool piece and the drain pipe line	1	No	16320	16320	17136	17952
2470	TK2152	TM	f) Preheating the weld area of spool piece NRV with the BFP discharge line and drain line with spool piece (heating coils and welding transformer are to be arranged by the contractor)	1	No	15488	15488	16262	17037
2471	TK2153	TM	g)TIG welding the spool piece, NRV with the discharge line (3 joints) and TIG welding the drain line with the spool piece.	1	No	24048	24048	25250	26453
2472	TK2154	TM	h) Stress releaving the welded area of the line.	1	No	17424	17424	18295	19166
		TM	Reconditioning of RC Valve stem and seat ring of RC valve model No. 37-79006 -6A3 ; 79000-series in Boiler Feed Pump system						
2473	TK2155	TM	a)Machining for under cut the damaged or grooved portion of the seating area in the valve stem.	1	No	662	662	695	728
2474	TK2156	TM	b)Filling the meterial in under cut portion by using 670 SS electrode	1	No	691	691	726	760

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2475	TK2157	TM	c)Machining the material buildup area of the valve stem and taper turning	1	No	1986	1986	2085	2185
2476	TK2158	TM	a)Cleaning and removal of wornout Teflon seal and special metal seal by turning without any damage to the Base metal	1	No	1147	1147	1204	1262
2477	TK2159	TM	b)Machining the metal seat and teflon seat to the required size	1	No	1585	1585	1664	1744
2478	TK2160	TM	d)Aligning and matching the teflon and metal seal in to RC-Valve seat ring Base Including development of special tool for this work	1	No	3670	3670	3854	4037
2479	TK2161	TM	e)Finishing works to match the metal and Teflon seal with seat ring Base	1	No	2333	2333	2449	2566
		TM	Renewal of Boiler feed Booster Pump(Model – FA1B56) with modular Booster Pump						
2480	TK2162	TM	charges for transporting the modular booster pump from stores to work spot	1	No	2764	2764	2902	3040
		TM	Renewal of Boiler Feed Booster Pump including alignment and its allied works						
2481	TK2163	TM	a)Removal of defective booster pump from the bed by dismantling the suction and discharge flanges and kept at repair bay	1	No	6868	6868	7211	7555
2482	TK2164	TM	b)Fixing of pump coupling hub for assessing the clearance between the axis of booster pump & motor by dial gauges for alignment	1	No	4182	4182	4391	4600
2483	TK2165	TM	c)Positioning of spare modular booster pump assembly in the existing bed and fixing the suction & discharge flanges and alignment of booster pump with motor	1	No	10302	10302	10817	11332
2484	TK2166	TM	d)Modification of cooling water lines and oil lines by cutting and welding the existing pipe lines(25mm Dia) 15 joints	1	No	5622	5622	5903	6184
2485	TK2167	TM	e)Re fixing of coupling guard, spacer element assembly, CW line and oil lines	1	No	2143	2143	2250	2357
		TM	BFBP Casing Re-conditioning (FA1B56)						
2486	TK2168	TM	Charges for transporting the booster pump retrieved from BFP from repair bay to TTPS work shop.	1	No	1763	1763	1851	1939
2487	TK2169	TM	Removal of bearing housing , mechanical seal housing,top casing and clean the internals such as shaft impeller,casing rings etc.thoroughly	1	No	10302	10302	10817	11332
2488	TK2170	TM	Inspecting the top, bottom parting plane and casing ring seat of the booster pump casing for deep erosion in casing ring seat both side corners and making the undercut in the eroded portion by grinding to the required level then preheating and filling the material to the required level without any blow holes by welding using the 670 SS welding electrodes.	1	No	11052	11052	11605	12157
2489	TK2171	TM	Machining the excess material in parting plane area of the casings then made the blue matching to ensure the perfect mating plane	1	No	18285	18285	19199	20114
2490	TK2172	TM	Charges for renewal of impeller wearing rings and machining the impeller wearing rings suitable to the casing rings with 0.5 mm diametrical clearance	1	No	7200	7200	7560	7920
2491	TK2173	TM	Assembling the shaft with impeller ,casing rings, cooling water jackets, mechanical seals, and bearing housings and check the Centre trueness for free rotation then covering with top casing and packing for storage..	1	No	13736	13736	14423	15110
2492	TK2174	TM	Charges for transporting the overhauled Boiler feed booster pump from work shop to the central stores TTPS for devolution.	1	No	1763	1763	1851	1939
		TM	Reconditioning of impellers removed from the BFP cartridge (FK6D30) including dynamic balancing.						

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2493	TK2175	TM	Setting of impeller in the lathe & machining the hub of the impeller including hire charges for lathe for machining.	1	No	1393	1393	1463	1532
2494	TK2176	TM	Pre heating the hub of impeller & welding including hire charges for preheating,welding , stress relieving & cost of welding electrodes.	1	No	5088	5088	5342	5597
2495	TK2177	TM	Setting of impeller & machining after welding	1	No	2470	2470	2594	2717
		TM	Replacement of defective 100 NB recirculation valves by new valve in Boiler feed pump Rc line						
2496	TK2178	TM	Transportation of 100 NB Recirculation valve to the site from the stores and devolution of the released defective 100 NB recirculation valve to the stores.	1	No	2700	2700	2835	2970
2497	TK2179	TM	a) Arresting the boiler feed pump 100 NB recirculation valve pipe line Dia 114.3mm and 17.1mm thickness and releasing it after the works.	1	No	5409	5409	5679	5950
2498	TK2180	TM	b) Cutting, by grinding and removing the 100 NB recirculation valve from the BFP RC line - dismantling the useful internal parts of the recirculation valve and keep the usable parts in safe place.	1	No	6808	6808	7148	7489
2499	TK2181	TM	c) Edge preparation of BFP 100 NB recirculation valve line (2 joints)	1	No	4050	4050	4253	4455
2500	TK2182	TM	d) Positioning of BFP 100 NB recirculation valve and tag welding.	1	No	5721	5721	6007	6293
2501	TK2183	TM	e) Preheating the weld area and stress relieving after welding of BFP 100 NB recirculation valve line.	1	No	5409	5409	5679	5950
2502	TK2184	TM	f) Root welding by TIG and Welding the Supratherme special electrodes in the BFP 100 NB recirculation valve line. (2 joints)	1	No	12695	12695	13330	13965
2503	TK2185	TM	Replacement of damaged / wornout pressure seal ring in 250 / 300 Nb feed water valve	1	No.	8288	8288	8702	9117
2504	TK2186	TM	Feed water leak through HP Heater water box man hole door gasket arresting work	1	No.	8328	8328	8744	9161
2505	TK2187	TM	Decoupling, Alignment & Coupling of Condensate Extraction pump with motor	1	No.	3303	3303	3468	3633
		TM	Renewal of CEP suction strainer element						
2506	TK2188	TM	i) Removal of existing strainer wire mesh, cutting the Top and Bottom plates and surface preparation of strainer rings	1	No	5019	5019	5270	5521
2507	TK2189	TM	ii) Marking & cutting of eire mesh(400 micron) to the required size, fixing the strainer element with housing by resistance welding and welding the top and bottom plates with strainer element	1	No	9216	9216	9677	10138
2508	TK2190	TM	Cleaning of CEP Suction Strainer	1	No	1278	1278	1342	1406
		TM	Replacement of mechanical seal in stator water pumps/ stator water vacuum pumps						
2509	TK2191	TM	i) Decoupling, disassembling and renewal of necessary mechanical seal spares	1	No	1385	1385	1454	1523
2510	TK2192	TM	ii) Assembling of pump, replacing and aligning with the motor	1	No	1846	1846	1938	2031
		TM	HP Heater water box internal inspection work						
2511	TK2193	TM	i) Removal of studs in HP heater water box manhole door and positioning the man hole door trolley over the working platform, removal of manhole door and partition plate man hole door and inspection.	1	No	6426	6426	6747	7069
2512	TK2194	TM	iii) Preparation of partition plate manhole joint gasket and refitting the same by using trolley, tightening the man hole studs, removal of trolley and place the same at '0' metre	1	No	6420	6420	6741	7062
2513	TK2195	TM	e)Disconnecting the Balancing leak-off line, removing the old gaskets and cleaning the flange surfaces, reassembling the leak-off line with renewed gasket.	1	No	1982	1982	2081	2180
		TM	Identification of HP Heater puncture						
2514	TK2196	TM	Arranging for HP Heater water box cooling, identifying the punctured tubes in inlet and outlet side.	1	No	6825	6825	7166	7508
		TM	Plugging and welding of punctured tubes						
2515	TK2197	TM	Inserting the plug in inlet and outlet ends of punctured tubes & Welding the plug with tube sheet. (Work to be executed within the highly risky / restricted space of Heater water box)	1	No	4710	4710	4946	5181
2516	TK2198	TM	Welding the partition plate joint (inner and outer sides of hemi head portion) in the inner side of HP heater water box	1	No	4722	4722	4958	5194
		TM	Overhauling of stator water pump/stator water vacuum pump						
2517	TK2199	TM	i) Decouple the pump and disassembling & Cleaning and renewal of necessary spares.	1	No	1846	1846	1938	2031

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2518	TK2200	TM	ii) Assembling the pump & Replacing and aligning with the motor	1	No	1846	1846	1938	2031
2519	TK2201	TM	iii) Trail run the pump	1	No	748	748	785	823
2520	TK2202	TM	Cleaning and painting of Stator water vacuum system receiver tank and cleaning of stator water vacuum system cooler	1	No	2067	2067	2170	2274
2521	TK2203	TM	Overhaul of gland seal steam exhaust fan and inspection of its bearings	1	No	6282	6282	6596	6910
2522	TK2204	TM	Cleaning of main vacuum pump coolers	1	No	3770	3770	3959	4147
		TM	Renewal of main vacuum port plates & Cleaning and painting of main vacuum receiver tank and greasing of valves						
2523	TK2205	TM	i) Draining of pump, removal of inspection doors, Removal of wornout port plates and preparation of new Teflon port plates, Fixing of new port plates & Cleaning of seating area, closing of inspection door& tightening	1	No	2524	2524	2650	2776
2524	TK2206	TM	ii) Draining of receiver tank, opening of inspection door, Cleaning and painting the receiver tank, Preparation of gaskets and closing of door & Greasing of inlet, bypass and ejector inlet valves.	1	No	1454	1454	1526	1599
2525	TK2207	TM	Decoupling, alignment and coupling of condenser vacuum pump	1	No	4326	4326	4542	4759
2526	TK2208	TM	Renewal of gland packing and renewal of bearing oil in condensate extraction pump Model EN5J40D	1	No	1034	1034	1085	1137
		TM	Internal inspection of LP Heaters (1, 2 & 3) water box and renewal of jointing gasket work						
2527	TK2209	TM	i) Providing scaffolding arrangement at 4.5m level	1	No	3762	3762	3950	4138
2528	TK2210	TM	ii) Removal of water box bolts in the man hole after cutting of 25NB drain line, Preparation of new gasket and cleaning gasket seating area	1	No	4374	4374	4593	4811
2529	TK2211	TM	iii) Boxing up the water box hole cover etc., & Welding of 25 NB drain line.	1	No	6561	6561	6889	7217
		TM	Bearing Inspection in Condensate Extraction Pump (Make BHEL TypeEN5J 40 D)						
2530	TK2212	TM	i) Decoupling the motor from the pump, removing the coupling hub, thrust collar, bearing housing, thrust and journal pads, float checking etc.,	1	No	4578	4578	4807	5036
2531	TK2213	TM	ii) Inspection of Bearings, cleaning of thrust and journal pads, blue matching of bearings, renewal of bearing pads if necessary, renewal of bearing oil and flushing of cooler lines.	1	No	5292	5292	5557	5821
2532	TK2214	TM	iii) Reassembling of bearings, total float checking and setting of float ,alignment of pump with motor and renewal of gland packings if necessary.	1	No	6308	6308	6623	6939
		TM	Overhauling of Main Vacuum pump (model Elmo 2BE1 303 OBY 4-Z)						
2533	TK2215	TM	i) Removal of Intercepting plate, valve plate, inspection doors DE and NDE in the Main vacuum pump in horizontal position.	1	No	748	748	785	823
2534	TK2216	TM	ii) Loosening and removal of DE bearing assembly outer bearing cap, shaft seal ring, felt sealing rings, retaining ring, grease slinger, inner bearing cap, bearing housing, cylindrical roller bearing)using pulling tool and heating methods in horizontal position.	1	No	9210	9210	9671	10131
2535	TK2217	TM	iii) Loosening and removal of stuffing box assembly(Including Shaft bushing, packing ring, sealing water distribution ring, stuffing box gland, stuffing box housing)in horizontal position.	1	No	3262	3262	3425	3588
2536	TK2218	TM	iv) Loosening and removal of NDE bearing assembly (including outer bearing cap, shaft seal ring, felt sealing ring, grease slinger, compression spring, inner bearing cap, NUP cylindrical roller bearing, bearing housing)using pulling tool and heating methods in horizontal position.	1	No	9210	9210	9671	10131
2537	TK2219	TM	v) Inspection of shaft bushings in horizontal position.	1	No	1011	1011	1062	1112
2538	TK2220	TM	vi) Main vacuum pump positioned vertically with the drive end shaft extension facing downward.	1	No	2251	2251	2364	2476
2539	TK2221	TM	vii) Loosening and removal of NDE end shield and portplate, casing, DE port plate in vertical position.	1	No	7137	7137	7494	7851
2540	TK2222	TM	viii) Cleaning and Inspection of Main vacuum pump NDE portplate, DE port plate, impeller and casing.	1	No	4138	4138	4345	4552
2541	TK2223	TM	ix) Assembling of DE portplate, casing and NDE end shield with port plate in vertical position.	1	No	7137	7137	7494	7851
2542	TK2224	TM	x) Main vacuum pump positioned horizontally.	1	No	2251	2251	2364	2476

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2543	TK2225	TM	xi) Assembling of NDE bearing assembly (including outer bearing cap, shaft seal ring, felt sealing ring, grease slinger, compression spring, inner bearing cap, NUP cylindrical roller bearing, bearing housing) using pulling tool and heating methods in horizontal position.	1	No	9210	9210	9671	10131
2544	TK2226	TM	xii) Assembling of stuffing box assembly(Including Shaft bushing, packing ring, sealing water distribution ring, stuffing box gland, stuffing box housing)in horizontal position.	1	No	3262	3262	3425	3588
2545	TK2227	TM	xiii) Assembling of DE bearing assembly (including outer bearing cap, shaft seal ring, felt sealing rings, retaining ring, grease slinger, inner bearing cap, bearing housing, cylindrical roller bearing)using pulling tool and heating methods)in horizontal position.	1	No	9210	9210	9671	10131
2546	TK2228	TM	xiv) Assembling of Intercepting plate, valve plate, inspection doors DE and NDE in the Main vacuum pump in horizontal position	1	No	1321	1321	1387	1453
		TM	Replacement of the wornout bottom portion of CEP suction strainer housing						
2547	TK2229	TM	Transportation of the CEP suction strainer housing of 1200mm height and 660mm dia from the site to town workshop and back	1	No	3634	3634	3816	3997
2548	TK2230	TM	Cutting and removal of the wornout bottom portion from the strainer housing of 660mm dia and 12mm thickness	1	No	1791	1791	1881	1970
		TM	Fabrication of cylindrical body size 660mm OD x 350mm height x 12mm thick						
2549	TK2231	TM	i)Cutting 12mm plate of size 2100 x 260 mm,rolling it into a cylinterical pipe of 670mm OD and 360mm height	1	No	4344	4344	4561	4778
2550	TK2232	TM	ii)Edge preparation of the rolled pipe, welding its edges and welding this pipe with the old strainer housing	1	No	4024	4024	4225	4426
		TM	Fabrication of bottom dummy plate of size 635mm dia x 35 mm thick						
2551	TK2233	TM	i)Cutting 35mm thick plate for 640 x 640mm size as a raw material and cutting it into round plate of 640mm.	1	No	5278	5278	5542	5806
2552	TK2234	TM	ii)Machining the round plate to the size of 635mm dia and edge preparation for welding	1	No	5428	5428	5699	5971
2553	TK2235	TM	Welding the dummy plate to the bottom of the strainer housing body	1	No	6036	6036	6338	6640
		TM	Fabrication of stiffeners						
2554	TK2236	TM	i)Cutting 12mm thick plate of size 1200mm x 400mm and 20mm thick plate of size 500mm x 150mm as raw material for fabricating 3 nos stiffeners	1	No	4344	4344	4561	4778
2555	TK2237	TM	ii)Cutting the required size plates into three sets to make three stiffeners and prepare their edges for welding	1	No	5490	5490	5765	6039
2556	TK2238	TM	iii)Fabrication of stiffeners by welding the prepared plates	1	No	6036	6036	6338	6640
2557	TK2239	TM	iv)Mark the locations for welding the stiffeners and welding newly fabricated cylindrical body of the strainer housing	1	No	4024	4024	4225	4426
		TM	Fabrication of HPH's drips strainer connected to deaerator feed tank						
2558	TK2240	TM	Charges for gas cutting the 200 Nb CS seam less pipe to the length of 0.68m and machining the end surfaces for fabrication of strainer body	1	No	1422	1422	1493	1564
2559	TK2241	TM	Charges for drilling 10mm dia hole centre to centre distance 25mm in the half round strainer body surface 200mm length from the top and 35mm length from the bottom of the strainer	1	No	1642	1642	1724	1806
2560	TK2242	TM	Charges for fabrication of CS bottom dummy by gas cutting the required size of CS plate, machining and side facing, welding with strainer	1	No	1671	1671	1755	1838
2561	TK2243	TM	Charges for fabrication of top flange by gas cutting the 415mm dia size of CS plate 25mm thick including 5mm step for gas cut seating area, machining, facing, drilling bolts, PCD making and welding with strainer	1	No	3428	3428	3599	3771
		TM	Replacement of coupling assembling in main vacuum pump 4B in Unit IV						
2562	TK2244	TM	Transportation of New Coupling Assembly from the central stores to "0 " metre turbine floor of unit IV and the released one back to central stores	1	No	1029	1029	1080	1132
2563	TK2245	TM	Removal of Coupling guard , loosening of Coupling bolts and removal of rubber bushes.	1	No	1820	1820	1911	2002
2564	TK2246	TM	Loosening of MVP motor bed bolts and removal of motor from its position using chain block	1	No	6726	6726	7062	7399
2565	TK2247	TM	Removal of coupling hub from both the pump end and the motor end using puller or by heating methods .	1	No	5666	5666	5949	6233

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							MTPS	TTPS	NCTPS
2566	TK2248	TM	Disassembly of the new coupling assembly,assembling the coupling hubs to the motor and pump shafts respectively with suitable keys correction.	1	No	7083	7083	7437	7791
2567	TK2249	TM	Repositioning the MVP motor to its original position using chain block	1	No	6726	6726	7062	7399
2568	TK2250	TM	Aligning the motor with the main vacuum pump and coupling the pump & motor and fit the coupling guard cover.	1	No	6370	6370	6689	7007
		TM	Replacing the existing vacuum pump with spare pump						
2569	TK2251	TM	Removal of valveplate inspection doors in the vacuum pump for inspection of the valve plate and intercepting plate.	1	No	748	748	785	823
2570	TK2252	TM	Transportation of the spare pump from the central store to "o" mt turbine floor.	1	No	6632	6632	6964	7295
2571	TK2253	TM	Removal of coupling guard ,loosening of coupling bolts and removal of rubber bushes in the MVP.	1	No	1820	1820	1911	2002
2572	TK2254	TM	Loosening and removal of suction,discharge,ejector pipe,inlet valve,bypass valve, air ejector inlet valve,working fluid inlet and discharge pipe lines from MVP using chain block.	1	No	2320	2320	2436	2552
2573	TK2255	TM	Loosening of MVP bed bolts and removal of pump from its position using chain block.	1	No	7044	7044	7396	7748
2574	TK2256	TM	Removal of coupling hub from MVP using puller and by heating methods.	1	No	5520	5520	5796	6072
2575	TK2257	TM	Assemble of coupling hub in the spare MVP using heating methods.	1	No	5520	5520	5796	6072
2576	TK2258	TM	Positioning the spare MVP to its MVP bed using chain block.	1	No	6788	6788	7127	7467
2577	TK2259	TM	Cleaning of suction,discharge,ejector pipe,inlet valve,bypass valve, air ejector inlet valve,working fluid inlet and discharge pipe lines .	1	No	1311	1311	1377	1442
2578	TK2260	TM	Fitment the suction,discharge,ejector pipe,inlet valve,bypass valve, air ejector inlet valve,working fluid inlet and discharge pipe lines using chain block.	1	No	2701	2701	2836	2971
2579	TK2261	TM	Aligning the motor with the MVP,tightning the pump bed bolts and coupling the pump & motor and fit the coupling guard cover.	1	No	5226	5226	5487	5749
		TM	Machining of HP Heater 6 bottom elliptical man hole door assembly						
2580	TK2262	TM	Dismantling & removing of guide plate from the man hole door assembly	1	No	1587	1587	1666	1746
2581	TK2263	TM	Surface cleaning, heating the guide plate to the required temperature	1	No	1439	1439	1511	1583
2582	TK2264	TM	Building of metal around the guide plate and finishing the welded metal to avoid the blow hole and grinding	1	No	3498	3498	3673	3848
2583	TK2265	TM	Surface cleaning, heating the man hole door to the required temperature	1	No	1439	1439	1511	1583
2584	TK2266	TM	Man hole door assembly holding the special fixture to the required dimension fabricated,then building of metal in the eroded area of man hole door, finishing the welded metal, blue matching with seating cover plate and machining	1	No	6561	6561	6889	7217
2585	TK2267	TM	Retapping and fixing up the counter sunk screw in the man hole door assembly with guide plate including cost of new screws (8 no's)	1	No	1587	1587	1666	1746
		TM	HP Bypass valve jet cage flange (ARS 100) gasket renewal						
2586	TK2268	TM	i)Dismantling the spray line flange	1	no	1041	1041	1093	1145
2587	TK2269	TM	ii)Changing of gasket and reassembly	1	no	3064	3064	3217	3370
2588	TK2270	TM	Renewal of LPT Atmospheric relief Diaphragm	1	no	6230	6230	6542	6853
2589	TK2271	TM	Cleaning of condenser water box	1	no	4845	4845	5087	5330
2590	TK2272	TM	Cleaning of filtering screen of duplex filter (100Nb size)	1	no	661	661	694	727
2591	TK2273	TM	Condenser tubes cleaning with high pressure water jet cleaning (25.4 Dia x 7.6 Mtr length)	3200	no	4	0	0	0
2592	TK2274	TM	Renewal of bearings in Oil Vapour Extraction Fans with 0.75 KW Motor	1	no	4712	4712	4947	5183
2593	TK2275	TM	Inspection of condenser (one side) sea water seepage with unit in service and putting saw dust to arrest seepage as a trial.	1	no	6977	6977	7326	7675
2594	TK2276	TM	Removal of oil seepages and dust from the Turbine bearing pedestals, LP casing, Turbine Governing and LPBP control racks, valves servomotors, HP bypass OSU's, MOT and oil centrifuge pumps	1	avty	1240	1240	1302	1364
2595	TK2277	TM	Servicing of HP/IP and LPBP stop and control valve pilots	1	no	772	772	810	849
2596	TK2278	TM	Cleaning of on line filters in the Governing rack and LPBP rack	1	no	772	772	810	849
2597	TK2279	TM	On Line Saw dust application	1	avty	1726	1726	1812	1898

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
		TM	Cleaning the inner surface of the condenser tube for its entire 7.6 Mtr length using a flexible hose provided with a nylon brush and fine water jet arrangement.						
2598	TK2280	TM	i)As the worker involved in the cleaning becomes entirely drenched with water while cleaning, that too within the confined space, he is unable to work continuously for more than an hour and needs relaxation / breathing and thus the man power required for cleaning becomes more to complete the work stipulated time	2135	no	7	0	0	0
2599	TK2281	TM	ii)Transporting the scaffolding material to work spot providing the scaffolding arrangement inside the condenser water box (confined space) to facilitate the brush cleaning of the condenser tube and removal of scaffolding arrangements and cleaning	2	nos	2975	1487	1562	1636
		TM	Cleaning of MOT and overhauling of various size valves						
2600	TK2282	TM	Overhauling of 50 Nb size valves	1	0	984	984	1033	1082
2601	TK2283	TM	Cleaning of Main Oil Tank (Capacity 32M3)	1	no	11352	11352	11920	12487
2602	TK2284	TM	Overhauling of HPBP spray valves Type E 32S/6015, Pr 280 ata temp 175Deg.c	1	no	6920	6920	7266	7612
2603	TK2285	TM	Cleaning of HPBP oil supply unit suction and line filters	1	no	1543	1543	1620	1697
2604	TK2286	TM	Inspection of LPT last stage blades	1	no	3706	3706	3891	4077
2605	TK2287	TM	Overhauling of Cooling water line butterfly valve operators	1	no	8403	8403	8823	9243
		TM	Overhauling of MAL valves Type 312-432 and 312-632						
2606	TK2288	TM	i)Loosing and removal of actuator assembly from the valve	1	no	529	529	555	582
2607	TK2289	TM	ii)Loosing and removal of valve bonnet from the valve body, dismantling the valve compenents such as needle bearing threaded bush, valve stem and gland follower and cleaning the above compenents	1	no	772	772	810	849
2608	TK2290	TM	iii)Building up of metal in erode area of stem seating area using SS welding rod , machining of built up area of valve stem including trasporting the stem from site to town workshop and back	1	no	1013	1013	1064	1114
2609	TK2291	TM	iv)Lapping and blue matching of valve stem with seat	1	no	1058	1058	1111	1164
2610	TK2292	TM	v)Assembling of valve components after cleaning, bonnet assembly and positioning of actuator and commossioning	1	no	1543	1543	1620	1697
		TM	Fabrication of spring support and reconditioning of Tie Rod tubes for replacement in condenser cooling water inlet line						
		TM	Reconditioning of Tie rod tube Dia 108 mm, thick 16mm, stub Dia 170mm and Washer						
2611	TK2293	TM	i)Cutting and removing the wornout tie rod tube dia 108mm, 16mm thic, Tie rod bolt M56 and washer	1	no	2333	2333	2450	2566
2612	TK2294	TM	ii)Machining of new Tie rod tube dia 108mm 16mm thick length 300mm Tie rod bolt M56 washer, stub dia170, length 250mm and welding with existing Tie rod tube stub	1	no	4728	4728	4964	5201
2613	TK2295	TM	iii)Positionng and checking the hight of the Tie rod tube and tighten the tie rod fixing bolt and correction if any	1	no	6282	6282	6596	6910
		TM	Fabrication of closed coil spring support						
2614	TK2296	TM	i)Collection of spring steel material rod dia 25mm rolling the spring steel rod into coil spring of dia 200mm No of coil -8	1	no	13804	13804	14494	15184
2615	TK2297	TM	ii)Fabrication of pipe dia 225mm for covering the helical compression spring including marking, rolling,bending and welding	1	no	11096	11096	11651	12206
2616	TK2298	TM	iii)Fabrication of spring support plates	1	no	8109	8109	8514	8920
2617	TK2299	TM	iv)Fabrication of spring tie rod pipe and top side support plate including thread cutting preparation of nut hook etc	1	no	9172	9172	9631	10089
2618	TK2300	TM	v)Assembling of spring, cover pipe, support plates and tie rod and testing of loads	1	no	11040	11040	11592	12144
2619	TK2301	TM	vi)Transportation of spring assembly to site and checking suitability with the foundation bolt	1	no	8109	8109	8514	8920
		TM	Replacement of CW inlet line wornout Ist bend east and west (1600 nb)						
		TM	Replacement of CW inlet line Bend						
2620	TK2302	TM	i)Cutting the existing CW line bend (1600 Nb) near the vertical flange,	1	no	16398	16398	17218	18038
2621	TK2303	TM	ii)Scaffolding work around the condenser cooling water pipe ,cutting the wornout Ist bend along the welded portion around the pipe (1600nb, 12mm thick)(3 joints)and removing the bend and flange from its position	1	no	32780	32780	34419	36058
2622	TK2304	TM	iii)Cleaning the flange seating area and positioning the new bend between pipe and flange,tack weld the prepared new bend	1	no	13112	13112	13768	14423

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2623	TK2305	TM	iv)Welding work in Running Metre for doing patch ups in condenser water box	1	no	1939	1939	2036	2133
2624	TK2306	TM	v)Provision for stub 150/100nb size with flange and welding the same with CW line(new)	1	no	3983	3983	4182	4381
2625	TK2307	TM	vi)Preparation of MS plate,20mm thick includes cutting ,drilling,providing tapped holes to connect the dozing line with cooling water line and providing the temperature stub(new)	1	no	7966	7966	8364	8763
		TM	Fabrication of bend from the plate						
2626	TK2308	TM	i)Marking in the plate ,rolling of pipes ,welding ,grinding etc	1.25	mtr	9741	7793	8182	8572
2627	TK2309	TM	ii)Fabrication of bend from the rolled pipe dia 1674 mm, 12 mm thick	1	no	10520	10520	11046	11572
2628	TK2310	TM	Welding work in running meter for doing patchup in condenser water box	1	mtr	2059	2059	2162	2265
		TM	Opening and closing of condenser water box rear doors and replacement of man hole pipe(600nb)size in the cooling water outlet pipe line						
2629	TK2311	TM	i)Removal of existing water box rear approach platform with ladder arrangement	1	no	8292	8292	8707	9121
2630	TK2312	TM	ii)Disassembly of 100nb vent and drain lines of condenser water box rear 40nb priming line flange,disassembly, trasporting and provision of scaffolding arrangement loosening and removal of water box flange bolt, opening of water box door and cleaning the water box surface	1	no	29676	29676	31160	32644
2631	TK2313	TM	iii)Preparation of gasket, cleaning of bolt, assembly of water box with suitable gasket, tightning of bolt, assembly off connected 100nb vent and drain line 40nb priming line flange and commissioning line	1	no	29676	29676	31160	32644
2632	TK2314	TM	iv)Erection of condenser water box rear approach platform with ladder arrangment	1	no	11056	11056	11609	12162
		TM	Replacement of man hole pipe (600 Nb size) in the CW outlet pipe line						
2633	TK2315	TM	i)Transportation of man hole pipe with flange from central store to work spot and devolution of released materials	1	no	1001	1001	1051	1101
2634	TK2316	TM	ii)Loosening and removing the man hole door cutting and removing the existing man hole from the outlet pipe by gas cutting, preparation of new gaskets, fitting the man hole door with new gasket	1	no	1673	1673	1757	1840
2635	TK2317	TM	iii)SS welding for one running meter	1	mtr	2059	2059	2162	2265
		TM	Replacement of existing wornout condenser water box plateform						
2636	TK2318	TM	i)Cutting and removing the existing plateform structures such as I beam ,MS channel chequired plate and hand rails	1	No	10156	10156	10664	11172
2637	TK2319	TM	ii)Transporting the iron & steel material from the central stores and devolution of the released materials	1	No	5106	5106	5361	5617
2638	TK2320	TM	iii)Preparing the I & S materials to the required size by cutting,grinding and edge preparation	1	No	8748	8748	9185	9623
2639	TK2321	TM	iv)Welding the prepared material as plateform	1	No	13122	13122	13778	14434
2640	TK2322	TM	v)Prepare the latch type cover plate including cutting and machining the plate to the required size and providing the groove for setting the upper cord 12mm size including labour	1	No	5694	5694	5979	6263
2641	TK2323	TM	vi)positioning and welding the seating flange with spool piece arranging the 3nos latch around the man hole door with equal distance	1	No	9684	9684	10168	10652
		TM	Attending the sea water leak through the cooling water inlet line (East and west) locate the at inlet pit '0'mt elevations						
2642	TK2324	TM	i)Welding the fabricated pipe with the cooling water inlet line to arrest the sea water leak	1	No	1939	1939	2036	2133
2643	TK2325	TM	ii)Marking in the plate,rolling of pipes,welding ,grinding etc.,for fabricating one pipe of 1.25mtr long and 1674mm OD	1	No	11636	11636	12218	12800
		TM	Replacement of CW inlet line worn out IInd bend, rusted bolts and nuts and rubber bellow (1600 Nb) in the RE joint (EAST SIDE) during capital overhaul of Unit V for the year 2014-15						
2644	TK2326	TM	i)Preparation of stiffners from the MS channel by cutting, taking the measurements of bellows in existing conditions, welding the stiffners between flanges to arrest the top bellow movement	1	No	33360	33360	35028	36696
2645	TK2327	TM	ii)Opening the inlet line man hole door, transporting the scaffolding materials inside the inlet pipe line and providing scaffolding arrangements inside the pipe, scarpping and removing the gunnetting inside the inlet pipe line	1	No	15444	15444	16216	16988

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2646	TK2328	TM	iii)Cutting the existing CW line bend (1600 Nb) near the vertical flange	1	No	16398	16398	17218	18038
2647	TK2329	TM	iv)Scaffolding work around the condenser cooling water pipe, Cutting the worn out bend along the welded portions around the pipe (1600 Nb, 12 mm thick) (3 Joints) and removing the bends from its position	1	No	32780	32780	34419	36058
2648	TK2330	TM	v)Measuring the height between bottom flange and grouting, Removal of tie rod tube- 3 Nos, Preparation of channels by gas cutting to suitable height for supporting the bottom side flanges	1	No	19674	19674	20658	21641
2649	TK2331	TM	vi)Supporting the bottom flange by using channels, Gas cutting the existing foundation bolts, Removal of spring support from its position	1	No	12875	12875	13519	14163
2650	TK2332	TM	vii)Removing the existing worn out bellow (Top side) bolts, size M45 x 155 -40 Nos which includes cutting the bolt head, drilling the hole through out the bolt length for metal removal while gouging	1	No	55755	55755	58543	61331
2651	TK2333	TM	viii)Moving the bottom flange along with bellow assembly away from its position and providing suitable temporary support	1	No	18585	18585	19514	20444
2652	TK2334	TM	ix)Cutting the existing vertical flanges bolts, size M30 x 215 -52 Nos by gas cutting	1	No	37170	37170	39029	40887
2653	TK2335	TM	x)Cutting the existing worn out bellow (Bottom side) bolts, size M45 x 155 -40 Nos by gas cutting, drilling, gouging, removing the damaged bellow assembly	1	No	55755	55755	58543	61331
2654	TK2336	TM	xi)Cleaning the inner holes of flanges top and bottom side flanges, inner holes of vertical flanges, top and bottom flanges and spring support seating area, preparation of gasket	1	No	13160	13160	13818	14476
2655	TK2337	TM	xii)Preparation of spring support seating area in the bottom flange, cleaning and strengthening the top and bottom flange, Preparation of 275 x 275 x 12mm -4 Nos plate including cutting and welding	1	No	14718	14718	15454	16190
2656	TK2338	TM	xiii)Cleaning the floor, Removing the existing concrete, concreting the spring support seating area and providing the foundation Anchor bolts	1	No	18384	18384	19303	20222
2657	TK2339	TM	xiv)Cleaning the vertical flange gasket seating area, tightening the vertical flange bolts, size M30 x 215 -52 Nos, preparation of edges for welding	1	No	40400	40400	42420	44440
2658	TK2340	TM	xv)Lifting and positioning the bend with pipe, tack weld the prepared bend	1	No	15932	15932	16729	17525
2659	TK2341	TM	xvi)Welding work for one running metre	1	No	1939	1939	2036	2133
2660	TK2342	TM	xvii)Transportation of bellow assembly from store to workspot, preparation of bellow and retaining rings	1	No	8694	8694	9129	9563
2661	TK2343	TM	xviii)Moving the bottom flange, aligning the bottom flange with top flange hole and supporting the bottom flange by temporary supporting arrangement,	1	No	32320	32320	33936	35552
2662	TK2344	TM	xix) Positioning the bellow assembly along with retaining ring between top and bottom flange	1	No	24240	24240	25452	26664
2663	TK2345	TM	xx)Providing new bolts in the top and bottom flange and tightening the same	1	No	48480	48480	50904	53328
2664	TK2346	TM	xxi)Checking the bellow width and flange distance and to be corrected by providing the shims between tie rod tube and bottom flange	1	No	24240	24240	25452	26664
		TM	xxii)FRP lining in condenser cooling water inlet pipe and flanges						
2665	TK2347	TM	i)Cleaning the exterior surface of the pipe, flange and bend by sand blasting	1	No	969	969	1017	1066
2666	TK2348	TM	ii)Providing FRP lining over the pipe, flange and bend	1	No	8126	8126	8532	8939
2667	TK2349	TM	Fabrication of Bend from the plate	1	No	12176	12176	12785	13394
2668	TK2350	TM	Fabrication of bend from the rolled pipe dia 1674mm, 12mm thick	1	No	10868	10868	11411	11955
		TM	Overhauling of IP Stop valve 2						
2669	TK2351	TM	i)Disconnecting the oil pipe line from the servomotor, decoupling the valve stem from the servo motor loosening and removal of studs and cap nuts if necessary by flame heating and lifting of the servomotor	1	LS	5548	5548	5825	6103
2670	TK2352	TM	ii)Loosening and removal of cap nut from the valve housing and lift of valve cover assembly	1	No	9423	9423	9894	10365
2671	TK2353	TM	iii)Disassembling of valve gland bush, valve stem from the valve cover, cleaning and inspection of valve bush cone, spindle and gland seating area and measuring and recording of clearance including the correction if necessary	1	No	6036	6036	6338	6640
2672	TK2354	TM	iv)Positioning of valve assembly in the hosing and tightning of cap nuts	1	No	8493	8493	8918	9342
2673	TK2355	TM	v)Positioning of servo motors and tightening of cap nuts connecting oil pipe lines coupling of valves and servo motor and commossioning	1	No	5042	5042	5294	5546

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
		TM	Reconditioning of HP Bypass Valve Stem (ARS 100),						
2674	TK2356	TM	Metal building up of the damaged and grooved portion of the seating area in the valve stem by arc welding using SS welding electrodes	1	No	1001	1001	1051	1101
2675	TK2357	TM	Machining of the buildup area of the valve stem to suit and blue match with the given valve seat and case hardening of the machined area of the stem by nitriding process	1	No	1324	1324	1390	1456
		TM	Replacement of flash tank header						
2676	TK2358	TM	Removing the existing wornout flash tank header,removal of MS,HRH,CRH,HPBP strainers drain line connected with header by gas cutting	1	No	4492	4492	4717	4941
2677	TK2359	TM	Removing the existing MS strainers drain line from strainer to flash tank header by gas cutting	1	No	2555	2555	2683	2811
2678	TK2360	TM	Transportation of new CS dia 300mm pipe from store,cutting the pipe to the required length	1	No	4608	4608	4838	5069
2679	TK2361	TM	Welding work in one running metre for header fabrication work	1	No	2059	2059	2162	2265
2680	TK2362	TM	Welding work in high pressure pipe lines upto 80nb for rerouting of MS/HRH strainer drain lines newly fabricated header	1	No.	1439	1439	1511	1583
2681	TK2363	TM	Providing the hole in flash tank to insert the MS strainers drain lines,drilling the 12mm dia hole at equal distance to establish the spray arrangement in MS & HRH line	1	No	1542	1542	1619	1696
2682	TK2364	TM	Providing of dial gauge in all the turbine bearings to check the rotor lift by jack oil pump and correction of lift to the required values	1	No	4024	4024	4225	4426
		TM	Opening of condenser water box man hole door, cleaning of water box and tubes and removing the entrapped debris(Shells) from the CW inlet pipe line bends						
2683	TK2365	TM	Opening of water box man hole door, arranging the safety ropes and safety equipments, cleaning the water box, removal of debris from the water box and tubes and closing of man hole doors with new gaskets.	1	No	5025	5025	5276	5528
2684	TK2366	TM	Removal of debris from the CW inlet pipe line bends	1	No	12270	12270	12884	13497
		TM	Checking axial float of the turbine rotor and arresting the movement of journal come thrust bearing shell and closing of IPT rear bearing pedestal						
2685	TK2367	TM	Fixing the fixer arrangement in the pedestal no 2 parting plane,checking the axial float of turbine rotor by providing the dial gauges	1	No	3084	3084	3238	3392
2686	TK2368	TM	Loosening and removing the yoke assembly, removal of axial keys from the bearing pedestal, preparation of shims and adding the shims in axial keys to arrest the bearing movement	1	No	3788	3788	3977	4167
2687	TK2369	TM	Fixing up of axial keys assembling the yoke assembly positioning the fitted keys between bearing shell and yoke checking the key clearance	1	No	4348	4348	4565	4783
2688	TK2370	TM	Cheding the axial float of turbine rotor by providing dial gauges,setting the turbine rotor at 0 position for ins. Calibration	1	No	3084	3084	3238	3392
		TM	Assembling of Main steam inlet line (Right) breech nut for attending the heavy steam leak by replacing the sealing ring in Unit V						
2689	TK2371	TM	Assembling the sealing ring in the grooved area of pipe line after matching, positioning the all cylindrical pins	1	No	6518	6518	6844	7170
2690	TK2372	TM	Releasing the MS pipe line by using jack arrangement and chain block and matching the pipe line with casing to check the parallelity of the line with casing	1	No	20675	20675	21709	22743
2691	TK2373	TM	Positoning the breech nut, cold tightening of the Breech nut using crow bar arrangement and checking the gap between casing and pipe line through the holes	1	No	22225	22225	23336	24448
2692	TK2374	TM	Hot tightening of the breech nut by using long size blow torch- 3 Nos to the required temperature and further tightened by using crane to 32mm on its OD of threads	1	No	33234	33234	34896	36557
2693	TK2375	TM	Measuring the gap between casing and pipe after hot tightening and measuring the distance between breech nut and casing, locking the plate with casing and breech nut	1	No	15556	15556	16334	17112
2694	TK2376	TM	Assembling of HPT rear gland sealing pipe lines,welding of Ist stage pressure impulse line pipes	1	No	16060	16060	16863	17666
2695	TK2377	TM	Releasing the hanger and supports, removing the all support of the MS pipe line	1	No	24485	24485	25709	26934
		TM	Dismantling of Main steam inlet line (Right) breech nut to inspect the sealing ring for attending the heavy steam leak in Unit V						

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2696	TK2378	TM	Transporting the I&S material from store to workspot, cutting the MS channel and beam to the required size for arresting the MS pipe line	1	No	14032	14032	14734	15435
2697	TK2379	TM	Locking the hanger and supports, supporting the MS pipe by providing channel and beam	1	No	13953	13953	14651	15348
2698	TK2380	TM	Loosening and removal of HPT rear gland sealing pipe lines, cutting and removal of 1st stage pressure impulse line pipes	1	No	11667	11667	12250	12834
2699	TK2381	TM	Checking and measuring the gap between casing and pipe and measuring the distance between breech nut and casing for reference	1	No	12280	12280	12894	13508
2700	TK2382	TM	Removing the locking plate, heating the breech nut by using long size blow torch- 3 Nos to the required temperature	1	No	34764	34764	36502	38240
2701	TK2383	TM	Loosening the Breech nut using crane by providing the special pin arrangement and then further loosened and removed by crow bar arrangement	1	No	13740	13740	14427	15114
2702	TK2384	TM	Removing the all cylindrical pins from the pipe line, creating the gap between Turbine casing and MS pipe line by providing the jacking arrangement and pulling the line by chain block	1	No	15328	15328	16094	16861
2703	TK2385	TM	Removing the sealing ring from the pipe line and inspecting the pipe line seating area	1	No	7424	7424	7795	8166
2704	TK2386	TM	Inspection, cleaning the seating surface of sealing ring and threads of casing and breech nut, DPT checking of sealing ring	1	No	6430	6430	6752	7073
2705	TK2387	TM	Transporting the existing and new sealing ring to the workshop for machining and return back after machining	1	No	4642	4642	4874	5106
2706	TK2388	TM	Measuirng the dimension of the existing and new sealing ring and machining the new sealing ring as per drawing to the required dimension	1	No	24294	24294	25509	26723
		TM	Removal of eroded portion of East condenser partition plate and replacing it by welding new M.S plate in Unit V						
2707	TK2389	TM	Erection of working platform and removal, Cutting and removal of the eroded portion of East condenser partition plate	1	No	2497	2497	2622	2747
2708	TK2390	TM	Cutting a new piece of M.S plate of the above size from the M.S plate of 20 mm thickness.	1	No	1439	1439	1511	1583
2709	TK2391	TM	Edge preparation of the new piece of M.S plate and the condenser partition plane	1	No	1439	1439	1511	1583
2710	TK2392	TM	Welding work for one running metre	1	mtr	2059	2059	2162	2265
		TM	Replacement of existing eroded air suction pipe line inside the steam space east and west						
2711	TK2393	TM	Opening the steam space man hole door transporting and scaffolding materials from 5mtr elevation to inside the steam space providing the scaffolding arrangement inside the steam space	1	No	11740	11740	12327	12914
2712	TK2394	TM	Transporting the GI sheet from 5mtr elevation into steam space to cover the condenser tubes and removing the same after completion of work	1	No	8805	8805	9245	9686
2713	TK2395	TM	Supporting the vertical pipe lines with the baffle plates by providing the angles cutting and removing the existing corroded air suction pipe from the header pipe after cytting the vertical pipe line	1	No	9108	9108	9563	10019
2714	TK2396	TM	Transporting the new pipe from store to site cutting the pipe to the required size edge preparation of the new pipe provding the three nos holes	1	No	6825	6825	7166	7508
2715	TK2397	TM	Transporting the prepared into the steam space positioning and welding the spool pipe with the air suction pipe header and joining the vertical pipe with the new pipe and removing the support angle from the vertical pipe	1	No	11628	11628	12209	12791
2716	TK2398	TM	Preparing the baffle plate for covering the new pipe welding the baffle plate between LPBP down stream and air suction pipe line in east and west side	1	No	4550	4550	4778	5005
2717	TK2399	TM	Removing the scaffolding arrangements after completion of the work and c;losing the steam space man hole door with the new gasket	1	No	3788	3788	3977	4167
		TM	Rectification of broken out DVH type hanger support in CRH right steam pipe line						
2718	TK2400	TM	Release the load of CRH pipe line from the failed DVH type hanger support,remove the hanger support from its location	1	No	5870	5870	6164	6457
2719	TK2401	TM	Repair the failed hanger supporting hook by welding disassemmble the hanger support clean and inspect the parts,replace the defective parts if any	1	No	12144	12144	12751	13358
2720	TK2402	TM	Assemble the hanger support and refit in loacation	1	No	6014	6014	6315	6615
2721	TK2403	TM	Load the hanger support to its specified load	1	No	2526	2526	2652	2779

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2722	TK2404	TM	Provision of suitable scaffolding for the above work and removing it after completion of the work	1	No	10032	10032	10534	11035
		TM	Overhauling of HP stop valves 1 & 2						
2723	TK2405	TM	Disconnecting the oil pipe lines from the servomotor, decoupling of valve stem from the servomotor, loosening and removal of cap nut, if necessary by flame heating and lifting of the servomotor.	1	No	5548	5548	5825	6103
2724	TK2406	TM	Loosening and removal of threaded ring from the valve housing and lifting of valve cover assembly.	1	No	9423	9423	9894	10365
2725	TK2407	TM	Disassembling of valve gland bush, valve stem from the valve cover, Cleaning and inspection of the valve bush, cone, spindle and gland seating area and measuring and recording of clearances including the correction, if necessary.	1	No	6036	6036	6338	6640
2726	TK2408	TM	Positioning of valve assembly in the housing and tightening of cap nuts.	1	No	8493	8493	8918	9342
2727	TK2409	TM	Positioning of servomotor and tightening of cap nuts, connecting oil pipe lines, coupling of valve & servomotor and commissioning.	1	No	5042	5042	5294	5546
		TM	Replacement of existing IP Stop valve-2 assembly with a new valve and rectification of released IP Stop valve- 2						
		TM	Replacement of IP Stop Valve-2 assembly with a new valve						
2728	TK2410	TM	i)Transportation of valve from stores to site	1	No	3384	3384	3553	3722
2729	TK2411	TM	ii)Disassembling of valve gland bush, valve stem from the valve cover, Cleaning and inspection of the valve bush, cone, spindle and gland seating area and measuring and recording of clearances	1	No	6036	6036	6338	6640
2730	TK2412	TM	iii)Assembling of valve gland bush, valve stem assembly to the valve cover with new gland packings	1	No	2450	2450	2573	2695
2731	TK2413	TM	iv)Disconnecting the oil pipe lines from the servomotor, decoupling of valve stem from the servomotor, loosening and removal of cap nut, if necessary by flame heating and lifting of the servomotor.	1	No	5548	5548	5825	6103
2732	TK2414	TM	v)Loosening and removal of cap nut from the valve housing by flame heating, if necessary, lifting of valve cover assembly	1	No	10566	10566	11094	11623
2733	TK2415	TM	vi)Positioning of valve assembly in the housing and tightening of cap nuts. For one shift	1	No	8493	8493	8918	9342
		TM	Rectification of released IP Stop vale-2						
2734	TK2416	TM	i)Disassembling of valve gland bush, valve stem from the valve cover, Cleaning and inspection of the valve bush, cone, spindle and gland seating area and measuring and recording of clearances including the correction, if necessary	1	No	6036	6036	6338	6640
2735	TK2417	TM	ii)Disassembling of valve stem and cone assembly, cleaning and inspection of parts, replacement of worn-out parts, if necessary, assembly of the valve stem and cone assembly	1	No	15990	15990	16790	17589
2736	TK2418	TM	iii)Assembling of valve gland bush, valve stem assembly to the valve cover with new gland packings	1	No	2450	2450	2573	2695
2737	TK2419	TM	iv)Devolution of reconditioned valve from site to store	1	No	3384	3384	3553	3722
		TM	Attending the heavy steam leak through HPT exhaust elbow flange right						
2738	TK2420	TM	Cutting the MS channel to the required size for arresting the CRH pipe and removal of the same after completion of work	1	No	10005	10005	10505	11006
2739	TK2421	TM	Locking the hanger and supports, supporting the CRH pipe by providing MS channel, loosening and removal of HPT Exhaust elbow flange bolts of size M 56 x 185 - 16 Nos and releasing the hanger and support after completion of work	1	No	18435	18435	19357	20279
2740	TK2422	TM	Creating the gap between Turbine casing and flange by providing the jacking arrangement and pulling the line by chain block for removing the damaged serratted packing and cleaning the seating area	1	No	9834	9834	10326	10817
2741	TK2423	TM	Inspecting the seating area, if any damage, positioning the new serratted packing in the grooved area, assembling the CRH line and tightening the Flange bolts and checking the gap between flanges	1	No	18435	18435	19357	20279
		TM	Application of Epoxy Epoxite coating in CW outlet pipe line (East)						
2742	TK2424	TM	i)Transporting the scaffolding materials to workspot	1	No	2693	2693	2828	2962
2743	TK2425	TM	ii)Opening of CW outlet pipe line man hole door, Closing the CW butterfly valve, inspecting the CW pipe inside to provide the scaffolding	1	No	2393	2393	2513	2632

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2744	TK2426	TM	iii)Cutting the wooden piece to the required size, transport the wooden piece from outside to Inside the CW pipe	1	No	2393	2393	2513	2632
2745	TK2427	TM	iv)Providing the scaffolding arrangement inside the CW pipe from 6 Mtr elevation (above the valve flap) to 10.5 Mtr elevation	1	No	4786	4786	5025	5265
2746	TK2428	TM	v)Dismantling the scaffolding materials inside the CW pipe from 2 Mtr elevation (above the valve flap) to 11 Mtr elevation	1	No	4786	4786	5025	5265
2747	TK2429	TM	vi)Closing of CW outlet pipe line man hole door with new gaskets after inspecting the CW pipe	1	No	1702	1702	1787	1872
		TM	Reconditioning of HP Control valve –II						
2748	TK2430	TM	i)Cutting and removing the existing platform arrangements and positioning it after completion of work	1	No	2844	2844	2986	3128
2749	TK2431	TM	ii)Disconnecting the oil pipe lines from the servomotor, decoupling of valve stem from the servomotor, loosening and removal of cap nut by flame heating and lifting of the servomotor (Horizontal position).	1	No	11096	11096	11651	12206
2750	TK2432	TM	iii)Loosening and removal of threaded ring from the valve housing and lifting of valve cover assembly (Horizontal position)	1	No	15705	15705	16490	17276
2751	TK2433	TM	iv)Disassembling of valve gland bush, valve stem from the valve cover, Cleaning and inspection of the valve bush, cone, spindle and gland seating area and measuring and recording of clearances including the correction, if necessary.	1	No	6036	6036	6338	6640
2752	TK2434	TM	v)Positioning of valve assembly (Horizontal position) in the housing and tightening of cap nuts.	1	No	14155	14155	14863	15571
2753	TK2435	TM	vi)Positioning of servomotor (Horizontal position) and tightening of cap nuts, connecting oil pipe lines, coupling of valve & servomotor and commissioning.	1	No	10084	10084	10588	11092
		TM	Fabrication of special fixture for removal of the valve cover assembly retaining ring						
2754	TK2436	TM	i)Measuring the distance between studs in the valve housing, marking, gas cutting to the required dimensions from the available 30 mm MS plate, providing the necessary holes in MS plate for fitting it with the valve assembly	1	No	4606	4606	4836	5067
		TM	Fabrication of Valve operators spares such as Drive screw, Drive Nut, Adjusting Nut, Lock Nut and MS Bush as per the Drawing, assembling and checking the valve operation in Unit IV during overhaul 2012-13.						
		TM	Fabrication of Drive screw, Adjusting Nut and Lock Nut						
2755	TK2437	TM	i)Machining including Turning, facing, square thread cutting, drilling , boring and internal thread cutting of Drive screw, Adjusting Nut and Lock Nut as per the Drawing	1	No	1324	1324	1390	1456
		TM	Fabrication of Drive Nut						
2756	TK2438	TM	i)Machining including Turning, facing, drilling , boring and internal thread cutting as per the drawing	1	No	1324	1324	1390	1456
		TM	Fabrication of Bush						
2757	TK2439	TM	i)Machining including Turning, facing, drilling , boring as per the drawing	1	No	662	662	695	728
2758	TK2440	TM	Assembling the newly machined Drive screw, Drive nut, Adjusting nut, lock nut and MS bush with butterfly valve operators, checking its operation and carrying out necessary corrections	1	No	5718	5718	6004	6290
		TM	Replacement of existing worn out grill structure inside the condenser water box inlet (East & West)						
2759	TK2441	TM	Providing scaffolding arrangements inside the condenser water box and removing the scaffolding arrangements from the water box after completion of work	1	No	3846	3846	4038	4231
2760	TK2442	TM	Cutting the existing worn out grill sturcture, removing the cut pieces through the man hole door, grinding the residual pieces in the water box and finishing the surface to be welded	1	No	5254	5254	5517	5779
2761	TK2443	TM	Cutting the full length SS rod 50 mm Dia to the required no of pieces of various sizes, edge preparation, transporting them into the condenser water box through the man hole door	1	No	9100	9100	9555	10010
2762	TK2444	TM	Welding the SS rod 50 mm dia pieces with the water box to form a new grill structure	1	No	9100	9100	9555	10010
		TM	Cleaning the Turbine Lub oil coolers-2 Nos using brush and water jet						
2763	TK2445	TM	Draining the Turbine oil coolers, Loosening the fasteners and removal of top an bottom covers of the lub oil cooler	1	No	5788	5788	6077	6367
2764	TK2446	TM	Cleaning the Lub oil cooler tubes (14 mm ID x 1 mm thick x 3600 mm length, 1250 Nos) using nylon brush and water jet	1	No	9594	9594	10074	10553

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2765	TK2447	TM	Cleaning the top and bottom covers of the oil cooler, preparation of gaskets for both the covers and cleaning of the bottom water box of the oil cooler	1	No	2132	2132	2239	2345
2766	TK2448	TM	Fitting the top and bottom covers for the oil cooler with new gaskets and O ring, oil charging and commissioning the cooler	1	No	5788	5788	6077	6367
		TM	Replacement of West Condenser partition plate (MS) by SS 316 plate in Unit IV and Modification of LP Turbine Atmospheric relief diaphragm assembly						
		TM	Replacement of West Condenser partition plate (MS) by SS 316 plate						
2767	TK2449	TM	i)Transportation of released material from site to store for devolution	1	No	2002	2002	2102	2202
2768	TK2450	TM	ii)Erection of working platform and removal	1	No	2992	2992	3142	3291
2769	TK2451	TM	iii)Removal of existing condenser partition plate	1	No	4766	4766	5004	5243
2770	TK2452	TM	iv)Edge preparation of SS plates	1	No	7110	7110	7466	7821
2771	TK2453	TM	v)Welding of new SS partition plate to condenser water box	5	mtr	350	70	73	77
		TM	Modification of LP Turbine Atmospheric relief diaphragm assembly						
2772	TK2454	TM	i)Removal and refitment of LPT atmospheric relief diaphragm assembly	1	no	748	748	785	823
2773	TK2455	TM	ii)Disassemble, modification and assembling of the LPT diaphragm assembly	1	no	6220	6220	6531	6842
2774	TK2456	TM	Fabrication of MS ring (740 x 670 x 18 mm)	1	no	2622	2622	2753	2884
		TM	Disassembling and assembling of threaded ring from the stem for the replacement of worn out LPBP stop valve cone (1), fabrication of non standard studs for MS/HRH strainers						
		TM	Disassembling and assembling of threaded ring of LPBP stop valve (1)						
2775	TK2457	TM	i)Transporting the LPBP old and new valve cone assembly with the valve stem from site to work shop and return back after completing the work	1	no	5870	5870	6164	6457
2776	TK2458	TM	ii)Cutting the damaged/cracked valve cone from the released LPBP stop valve (1) inorder to remove the threaded ring	1	no	6632	6632	6964	7295
2777	TK2459	TM	iii)Fabrication of special fixture to loosen and remove the threaded ring with out damage	1	no	2935	2935	3082	3229
2778	TK2460	TM	iv)Cutting /Grinding the locks of thraded ring, loosening and removal of threaded ring from the old LPBP stop valve assembly	1	no	5310	5310	5576	5841
2779	TK2461	TM	v)Thread cleaning of the released threaded ring to suit with the new valve assembly and assembling with new valve	1	no	8805	8805	9245	9686
2780	TK2462	TM	vi)Locking the threaded ring, checking the pilot valve movement of stem after tightening the threaded ring and correction, if any	1	no	5870	5870	6164	6457
		TM	Fabrication of non standard studs for MS/HRH strainers						
2781	TK2463	TM	i)Cutting the MS rod to the required length from raw material, facing and turning the rod to the required dimension	1	no	3846	3846	4038	4231
2782	TK2464	TM	ii)Measuring the pitch from the released MS/HRH strainers blanking device, providing the pitch on both ends of the rods and suit with the blanking device	1	no	4348	4348	4565	4783
		TM	Fabrication of spring support and reconditioning of tie rod tube for replacement in condenser cooling water inlet line						
		TM	Reconditioning of Tie rod tube Dia 108mm, thick 16mm, stub Dia 170mm and Washer						
2783	TK2465	TM	i)Cutting and removing the worn out tie rod tube dia 108mm, 16 mm thick, Tie rod Bolt M 56 and washer	1	no	2393	2393	2513	2632
2784	TK2466	TM	ii)Machining of new tie rod tube Dia 108 mm, 16 mm thick length 300 mm Tie rod bolt M56 and washer, stub Dia 170, length 250mm and welding with existing tie rod tube stub	1	no	4728	4728	4964	5201
2785	TK2467	TM	iii)Positioning and checking the height of the tie rod tubes and tighten the tie rod fixing bolts and correction, if any	1	no	6282	6282	6596	6910
		TM	Fabrication of closed coil spring support						
2786	TK2468	TM	i)Collection of spring steel material rod dia 25 mm, rolling the spring steel rod into coil spring of dia 200 mm, No of coil-8	1	no	13804	13804	14494	15184
2787	TK2469	TM	ii)Fabrication of pipe Dia 225 mm for covering the helical compression spring including marking, rolling, bending and welding	1	no	11096	11096	11651	12206
2788	TK2470	TM	iii)Fabrication of spring support plates	1	no	8109	8109	8514	8920
2789	TK2471	TM	iv)Fabrication of spring tie rods, pipe and top side support plate including thread cutting, preparation of Nut, hook etc	1	no	9172	9172	9631	10089

Sl.No	Code no	Division	Description of Work	Qty	Units in	Total amount (Rs)	Rate per Unit(Rs)		
							MTPS	TTPS	NCTPS
2790	TK2472	TM	v)Assembling of spings, cover pipe, support plates and tie rid and testing of loads	1	no	11040	11040	11592	12144
2791	TK2473	TM	vi)Transportation of spring assembly to site and checking suitability with the foundation bolts	1	no	8109	8109	8514	8920
		TM	Attending the steam leak through MS strainer gasket						
2792	TK2474	TM	Cutting and removing the MS strainer header line, loosening and removing the dummy cover by grinding	1	no	8025	8025	8426	8828
2793	TK2475	TM	Transporting the strainer removing fixture and preparing, positioning the fixture	1	no	11193	11193	11753	12312
2794	TK2476	TM	Flame heating the strainer housing, jacking the strainer assembly and removing the segmental split rings and removing the strainer element from the housing	1	no	16750	16750	17588	18425
2795	TK2477	TM	Inspecting and polishing the seating area of blanking device and housing, preparation of new strainer gasket,	1	no	8154	8154	8562	8969
2796	TK2478	TM	Removing the welding burrs from the strainer element, DPT checking of blanking and strainer element welding, assembling the strainer element with new gasket and positioning the segmental split rings	1	no	16390	16390	17210	18029
2797	TK2479	TM	Assembling the dummy cover, tightening the studs, welding the strainer drainer lines	1	no	8154	8154	8562	8969
		TM	LP Turbine rotor replacement work						
2798	TK2480	TM	Machining of oil guard ring for TG bearing 1,2,3 & 4 to the required dimensions after fixing of sealing strips including parting plane matching and assembly of two halves & welding	1	no	1933	1933	2030	2126
		TM	Machining of cupling bolts to the finished sleeve hole dimensions of IP/Generator coupling holes (For one coupling bolt)						
2799	TK2481	TM	i)Precision machining of IP-LP rotor coupling bolts to the required finished hole dimensions	1	no	825	825	866	908
2800	TK2482	TM	ii)Precision machining of LP - Generator rotor coupling bolts to the required finished hole dimensions. (For one coupling bolt)	1	no	1736	1736	1823	1910
		TM	TTPS – TMII – Transport Section – carrying out the clearing of the Transport Office premises, Bus Garage, Compressor / Car washer room, Ramp and tools room at Camp – I and other minor repair works pertaining to compressor / car washer and in all buses specified by the engineer in charge as and when required, Carrying out minor repair maintenance works in all buses						
2801	TK2483	TM	carrying out the cleaning of the Transport office premises, Bus Garage, compressor / car washer room, Ramp and tools room at Camp I and other minor repair works pertaining to compressor / car washer, specified by the engineer in charge as and when required	144	Nos.	719	5	5	5
2802	TK2484	TM	Carrying out the routine and minor maintenance work in all buses by checking the tightness of all wheel bolts, Engine bed bolts, Checking the transmission system, checking all the seat bolts tightness, topping up of engine oil, Crown oil & Radiator coolant level. Checking the batteries (ie., checking the distilled water level and specific gravity) checking the minor fault in the self starter, alternator and wiring system loose connection and tightness checking of the terminal bolt & nuts. Checking the air pressure of all tyres, changing the tyres in the buses, Cleaning & water servicing, Greasing daily in all the buses including T&P's, consumables, etc.,	144	Nos.	1041	7	8	8