



**Annexure 5
Tools & Plants TG & BOP "Part B"**

List of Minimum Tools & Tackles and Equipment to be maintained at site by the Contractor per month

Sr. No.	Details of Tools & Plants	UoM	Qty			Remarks
			TG	BOP	Total	
1	Welding generator	Nos	2	2	4	
2	Diesel operated welding generator	Set	0	1	1	
3	TIG welding set	Set	2	0	2	
4	Portable welding machine set (Single Phase)	Set	2	2	4	
5	Portable welding machine set (Three Phase)	Set	1	1	2	
6	Welding cable with requisite holder	Set	3	3	6	
7	Argon cylinder with regulator	Set	4	0	4	Extra Qty. to be provided as &when required at Site.
8	Oxygen - DA set with regulators	Set	4	3	7	
9	Tested Chain pulley blocks, Wire rope slings & D-Shackles- 5T,10T, 3T, 2T, 1T	Set	04 Each	04 Each		
10	Safety Rope (12 mm,16 mm, 20mm)	Mtrs	100 Mtr each	100 Mtr each		
11	Torch (Heavy duty)	Nos	4	4	8	
12	Hand lamps	Set	10	8	18	
13	Grinders (AG-5, AG-7, FF2, AG4)	Nos	04 Each	04 Each		
14	Cutting sets	Nos	2	2	4	
15	Utility vehicle- Mahindra Pickup or equivalent	Nos	1	0	1	24 Hrs. basis,
16	Hydra (Extended boom telescopic) Escorts F15 or Equivalent	Nos	1	0	1	
17	Hydraulic jack 2T, 5T,10T, 20T	Nos	04 each	04 each		
18	Hydraulic jack- 25 tons	Nos	2 (Low height)	2		
19	Hydraulic jack- 50 tons	Nos	2	2	4	
20	24V DC lamp	Set	10	8	18	
21	Pull lifts 2 T, 4 T	Nos	2	2	4	
22	Tube cutting machine	Nos	1	0	1	
23	Trailer- 30 Tons	Nos	1	0	1	
24	Pipe bending machine heavy duty	Nos	1	0	1	
25	Spanner set (8 to 65mm). D-spanner, ring spanner, slogging spanner, Adjustable spanner	Set	04 set each	04 set each		
26	Lifting belts & slings (2T to 50T)	Nos	02 each	02 each		
27	Grease gun (2kg and 5kg)	Nos	2	2	4	
28	Painting Spray Gun	Nos	2	2	4	
29	Safety net	Nos	4	4	8	
30	Aluminum ladder (3 Mtr, 5 Mtr, 10 mtr)	Nos	02 each	02 each		
31	A-Type Ladder (3 Mtr)	Nos	02 each	02 each		
32	Tool box	Nos	1/each fitter	1/each fitter		
33	Allen key set up to 36mm/Inch	Set	4	4	8	
34	Bearing pullers set (Up to 350 mm)	Set	2	2	4	
35	Dial gauge 0-5mm (Calibrated) including magnetic base	Set	6	4	10	
36	Dial gauge 0-2mm (Calibrated) including magnetic base	Set	4	2	6	
37	Bore Dial Gauge, Slip gauge Box	Set	1	0	1	
38	Filler Gauge, Depth Gauge	Nos	1/each fitter	1/each fitter		02 setsof Filler Gauge more than 3 mtr length
39	Testing & measuring instruments (Vernier calipers, inside & outside micrometers) with Calibration Certificate	Set	2	2	4	
40	Magnetic base Drill machine with drill bits(sizes up to 32 mm)	Nos	1	1	2	
41	Tarpaulin (20 m x 20 m)	Nos	5	5	10	
42	Box spanner sets up to 60 mm	Set	2	2	4	
43	Ropes for material handling	Set	8	8	16	
44	Halogen sets	Set	4	4	8	
45	Rubber hand gloves	Set	As per requirement			
46	Measuring tape up to 5 mtr, 10 mtr,15 meter	Each	10	10	20	
47	Scaffolding material- Pipes, Clamps, Ropes, Steel Jolley's, planks		300 pipes/300 clamps/100 metal planks			
48	Valve manual lapping kit	Set	1	1	2	
49	All PPE as per requirement of work	Set	Each/person			
50	Induction heaters	Each	1	1	2	
51	Torque wrenches (up to 3000 NM capacity)	Each	2	1	3	
52	Various files (flat, round, half round etc.)	Set	4	4	8	
53	Screw driver sets	Set	4	4	8	
54	Vernier calipers plain, digital, Range 0-300mm, Mitutoyo make	Each	2	2	4	
55	Outside & Inside micrometers up to 600 mm, Mitutoyo make	Each	1	1	2	
56	Circlip pliers- Internal and external each	Set	1/each fitter	1/each fitter		
57	Copper/Brass rods of various sizes	Set	4	4	8	
58	Hammer -1 pound, 2 pound, 3 pound, 10 pound	Set	4each	4 each		
59	FF2 machine with bit	Set	2	1	3	
60	Valve servicing - Lapping tools	Set	1	0	1	
61	Lube Oil filling pump (Motorized type / Hand tool)	Set	1	1		1 Nos Motorised type & 1 nos of hand filling
62	Non sparking tools	Set	0	1		Complete set of non sparking tools with slide wrench and spanners

Notes:

- The above mentioned minimum quantity of Tools & Tackles and equipment have to be maintained by the Contractor at the Owner's site through out the Contract period and has to be replenished by the Contractor as and when the quantity is consumed. The Tools & Plants as specified above are not exhaustive and the Contractor has to deploy additional Tools & Plants as per site requirement to complete the scope of work in all respects, without any financial implication to the Owner. Other details shall be as per scope of work.
- The above mentioned equipment must be of ISI and of industrial grade from standard manufacturer.
- Tools, Tackles & Equipment deployed by the contractor shall be suitable for safe & quality work.
- Lifting tools should have valid test certificate from competent authority.
- Measurement instrument should carry valid calibration certificate from approved third party lab.