



TENUGHAT VIDYUT NIGAM LIMITED
2x210 MW Tenughat Thermal Power Station
Jharkhand
Dry Fly Ash Collection & Disposal System



17.00 LIST OF MANDATORY SPARES AND TOOLS & TACKLES

17.01 MANDATORY SPARES

Centrifugal Compressors:

1.	Spare bearing for each type	-	1 set
2.	'O' ring for compressor	-	1 set for each type
3.	Oil seal for each type	-	1 set
4.	Air seal for each type	-	1 set
5.	Shim pack of each type	-	1 set
6.	Suction air filter element	-	1 set
7.	Oil filter element	-	1 set
8.	'O' ring for Inter cooler	-	1 set
9.	'O' ring for oil filter	-	1 set
10.	Valves	-	5% extra subject to a minimum of ash valve of each type and size.
11.	Seal assembly	-	1 set

Air Dryer

1.	Sight Glass	-	1 No.
2.	Temperature controller	-	1 No.
3.	Indicating lamp	-	1 No.
4.	Auto Drain Trep	-	1 No.
5.	Expansion Valve	-	1 No.
6.	Solenoid Valve	-	1 No.
7.	Pressure Gauges (Suction & delivery)-	-	1 No. each
8.	'O' ring for each type	-	1 set
9.	shaft seal	-	1 set

Dry ash system

1.	Fluidising pad (cloth) of Transporter vessel	-	5% of each size and type
2.	Plate valve assembly	-	10 Nos.
3.	Pneumatic operated ball valve (Air side)	-	2 nos of each size and type
4.	Ash discharge valve	-	2 Nos. of each size and type
5.	Ash inlet valve	-	4 Nos. of each size and type
6.	Silo isolation valve (manual & pneumatic Operated) with complete assembly	-	1 no. of mains silo & 2 nos for intermediate silo
7.	Diverter valve	-	1 no of each size and type

Fludising Blowers

1.	Lobes	-	2 sets
2.	Set of belts	-	2
3.	Air heater arrangement	-	1 no.
4.	Section filter assembly	-	1 no.
5.	Bearings	-	1 set
6.	Seal rings	-	1 set

Main silo



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7.	3 way value	-	1 set
8.	Electric winding of motor	-	1 set
9.	Rotating assembly	-	1 set

Fluidising Blowers

1.	Lobes	-	2 sets
2.	Set of belts	-	2
3.	Air heater arrangement	-	1 no.
4.	Section filter assembly	-	1 no.
5.	Bearings	-	1 set
6.	Seal rings	-	1 set
7.	3 way value	-	1 set
8.	Electric winding of motor	-	1 set
9.	Rotating assembly	-	1 set

Intermediate silo

Pneumatic conveying system

1.	Expansion joint	-	4 sets of each type and size
2.	Adapter	-	4 sets of each type & size
3.	Gate valve assembly	-	2 sets of each type & size

Piping

1.	Pneumatic conveying line	-	5% of the total length
2.	Fluidising air line	-	5% of the total length

Bag filter (filtering element for silo)-50% of total population of each size and type

Cooling Tower

1.	Oil Seals	-	1 set for each gear box
2.	'O' rings	-	1 set for each gear box
3.	Gaskets	-	1 set for each gear box
4.	Bonded neoprene rubber inserts	-	1 set for each drive shaft

Cooling Water pumps

1.	Impeller, Impeller shaft and key	-	1 no
2.	Bearings	-	1 set of each type
3.	Shaft sleeves, gland sealing arrg.	-	1 set of each type
4.	Casing and impeller wearing ring	-	1 set of each type
5.	Washers, bushes, coupling pads	-	1 set of each type
6.	Gasket, 'O' ring, oil seal, sealing ring	-	1 set of each type



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17.02 Special Tools and Tackles

1.	Pipe wrench suitable for pipe size upto 50 NB -	1 No.
2.	Slide wrenches, size 8", 12" and 14" -	1 no. each
3.	Double ended spanner set M6 to M24 size -	1 set
4.	Ring spanner set M6 to M24 size -	1 set
5.	Ratchet and sockets set for hexagonal head screws and bolts size M-6 to M-24 -	1 set
6.	Allen key sets size M-6 to M-24 -	1 set
7.	Flaring tools with dice -	1 set
8.	Grease gun -	1 no.
9.	Oil gun -	2 nos.
10.	Screw drivers (3 sizes) -	2 nos. in each size
11.	Spirit level -	1 no.
12.	Feeler gauge -	2 sets
13.	Screw pitch gauge -	1 set
14.	12" flat file -	2 nos.
15.	12" square file -	2 nos.
16.	12" round file -	2 nos.
17.	Inside and outside callipers (3 sizes) -	1no.in each size
18.	12" hand hacksaw -	1 no.
17.	Hacksaw blade for above -	3 dozen
20.	Line tester -	2 nos.
21.	Cutting pliers -	2 nos.
22.	Nose pliers -	2 nos.
23.	Soldering iron (100 watts capacity) -	1 nos.
24.	Soldering lead with flux -	1 kg



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25.	Steel scale (500 mm & 100 mm long)	-2 nos. in each size
26.	Hand lamps	- 2 nos.
27.	Taps M-6 to M-24 sizes	- 1 set
28.	Dies 1/2" to 14"	- 1 sets
29.	Pliers	- 2 nos.
30.	Adjustable wrench 2" to 8 "	- 1 no.
31.	Lifting wire rope sling per crane	- 1 no.
32.	Drift sling	- 1 no.
33.	Spur geared chain pulley block 2 t capacity	- 1 no.
34.	Hydraulic puller for taking out pump impeller	- 1 no.
35.	Tool box for above tools	- 2 nos.
36.	Hydraulic jack for lifting crane wheel	- 1no.
37.	Hydraulic bearing puller	- 1 no.
38.	Hydraulic ram with complete accessories	- 1 no.
39.	Gear box withdrawal pullers	-2 nos for each type
40.	Coupling withdrawal device	- 2 nos.
41.	Coupling mounting devices	- 2 nos.