

## Annexure-1

### **TECHNICAL SPECIFICATION**

#### **(25t.+25t. CAP. DOUBLE GIRDER EOT. CRANE HAVING 2 NOS. 25T. CAP. CRAB AS A HOISTING UNIT)**

No.	Descriptions	Specifications
1	Equipments	25t+25t.. Cap. Double Girder EOT Crane (2 trolleys to work in tandem to lift 50T.)
2	Capacity	25t. +25t.
3	Test Load	125% of SWL
4	Span	24 meters
5	Height of Lift	8 meters
6	Duty & Class	Class-II, Medium Duty
7	IS Code	807, 3177
8	Type	Double girder
9	Locations	In door
10	Construction of crane	
	End Carriages	The End Carriages are welded construction type and fabricated from plates and having box type constructions.
	Bridge Girders	The girders are of plate fabricated box type construction design to sustain all stresses arising due to vertical & lateral forces with impact to which they are subjected. The maximum deflection of the main girder is limited to 1/750 the span of live loads including the weight of the trolley or hoist.
	Platform	M.S. Checkered plate/anti skid full-length platform shall be provided one side of the bridge girder.
	End Stopper	Steel end stoppers are provided on either side of the bring to limit the motion of the trolley. All the buffers will employ springs for shack absorption.
11	Steel	Steel confirming to IS-2062 or equivalent is used in the manufacturing of the main load bearing.
12	Wheel Base	5000 mm(Approx.)
13	L.T. Drive System	Twin drive type.
14	Preferred Speed	All speed variation will be $\pm 10\%$
	Main-Hoisting	2 meter per minute
	L.T.	30 meters per minute
	C.T.	15 meters per minute
15	Ele. Motors	
	Main-Hoisting	15 HP x 6 Pole.S-4 duty, Squirrel cage type,40% CDF,150 S/hr., IP -55 with Class F insulation.-2 Nos. ('Marathon' Make) with ABB, Delta or Reputed make Speed Variable Drive
	L.T.	7.5 HP x 4 Pole.S-4 duty, Squirrel cage motor, 40% CDF, 150 S/hr., IP – 55 with Class F insulation.- 2 Nos.(BBL Make) with Delta, ABB or reputed make Speed Variable Drive
	C.T.	3.0 HP x 4 Pole.S-4 duty, Squirrel cage motor, 40% CDF, 150 S/hr., IP – 55 with Class F insulation.-2 Nos. (BBL Make) with Delta ,ABB or

		Reputed make Speed Variable Drive
16	Gearboxes	All gearboxes, which are used in Hoisting, L.T. and C.T., are helical type with M.S. Fabricated Housing, Pinions and output shaft are supported on antifriction type roller/ Ball bearings. All Gears and Pinions are of En-19/En-9 materials precision machined and teeth cutting by hobbing machine duly hardened to with stand the heavy loads.
17	Brakes	Electro Hydraulic shoe type $\Phi 300$ -1 No. is providing in the Hoisting and Electro Hydraulic thruster operated shoe type $\Phi 150$ -2 Nos. brake is providing in the L.T. & 2 Nos. for the C.T. These brakes are automatically released when the motor circuit is on and is applied the motor circuit is off
18	Wire Rope (Main Hoist)	The make of wire rope will be used Usha-martin. ( $\Phi 22$ mm , 6x36 steel core )
19	No .of fall	6 falls
20	Rope Drum	The rope drum is of mild steel fabricated construction having right and left hand spiral grooves machined to suit the hoisting ropes. The drum is of such length that there is not more than one layer when rope is full wound.
21	Bottom Block	Bottom Block Assembly consisting of forged steel hook single shank type as per IS 3815 mounted on thrust Ball Bearings, with required diameter rope sheave and hook plates made out of steel
22	Wheels	The wheel of the trolley & the end carriage will be used forged steel conforming to IS 2707 GR.II duty spin hardened to 300 BHN or steel cast EN-9, material, double flanged straight tread type fitted with antifriction type bearings mounted on section type bearing housing easy to maintenance.
	L.T.	$\Phi 500$ – 4 Nos. (450 on tread)
	C.T.	$\Phi 300$ -4 + 4 Nos. (250 on Tread)
23	Couplings	Half Geared Couplings are provided where required of reputed make
24	Bearings	All moving parts of the crane are supported on the anti friction type ball/roller bearings. (all bearings are SKF/FAG/ZKL or equal ant make)
25	Painting	The structural parts of the crane are thoroughly cleaned and applied with two coats of red oxide and two coats of enamel paints before dispatch.
26	Supply Voltage	415, 3ph., 50hz., Supply.
27	Control Voltage	110V.
28	Total Connected load	51 HP.
29	Ele. Panel	
	Switch Gears	BCH, L&T, Siemens, TC or your approved equivalent Contactors, switches are providing in Ele. Panel
30	Push Button	Pendent type with hanging chain or wire rope
31	Ele. Cables	Flexible Copper Cable with ISI mark of reputed make
32	Cross Traverse Cable	Cable Festoon 'I' track type along span of Crane.

		( Long travel in scope of purchaser)
33	Limit switches	One numbers rotary-gearred type limit switch of reputed make is provided to prevent over lowering & over hoisting, two nos. lever type limit switches for L.T. & C.T. Motion will be provided to stop L.T. & C.T. Motion
34.	Crane Weight	48 M.T. (Estimated )