

Technical Data of Double Girder EOT Crane To be supplied & commissioned at BHEL									
Type of Crane	1 No. Double Girder EOT Crane			Span 23.067 Mtr Lift 15.3 Mtr Location Indoor Drive type VFD Drive Ambient Temp. 55 deg. C Control Voltage 110Volt ac					
Capacity	250/50 Ton								
Design Standard	IS:3177 (1999) & IS:807								
Duty of Crane	M-6								
Operation	Radio Remote & Cabin Controlled								
Electric power system	415 volts, 50 Hz; 3-phase and Ground, 50 Hz.±1.5Hz								
Vendor to confirm all the below parameters:									
Particular	Main Hoist			Aux. Hoist			Cross Travel		Long Travel
Main Speed	0.0.08 to 0.8 m/min (+ 10%)			3 to 0.3 m/min (+ 10%)			18/1.8 m/min. (± 10%)		50/5.0 m/min (± 10%)
Creep Speed	10% of main speed			10% of main speed			--		--
	Master Controlled - 5 steps			Master Controlled - 5 steps			Master Controlled - 3 steps		Master Controlled - 5 steps
Motor									
Type	Sq. Cage (Invertor Grade)			Sq. Cage (Invertor Grade)			Sq. Cage (Invertor Grade)		
Rating	minimum 80 hp			minimum 75 hp			minimum 12 hp		
Speed	0.08 to 0.8 m/min (+ 10%)			3 to 0.3 m/min (+ 10%)			18/1.8 m/min. (± 10%)		50/5.0 m/min (± 10%)
Cycle duration Factor	60%			60%			60%		60%
No of Starts / Hr	100			100			100		100
Insulation	Class - "F"			Class - "F"			Class - "F"		Class - "F"
Enclosure	TEFC			TEFC			TEFC		TEFC
Ambient Temperature	55 deg. C			55 deg. C			55 deg. C		55 deg. C
Number	01 No.			01 No.			02 No.		4 No.
Make	Siemens, Alstom (marathon), ABB, Crompton crane duty only								

<u>Gear Box</u>				
Type	Reduction	Reduction	Reduction	
Mounting	In Built	In Built	In Built	
Number	1 No.	1 No.	02 No.	4 No.
Make	Bonfiglioli, Shanti Gears, Elecon	Bonfiglioli, Shanti Gears, Elecon	Bonfiglioli, Shanti Gears, Elecon	Bonfiglioli, Shanti Gears, Elecon
Ball & Roller Bearings	SKF/FAG/TATA/TIMKEN/RHP	SKF/FAG/TATA/TIMKEN/RHP	SKF/FAG/TATA/TIMKEN/RHP	SKF/FAG/TATA/TIMKEN/RHP
<u>Brake</u>				
Make	Pethe/ BCH/ EMCO-Lenz	Pethe/ BCH/ EMCO-Lenz	EHT: SOC/EMM/STROMAG	Pethe/ BCH/ EMCO-Lenz
Type	DC Disc Brakes and backup brake as EHT	DC Disc Brakes and backup brake as EHT	DC Disc Brakes and backup brake as EHT	DC Disc Brakes and backup brake as EHT
Brake Drum	Dia minimum 350	Dia minimum 350	250mm	250mm
<u>Limit Switch</u>				
Type	Rotary & Gravity type	Rotary & Gravity type	Roller type	Roller type
Number	02 No.	02 No.	02 No.	02 No.
Make	Stromkraft / Stromag / Speed-o-Control / BCH- Heavy duty.	Stromkraft / Stromag / Speed-o-Control / BCH- Heavy duty.	Stromkraft / Stromag / Speed-o-Control / BCH- Heavy duty.	Stromkraft / Stromag / Speed-o-Control / BCH- Heavy duty.
<u>Coupling</u>				
Type	Geared Coupling	Geared Coupling	Geared Coupling	Geared Coupling
Make	Fenner/ Nuteck/ Elecon/ Allmex	Fenner/ Nuteck/ Elecon/ Allmex	Fenner/ Nuteck/ Elecon/ Allmex	Fenner/ Nuteck/ Elecon/ Allmex

<u>Electric Controls</u>				
Make	L&T- Yaskawa / Schenider/ABB/AllenBradley only	L&T- Yaskawa / Schenider/ABB/AllenBradley only	L&T- Yaskawa / Schenider/ABB/AllenBradley only	L&T- Yaskawa / Schenider/ABB/AllenBradley only
Drive	VFD (With inbuilt Crane software)	VFD (With inbuilt Crane software)	VFD (With inbuilt Crane software)	VFD (With inbuilt Crane software)
Cables type	FR type Copper cables with ISI mark only.	FR type Copper cables with ISI mark only.	FR type Copper cables with ISI mark only.	FR type Copper cables with ISI mark only.
Cable make	Asian / Lapp/ Universal/ Finolex / Torrent	Asian / Lapp/ Universal/ Finolex / Torrent	Asian / Lapp/ Universal/ Finolex / Torrent	Asian / Lapp/ Universal/ Finolex / Torrent
Fuses Type	HRC fuses: English Electric, Semiconductor fuses	HRC fuses: English Electric, Semiconductor fuses	HRC fuses: English Electric, Semiconductor fuses	HRC fuses: English Electric, Semiconductor fuses
Fuse Make	Siemens	Siemens	Siemens	Siemens
T.B Connectors	Wago/ Elmex	Wago/ Elmex	Wago/ Elmex	Wago/ Elmex
Contactors (With Surge suppressor coil)	Siemens	Siemens	Siemens	Siemens
Structural Steel	SAIL / TATA / ESSAR / NIPPON / Jindel			
<u>Wire Rope</u>				
Dia	22mm, 26mm, 32mm	16mm, 18mm, 22mm, 26mm	--	--
<u>Construction</u>	(6x36) Steel Core	(6x36) Steel Core	--	--
No of Fall	Vendor to Specify	Vendor to Specify	--	--
Make	Usha Martin make only	Usha Martin make only	--	--
Tensile Strength	1770 kn	1770 kn	--	--
<u>Hook Type</u>				
Hook	Long Shank Hook as per IS:8610/3815	Long Shank Hook as per IS:8610/3815	--	--
Make of hook	Smiritti Forgings / Karan / EEK	Smiritti Forgings / Karan / EEK		

Wheel				
No of Wheels	--	--	4 No	8 No
Dia	--	--	Min 350mm	Min 500mm
Material	--	--	EN-9	EN-9
Hardness	--	--	305-350 BHN	305-350 BHN
Rail Size	--	--	Cr 80 or 100 lbs	Cr 120 New rail for 250 m Gantry bay length with complete fitment hardware.
General				
Wheel Load (Max)	--	--	Vendor To specify	Vendor To specify
Buffer type	--	--	--	Spring Loaded
DSL type				New Shrouded DSL for 250m bay length of capacity 400 Amp with extra bar for the length of 4 m each color as spare
DSL Make	--	--	--	Susheel Engg./ Stromag/ Safetrack only
Platform	--	--	--	1 m Length Maintenance Platform
Clearance req. from Rail to Roof	5.8 m	--	--	--
Hook Approach (DSL side) (Indicative value)	2600mm/4100mm	--	Hook Approach (Non- DSL side) (Indicative value)	3900mm/2400mm
Side Clearance	500mm	500mm		--
Type of End Carriage	--	--	--	L-Type Housing

<u>Inspection</u>				
At Vendors / Manufacturers Work	Stage Inspections,(1 essentially before closing of girder), Hook testing , Load Test at 125 % load Deflection Test at 100% load	Stage Inspections,(1 essentially before closing of girder), Load Test at 125 % load Deflection Test at 100% load	--	--
At BHEL Works	Load Test at 125 % load Deflection Test at 100% load	Load Test at 125 % load Deflection Test at 100% load	--	--
EHT (Thruster Brake)	Stromkraft / Speed-o- Control / Gavli / EMM	Stromkraft / Speed-o- Control / Gavli / EMM	Stromkraft / Speed-o- Control / Gavli / EMM	Stromkraft / Speed-o- Control / Gavli / EMM
Paint	IS 5: 1984;Colour Shade No. 591 of Asian / Appcolite make			
MCCB/SFU	Siemens/ ABB / L&T	Siemens/ ABB / L&T	Siemens/ ABB / L&T	Siemens/ ABB / L&T
Flood Light	Energy Efficient Phillips/ Bajaj/Asian make (With Protective Guard)			
Hooter	Kheraj/ Femal/ Kaku Make	--	--	--
Push button	Siemens/ BCH make only	Siemens/ BCH make only	Siemens/ BCH make only	Siemens/ BCH make only
Panel	Rittal / BCH	Rittal / BCH	Rittal / BCH	Rittal / BCH
<u>RRC</u>				
Make	ITOWA -Spain, / Telemotive UK make only			
Electrical conditions	415 V, +/- 10%, 3 Phase, 3 wire (no neutral), 50 Hz ±1.5Hz			
Calliper Brake	Bubenzer Bremsen- Emco or Svendborg, Denmark Make only	--	--	--
<u>Guarantee</u>	24 months from the date of handing over.	--	--	--