

Inv. Refno: S / 6230 / 2011 / 5500 T

Annexure - I  
MPR No. 62301127  
Dt. : 07-12-2011  
Indent No. C6230/11/

**TECHNICAL SPECIFICATION OF RAIL TRANSFER TROLLEY 120 T**

**SCOPE: SUPPLY, ERECTION & COMMISSIONING OF 120 T RAIL TRANSFER TROLLEY**

SL. NO.	DESCRIPTION OF BHEL REQUIREMENT	REQUIRED	OFFERED	DEVIATION	REMARKS
1.0.	<b>GENERAL</b> This specification covers the design; manufacturing, supply and commissioning of 120 tons (Pay load) Rail Transfer Trolley. This trolley shall be commissioned at BHEL Haridwar in Turbine Shop Block-3 / New Turbine Shop (NTS) for carrying out to & fro transportation of the Rotors using existing Rail Engine as Prime Mover.	Vendor to confirm			
2.0.	<b>TECHNICAL PARTICULARS</b>				
2.1	The leading dimensions and parameter of trolley shall be as under				
2.2	Pay load (Capacity)	120 Tons			
2.3	Rail gauge (Standard Broad Gauge)	1676 mm			
2.4	Curve of track	straight track			
2.5	Length of trolley platform	8000 mm			
2.6	Width of trolley	3000 mm			
2.7	Height of platform (loaded)	1400 mm			
2.8	Height of platform (tare)	1410 mm			
2.9	Buffers	Spring Buffers			
3.0	Lifting Hook	4 Nos.			
3.1	Shockers Spring Assembly	4 Nos. (2 on each side) totally enclosed compression spring type.			
4.0	<b>UNDERFRAME / STRUCTURE</b>				
4.1	Under frame shall be of all weld construction to withstand all specified load. It shall be constructed by channels, beams and plates. Steel to IS-2062 Gr.B shall be used for construction. The welded frame of axle boxes should be welded to the lower longitudinal beams of the platform. In this frame the axle boxes of the wheel assemblies and absorbing springs should be mounted.	Vendor to confirm			
4.2	Top Platform of Trolley should have suitable Plate thickness (min. 30 mm) to bear/ withstand 120 MT loads.	Vendor to confirm			

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5.0	<b>WHEELS &amp; AXLE ASSEMBLY</b>				
5.1	8 Nos. Wheels, Single Flange, and axle assembly to withstand the applicable loads shall be provided. Axle boxes to be mounted on suitable Helical springs. Wheel material should be C55Mn75 Forged Carbon Steel, Hardened to BHN-300 to 325.	Vendor to accept & confirm			
6.0	<b>AXLE BOX</b>				
6.1	SKF/FAG make ROLLER bearings shall be provided on the trolley. Each axle shall be fitted with sufficient no. of suitable roller bearings.	Vendor to accept & confirm			
7.0	<b>MISCELLANEOUS</b>				
	<ul style="list-style-type: none"> <li>Special clamps should be provided on the sides of trolley to lift or for turning over the trolley.</li> <li>Rail cleaners / guards should be provided at both ends of the transfer car to push forward or off the track in the events of any object / material placed across or on the rail.</li> <li>Trolley should comply with all safety norms as applicable.</li> <li>Trolley should be equipped with suitable hand braking mechanical system with visual indicator showing the normal status of brake ON.</li> </ul>	Vendor to accept & confirm			
8.0	<b>PAINTING</b>				
	Trolley should be painted with 2 coat of red oxide PRIMER before dispatch and 2 coats of GOLDEN YELLOW enamel paint after commissioning at site by supplier. BHEL Monogram, & Max. Payload Capacity should be painted on both sides of the trolley.	Vendor to confirm			
9.0	<b>TESTING &amp; COMMISSIONING</b>				
	Testing of trolley shall be done at site with 25% over load condition. Final commissioning of trolley will be done at BHEL premises i.e. BHEL Handwar.	Vendor to confirm			
10.0	<b>MANUAL</b>				
10.1	Two sets of CD's & 4 sets of maintenance /operation manual shall be given with the trolley	Vendor to confirm			
10.2	Giving all mechanical assembly drawings with fast moving spare part drawing i.e wheels etc.	Vendor to confirm			
11.0	<b>DRAWINGS</b>				
	Supplier shall submit 3 view General Assembly (GA) drawing & all the major drawings along with offer for approval. Detailed drawings will be submitted with in one month after placement of Purchase Order.	Vendor to confirm			
12.0	<b>ACCESSORIES</b>				
	All essential and optional accessories should be listed and quoted by the supplier with quantity and price of each items.	Vendor to confirm			
13.0	<b>SPARES:</b> Recommended spares for two years trouble free operation of transfer trolley. <b>TOOL KIT:</b> Standard Tool kit for normal maintenance of the trolley should be provided in tool box and a list of tools should be given in the offer.	Vendor to confirm			

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14.0	<b>GUARANTEE</b> The trolley supplied should be guaranteed for a period of minimum 24 months from the date of commissioning.	Vendor to confirm			
15.0	<b>INSPECTION</b> The trolley will be inspected by BHEL at supplier works before dispatch.	Vendor to note & accept			
16.0	Along with offer, supplier to furnish Point/Clause wise reply on purchase specification. Deviations, if any, must be separately submitted with reasons for each.	Vendor to confirm			
17.0	The successful Vendor is required to measure all necessary dimensions like Trolley Gauge, Rail size etc. at site before starting of the trolley design/ manufacturing.	Vendor to confirm			
18.0	Technical offer in DUPLICATE must have 3 view GA drawing with complete details of parts / components, Weight of trolley, wheel dia etc.	Vendor to offer & confirm			
19.0	Consumables items such as electrodes, Oxygen Gas/ Acetylene gas, welding set & gas cutter required during erection shall be provided by BHEL free of cost.	-			
20.0	Commissioning tools and tackles will be arranged by the Vendor.				
21.0	Unloading and storing facility will be provided by BHEL free of cost.				
22.0	The successful Vendor should ensure availability of all documents such as insurance detail/ PF & ESI detail etc for their workman before commissioning the trolley at BHEL works.				
23.0	The successful Vendor must provide standard railway coupling - to be suitably match with BHEL's Loco Engine.				

**Pre-Qualifying Requirement (PQR):**

- i) Vendor should have been manufacturing the offered or higher capacity rail transfer trolley for at least 3 years. *on the tender opening date*
- ii) The offered model should be from current manufacturing range.
- iii) Vendor to submit customers list for above mentioned supply made (in last THREE years) & under operation with name of contact person along with their land line as well as mobile telephone nos.

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