



Boiler Auxiliaries Plant,
Bharat Heavy Electricals Limited,
Ranipet - 632406, Tamilnadu, INDIA.

Enquiry No. : BAP/CAPITAL/2012-13/OT-6

Due Date :

Supplier's Ref.:

Date :

Annexure - C: Specification cum Compliance Certificate for 10T Coil Car

Note:-

1. The 'Offered' Column and where applicable, the 'Deviations' & 'Remarks' Column of this format shall be filled in by the Vendor and submitted along with the offer. Inadequate / incomplete, ambiguous or unsustainable information against any of the clauses of the specifications / requirements shall be treated as non-compliance.

2. The offer and all documents enclosed with offer should be in English language only.

Name & Address of the supplier:

Name & Address of the Indian Agent:

Telephone No.

Telephone No.

Fax No.

Fax No.

e-mail :

e-mail :

Scope: Supply, Erection & Commissioning of **10T COIL CAR** complying with specification as below.

S No.	Description - BHEL's Requirement	Specified	Offered	Deviations	Remarks
1.0	PURPOSE & WORK PIECE MATERIAL				
1.1	Purpose: Storing and loading the coil to the Decoiler/Unwinder unit.	Vendor to confirm			
2.0	SPECIFICATION:				
2.1	Hydraulic operated scissors lift coil car mounted on wheels travel horizontally on rails to transfer coil to existing decoiler. Horizontal travel by Hydromotor operation. Vertical lift by hydraulic cylinder scissors lift. Coil car shall be equipped with necessary hydraulic power unit and electrical control unit.	Vendor to confirm			
2.2	CAPACITY				
2.2.1	Capacity	10T			
2.2.2	Decoiler mandrel height from floor level 1250 mm	Vendor to note			
2.2.3	Coil width max 1200 mm	Vendor to note			
2.2.4	Coil Diameter max 1600 mm	Vendor to note			
2.3	Traverse of the coil car				
2.3.1	Horizontal traverse	app 3000 mm			
2.3.2	Coil lift unit shall be provided with 4 rollers/wheels for horizontal movement.	Vendor to confirm			
2.3.3	Coil car shall be driven by hydro motors mounted to the axle of the car.	Vendor to confirm and submit details			
2.3.4	Coil lift by scissors lift with double hydraulic cylinders.	Vendor to confirm			

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2.4	Traverses				
2.4.1	Horizontal traverse	3000 mm app			
2.4.2	Vertical lift	500 mm min			
2.5	OPERATION AND CONTROL SYSTEM:				
2.5.1	OPERATOR'S PANEL:				
2.5.1.1	The coil car shall be supplied with necessary electrical control panel located at convenient place and operator panel shall be provided with push button/selector switch for on/off and all functions of the coil unit.	Vendor to offer			
3.0	HYDRAULIC SYSTEM : (if provided in the machine) Details should be Submitted by the Vendor				
3.1	The System should have centralized Hydraulic Tank preferably be located at floor level	Vendor to specify			
3.2	Make : Rexroth / Vickers Sperry / Parker only.	Vendor to confirm			
3.3	Filtration System	Vendor to specify			
3.4	Hydraulic pump capacity (flow / pressure)	Vendor to specify			
4.0	First filling of all required Oils & Grease etc. to be supplied by vendor. Indigenous (Indian) source or Indian equivalent and specifications of oils/ greases are also to be provided by the vendor.	Vendor to confirm			
5.0	LUBRICATION:				
5.1	Lubrication shall be of life time lubricated wherever possible. Other lubrication points shall be specified. Details shall be submitted.	Vendor to confirm			
6.0	ELECTRICAL:				
6.1	415V + 10% / -10%, 50HZ +/-3 HZ, 3 Phase AC (3 wire system with out neutral) Power Supply Voltage will be provided by BHEL at a single point near the machine, as per layout recommended by Vendor. All types of cables, connections, circuit breakers etc. required for connecting BHEL's power supply point to different parts of the machine/control cabinets, shall be the responsibility of vendor. Requirement of grounding/earthing with required material details is to be informed by vendor well in advance so that same could be incorporated during construction of foundation.	Vendor to confirm			
6.2	Motors shall conform to IEC or Indian Standards	Vendor to confirm			
6.3	All cables and cable trays required for the machine should be included in the offer.	Vendor to confirm			
6.4	Vendor should ensure the proper earthing for the machine and its peripherals.	Vendor to confirm			
6.5	The electrical components used shall be from reputed international makes such as Siemens / Telemecanique / Merlin Gerin / GE/ ABB and shall be accordance with DIN/IEC Standards.	Vendor to confirm			
7.0	SAFETY ARRANGEMENTS:				

S No.	Description - BHEL's Requirement	Specified	Offered	Deviations	Remarks
	Following safety features in addition to other standard safety features should be provided on the machine:				
7.1	1. Machine should have adequate and reliable safety interlocks / devices to avoid damage to the machine, work piece and the operator due to the malfunctioning or mistakes.	Vendor to note and reply			
7.2	2. A detailed list of safety alarms / indications provided on machine should be submitted by the supplier.				
7.3	3. All the pipes, cables etc. on the machine should be well supported and protected. These should not create any hindrance to machine operator's movement for effective use of machine.				
7.4	4. Emergency Switches at suitable locations as per International Norms should be provided with details.				
	ENVIRONMENTAL PERFORMANCE OF THE MACHINE :				
	The Machine shall conform to following factors related to environment				
8.0	(a) Maximum noise level shall be 85 dB(A) at normal load condition, 1 meter away from the machine with correction factor for back ground noise, if necessary. This will be measured as per international standards like DIN 45635-16. Supplier to demonstrate compliance to noise level, if so required.	Vendor to confirm			
	(b) If any safety / environmental protection enclosure is required it should be built in the machine by the vendor.				
	(c) Paint of the machine should be oil / coolant resistant and should not peel off and mix up with coolant.				
9.0	LEVELING & ANCHORING SYSTEM				
9.1	Complete anchoring system including foundation bolts, anchoring materials, leveling shoes etc should be supplied.	Vendor to confirm			
9.2	Rails required for horizontal traverse will be laid by BHEL. Supplier do not include rails. Supplier provide civil requirements for laying rails.	Vendor to note			
10.0	TOOLS FOR ERECTION, OPERATION & MAINTENANCE :				
10.1	Special tools and equipment required for erection of the machine shall be brought by the vendor.	Vendor to confirm			
11.0	FOUNDATION :				
11.1	Vendor shall submit the preliminary General Layout drawing including control panel for getting BHEL's approval within 15 days from the date of Letter of Intent (LOI).	Vendor to submit			
12.0	ERECTION & COMMISSIONING				

S No.	Description - BHEL's Requirement	Specified	Offered	Deviations	Remarks
12.1	Supplier to take full responsibility for carrying out the erection, start up, testing of machine, it's control & all types of other supplied equipment, machining of test pieces etc. Service requirement like power, air & water shall be provided by BHEL at only one point to be indicated by supplier in their foundation/layout drawings. Other requirements like crane and helping personnel shall also be provided by BHEL. Details of these requirements should be informed by vendor in advance	Vendor to note			
12.2	Tools, Tackles, instruments and other necessary equipment including Laser equipment required to carry out all above activities should be brought by the supplier.	Vendor to note			
12.3	Commissioning spares, required for commissioning of the machine within stipulated time, shall be brought by the supplier on returnable basis.	Vendor to note			
12.4	All Cover Plates required for the machine and its peripherals including pits, if any, shall be supplied and installed by the vendor. The plates should be sourced from India	Vendor to note			
12.5	Portion, if any, of the machine, accessories and other supplied items where paint has rubbed off or peeled during transit or erection should be repainted and merged with the original surrounding paint by the vendor. For this purpose, the vendor should supply sufficient quantity of touch-up paint of various colors of paint used.	Vendor to note			
12.6	Schedule of Erection and Commissioning shall be submitted with the offer.	Vendor to submit			
12.7	Charges, duration, terms & conditions for E&C should be furnished in detail separately by vendor along with offer.	Vendor to submit			
13.0	MACHINE ACCEPTANCE: (Tests/Activities should be Performed by Vendor)				
13.1	Tests/Activities should be carried out at supplier's works on the machine before dispatch :				
13.1.1	Motors data sheet	Vendor to submit			
13.1.2	Internal routine test report	Vendor to submit			
13.1.3	Test plan for final factory inspection to BHEL review	Vendor to submit			
13.1.4	Equipment to be tested for its full capacity.	Vendor to accept			
13.1.5	Demonstration of all features of the machine, control system & accessories	Vendor to demonstrate			
13.2	Tests/Activities should be carried out at BHEL works while commissioning the machine :				
13.2.1	Equipment to be tested for its full capacity of the machine.	Vendor to confirm			
13.2.2	Demonstration of all features of the machine, control system & accessories to the satisfaction of BHEL for efficient and effective use of the machine	Vendor to accept			
13.2.3	Training of BHEL machine operators in operation of complete machine & accessories etc by the supplier's engineers during their stay at BHEL works	Vendor to accept			

S No.	Description - BHEL's Requirement	Specified	Offered	Deviations	Remarks
13.2.4	Demonstration by actual use of all supplied attachments and accessories to their full capacity.	Vendor to accept			
14.0	PACKING:				
14.1	Sea worthy (if sailing)& rigid packing for all items of complete machine, CNC System, all Accessories and other supplied items to avoid any damage/loss in transit. When machine is despatched in containers, all small loose items shall be suitably packed in boxes.	Vendor to note and accept			
15.0	GUARANTEE :				
15.1	12 months from the date of acceptance of the machine at BHEL works.	Vendor to confirm			
16.0	GENERAL :				
16.1	Machine Model	Vendor to furnish			
16.2	Total connected load (KVA):	Vendor to furnish			
16.3	Floor area required (Length, Width, Height) for complete machine & accessories	Vendor to furnish			
16.4	Painting of Machine / Electrical Panels :	Vendor standard color			
16.5	Total weight of the machine	Vendor to furnish			
16.6	Weight of heaviest part of machine	Vendor to furnish			
16.7	Weight of the heaviest assembly / sub-assembly of the Machine	Vendor to furnish			
16.8	Dimensions of largest part/ sub-assembly/ assembly of the machine	Vendor to furnish			
16.9	Vendor to submit, along with offer, reference list of customers where similar equipments have been supplied mentioning broad specifications of the supplied machine i.e. Model, Capacity,	Vendor to furnish			
16.10	Detailed catalogues, sketch/ photographs of the m/c and accessories/ attachments should be submitted with the offer.	Vendor to submit			
16.11	Hydraulic, Pneumatic & oil pipings should be preferably metallic except places where flexible pipings are essential. All the pipes required for the same shall be included in the standard scope of the machine.	Vendor to note			