

2	For Contactors coils				
		Unit	No of units	No of contact coil per each unit	Total in a set
		Motor electric contactors (MH,AH,CT,LT)	4	2	8 nos.
		Lights set	1	1	1 no.
		Main Line contactor	1	1	1 no.
		total			10 nos.
		2 Sets			
Hence, minimum 20 nos. to be supplied					

3	Limit switches	<p>2 sets of MH</p> <p>2 sets of CT</p> <p>2 sets of LT</p> <p>2 sets of AH</p> <p>For each Hoist two types of Limit switches exist i.e., Rotary & Gravity Limit switches. Also, 02 nos for LT & 02 nos. for CT based on Design</p> <p>i.e., the firm has to supply</p> <p>MH-2set *2types =4 nos.</p> <p>CT-2set *2types =4 nos.</p> <p>LT-2set *2types =4 nos.</p> <p>AH-2set *2types =4 nos</p>																						
4	Current collectors	<p>2 sets</p> <p>One set consists of 04 nos. (i.e., for R,Y,B,G) i.e., 02 sets implies 08 nos. has to be supplied</p>																						
5	MCB	<p>2 Sets</p> <table><tr><th>Unit</th><th>No of units</th><th>No of contact coil per each unit</th><th>Total in a set</th></tr><tr><td>Motor electric contactors (MH,AH,CT,LT)</td><td>4</td><td>1</td><td>4</td></tr><tr><td>Lights set</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Control</td><td>1</td><td>1</td><td>1</td></tr><tr><td colspan="3">total</td><td>6</td></tr></table>	Unit	No of units	No of contact coil per each unit	Total in a set	Motor electric contactors (MH,AH,CT,LT)	4	1	4	Lights set	1	1	1	Control	1	1	1	total			6		
Unit	No of units	No of contact coil per each unit	Total in a set																					
Motor electric contactors (MH,AH,CT,LT)	4	1	4																					
Lights set	1	1	1																					
Control	1	1	1																					
total			6																					

		Hence, minimum 12 nos. to be supplied																				
6	Thrusters	<div>2 sets</div> <table><tr><td>Unit</td><td>No of units</td><td>No of thrusters each unit</td><td colspan="2">Total in a set</td></tr><tr><td>Motor thrusters (MH,AH,CT,L T)</td><td>4</td><td>1</td><td colspan="2">4</td></tr><tr><td colspan="3">total</td><td colspan="2">4</td></tr></table> <div>Hence, minimum 08 nos. to be supplied</div>				Unit	No of units	No of thrusters each unit	Total in a set		Motor thrusters (MH,AH,CT,L T)	4	1	4		total			4			
Unit	No of units	No of thrusters each unit	Total in a set																			
Motor thrusters (MH,AH,CT,L T)	4	1	4																			
total			4																			
7	Brake liners with rivets	<div>2 pairs of each size</div> <div>i.e., MH-2 pairs, AH-2 pairs, LT-2 pairs CT-2 pairs</div>																				
8	Main spring for thruster brakes used on crane	<div>2 nos of each size</div> <div>i.e., MH-2 nos , AH-2 nos , LT-2 nos, CT-2 nos</div>																				
9	Brake shoes complete with lining	<div>2 pairs of each size</div> <div>i.e., MH-2 pairs, AH-2 pairs, LT-2 pairs CT-2 pairs</div>																				
10	Oil seals for grease cases	2nos. for each size of oil seal provided in the crane gear box and geared coupling.																				
11	Spare cards for VVVF drive for all drives viz. MH, AH, LT & CT	<div>2 no. for each drive</div> <div>i.e.,total 8 nos</div>																				

12	A set comprising 2 nos of long travel and 2 nos. of cross travel motion wheel in assembled condition with axle bearing housing	2 sets i.e.,total 1) CT- 04 Nos 2) LT- 04 nos		
13	Master Control switches	20 nos		
14	Control transformers	2 nos. of each size i.e., for Lights - 2 nos. & Control circuits- 2 nos.		

SCHEDULE-V**LIST OF MAINTENANCE TOOLS**

S.NO.	DESCRIPTION	QTY
01.	CANVAS Tool bag (For storage tools from Sr.no.2 to Sr.no.10) or equivalent	1 No.
02.	D/E Spanners (8-32mm) Min. 10 nos	1 Set
03.	Grease gun	1 No.
04.	Oil can	1 No.

05.	Screw Driver of required sizes Min. 08 nos	1 Set
06.	Nose plier	1 No.
07.	Insulated plier	1 No.
08.	Hammer 2 kg	1 No.
09.	Allen Key required sizes Min. 10 nos	1 Set
10.	Hydraulic jack 10T	2 Nos.
11.	Wooden hammer	1 No.
12.	AC/DC Digital clamp meter 1000A	1 No.
13.	Megger 1000 Mega ohms	1 No.
14	Bearing puller tool for suitable for motor bearings	1 No
15	Chain Pulley 2T	1 No

SECTION -III**ANNEXURE-A****FORMAT FOR SUBMISSION OF TECHNICAL BID**

1. a) We, M/s. _____ offer our _____ for crane nos. _____ as per the description given in Schedule of Requirements

b) We state that, except for the following, for which clause wise brief description and justification for deviation has been indicated, our machine fully complies with all the clauses as given in technical specification Section-II.

S.No.	Clause/Item	Brief description of Deviation	Justification for deviation

c) We also confirm the schedules given in the Delivery Schedule at para 7 of Section-I

Note1: The Bidder shall mention all technical deviation only in the format enclosed above.

Note-2: The deviation mentioned elsewhere in the bid shall not be considered and the bid shall be evaluated based on the information provided against Annexure-A of Section-III.

Note-3: In case tenderer offers internationally accepted alternative specifications as per clause **1.7 of Instructions to tenderers for filling technical bid**. Complete details of alternative specification apart from filling above deviation statement, may be enclosed.

2. We further certify that we are meeting the reference clause as;

(A) We are the regular manufacturer of this type of machine.

Clause (B)

S. No	Name of purchaser with address	Purchaser's, telephone, email Address, Name of contact person	Purchase / Supply order no. and date (along with a copy of PO)	Quantity Supplied (with proof of supply) @	Date of Supply @	Date of installation and / or Commissioning @	Leading Parameters of machine(s) to be establish similarity as per clause 3 of qualifying Requirements (QR)
1.	2.	3.	4.	5.	6	7	8.

@ (along with copies of relevant documents to establish linkage of documents)

3. We are having following facilities available with us or our agent for providing adequate after-sales service in India during warranty period. Complete details of after sales service, availability of technically competent engineers and warehousing facilities for spares is indicated below:
- After sales service centers:
 - Availability of technically competent engineers;
 - Warehousing facilities for spares:
4. We have quoted for comprehensive Annual Maintenance Contract as per clause 17 of Section II. Details of preventive maintenance services including cleaning of machine to be provided under AMC is given in the following format. (The information shall be provided whether AMC is in Scope or not)

S.No.	TYPE OF PREVENTIVE SCHEDULE	PERIODICITY	ITEMS TO BE CHECKED	ITEMS OF REPLACEMENT	EXPECTED PLANT DOWN TIME

5. *We hereby confirm that we are the OEM and undertake to supply spare parts for a period of expected life of machine.

*We hereby confirm that we are not the OEM, but are submitting undertaking from OEM for supply of spare parts for a period of expected life of the machine to provide maintenance spares (as and when ordered) after the expiry of the Warranty/AMC for X years (life of machine - 7yrs) including the maintenance spares required for the bought out sub-assemblies and parts.

(*Strike out which ever is not applicable)

6. It is certified that we are having suitable facilities at our works for carrying out various performance tests on the sub-assembly/assembly/machine and these shall be made available to the inspecting authority.
7. **BOUGHT OUT ITEMS:** We hereby furnish a list of all critical items/ sub-assemblies which are bought out by us and proposed to be used, along with the manufacturer's name, brand model etc.

Sr No.	Description	Item no.1	Item no. 2	Item no. 3
1.	Brief description of item			
2.	Model no.			
3.	Make			
4.	Quantity/machine			
5.	Manufacturer's name and complete address			
6.	Whether imported or indigenous			
7.	Country of origin			

8. We further submit the following information about the offered machine as per the technical specification section III and Important Features of the tender section I. We understand that any omission of any of the below mentioned information will render our offer incomplete to that extent.

Note :-

Bidder shall photocopy the specification (Section-I & II) and furnish comments/ details against each clause or link to deviation statement. Any fraudulent change(s) made in specifications (while making photocopy) will lead to summarily rejection of offer. Appropriate punitive action may be initiated.

S. No	Information required	As per Clause No./Schedule	Value /Write up/ Brochure
1	Information on schedule-I	Schedule-I (of section-II)	Values
2.	Information as per Schedule-II	Schedule-II (of section-II)	Values /write up
3	Information as per Schedule-III	Schedule-III (of section-II)	Values / write up
4	Information on quantity of each item offered under spares	Schedule-IV (of section-II)	Values
5	Structural calculations for girders, end carriage, crab and other structural members along with breakup of weights of major assemblies/components.	Clause 1.1.7 (of section-II)	Values/Details
6	Details of weather proof protection provide	Clause 1.4.11 of section-II	Write up
7	Safety stop details	Clause 1.9.5 of section-II	Write up
8	Details on heat treatment process of wheels	Clause 1.10.2 of section-II	Write Up
9	Details of method of stress relieving of gear boxes	Clause 1.15.1 of section-II	Write up
10	Calculations of current density in DSL	Clause 2.5 of section-II	Value / Write up
11	Current collector section selection calculations	Clause 2.5.1.3 of section-II	Value / Write up
12	Details of automatically cutting off resistances after a pre selected time	Clause 2.8.1.7 of section-II	Write up
13.	Details of control system	Clause 2.8 of section-II	Write up
14.	Details of alarm system provided	Clause 2.21 Of section-II	Write up
15.	Make and Model no. of VVVF drive	-	Write up
16.	Annexure G- Infrastructure requirements	Clause 14.1 Of section-II	Write up

**Signature of the
Authorized representative of the bidder
with company stamp**

ANNEXURE-B
FORMAT FOR INDEMNITY BOND

This deed of Indemnity executed by M/s. _____ hereinafter referred to as Indemnifier' which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, representative and assignees in favour of **SOUTH CENTRAL RAILWAY**, hereinafter referred to as the 'Indemnified' which expression shall unless repugnant to the context or meaning thereof, include its successors and assignees witnesses as to.

Whereas the Indemnifier herein had participated in a global tender for the supply of _____ (machine name) which is opened on _____ (date) on terms and conditions set out interalia in the Tender Document.

And whereas, clause of the above mentioned tender document described that the machine shall be designed for a life of 36 years with regular maintenance and all the structural members of the machine should be guaranteed for 7 years against cracks, breakages etc. during the course of normal operations from the date of commissioning whichever is earlier of the stores supplied by the Indemnifier to the indemnified.

The indemnifier hereby irrevocably agrees to indemnify the indemnified that in the event of the said machine not achieving the life guarantee, the indemnifier shall as may be deemed necessary repair the defective machine at site, free of cost, within a reasonable time specified by the indemnified or reimburse the pro-rata cost of the machine to the extent a life not achieved as per the guarantee, or supply a spare stores for the defective portion only free of cost at site.

Bidder's authorized signatory
 With seal

Station:

Date:

Witness: 1. _____
 (Signature with Name, Designation & Address)

2. _____
 (Signature with Name, Designation & Address)

JOINT RECEIPT INSPECTION NOTE

Note: With the issue of JRI, payment is released to the contractor, as per the terms of contract. Consignee shall satisfy themselves that the conditions of contract are met before issue of the JRI.

Date.....

Sub: Receipt of consignment for machine.....

Ref: PO No.....

1.	Name of consignee/Railway	
2.	Machine name	
3.	Quantity	
4.	Name of supplier	
5.	Consignment of the machine received on	
6.	The foundation & associated works essential for "Safe Installation of Machine" are ready (for turnkey contracts only) *	

**If there are Delays on account of Consignee such as clear site is not given, then the condition 6 will not be a valid ground for holding JRI.*

It is certified that the consignment of the machine has been received complete and in good condition as per specification shown in the contract.

Tentative plan for installation and commissioning of the machine is as under:

1.	Date of clear site provided	
2.	Contract	Turnkey/Non-turnkey
3.	Status of readiness of foundation:	
3(a)	Already constructed on	
3(b)	Under construction & likely date of its completion	
3(c)	Construction yet to be started fromand likely date of its completion	
4.	Status of availability of electrical power, water and compressed air etc.	Available/Not-available
5.	Number of components to be proved out on the machine	
6.	Likely date for start of erection/installation	
7.	Likely date for switch-on the machine	
8.	Likely date of completion of commissioning of the machine	

Representative of firm

Designation

Representative of consignee

Designation

(Minimum Gazetted level)