

Tender No. F/F219/9/4258/K1

BHARAT HEAVY ELECTRICALS LIMITED
HEEP HARIDWAR INDIA-PIN 249403
FAX NO: 0091 1334 226462/223948
PHONE NO: 0091 1334 284144

Tender No.: F/F219/9/4258/K1

Due Date: 07.03.2020

Sub: BHEL-HEEP/OPEN-TENDER (Austenitic Alloy Steel Bar)

The Heavy Electricals Equipment Plant (HEEP) located in Haridwar, India is one of the major manufacturing plants of Bharat Heavy Electricals Ltd. The core business of HEEP includes design and manufacture of large steam turbines, turbo generators and so on.

Sealed tenders with the Tender No. and opening date clearly super scribed on the cover are invited from the manufacturers (registered as well as unregistered) for the supply of the following items: -

Tender No.	Item Description	Mat. Code	Size (mm)	Qty. (Kg)
F/F219/9/4258/K1	Austenitic Alloy Steel Bar Grade X40MnCrN19K Specification- HW10784 Rev: 03 Grade- ST-X40MNCRN19K	HW1070284050	Dia- 36, L= 6200	1188

The tender documents & Specification of item can be downloaded from our web site www.bhel.com or www.bhelhwr.co.in. **Only those vendors who fulfill the Minimum Qualifying Requirements (as per Annexure-II) will be considered for further technical evaluation.**

The last date for downloading tender documents shall be 06.03.2020 & opening of tender shall be 07.03.2020. Tenders will be received up to 01.45 P.M. on **07.03.2020** and opened on the same day at 2.00 P.M. in the Tender Room. **Please note that tender received after due date & time (01.45 PM on 07.03.2020) will not be opened.** BHEL will not be responsible for any type of postal / courier delay.

The total quantity may undergo change at the time of ordering.

The details of each item with required delivery are given in **Annexure-I (Details of Items)**

Please submit your Techno-Commercial offer only for the above requirement subject to our terms and conditions.

KINDLY READ “INSTRUCTIONS TO BIDDERS.” QUOTATION NOT IN ACCORDANCE WITH THE INSTRUCTIONS ARE LIABLE TO BE DISQUALIFIED AND IGNORED.

INSTRUCTIONS TO BIDDERS FOR OPEN TENDER

DEFINITION

Registered Vendors - Are those who are registered with BHEL (HEEP), Haridwar for procurement of Austenitic Alloy Steel Bar as per Spec. HW10784 Rev: 03.

Un-registered Vendors - Are those who are not registered with BHEL (HEEP), Haridwar for procurement of Austenitic Alloy Steel Bar as per Spec. HW10784 Rev: 03.

Vendors must fill up Annexure- II in confirmation to Pre- Qualification Requirements and quality requirements.

ESSENTIAL INSTRUCTIONS

1. **Only those bids will be considered which have been submitted with requisite EMD.**
2. **BHEL team may visit the vendor (s) works for verification of capability and capacity claimed in tender documents/offer (s).**
3. The tenders shall be submitted in two parts
 - i. Part I - Techno -Commercial Bid & Pre-Qualification Requirement,
 - ii. Part II - Price Bid
4. **The Quotation should be from the Principal / Original Manufacturer, failing which the quotation is likely to be ignored. In Case the quotation is submitted through agent, the quotation must accompany original authorization letter and following to be followed-**
 - a. Either the agent could bid on behalf of the manufacturer/ supplier or the manufacturer/ supplier could bid directly but not both.
 - b. In case bids are received from both the manufacturer/ supplier and the agent, bid received from the agent shall be ignored.
 - c. The agent shall not be allowed to represent more than one manufacturer/ supplier in the same tender.

The authorization letter from the manufacturer, clearly indicating contact details like Name, E-mail & address of manufacturer and relationship with agent and its validity to be submitted with bid. The authorization letter should be tender specific. In case order is to be placed and executed by the agent, the following aspects are to be ensured-

- a. The manufacturer should meet the PQR requirements as defined in the tender.
 - b. In order to establish capability of agent to execute the order, the agent should have annual turnover of at least equal to the estimated value of the goods required under the subject tender during one Financial Year and Net worth of the bidder (agent) should be positive.
 - c. Manufacturer and bidder should jointly confirm Guarantee for the Quality of product and timely delivery as stipulated in NIT.
5. Documents submitted with the offer/bid by the bidder shall be signed and stamped in each page by authorized representative of the bidder. In case the bid is submitted by FAX, the bidder shall simultaneously ensure submission of signed and stamped (in each page) original bid to BHEL. If the documents are received in soft form, the same should be transmitted through vendor's authorized e-mail followed by the signed and stamped copy of the same documents. Documents not signed and stamped in each page by the authorized signatory of the bidder, shall not be accepted and considered for evaluation of the bid.
6. Any corrections / amendments shall be properly & fully authenticated with signature. No overwriting is acceptable.
7. Part-I containing Techno-Commercial bid & Pre-Qualification Requirement will be opened on the date and time specified in the tender notice in the presence of those vendors who wish to attend.
8. Part-II (Price Bids) along with supplementary price bids, if necessary, will be opened at a later date of only those bidders whose techno-commercial bid has been found acceptable.
9. Suitability of delivery shall be the important criteria for evaluation of techno commercial bid.
10. Currency exchange rate will be applicable on the date of opening of Part-I (Techno-commercial Bid) for evaluation purpose.
11. **Evaluation of Bid: - The bid shall be evaluated**
 - a. **Cost to BHEL basis. (Basic Cost + Insurance + Inspection + Transportation + Duty + Taxes)**
 - b. **The loading, if any, on account of LD penalty, payment terms or any other cost determined at later stage, which shall be communicated to the vendor.**
12. Tenders when finalized shall be in the name of the bidder only and change of name during tender evaluation (without certificate from registrar of company) and after submission of the tender is liable to make the offer ineligible for participation.
13. All test certificates / Guarantee certificates to be submitted in TRIPLICATE along with dispatch documents.

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14. BHEL reserves the right to open the price bid (part-II) along with the opening of techno-commercial offer at its option and in that case vendor will be informed accordingly.
15. **BHEL reserves the right to go for reverse auction. Vendors are requested to give their best price. In case of failure of reverse auction the paper bid shall be processed. 'Guidelines for Reverse Auction are available at following link**
http://www.bhel.com/vender_registration/vender.php
16. Total weight--/Gross/Net in Kg & also package size essentially should be indicated if not exact then approximate.
17. BHEL will evaluate the technical bids against essential criteria/requirements. BHEL may seek clarifications, if required, from the qualified bidders only. These clarifications will be communicated to the eligible vendors. **The offers of those bidders, who are unable to respond in specified time frame, are likely to be ignored.**

Note: Please visit our site www.bhelhwr.co.in for General Instructions and Standard Terms & Conditions (GISTC) for Tender Enquiries for Indian & Foreign Vendor. All the bidders / vendors must ensure compliance of latest GISTC.

GISTC are available in following link

<https://www.bhelhwr.co.in/bhelweb/Gistc.jsp>

IN CASE YOU ARE NOT MAKING AN OFFER AGAINST THIS ENQUIRY, THEN PLEASE ARRANGE TO SEND A LETTER OF REGRET.

DETAILS OF COMPOSITION OF PART-I (TECHNO-COMMERCIAL BID) & PART-II (PRICE BID)

PART-I (TECHNO-COMMERCIAL BID) shall comprise of following documents:

- a. Confirmation to Minimum Qualification Requirement and Quality Requirement as per Annexure-II.
- b. Complete technical offer as per specification, drawings, technical requirement along with un-priced bid.
- c. Delivery schedule.
- d. Inspection charges by LRS/TUV/BV separately for foreign vendors.
- e. Validity of offer for 90 days to be indicated.
- f. Deviation with reference to specification/drawing, if any, should be clearly indicated on a separate sheet.**
- g. Details of activity outsourced.
- h. Endorsed Quality Plan (Quality Plan placed at Annexure- IV).

PART -II (Price Bid)

- a. Price bid with prices to be submitted as part-II of the tender.
- b. Prices should remain firm till the execution of the order.
- c. **In case of foreign vendors, Bidders need to quote their prices on CFR any sea port in Mumbai in Euro/USD/JPY/UK Pound/SF/Singapore Dollar or any other internationally freely tradable currency only.** The name of the currency should be clearly indicated in your bids.

Offers received other than CFR basis may result in non-consideration of such bids. However, if BHEL agrees to accept the CFR / FOB condition, to arrive at landed cost at our plant/site, loading shall be done as per latest GISTC.

In case of Indigenous vendor, prices may be quoted on FOR- Destination- Store-HEEP-BHEL basis. In case BHEL accepts the EX-Works prices such offers will be loaded by 1.5% of EX-Works value towards freight or with actual freight charges as per BHEL freight rate contract whichever is higher.

Insurance – Marine in case of foreign vendor & inland in case of Indigenous vendor shall be taken care by BHEL.

- d. **Prices are to be written in both Figures & Words. In case of any difference between the two, the figure written in words shall be considered for evaluation. No over writing in this is acceptable.**
- e. Penalty for Late Deliveries shall be applicable @0.5% per week or part thereof on the value of respective delayed supplies subject to a maximum of 10% of the value of respective delayed supplies. In case of any variation in LD penalty, your prices shall be loaded to the extent LD penalty not accepted by you.

MARKING OF ENVELOPE:

- Each envelope is to be super scribed as “TENDER FOR (ITEM NAME) AGAINST TENDER NO. **F/F219/9/4258/K1** DUE ON **07.03.2020**.
- Those vendors who are quoting for more than one tender must submit a statement in the envelopes of all those tenders giving details of all the tenders being quoted.
- Techno-Commercial & Pre-Qualification Requirement document- Part-I to be kept in envelop – **Envelop-A** & to be marked as Techno-Commercial Offer.
- Price Bid – Part-II to be kept in another envelop – **Envelop-B** & to be marked as Price Bid.
- Envelop-A & Envelop-B are to be kept in one envelop super scribed as above

ANNEXURE-I**Item Details and Delivery Schedule**

Tender No.	Item Description	Mat. Code	Size (mm)	Qty. (Kg)	Delivery
F/F219/9/4258/K1	Austenitic Alloy Steel Bar Grade X40MnCrN19K Specification- HW10784 Rev: 03 Grade- ST-X40MNCRN19K	HW1070284050	Dia- 36, L= 6200	1188	30.06.2020

Remarks-

1. Quantity tolerance $\pm 10\%$ acceptable.
2. Material Code HW1070284050 i.e. Dia- 36 mm to be supplied in fixed length L= 6200 mm. Minimum 24 pieces of the item required. Length tolerance +10/-0 mm per piece is acceptable.
3. Comparative Statement will be evaluated on item wise basis after combining DEEC and PI Quantity.
4. Risk purchase clause shall be applicable. If you do not confirm this in your offer, then it shall be presumed to be acceptable and no further confirmation will be taken after opening of techno-commercial bid part- 1.
5. After placement of order vendor should submit their invoices against goods and services immediately after supply of goods & services but not later than 30 days from the invoice date. In case of any delay, consequential losses like loss of input credit and non-availability of concessional forms etc., shall be to the vendor account.
6. Penalty for Late Deliveries shall be applicable @0.5% per week or part thereof on the value of respective delayed supplies subject to a maximum of 10% of the value of respective delayed supplies.
7. NOTE: THE QUANTITY INDICATED ABOVE CAN BE INCREASED/ DECREASED.

ANNEXURE-II

Pre- Qualification Requirements

➤ Technical Requirements-

Below points (1 to 4) are mandatory qualification requirements. Offers of vendors not meeting these requirements will not be considered:

Sl. No.	Technical Requirement	Vendor's confirmation (Y/N)																								
01	Vendor must have experience of manufacturing and supplying bars (round/flat) of material grade X40MnCrN19 (material number 1.3813) with material properties comparable to enquiry specification HW10784. Details of experience for material grade X40MnCrN19 is to be submitted preferably in the format given below: <table><tr><th>Sl. No</th><th>Name of customer</th><th>Purchase order No</th><th>Dimensions</th><th>Year of supply</th><th>Quantity</th></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> At least one test certificate covering chemical composition, mechanical properties, non-destructive test report and dimension reports from the above purchase order to be submitted with offer in support of experience.	Sl. No	Name of customer	Purchase order No	Dimensions	Year of supply	Quantity																			
Sl. No	Name of customer	Purchase order No	Dimensions	Year of supply	Quantity																					
02	Manufacturing Facilities: a) Vendor must have at least any one of the following manufacturing facilities in house - Rolling/forging/cold drawing and heat treatment facilities. or - Steel melting facility b) Details of in house facilities and facilities outsourced to be submitted covering steel melting/rolling/forging/cold drawing/heat treatment facility details. c) For manufacturer not having in house steel melting facility, vendor to submit at least one mill test certificate of material grade X40MnCrN19 of their sub supplier.																									
03	Vendor to confirm it has adequate testing facilities to carry out tests as per HW10784 Rev 03. Details of in house testing facilities are to be submitted. In case of outsourcing, testing shall be carried out at Government accredited labs only.																									
04	Vendor to confirm that they will meet all the requirements of BHEL specification HW10784, Rev 03.																									
Note- 1. This is applicable for both registered as well as un-registered vendors.																										

➤ Quality Requirements-

Sl. No.	Quality Requirement	Vendor's confirmation (Y/N)
01	Inspection by Third Party Inspection Agency (LRS/TUV/BV) for import and BHEL nominated agency 'BVIL' as per quality plan "QA/CF/QP/365, Rev: 00"	
Note- This is applicable for both registered as well as un-registered vendors.		

Signature with stamp

Name:

Name of Firm:

Designation:

Date:

ANNEXURE-III

(Specification)

दिनांक एवं हस्ताक्षर SIGN & DATE		संस्थान क्रय विनिर्देश (डीप - ठरिह्वार)		HW 10784																
		PLANT PURCHASE SPECIFICATION (HEEP - HARDWAR)		पृष्ठ का Page 1 of 4																
सामग्री सूची संख्या को अधिकारिक करता है TLV9384/01	SL/REVISIONS Nov. 2002	AUSTENITIC ALLOY STEEL BAR (ROUNDS & FLATS) (X 40 MnCrN19K)																		
1. GENERAL: This specification governs the requirements of cold drawn steel bars of grade X40MnCrN19K (Material No.: 1.3813) round and flats.																				
2. APPLICATION: The steel bar shall be used for manufacture of tension bolts, press fingers etc.																				
3. DIMENSIONS & TOLERANCE: 3.1 The dimensions of the bar shall be stated on the order. 3.2 The tolerances shall be as per Annexure - I.																				
4. MANUFACTURE: The bars can either be rolled or forged provided that the required mechanical properties in cold drawn condition are fulfilled.																				
5. CHEMICAL COMPOSITION: The material shall conform to the chemical composition shall be as follows:																				
<table border="1"> <thead> <tr> <th>Carbon</th> <th>Silicon</th> <th>Manganese</th> <th>Chromium</th> <th>Nitrogen</th> <th>Sulphur</th> <th>Phosphorus</th> </tr> </thead> <tbody> <tr> <td>0.30-0.50</td> <td>≤ 0.50</td> <td>18.0-20.0</td> <td>3.00-5.00</td> <td>0.080-0.120</td> <td>≤ 0.015</td> <td>≤ 0.050</td> </tr> </tbody> </table>							Carbon	Silicon	Manganese	Chromium	Nitrogen	Sulphur	Phosphorus	0.30-0.50	≤ 0.50	18.0-20.0	3.00-5.00	0.080-0.120	≤ 0.015	≤ 0.050
Carbon	Silicon	Manganese	Chromium	Nitrogen	Sulphur	Phosphorus														
0.30-0.50	≤ 0.50	18.0-20.0	3.00-5.00	0.080-0.120	≤ 0.015	≤ 0.050														
6. MECHANICAL PROPERTIES: A hardness test shall be performed to verify the uniformity of the strength within a delivery lot (per melt and heat treatment batch). The test amount shall be 10% of the bars with a minimum of 10 bars. When the lot consists of less than 10 bars all bars shall be tested. The mechanical properties are to be determined on both the hardest and softest bar for each melt and heat treatment batch. The specimen is to be taken in longitudinal direction from centre of the bars. 0.2% Proof stress and tensile strength shall be determined on each and every cross-section.																				
हस्ताक्षर एवं दिनांक SIGN & DATE 21.5.10	सामग्री सूची संख्या INVENTORY NO. P-2230	TSX B. CHOUDHARY IPSC V.K. Chauhan STE D.R. Kary QAX N.K. Manwani	अनुवादक TRANSLATED BY निर्माणकर्ता WORKED BY जांचकर्ता CHECKED BY पर्यवेक्षणकर्ता SUPERVISED BY	नाम NAME SKumar Ashish JP MEENA	दिनांक एवं हस्ताक्षर SIGNATURE & DATE 21/5/10 21/5/10 18/5/10	सहमत विभाग AGREED DEPTT. नाम NAME दिनांक एवं हस्ताक्षर DATE & SIGNATURE														
स्वीकृति : संस्थान मानक समिति APPROVED : PLANT STANDARDS COMMITTEE				G.No 260																
Rev. 03 DATE: 01/05/10				निर्माण : PREPARED : MTE जारी : मानक विभाग ISSUED : STANDARDS DIVISION दिनांक : DATE : 24.3.81																

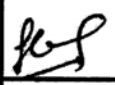
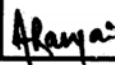
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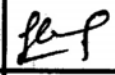
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स्वातंत्र्यकार एवं गोपनीय

इस प्रलेख में दी गई सूचना भारत हेवी इलेक्ट्रिकल्स की सम्पत्ति है इस्का प्रयोग एवं अप्रत्यक्ष रूप से किसी भी तरह प्रयोग, जो कि कंपनी के हित में हानिकारक हो न किया जाए।

रिनक एवं हस्ताक्षर SIGN & DATE			संस्थान क्रय विनिर्देश (डीएम - हरिद्वार) PLANT PURCHASE SPECIFICATION (HEEP - HARDWAR)		HW 10784 पृष्ठ का Page 2 of 4	
सुपरसेडिड INVENTORY NO. सामग्री सूची संख्या को अधिकृतित करना है		Following properties shall be achieved at room temperature: 0.2 % Proof Stress: $\geq 500 \text{ N/mm}^2$ Tensile Strength: $850 - 1250 \text{ N/mm}^2$ Elongation ($l_0=5d$) (%): $\geq 20\%$ Reduction in area: $\geq 35\%$ Impact Energy (J): $\geq 90^*$ Hardness (HB30): $260 - 360$ *Average of 3 Charpy V-notch specimens				
COPYRIGHT AND CONFIDENTIAL The information on this documents is the property of Bharat Heavy Electrical Limited. It must not be used directly or indirectly in any way detrimental to the interest of the company		7. NON DESTRUCTIVE TEST: 7.1 Scope of inspection: Following NDT shall be performed in delivery condition for all bars • Verification Test • Complete ultrasonic inspection (UT) according to EN 10308 type 1a-1c (table1) • Liquid penetrate test according to EN 10228-2 or according to any other technique that guarantees achieving the requested registration and decision criteria 7.2 Criteria for Registration and decision. 7.2.1 UT Inspection Regarding UT inspection quality class 3 according to EN 10308 (table 3) shall be the acceptable norms. The decision limit for loss of back wall echo is 3 dB for all bar dimensions. Any linear or surface- like in homogeneity larger than 10mm in any direction is not accepted. 7.2.2 Surface crack inspection Quality class 4 according to EN 10228-2 (table 1) shall be applied.				
स्वतंत्राधिकार एवं गोपनीय इस प्रलेख में की गई सूचना भारत के वी इलेक्ट्रिकल्स की सम्पत्ति है इसका प्रलेख एवं अवस्था काय से किसी भी तरह प्रयोग, जो कि कंपनी के हित में हानिकारक हो न किया जाए।		8.0 TEST CERTIFICATES: The supplier shall furnish four copies of test certificates unless and otherwise stated on the order. 8.1 BHEL'S Reference Purchase Order Specification Number 8.2 Supplier's Reference: Name or emblem of the supplier Material Designation Melt No. Steel melting process Complete detail of heat – treatment 8.3 Results of Testing 8.3.1 Chemical Analysis 8.3.2 Mechanical Properties. All individual values are to be given. 8.3.3 Type and results of non-destructive testing and final surface inspection. 8.3.4 Verification test Confirmation				
हस्ताक्षर एवं रिनक SIGN & DATE 21-5-10						
सामग्री सूची संख्या INVENTORY P-2230		Rev 03	निर्माणकर्ता WORKED BY SKumar	जांचकर्ता CHECKED BY JPMeeana		17/5/10 

दिनांक एवं हस्ताक्षर SIGN & DATE		संस्थान क्रय विनिर्देश (डीप - हार्डवयर) PLANT PURCHASE SPECIFICATION (HEEP - HARDWAR)	HW 10784 पृष्ठ का Page 3 of 4	
सामग्री सूची संख्या INVENTORY NO.	सुपेक्सेड INVENTORY NO.	8.4 <u>Dimensional Results:</u> 8.4.1 Diameter, Length, Straightness of rounds. Length, Width, Height, Straightness, and Twist of flats. 8.4.2 100% dimensional checking by supplier and reporting 10% for actual dimension in TC. 9. CLEARANCE FOR DELIVERY: The total results of all the tests carried out are decisive for clearance for delivery. BHEL evaluates the total results taking into consideration the intended use of material and examines accordingly the permissibility of deviation (if any) from the specified properties. The clearance, however, does not relieve the supplier of his responsibilities for the hidden/ unreported non-permissible defects which are found at latter. 10.0 PACKING AND MARKING: 10.1 All bars shall be marked with the supplier's identification, material designation and melt number. The marking shall be clearly punched and bordered with oil paint. 10.2 The bars shall be suitably packed and protected against corrosion and damage during transportation. 11.0 CROSS REFERRED STANDARD: EN 10228 -2, EN 10308		
COPYRIGHT AND CONFIDENTIAL The information on this document is the property of Bharat Heavy Electrical Limited. It must not be used directly or indirectly in any way detrimental to the interest of the company.				
स्वत्वाधिकार एवं गोपनीय इस प्रलेख में दी गई सूचना भारत भारती इलेक्ट्रिकल्स की संपत्ति है इसका प्रयोग एवं अप्रत्यक्ष रूप से किसी भी तरह प्रयोग, जो कि कंपनी के हित में हानिकारक हो न किया जाए।				
सामग्री सूची संख्या INVENTORY	दिनांक SIGN & DATE	Rev 03		
सामग्री सूची संख्या INVENTORY	दिनांक SIGN & DATE	निर्माणकर्ता WORKED BY	SKumar	
सामग्री सूची संख्या INVENTORY	दिनांक SIGN & DATE	जांचकर्ता CHECKED BY	Ashish	5.5.10 

दिनांक एवं दस्तावेज SIGN & DATE		संस्थान क्रय विनिर्देश (डीप - हार्डवयर)		HW 10784																					
		PLANT PURCHASE SPECIFICATION (HEEP - HARDWAR)		पृष्ठ का Page 4 of 4																					
सामग्री सूची संख्या को SUPERSEDES INVENTORY NO.	Annexure-I																								
I. FOR ROUND BARS:																									
1. Tolerance on round bars shall be as follows:																									
<table border="1"> <thead> <tr> <th>DIAMETER (MM)</th> <th>PERMISSIBLE TOLERANCE</th> </tr> </thead> <tbody> <tr> <td>UPTO 1.6</td> <td>-0.050</td> </tr> <tr> <td>1.7 to 3.0</td> <td>-0.060</td> </tr> <tr> <td>3.2 to 6.0</td> <td>-0.075</td> </tr> <tr> <td>6.3 to 10.0</td> <td>-0.090</td> </tr> <tr> <td>10.3 to 18.0</td> <td>-0.110</td> </tr> <tr> <td>18.3 to 30.0</td> <td>-0.130</td> </tr> <tr> <td>32.0 to 50.0</td> <td>-0.160</td> </tr> <tr> <td>52.0 to 80.0</td> <td>-0.190</td> </tr> <tr> <td>85.0 to 120.0</td> <td>-0.220</td> </tr> </tbody> </table>						DIAMETER (MM)	PERMISSIBLE TOLERANCE	UPTO 1.6	-0.050	1.7 to 3.0	-0.060	3.2 to 6.0	-0.075	6.3 to 10.0	-0.090	10.3 to 18.0	-0.110	18.3 to 30.0	-0.130	32.0 to 50.0	-0.160	52.0 to 80.0	-0.190	85.0 to 120.0	-0.220
DIAMETER (MM)	PERMISSIBLE TOLERANCE																								
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2. TOLERANCE ON STRAIGHTNESS: ± 0.50 mm/ Meter																									
II. FOR FLAT BARS :																									
1. Tolerance on flat bars shall be as follows: :																									
<table border="1"> <thead> <tr> <th>SIZE (mm)</th> <th>WIDTH (mm)</th> <th>HEIGHT (mm)</th> <th>LENGTH (mm)</th> </tr> </thead> <tbody> <tr> <td>42X25</td> <td>25$\pm$0.5</td> <td>42$\pm$1</td> <td>630(+10,-0)</td> </tr> </tbody> </table>						SIZE (mm)	WIDTH (mm)	HEIGHT (mm)	LENGTH (mm)	42X25	25 $\pm$ 0.5	42 $\pm$ 1	630(+10,-0)												
SIZE (mm)	WIDTH (mm)	HEIGHT (mm)	LENGTH (mm)																						
42X25	25 $\pm$ 0.5	42 $\pm$ 1	630(+10,-0)																						
2. TOLERANCE ON STRAIGHTNESS : ± 0.25 mm/ Meter																									
3. TWISTING TOLERANCE : ± 0.25 mm/ Meter																									
COPYRIGHT AND CONFIDENTIAL The information on this document is the property of Bharat Heavy Electrical Limited. It must not be used directly or indirectly in any way detrimental to the interest of the company.																									
स्वत्वाधिकार एवं गोपनीय इस प्रलेख में दी गई सूचना भारत भारती इलेक्ट्रिकल्स की संपत्ति है इसका प्रयोग एवं अप्रत्यक्ष रूप से किसी भी तरह प्रयोग, जो कि कंपनी के हित में हानिकारक हो न किया जाए।																									
दिनांक SIGN & DATE	21-8-10																								
सामग्री सूची संख्या INVENTORY	P-2230																								
Rev 03		निर्माणकर्ता WORKED BY	SKumar		5.5.10																				
		जांचकर्ता CHECKED BY	Ashish		5.5.10																				

ANNEXURE-IV
(Quality Plan)

MANUFACTURER'S NAME AND ADDRESS			QUALITY PLAN				TO BE FILLED BY BHEL			TO BE FILLED BY BHEL			
BHEL	VENDOR'S NAME	ITEM	AUSTENITIC ALLOY STEEL BAR		QP NO.	QA/CF/QP/365							
				REV	00								
		DRG. NO./ SIZE	AS PER PO										
		SPEC.	HW10784										
		REV	03		Page 1 of 1								
SL. NO.	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORDS		AGENCY			REMARKS
									D	M	B	N	
1	2	3	4	5	6	7	8	9		10			11

1	MELTING & REFINING	CHEMICAL COMPOSITION	MAJOR	SPECTRO ANALYSIS	EACH HEAT	HW10784	HW10784	TC	√	P	V		
2	HOT FORGING / ROLLING					AS PER VENDOR'S PRACTICE				P	-		
3	HEAT TREATMENT	TIME & TEMPERATURE	MAJOR	HT GRAPH	100%	AS PER VENDOR'S PRACTICE				P	-		
4	HARDNESS TEST	HARDNESS	MAJOR	HARDNESS	AS PER SPEC	HW10784	HW10784	TC	√	P	W		
5	MECHANICAL TESTING	0.2% PROOF STRESS TENSILE STRENGTH ELONGATION REDUCTION IN AREA IMPACT TEST	MAJOR	MECHANICAL	ON BARS WITH MAX. & MIN HARDNESS PER HEAT PER HT BATCH	HW10784	HW10784	TC	√	P	W		
6	NDT	SURFACE DEFECTS	MAJOR	DPT	100%	HW10784	HW10784	TC	√	P	W	*	*10%
		INTERNAL DEFECTS	MAJOR	ULTRASONIC TEST	100%	HW10784	HW10784	TC	√	P	W	*	*10%
7	VERIFICATION TEST	CHEMISTRY	MAJOR	PMI	100%	HW10784	HW10784	TC	√	P	W	*	*10%
8	VISUAL & DIMENSIONAL CHECK	VISUAL & DIMENSIONS	MAJOR	VISUAL & MEASURE	100%	HW10784 & PURCHASE ORDER	HW10784 & PURCHASE ORDER	TC	√	P	W	*	*10%
9	MARKING AND PACKING		MAJOR	VISUAL	100%	HW10784	HW10784			P	-		

Aganwal
04/02/2020
Sugandh Aganwal

MANUFACTURER/SUBCONTRACTOR	LEGEND: ! RECORDS IDENTIFIED WITH 'TICK' SHALL BE ESSENTIALLY INCLUDED BY CONTRACTOR IN QA DOCUMENTATION. M: MANUFACTURER / SUBCONTRACTOR B: BHEL / NOM. INSPECTION AGENCY N: CUSTOMER INDICATE 'P' PERFORM 'W' WITNESS AND 'V' VERIFICATION ALL 'W' INDICATED IN COLUMN 'N' SHALL BE 'CHP' OF CUSTOMER	FOR CUSTOMER USE	
		APPROVED BY	

ANNEXURE-V
(Risk Purchase Clause)

Risk Purchase Clause

In case of abnormal delays (beyond the maximum late delivery period as per Penalty clause) in supplies / defective supplies or non-fulfilment of any other terms and conditions given in Purchase Order, BHEL may cancel the Purchase Order in full or part thereof, and may also make the purchase of such material from elsewhere / alternative source at the risk and cost of the supplier. BHEL will take all reasonable steps to get the material from alternate source at optimum cost. If bidder does not agree to the above Risk Purchase Clause, BHEL reserves the right to reject the offer. In case for compelling reasons BHEL accepts the offer without acceptance of this clause by the bidder and in the eventuality of Risk Purchase, appropriate action will be taken as per BHEL extant rules. This will be without prejudice to any other right of BHEL under the contract.

Risk & Cost Clause, in line with Conditions of Contract may be invoked in any of the following cases:

1. Contractor/ supplier's poor progress of the work vis-à-vis execution timeline as stipulated in the Contract, backlog attributable to contractor/ supplier including unexecuted portion of work/ supply does not appear to be executable within balance available period (#) considering its performance of execution.
2. Withdrawal from or abandonment of the work by contractor before completion of the work as per contract.
3. Non completion of work/ Non-supply by the Contractor/ supplier within scheduled completion/delivery period as per Contract or as extended from time to time, for the reason attributable to the contractor/ supplier.
4. Termination of Contract on account of any other reason (s) attributable to Contractor/ Supplier.
5. Assignment, transfer, subletting of Contract without BHEL's written permission resulting in termination of Contract or part thereof by BHEL.
6. Non-compliance to any contractual condition or any other default attributable to Contractor/ Supplier.

#In-case inputs from BHEL/Customer are likely to be delayed or are actually delayed, this delay may also be taken into account while considering balance period available for execution of Contract.

Risk and Cost against Balance Work:

Risk & Cost Amount= $[(A-B) + (A \times H/100)]$

Where,

A= Value of Balance scope of Work/ Supply (*) as per rates of new contract

B= Value of Balance scope of Work/ Supply (*) as per rates of old contract being paid to the contractor/ supplier at the time of termination of contract i.e. inclusive of PVC & ORC, if any.

H = Overhead Factor to be taken as 5

In case (A-B) is less than 0 (zero), value of (A-B) shall be taken as 0 (zero).

***(Balance scope of work/ supply)**

Difference of Contract Quantities and Executed Quantities as on the date of issue of Letter for 'Termination of Contract', shall be taken as balance scope of Work/ Supply for calculating risk & cost amount.

Contract quantities are the quantities as per original contract. If, Contract has been amended, quantities as per amended Contract shall be considered as Contract Quantities.

Items for which total quantities to be executed have exceeded the Contract Quantities based on drawings issued to contractor from time to time till issue of Termination letter, then for these items total Quantities as per issued drawings would be deemed to be contract quantities.

Substitute/ extra items whose rates have already been approved would form part of contract quantities for this purpose. Substitute/ extra items which have been executed but rates have not been approved, would also form part of contract quantities for this purpose and rates of such items shall be determined in line with contractual provisions.

However, increase in quantities on account of additional scope in new tender shall not be considered for this purpose.

NOTE: In case portion of work is being withdrawn, contract quantities pertaining to portion of work withdrawn shall be considered as 'Balance scope of work/supply' for calculating Risk & Cost amount.

LD against delay in executed work/supply in case of Termination of Contract

LD against delay in executed work/supply shall be calculated in line with LD clause of the contract for the delay attributable to contractor/ supplier. For this purpose, contract value shall be taken as Executed Value of work/supply for the purpose of limiting maximum LD value.

Method for calculation of "LD against delay in executed work/supply" is given below.

- i. Let the time period from scheduled date of start of work till termination of contract excluding the period of Hold (if any) not attributable to contractor/ supplier= T1
- ii. Let the value of executed work/supply till the time of termination of contract= X
- iii. Let the Total Executable Value of work/supply for which inputs/fronTS were made available to contractor/ supplier and were planned for execution till termination of contract = Y
- iv. Delay in executed work/supply attributable to contractor/supplier i.e.
$$T2 = \left(1 - \frac{X}{Y}\right) \times T1$$
- v. LD shall be calculated in line with LD clause of the Contract for the delay attributable to contractor/ supplier taking "X" as Contract Value and "T2" as delay attributable to contractor/ supplier.

Note: In case portion of work/supply is withdrawn, no LD shall be applicable for portion of work/supply withdrawn.

ANNEXURE- VI

Certificate by Chartered Accountant on letter head

This is to Certify that M/s
(hereinafter referred to as 'company') having its registered office atis
registered under MSMED Act 2006, (Entrepreneur Memorandum No (Part- II)
.....dtd:.....,
Category:.....(Micro/Small).(copy enclosed).

Further verified from the Books of Accounts that the investment of the company as
on dateas per MSMED Act 2006 is as follows:

1. **For Manufacturing Enterprises:** Investment in plant and machinery (i.e. original cost excluding land and building and the items specified by the Ministry of Small Scale Industries vide its notification No. S.O.1722(E) dated October 5, 2006:
Rs.....Lacs
2. **For Service Enterprises:** Investment in equipment (original cost excluding land and building and furniture, fittings and other items not directly related to the service rendered or as may be notified under the MSMED act, 2006:
Rs.....Lacs

(Strike off whichever is not applicable)

The above investment of RsLacs is within permissible limit of Rs..... Lacs for
.....micro / small (Strike off which is not applicable) Category under MSMED Act 2006.

Or

The company has been graduated from its original category (Micro / Small) **(Strike off whichever is not applicable)** and the date of graduation of such enterprises from its original category is
(dd/mm/yyyy) which is within the period of 3 years from the date of graduation of such enterprises from its original category as notified vide S.O. No. 3322(E) dated 01.11.2013 published in the gazette notification dated 04.11.2013 by Ministry of MSME.

Date:

(Signature)

Name-

Membership Number-

Seal of Chartered Accountant