



BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)
HIGH PRESSURE BOILER PLANT
PURCHASE DEPARTMENT - FOSSIL BOILERS
THIRUCHIRAPALLI - 620014
TAMILNADU (INDIA)

PHONE :2577419
GRAMS : BHARATELEC
FAX NO: 2520719
E-mail: cmuthuvel@bheltry.co.in
Web:

429-002/A

	Enquiry No 1901500151 - 27	Enquiry Date 07.07.2015	Due Date for Quotation 31.07.2015
<p>Please quote Enquiry No, Date and due date in all correspondences. This is only a request for quotation and not an order. Bid should be submitted in two parts. 1.Techno-commercial bid (Part-I) and 2.Price bid(Part-II) in a separate sealed cover and both covers must be placed in a third cover and sealed. Our Enquiry No., Enq. date & Enq. Due date must be written on all three covers.</p>			

Item	Description	Unit	Quantity	Delivery Quantity	Schedule Date
10	412402406000 HSFG BOLTS & NUTS M24X60 GRADE 8.8- TDC:5:211 Rev 02	NO	7800.000	7,800.00	30.09.15
20	412402417000 HSFG BOLTS & NUTS M24X170 GRADE 8.8- TDC:5:211 Rev 02	NO	30000.000	30,000.00	30.09.15
30	412402419000 HSFG BOLTS & NUTS M24X190 GRADE 8.8- TDC:5:211 Rev 02	NO	17000.000	17,000.00	30.09.15
40	412412009000 HSFG BOLTS & NUTS M20X90 GRADE 10.9- TDC:5:211 Rev 02	NO	500.000	500.00	30.09.15
50	412412011000 HSFG BOLTS & NUTS M20X110 GRADE 10.9- TDC:5:211 Rev 02	NO	200.000	200.00	30.09.15
60	412412012000 HSFG BOLTS & NUTS M20X120 GRADE 10.9- TDC:5:211 Rev 02	NO	350.000	350.00	30.09.15
70	412412015000 HSFG BOLTS & NUTS M20X150 GRADE 10.9- TDC:5:211 Rev 02	NO	100.000	100.00	30.09.15
80	412412409000 HSFG BOLTS & NUTS M24X90 GRADE 10.9- TDC:5:211 Rev 02	NO	250.000	250.00	30.09.15
90	412412410000 HSFG BOLTS & NUTS M24X100 GRADE 10.9- TDC:5:211 Rev 02	NO	100.000	100.00	30.09.15
100	412412411000 HSFG BOLTS & NUTS M24X110 GRADE 10.9- TDC:5:211 Rev 02	NO	550.000	550.00	30.09.15

The offers should reach us 30 minutes before the time of opening of tenders. The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening.Late and delayed offers are liable to be rejected.

Yours faithfully,
For BHARAT HEAVY ELECTRICALS LIMITED

MANAGER PURCHASE
(FOSSIL BOILERS)
THIRUCHIRAPALLI



BHARAT HEAVY ELECTRICALS LIMITED

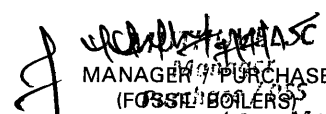
(A Government of India Undertaking)
HIGH PRESSURE BOILER PLANT
PURCHASE DEPARTMENT - FOSSIL BOILERS
THIRUCHIRAPALLI - 620014
TAMILNADU (INDIA)

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PHONE :2577419
GRAMS : BHARATELEC
FAX NO: 2520719
E-mail: cmuthuvel@bheltry.co.in
Web:

1901500151 / 07.07.2015		23505			
110	412412413000 HSFG BOLTS & NUTS M24X130 GRADE 10.9- TDC:5:211 Rev 02	NO	350.000	350.00	30.09.15
120	412412416000 HSFG BOLTS & NUTS M24X160 GRADE 10.9- TDC:5:211 Rev 02	NO	350.000	350.00	30.09.15
130	412412417000 HSFG BOLTS & NUTS M24X170 GRADE 10.9- TDC:5:211 Rev 02	NO	100.000	100.00	30.09.15
140	412413009000 HSFG BOLTS & NUTS M30X90 GRADE 10.9- TDC:5:211 Rev 02	NO	200.000	200.00	30.09.15
150	412413010000 HSFG BOLTS & NUTS M30X100 GRADE 10.9- TDC:5:211 Rev 02	NO	600.000	600.00	30.09.15
160	412413011000 HSFG BOLTS & NUTS M30X110 GRADE 10.9- TDC:5:211 Rev 02	NO	4000.000	4,000.00	30.09.15
170	412413012000 HSFG BOLTS & NUTS M30X120 GRADE 10.9- TDC:5:211 Rev 02	NO	6700.000	6,700.00	30.09.15
180	412413013000 HSFG BOLTS & NUTS M30X130 GRADE 10.9- TDC:5:211 Rev 02	NO	13500.000	13,500.00	30.09.15
190	412413014000 HSFG BOLTS & NUTS M30X140 GRADE 10.9- TDC:5:211 Rev 02	NO	500.000	500.00	30.09.15
200	412413015000 HSFG BOLTS & NUTS M30X150 GRADE 10.9- TDC:5:211 Rev 02	NO	3400.000	3,400.00	30.09.15
210	412413016000 HSFG BOLTS & NUTS M30X160 GRADE 10.9- TDC:5:211 Rev 02	NO	3000.000	3,000.00	30.09.15
220	412413017000 HSFG BOLTS & NUTS M30X170 GRADE 10.9- TDC:5:211 Rev 02	NO	250.000	250.00	30.09.15
230	412413610000 HSFG BOLTS & NUTS M36X100 GRADE 10.9-	NO	100.000	100.00	30.09.15

The offers should reach us 30 minutes before the time of opening of tenders.
The offers will be opened at 14.30 hrs on the due date of tender in the presence of
tenderers who have submitted their offer and who may like to be present for the tender
opening.Late and delayed offers are liable to be rejected.

Yours faithfully,
For **BHARAT HEAVY ELECTRICALS LIMITED**


MANAGER PURCHASE
(FOSSIL BOILERS)
Mats. Veng. Materials
BHEL, Tiruchirappalli - 620 014.



BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)
HIGH PRESSURE BOILER PLANT
PURCHASE DEPARTMENT - FOSSIL BOILERS
THIRUCHIRAPALLI - 620014
TAMILNADU (INDIA)

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240	TDC:5:211 Rev 02 412413613000	NO	800.000	800.00	30.09.15
250	HSFG BOLTS & NUTS M36X130 GRADE 10.9- TDC:5:211 Rev 02 412413614000	NO	300.000	300.00	30.09.15
260	HSFG BOLTS & NUTS M36X140 GRADE 10.9- TDC:5:211 Rev 02 412413615000	NO	300.000	300.00	30.09.15
270	HSFG BOLTS & NUTS M36X150 GRADE 10.9- TDC:5:211 Rev 02 412413617000	NO	8500.000	8,500.00	30.09.15
280	HSFG BOLTS & NUTS M36X170 GRADE 10.9- TDC:5:211 Rev 02 412413620000	NO	20500.000	20,500.00	30.09.15
290	HSFG BOLTS & NUTS M36X200 GRADE 10.9- TDC:5:211 Rev 02 412413621000	NO	7500.000	7,500.00	30.09.15
300	HSFG BOLTS & NUTS M36X210 GRADE 10.9- TDC:5:211 Rev 02 412413623000	NO	11800.000	11,800.00	30.09.15
	HSFG BOLTS & NUTS M36X230 GRADE 10.9- TDC:5:211 Rev 02				

General Note:

THIS ENQUIRY IS A TWO PART BID ENQUIRY.

DELIVERY SCHEDULE:

VENDOR SHOULD ACCEPT FOR THE BHEL DELIVERY SCHEDULE OF 50% ENQUIRY QUANTITY WITHIN 6 WEEKS FROM THE DATE OF P.O AND BALANCE 50% OF THE ENQUIRY QUANTITY WITHIN 10 WEEKS FROM THE DATE OF P.O.

OVERSEAS VENDORS ARE REQUESTED NOT TO QUOTE FOR THIS TENDER.

NEW INDEGENOUS VENDORS ARE REQUESTED COMPLETE THE REGISTRATION FORMALITIES AS MENTIONED IN 3.1.h OF ANNEXURE - A.

All the tenders may be addressed to the following address:

**The Tender Opening Cell / MM
Room No: 26, Building 24, Ground Floor**

The offers should reach us 30 minutes before the time of opening of tenders. The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening.Late and delayed offers are liable to be rejected.

Yours faithfully,
For BHARAT HEAVY ELECTRICALS LIMITED

MUTHUVEL
Manager / PURCHASE
Materials, Fossil Boilers
BHEL, Tiruchirappalli - 620 014.
Yours faithfully



BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)
HIGH PRESSURE BOILER PLANT
PURCHASE DEPARTMENT - FOSSIL BOILERS
THIRUCHIRAPALLI - 620014
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**Bharat Heavy Electricals Limited
TIRUCHIRAPALLI 620014**

In case personal delivery of the offer, it shall be dropped into the respective box kept in Room No: 26, after duly entering the data in the system.

Offers will be accepted only up to 14.00 Hrs on the due date. Therefore, vendors shall ensure to submit the offers well before this time. All due date extension requirements should be addressed to the respective Purchase mail IDs. All the due date extension requests from vendors will be considered only up to 48 hours before the due date and time.

Vendors are requested to avoid submission of offers through e mail / fax. In case of any unavoidable situation, offers shall be sent through e mail to the following mail ID only tender_cell@bheltry.co.in.

As tenders are being opened by Common Tender Opening Cell, offer covers should be sealed with tenderer's distinctive seal and super scribed with correct Tender No. item of supply and due date of opening.

The offers will be opened at 14.30 hrs on the due date of the tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening. Late and delayed offers are liable to be rejected.

Enclosures:

"LD clause has to be confirmed without fail."

The offers should reach us 30 minutes before the time of opening of tenders.
The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening. Late and delayed offers are liable to be rejected.

Yours faithfully,
For BHARAT HEAVY ELECTRICALS LIMITED

M. M. M. M.
MANAGER, PURCHASE
(FOSSIL BOILERS)
Yours Faithfully,
M. M. M. M., *Buy Materials*
BHEL, Tiruchirapalli 620014.

**BHARAT HEAVEY ELECTRICALS LIMITED
TIRUCHIRAPPALLI - 620 014**

ANNEXURE - A

TERMS AND CONDITIONS OF THE ENQUIRY (TWO PART BID)

1. Bidders should primarily be engaged in manufacturing similar item(s) and should have necessary manufacturing facilities to meet BHEL's quality and delivery requirements. Offers from traders / agents will not be considered.
2. The enquiry will be operated on two part bid basis i.e.
 - (I) **Techno - Commercial Bid &**
 - (II) **Price Bid.**
3. The Part - I (Techno - Commercial Bid) and Part - II (Price Bid) are to be submitted in a single envelope with the super scribed as **"Techno - Commercial Bid and Price Bid for Enquiry No: Dt.: Due Dt.:"**

3.1 Techno-Commercial Bid:

- a. Duly signed **Enquiry Document**
- b. Duly signed **Annexure – A**
- c. Duly filled and signed **Annexure – B**
- d. Duly filled and signed **Technical & Quantity Confirmation**
- e. Sample should be submitted along with Techno-Commercial Bid where sample is insisted in the Enquiry, if sample is not received for the Enquiry where BHEL is insisted, that offer will be summarily rejected. If sample is insisted in the enquiry, then the sample should be super scribed with the enquiry sl. no for identification and evaluation. Samples without the identification will not be considered and offer will be rejected.
- f. Duly signed **Annexure – I (for claiming MSE reservation as per S.No.23)**
- g. Duly signed **Unpriced bid.**

NEW VENDORS:-

- h. Bidders who are not currently on registered list of BHEL – HPBP Tiruchirapalli / approved vendors of BHEL – HPBP Tiruchirapalli not registered for 'PFHSB' – HSFG Bolt and Nut group, need to complete the Vendor Registration formalities for Fastners -> TPF9-PFHSB group at <http://supplier.bhel.in>. Filled in forms can be forwarded to, Dy General Manager / SDC / MM / RM, 24 Building, 4th floor, BHEL, HPBP, Trichy – 620014. The registration number provided by BHEL should be mentioned in the offer. Offers received without completing the above vendor registration formalities and without mentioning of the registration number in the offer will be duly rejected.
For any clarifications, please contact arulvijay@bheltry.co.in

You are requested to put the above documents inside a separate sealed envelope and this envelope shall be super scribed as **"Part I – Techno - Commercial bid for Enquiry No: Dt.: Due Dt.:"**

3.2 Price Bid:

- a. Duly signed and filled in Price bid (**Annexure – C**) with price details.

You are requested to put the price bid inside a separate sealed envelope and this envelope shall be super scribed as **"Part II – Price bid for Enquiry No: Dt.: Due Dt.:"**

- 2.3 Each envelope should be sealed with bidder's distinctive seal.
- 2.4 Two or more enquiry quotations should not be sent in single envelop.
- 2.5 Quotation against each enquiry should be sent in a separate envelope to avoid confusion.
- 2.6 Offer should not be addressed to any individual's name.

4. Your offer should be addressed to: **Tender Opening Cell/MM
Room No.26,
24 Building (Ground Floor),
Bharat Heavy Electricals Limited,
Tiruchirappalli - 620 014.**

Mail offers should be addressed to the MAIL ID: tender_cell@bheltry.co.in

Any clarification related to the enquiry should be sent to the MAIL ID: arulvijay@bheltry.co.in

5. The envelop should be correctly super scribed with correct tender no, date and tender due date. Else the quotations will not be included in the respective tenders. BHEL woes no responsibility if the above are complied with.
6. Please submit point wise compliance to our specifications, terms and conditions. Otherwise it will be presumed that you are accepting BHEL's terms and conditions.
7. The offer along with the sample if insisted in the Enquiry should reach our office on or before the due date as mentioned in the enquiry by 14.00 Hrs. Offers received after 14.00 Hrs will not be considered for evaluation and it will be summarily rejected. Offers through Fax will not be accepted. Any techno commercial clarifications/request for tender due date extensions with valid acceptable reasons to be addressed to BHEL prior to 48 hours of tender due date. BHEL reserves the rights to extend the due date as per their discretion.
8. Tender will be opened on the due date as mentioned in the enquiry. If the due date falls on holiday, the tender document will be opened immediately on the next working day.
9. Quoted price/rate should be valid for minimum of 90 days from the date of price bid opening. The quoted/Finalized rates shall be Firm till the completion of the supplies.
10. The rates are to be quoted on F.O.R. destination basis only. It should be inclusive of Packing & Forwarding and Freight & Insurance. Other delivery conditions like Ex-works / Ex-Godown will be summarily rejected.
11. Offers should be **free** from **CORRECTION and ERASURES**.
- Corrections if any must be attested;
 - All amounts shall be indicated both in words as well as in figures.
 - If there is difference between amount quoted in words and figures, amount quoted in words shall only be considered.
 - If, in the price structure quoted for the required goods/services/works, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price with the quantity), the unit price shall prevail and the total price will be corrected accordingly, unless in the opinion of the purchaser that there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price will be corrected accordingly.
 - If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected accordingly.
 - If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject of (d) and (e) above.
12. No revision of prices will be entertained after enquiry is opened.
13. Deviated offers from BHEL delivery schedule, technical specifications will be summarily rejected.
- 14. Payment Terms (Indigenous):**
Payment term is 100% direct payment after 45 days from the date of receipt and acceptance of materials. Any deviation in the above payment term will attract loading as mentioned below.
“Base rate of SBI (as applicable on the date of bid opening. Techno-commercial bid opening in case of two part bids) + 6% shall be considered for loading for the period of relaxation sought by bidders.
Offers with Advance payment / LC / through bank payment will be rejected.

15. Liquidated Damages / Penalty:

(Any deviations in the LD shall attract loading to the extent of relaxation sought to which it is not agreed by the bidder at offered value).

Staggered delivery schedule, if the supplier fails to deliver the quantity of any line item of the P.O within the period specified in that line item, Purchaser shall deduct Liquidated Damages, 0.5% of the undelivered portion per week delay or part thereof subject to maximum of 10% of the total order value.

16. RISK PURCHASE:

Alternatively the purchaser at his option will be entitled to terminate the contract and to purchase elsewhere at the risk and cost of the seller either the whole of the goods or any part which the supplier has failed to deliver or dispatch within the time stipulated as aforesaid or if the same were not available, the best and the nearest available substitutes therefore. The supplier shall be liable for any loss, which the purchaser may sustain by reason of such risk purchases in addition to penalty at the rate mentioned in our LD clause.

17. SALES TAX:

If any sales tax is payable as extra to the quoted price it should be specifically stated in quotations along with CST & VAT Number failing which the purchaser will not be liable for payment of sales tax. Our TIN 33243560005 dt.01.01.2007 & CST no 239383 DT, 11.06.1991.

18. CENVAT CREDIT:

If any Excise Duty is payable, the Chapter Head / Sub -head reference and the rate of the duty should be quoted. If the bidder is availing CENVAT credit for this input material, the effect of Proforma credit should be passed on to the purchaser. Bidder under "CENVAT" shall be preferred.

19. For verification of data submitted towards evaluation of bidder's capability, BHEL may decide to visit the bidder(s) works. Any fact found deviating from the submitted data shall make the bidder liable to be disqualified.

20. On the due date of enquiry opening, only the Techno - Commercial bids will be opened. Techno - Commercial bids will be evaluated by us and clarifications required, if any, will be called for from the bidders on technical and commercial points. The price bids of techno-commercially suitable bidders will be opened on a later date with prior intimation to respective bidders. Test reports by BHEL plant lab shall be final. Evaluation of offers shall be on 'Net Cash Outflow to BHEL basis' per item.

21. Ranking L-1, L-2 etc. shall be done for individual items for the techno-commercially acceptable offers based on the landed cost to BHEL, Trichy and BHEL reserves the right to place order for individual items with different vendors.

22. In the event of more than one vendor becoming L1 for any of the item / items, the enquiry quantity for those item / items will be shared equally among all the L1 vendors and not mentioned in the point no 20 & 21 below.

23. SPECIAL PROVISIONS FOR MICRO AND SMALL ENTERPRISES (MSE) BIDDERS:

- i. 20% of the tendered quantity is earmarked for MSE suppliers in this tender.
- ii. Out of the 20% tendered quantity reserved for MSE suppliers, 4% shall be earmarked for procurement from MSE owned by SC / ST entrepreneurs. In event of failure of such Micro and Small enterprises to participate in the tender process or meet the tender requirements and the L1 price, the 4% sub-target for procurement ear-marked MSE owned by SC / ST entrepreneurs shall be met with other MSE enterprise/s.
- iii. In case MSE vendor participating in the tender quotes within the price band of L1 + 15%, they will be allowed to supply the portion of the requirement subject to acceptance of L1 price by MSE vendor. In case of more than one such MSE, the supply shall be shared proportionately.

- iv. MSE suppliers can avail the intended benefits only if they submit along with the offer, attested copies of either EM II certificate having deemed validity (five years from the date of issue in acknowledgement in EM II) or valid NSIC certificate or EM II certificate along with attested copy of a CA certificate (Format enclosed as per **Annexure I** where deemed validity of EM II certificate of five years have expired) applicable for the relevant financial year (latest audited). Date to be reckoned for determining the deemed validity will be the date of bid opening (Part 1 in case of two part bid). Non submission of such documents will lead to consideration of their bids at par with other bidders. No benefits shall be applicable for the enquiry if any deficiency in the above required documents is not submitted before the price bid opening. If the tender is to be submitted through e-procurement portal, then the above required documents are to be uploaded on the portal. Documents should be notarized or attested by a Gazetted officer. This provision for MSE will apply subject to the condition that the participating MSE meets the tender requirements.
 - v. In case of any change in the MSE status of the bidder, it shall be the responsibility of the bidder to notify the change as a part of the bid document. If at a later date it comes to the knowledge of BHEL, that the change in the status has not been intimated by the bidder and the order is obtained under the premise of an MSE then BHEL would cancel the pending order against this tender and take necessary steps for suspension of the business dealing with the bidder as per the procurement policy of BHEL.
 - vi. In case after the bid opening it is seen that no MSE has become L1, then depending on the nature of the item, if it is not possible to split the tendered items / quantities on account of reasons like customer contract requirements of supplying one make for a given project or technical reasons like tendered items being a system, tendered quantity being low etc., then BHEL would not counter offer the L1 prices even though there may be MSE bidders within the +15% band of L1.
- 24.
- a. 20% of the tendered quantity is earmarked for MSE suppliers in this tender. The earmarked 20% quantity will be counter offered to the MSE vendors whose rate is within L1+15% band & up to H1 of MSE. (In case of non-acceptance of the counter offering of 20% reservation to MSE vendors, the total tender quantity will be ordered in the ratio of 70:30 (between L1 , L2 / L3 at matched L1 F.O.R rate in the order of commercial ranking). The balance tendered quantity will be ordered in the ratio of 70:30 (between L1, L2 / L3 at matched L1 F.O.R rate in the order of commercial ranking. Counter offering of L1 rate will not be made with any H1 vendor of Non-MSE.
 - b. If L1 (or) L2 / L3 is from a Micro / Small enterprise, the 20% earmarking provision is not applicable and order will be split in the ratio of 70:30 (between L1 & L2 / L3 at matched L1 F.O.R rate in the order of commercial ranking).
 - c. If there is no response from MSE vendors the above split up of 24 (a) & 24 (b) will not be applicable and the total tender quantity will be split and ordered in the ratio of 70:30 (between L1 , L2 / L3 at matched L1 F.O.R rate in the order of commercial ranking .
 - d. In case of counter offering rate does not accepted by the L2 as well as L3 vendor, such counter offer quantity also will be ordered on L1 vendor.
25. Lowest price received against BHEL enquiry need not be the technically acceptable one and in that case BHEL reserves the rights to not to consider the same. The purchaser shall be under no obligation to accept the lowest or any other offer and shall be entitled to accept or reject any offer in part or full without assigning any reason whatsoever.
26. BHEL reserves the right to negotiate or re-float the enquiry opened if L1 price is not the lowest acceptable price to them inter-alia other reasons.
27. Any other conditions which might have been quoted by the seller and are in contravention to the terms and prescribed in the enquiry and which have not been specifically accepted by purchaser will not be applicable to the contract.
28. Any corrigendum related to the enquiry will be hosted in the BHEL website only, Bidders should visit the website(s) to keep themselves updated.

29. The correspondence between the bidder and BHEL through email is considered as valid document legally though it is not signed. It is treated as valid confirmations made on behalf of the respective company and comes under the legal ambit of the business transaction and hence binding on both the parties.
30. Bidders participating in the enquiry should declare in their technical bid whether they have been black-listed / kept on hold / given Business holiday for a specified period by any Public Sector Undertaking or Government Departments. The reasons for such action with complete details and the current status of such hold shall be clearly furnished to BHEL. If no such details are mentioned in the offer, it will be construed that the bidder is not under any such hold. However, at a later date if it comes to the notice of BHEL about any such hold under enforcement, BHEL reserves the right to reject the offer at any point of time and also at any stage of the finalization of the enquiry. Such bidders will not be permitted to participate in the further enquiry proceedings and will be communicated suitably.
31. Bidders not confirming to the enquiry specifications will be disqualified.
32. Conditional offers will be rejected.
- 33. PACKING AND MARKING:**
The supplier shall arrange for securely protecting and packing the materials to avoid loss or damages during transit.
34. In case of any quality rejection of materials, the supplier has to collect the materials at his own cost within the 10 days of rejection advice. Otherwise the materials will be scrapped.
35. Unloading at BHEL has to be done by the suppliers and BHEL will not be in a position to provide any handling / unloading facilities.

**BHARAT HEAVEY ELECTRICALS LIMITED
TIRUCHIRAPPALLI - 620 014**

**ANNEXURE –B
COMMERCIAL TERMS**

S. NO	DESCRIPTION	BHEL REQUIREMENTS	SUPPLIER CONFIRMATION / DEVIATION (STRIKEOUT WHICHEVER IS NOT APPLICALE)
1	VALIDITY	90 DAYS FROM DATE OF TENDER OPENING	ACCEPTED / NOT ACCEPTED
2	PRICE QUOTED	FOR-DESTINATION BHEL STORES / TRICHY (INCLUSIVE OF PACKING & FORWARDING AND FREIGHT & INSURANCE). EX-WORKS / EX-GODOWN WILL BE SUMMARILY REJECTED	ACCEPTED / NOT ACCEPTED
3	EXCISE DUTY	SUPPLIER OPTION	INCLUSIVE / EXTRA (IF EXTRA, PLEASE QUOTE % BELOW) _____ %
4	VAT	SUPPLIER OPTION	INCLUSIVE / EXTRA (IF EXTRA, PLEASE QUOTE % BELOW) _____ %
5	CST WITH FORM 'C'	SUPPLIER OPTION	INCLUSIVE / EXTRA (IF EXTRA, PLEASE QUOTE % BELOW) _____ %
6	CST WITHOUT FORM 'C'	SUPPLIER OPTION	INCLUSIVE / EXTRA (IF EXTRA, PLEASE QUOTE % BELOW) _____ %
7	DELIVERY SCHEDULE	SUPPLY 50% QUANTITY WITHIN 6 WEEKS FROM THE DATE OF P.O & BALANCE 50% WITHIN 10 WEEKS FROM THE DATE OF P.O.	ACCEPTED / NOT ACCEPTED
8	PAYMENT TERMS	100% DIRECT PAYMENT AFTER 45 DAYS FROM THE DATE OF RECEIPT AND ACCEPTANCE OF MATERIALS (FOR DETAILS PLEASE READ S.No.14)	ACCEPTED / NOT ACCEPTED
9	LD CLAUSE	AS PER S.NO.15 OF ANNEXURE - A	ACCEPTED / NOT ACCEPTED
10	RISK PURCHASE CLAUSE	AS PER S.NO.16 OF ANNEXURE - A	ACCEPTED / NOT ACCEPTED
11	FIRM PRICE	THE QUOTED/FINALIZED RATES SHALL BE FIRM TILL THE COMPLETION OF THE SUPPLIES	NON DEVIATABLE
12	GUARANTEE	GUARANTEE CERTIFICATE TO BE GIVEN FOR 18 MONTHS FROM THE DATE OF ACCEPTANCE OF MATERIALS	NON DEVIATABLE
13	CONTACT PERSON DETAILS	NAME: MOBILE NO: EMAIL :	
14	BIDDERS HAVE TO CONFIRM THAT WHETHER THEY HAVE BEEN BLACK-LISTED / KEPT ON HOLD / GIVEN BUSINESS HOLIDAY FOR A SPECIFIED PERIOD BY ANY PUBLIC SECTOR UNDERTAKING OR GOVERNMENT DEPARTMENTS/ANY OTHER UNITS OF BHEL. (WITH REFERENCE TO TERMS AND CONDITIONS OF ANNEXURE – A S.No.30)		YES / NO

(BIDDERS SHOULD SUBMIT THEIR OFFER IN THE BHEL FORMAT ONLY, OTHER FORMATS WILL NOT BE CONSIDERED)

SIGN AND SEAL OF AUTHORIZED PERSON

TECHNICAL SPECIFICATION AND QUANTITY CONFIRMATION

MATERIAL CODE	MATERIAL DESCRIPTION	ENQUIRY QUANTITY	QUOTED QTY	IF QUOTED, CONFIRMATION TO SUPPLY THE REQUIRED QUANTITY WITHIN THE BHEL DELIVERY SCHEDULE	IF QUOTED, CONFIRMATION TO SUPPLY AS PER SPECIFICATION
412402406000	HSFG BOLTS & NUTS M24X60 8.8 GRADE TDC/5211/REV02	7800		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412402417000	HSFG BOLTS & NUTS M24X170 8.8 GRADE TDC/5211/REV02	30000		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412402419000	HSFG BOLTS & NUTS M24X190 8.8 GRADE TDC/5211/REV02	17000		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412412009000	HSFG BOLTS & NUTS M20X90 10.9 GRADE TDC/5211/REV02	500		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412412011000	HSFG BOLTS & NUTS M20X110 10.9 GRADE TDC/5211/REV02	200		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412412012000	HSFG BOLTS & NUTS M20X120 10.9 GRADE TDC/5211/REV02	350		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412412015000	HSFG BOLTS & NUTS M20X150 10.9 GRADE TDC/5211/REV02	100		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412412409000	HSFG BOLTS & NUTS M24X90 10.9 GRADE TDC/5211/REV02	250		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412412410000	HSFG BOLTS & NUTS M24X100 10.9 GRADE TDC/5211/REV02	100		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412412411000	HSFG BOLTS & NUTS M24X110 10.9 GRADE TDC/5211/REV02	550		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412412413000	HSFG BOLTS & NUTS M24X130 10.9 GRADE TDC/5211/REV02	350		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412412416000	HSFG BOLTS & NUTS M24X160 10.9 GRADE TDC/5211/REV02	350		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412412417000	HSFG BOLTS & NUTS M24X170 10.9 GRADE TDC/5211/REV02	100		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412413009000	HSFG BOLTS & NUTS M30X90 10.9 GRADE TDC/5211/REV02	200		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412413010000	HSFG BOLTS & NUTS M30X100 10.9 GRADE TDC/5211/REV02	600		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412413011000	HSFG BOLTS & NUTS M30X110 10.9 GRADE TDC/5211/REV02	4000		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412413012000	HSFG BOLTS & NUTS M30X120 10.9 GRADE TDC/5211/REV02	6700		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412413013000	HSFG BOLTS & NUTS M30X130 10.9 GRADE TDC/5211/REV02	13500		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412413014000	HSFG BOLTS & NUTS M30X140 10.9 GRADE TDC/5211/REV02	500		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412413015000	HSFG BOLTS & NUTS M30X150 10.9 GRADE TDC/5211/REV02	3400		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412413016000	HSFG BOLTS & NUTS M30X160 10.9 GRADE TDC/5211/REV02	3000		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412413017000	HSFG BOLTS & NUTS M30X170 10.9 GRADE TDC/5211/REV02	250		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412413610000	HSFG BOLTS & NUTS M36X100 10.9 GRADE TDC/5211/REV02	100		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412413613000	HSFG BOLTS & NUTS M36X130 10.9 GRADE TDC/5211/REV02	800		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412413614000	HSFG BOLTS & NUTS M36X140 10.9 GRADE TDC/5211/REV02	300		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412413615000	HSFG BOLTS & NUTS M36X150 10.9 GRADE TDC/5211/REV02	300		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412413617000	HSFG BOLTS & NUTS M36X170 10.9 GRADE TDC/5211/REV02	4500		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412413620000	HSFG BOLTS & NUTS M36X200 10.9 GRADE TDC/5211/REV02	20500		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412413621000	HSFG BOLTS & NUTS M36X210 10.9 GRADE TDC/5211/REV02	7500		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED
412413623000	HSFG BOLTS & NUTS M36X230 10.9 GRADE TDC/5211/REV02	11800		CONFIRMED / NOT CONFIRMED	CONFIRMED / NOT CONFIRMED

BHARAT HEAVEY ELECTRICALS LIMITED
TIRUCHIRAPPALLI - 620 014

PRICE BID FORMAT

ENQUIRY NO:

DATE:

DUE DATE:

ENQ SL NO	MATERIAL CODE	MATERIAL DESCRIPTION	BASIC PRICE INCLUSIVE OF PACKING & FORWARDING, FREIGHT & INSURANCE AND DISCOUNT	EXCISE DUTY IN %	SALES TAX IN %			OTHER COST IF ANY IN %
					VAT %	CST WITH C FORM %	CST WITHOUT C FORM %	
10	412402406000	HSFG BOLTS & NUTS M24X60 8.8 GRADE TDC/S211/REV02						
20	412402417000	HSFG BOLTS & NUTS M24X170 8.8 GRADE TDC/S211/REV02						
30	412402419000	HSFG BOLTS & NUTS M24X190 8.8 GRADE TDC/S211/REV02						
40	412412009000	HSFG BOLTS & NUTS M20X90 10.9 GRADE TDC/S211/REV02						
50	412412011000	HSFG BOLTS & NUTS M20X110 10.9 GRADE TDC/S211/REV02						
60	412412012000	HSFG BOLTS & NUTS M20X120 10.9 GRADE TDC/S211/REV02						
70	412412015000	HSFG BOLTS & NUTS M20X150 10.9 GRADE TDC/S211/REV02						
80	412412409000	HSFG BOLTS & NUTS M24X90 10.9 GRADE TDC/S211/REV02						
90	412412410000	HSFG BOLTS & NUTS M24X100 10.9 GRADE TDC/S211/REV02						
100	412412411000	HSFG BOLTS & NUTS M24X110 10.9 GRADE TDC/S211/REV02						
110	412412413000	HSFG BOLTS & NUTS M24X130 10.9 GRADE TDC/S211/REV02						
120	412412416000	HSFG BOLTS & NUTS M24X160 10.9 GRADE TDC/S211/REV02						
130	412412417000	HSFG BOLTS & NUTS M24X170 10.9 GRADE TDC/S211/REV02						
140	412413009000	HSFG BOLTS & NUTS M30X90 10.9 GRADE TDC/S211/REV02						
150	412413010000	HSFG BOLTS & NUTS M30X100 10.9 GRADE TDC/S211/REV02						
160	412413011000	HSFG BOLTS & NUTS M30X110 10.9 GRADE TDC/S211/REV02						
170	412413012000	HSFG BOLTS & NUTS M30X120 10.9 GRADE TDC/S211/REV02						
180	412413013000	HSFG BOLTS & NUTS M30X130 10.9 GRADE TDC/S211/REV02						
190	412413014000	HSFG BOLTS & NUTS M30X140 10.9 GRADE TDC/S211/REV02						
200	412413015000	HSFG BOLTS & NUTS M30X150 10.9 GRADE TDC/S211/REV02						
210	412413016000	HSFG BOLTS & NUTS M30X160 10.9 GRADE TDC/S211/REV02						
220	412413017000	HSFG BOLTS & NUTS M30X170 10.9 GRADE TDC/S211/REV02						
240	412413610000	HSFG BOLTS & NUTS M36X100 10.9 GRADE TDC/S211/REV02						
250	412413613000	HSFG BOLTS & NUTS M36X130 10.9 GRADE TDC/S211/REV02						

BHARAT HEAVEY ELECTRICALS LIMITED
TIRUCHIRAPPALLI - 620 014

PRICE BID FORMAT

ENQUIRY NO:

DATE:

DUE DATE:

ENQ SL NO	MATERIAL CODE	MATERIAL DESCRIPTION	BASIC PRICE INCLUSIVE OF PACKING & FORWARDING, FREIGHT & INSURANCE AND DISCOUNT	EXCISE DUTY IN %	SALES TAX IN %			OTHER COST IF ANY IN %
					VAT %	CST WITH C FORM %	CST WITHOUT C FORM %	
260	412413614000	HSFG BOLTS & NUTS M36X140 10.9 GRADE TDC/5211/REV02						
270	412413615000	HSFG BOLTS & NUTS M36X150 10.9 GRADE TDC/5211/REV02						
280	412413617000	HSFG BOLTS & NUTS M36X170 10.9 GRADE TDC/5211/REV02						
290	412413620000	HSFG BOLTS & NUTS M36X200 10.9 GRADE TDC/5211/REV02						
300	412413621000	HSFG BOLTS & NUTS M36X210 10.9 GRADE TDC/5211/REV02						
310	412413623000	HSFG BOLTS & NUTS M36X230 10.9 GRADE TDC/5211/REV02						

SIGN AND SEAL OF AUTHORIZED PERSON

Annexure - I

Certificate by Chartered Accountant on letter head

This is to Certify that M/S.....
(Hereinafter referred to as 'company') having its registered office at.....
is registered under MSMED Act 2006, (Entrepreneur Memorandum No (Part-11) dt.....
Category: (Micro/Small)). (Copy enclosed).

Further verified from the Books of Accounts that the investment of the company as per the
latest audited financial year..... as per MSMED Act 2006 is as follows:

- **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
- **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 Rs..... Lacs 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 which is not applicable) and the date of graduation of such enterprise from its original category is.....(dd/mm/yyyy) which is within the period of 3 years from the date of graduation of such enterprise 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

BHEL, Tiruchirappalli – 620014.	Quality Assurance	Technical Delivery Conditions
Product: High Strength Friction Grip Fasteners For Structurals (Property class Bolt 8.8, 10.9/Nut 8, 10)		
Document No.: TDC:5:211	Rev. No.: 02	Effective date: 28/10/2014
		Page 1 of 2

Revision record:

Rev 00: 18/10/2011 Fresh Issue released and Test Sampling Plan Rev 00
 Rev 01: 19/04/2012 Cl 2: Requirement if the Carbon content is below 0.6% - Added for Bolts; Mn for Nuts: limited to 0.25 min instead of 0.25 max. Cl 5: Hardness of Bolt & Nut: Acceptance values changed. Cl 7: Preservation and Packing added and Test Sampling Plan Rev 01
 Rev 02: 28/10/2014 Property class Bolt 10.9 and Nut 10 and its requirements added (for Neyveli 2x500MW Tower boiler) in all clauses and Test Sampling Plan Rev 02

1. SCOPE:

This technical delivery condition covers the requirements for the High strength structural steel bolts, Nuts and Washers applicable for boiler structures and shall be procured from the BHEL approved manufacturers only. The mandatory requirements, test methods and procedures from the applicable IS standards to confirm a product to its relevant latest IS standard shall be met with. TDC is in addition to specification.

Size, Specification and Qty: As per the BHEL Purchase order (PO) / BHEL Drawing. The bolts, nuts and washers shall be supplied in the dull black heat treated condition with residual coating of light oil.

For Bolts: IS: 3757 (Latest) Property class: 8.8 or 10.9. Product Grade C of IS Specification IS: 1367 Part 2 (Latest).

For Nuts: IS: 6623 (Latest) Property class: 8 or 10, Product Grade B

For Washers: IS: 6649 (Latest) Material: 45C8, Type-A: Plain hole Circular Washers. Grade: Ordinary

2. RAW MATERIAL:

- Bolts and Nuts: Rolled/Forged bar of Carbon steel. Washer: as per IS 1571 Part 2 (Latest)
- **Chemical composition:** Shall be checked on receipt of raw material at supplier works for every heat
 Bolts: Plain Carbon Steel, Carbon steel with additives (eg Br, Mn or Cr) – As per Table 2 of IS: 1367 Part 3 (Latest)
 Nuts: As per Table 4 of IS 1367 Part 6 (Latest)
 Washers: As per IS 1570 Part 2 and Sulphur, Phosphorous <0.06% in check analysis

3. DIMENSIONS AND TOLERANCES:

- Process: Cold/Hot Forging with Dies and tools clean of loose scale and sheet particles.
- Threads on the bolts shall be checked with a properly calibrated ring gauge with a tolerance class 6g. Threads on the nuts shall be checked with a properly calibrated plug gauge with tolerance class 6H (in an NABL accredited LAB).
- Dimensions of the Bolts shall be as per the table given in IS 3757 (Latest)
- Dimensions of the Nuts shall be as per the table given in IS: 6623 (Latest)
- Dimensions of the Washers shall be as per the table given in IS 6649 (Latest)

Note: The washers shall be flat with a maximum deviation not exceeding 0.25 mm from the straight edge laid along a line passing through the center of the hole. The hole of the washer shall be concentric with the outside dimensions within 0.50 mm. washers are required to be clipped to provide clearance, the clipped edge shall not be closer to the center of the washer than 0.9 of the bolt diameter.

4. Post Forming Heat Treatment (HT):

- Bolt: After forming shall be quenched (HT at AC 3 temperature, with soaking time 30minutes per inch followed by quenching) and tempered (at 425°C min, 60 minutes per inch). There should be a sufficient hardenability to ensure a structure consisting of approximately 90 % martensitic in the core of the threaded sections for the fasteners in the as-hardened condition before tempering.
- Nut: Shall be hardened and then tempered (at a temperature of 425°C minimum).
- Washer: Shall be hardened and tempered. Carburized washers are not permitted.

5. CHEMICAL & MECHANICAL & NDE: (on Heat Treated finished product)

Sample Size for Mechanical test: & NDE: As per Sampling Plan

BOLT :

Sl	Test	Test Method - As per Table 3 of IS: 1367 Part 3 (Latest)	Acceptance
1	Chemistry	Spectro / Wet Analysis Method – One sample for every heat Of raw material and One sample/HT batch on product	As per Cl 2.0 of this TDC
2	Hardness Test	Note: Surface hardness shall not be more than 30 Vickers above the measured core Hardness on the product when readings of both surface and core are carried out at HV 0.30. For property class 10.9, any increase in hardness at the surface which indicates that the surface hardness exceeds 390 HV is not acceptable.	8.8 – Min 255 HV Max 335 HV 10.9 – Min 320HV, Max 380HV
3	Minimum Tensile Strength, %Elongation on 5.65√A, % Reduction in Area after fracture	*if wedge load test is satisfactory the axial tensile test is not required	8.8 – 830N/mm ² , 12 min, 52% min 10.9 – 1040 N/mm ² , 9 min, 48% min
4	Proof Load Test	8.8 – Proof Load of M16(91KN), M20 (147KN), M24 (212KN), M30 (337KN), M36 (490KN); 10.9 – Proof Load of M16(130KN), M20 (203KN), M24 (293KN), M30 (466KN), M36 (678KN) shall be applied axially to the bolt in a calibrated tensile testing machine for 15sec.	Length of the bolt after loading shall be the same as before loading within a tolerance of ± 12.5 µm allowed for measurement error.
5	Strength under Wedge load test	IS: 1367 Part 3 (Latest)	8.8 – < 830N/mm ² 10.9 – < 1040 N/mm ²
6	Decarburization Test at 200X min magnification	Determination of the following by MICROSCOPIC Method a)Minimum Height of non decarburized thread zone – E b)Maximum depth of complete decarburization – G	E = 2/3 H1 G = 0.015 mm
7	Hardness after Retempering	IS: 1367 Part 3 (Latest) # test not mandatory, to be applied in case of dispute only	Reduction of hardness 20 HV max.
8	NDE for Surface Integrity	before machining – For bar Diameter ≥ 40 mm: UT as per ASTM A388. For bar Diameter < 40 mm: MPI as per ASTM E 709 After machining – MPI as per ASTM E. 709 or as per ISO 6157 Part 3 (Latest)	UT – ASME SEC-VIII. Div-II Part: 3.3.4 (Latest). MPI – Linear indications like cracks, folds & other injurious defects are notacceptable.

9	Micro Examination for Surface Integrity – Laps at threaded region.	If any defectives found in visual and NDE examinations, the extent of defect can be determined by micro examination. 	Max depth of laps in thread = 0.41 mm Laps of any depth or length are not permitted in the following places: <ul style="list-style-type: none"> at the root of the thread at the loaded flank of screw thread below the pitch diameter, even if they start beyond the pitch diameter. The following laps are permissible: <ul style="list-style-type: none"> laps in the crest of the threads of 0.25 H1 max.; crest of the threads not entirely rolled out, maximum half a turn on one thread; laps below the pitch diameter, if they run on the non-loaded flank towards the major diameter and not deeper than 0.25 H1 and not longer than half a turn on one thread.
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NUT: (on Heat Treated finished product)

Sl	Test	Test Method	Acceptance Value
1.	Chemistry	Spectro / Wet Analysis Method – For every heat Of raw material and, One sample/HT batch on product	As per Cl 2.0 of this TDC
2.	Hardness Test	Hardness of the test mandrel shall be minimum 45 HRC.	8S – Min 188 HV Max 372 HV 10S – Min 272 HV Max 372 HV
3.	Proof Load Test	Proof Load of 8S – M16(168.9KN), M20 (263.4KN), M24 (379.5KN), M30 (603.1KN), M36 (878.3KN) 10S – M16(195.5KN), M20 (305KN), M24 (439.5KN), M30 (698.4KN), M36 (1017.2KN) shall be applied axially to the nut in a tensile testing machine for 15sec.	The nut shall resist the load without failure by stripping or rupture, and shall be removable by the fingers after the load is released.
4.	NDE for Surface Integrity	Before coating, as per IS 1367 Part 10 Cl 4.2 (Latest)	Linear indications like cracks, folds & Other injurious defects are not acceptable.

WASHER: As per IS 5369. The washers shall be free from cracks, burrs, pits and other defects. All sharp edges shall be removed. (on Heat Treated finished product)

Sl	Test	Test Method	Acceptance Value
1.	Chemistry	Spectro / Wet Analysis Method – For every heat Of raw material and One sample/HT batch on product.	As per Cl 2.0 of this TDC
2.	Hardness Test	IS 1586 (latest)	Min 35 HRC Max 45 HRC

6. MARKING, PRESERVATION AND PACKING:

The following to be hot stamped or embossed on the top surface of the bolt and nut:

Bolt – Manufacturer's Identification Symbol and 8.8S/10.9S

Nut – Manufacturer's Identification Symbol and 8S/ 10S

Washers – Shall be identified by – the provision of 2 nibs and manufacturers identification symbol being placed as near to the outer edge as possible.

The following details shall be clearly indicated in the tags tied to the bundle:

- Customer Name
- Manufacturer's Name
- Vendor Code
- Purchase Order No and Supplier internal W.O No
- Quantity and Weight
- BHEL Material Code
- Item Description with diameter, length

Shall be packed in bituminous coated Polythene lined Hessian Cloth/Bag. Each bag shall contain only the same size of bolts/ nuts/ washers respectively and the same shall be indicated in the tags.

7. INSPECTION AND CERTIFICATION:

All the finished components shall be visually and dimensionally inspected as per sampling plan. All the test results shall be documented and maintained. Products to be inspected at works & test certificates (in English) shall be submitted with the following details counter signed by BHEL/BHEL Authorized Inspection agency as indicated in the PO. Manufacturers Test certificate (MTC) shall contain the following:

- Purchase Order No. (BHEL), TDC No, Specification and Grade.
- Name of raw material bar supplier.
- Forming process
- Dimensional reports for each product.
- Chemistry including incidental elements on the raw material and final product checked in NABL lab/ suppliers own lab.
- HT details of materials temperature, soaking time, ROH/ROC medium etc.
- All Mechanical test result report including hardness.
- MPI, Micro examination and decarburization test report with the reference & acceptance standard.
- TC of raw material, UT/MPI report done on raw material shall accompany the MTC.

8. AUDITS AT BHEL:

BHEL reserve the right to reject any item found to be not meeting the requirements during tests at supplier works or during subsequent processing at BHEL.

Haritha.C QA	Venkanna Rupani QA	Kalyanaraman.V QA	Viswanathan.D Engineering	Sekar.S QC	Balachandran.K.S MM	Revisankaran.U QA
Prepared By			Reviewed By			Approved By



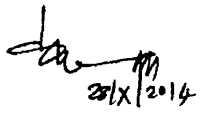
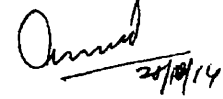
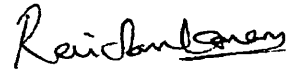
BHEL: TRICHY – 14

TEST SAMPLING PLAN FOR HSFG BOLTS, NUTS & WASHERS AS PER BHEL TDC: 5:211 Rev 02

Lot Size (In nos.)	SAMPLE SIZE										Remarks
	Visual (nos.)	Dimensional (nos.)	MPI (nos.)	Physical Tests							
				Total nos.	Hardness (nos.)	Hardness after Re-tempering (nos.)	Proof Load (nos.)	Wedge Load (nos.)	Min Tensile Strength (nos.)	Decarb (nos.)	
Upto 100	20	8	15	5	5	5	2	2	2	1	
101 to 300	32	13	15	5	5	5	2	2	2	1	
301 to 500	50	20	15	5	5	5	2	2	2	1	
501 to 1000	80	32	15	5	5	5	2	2	2	1	
1001 to 3000	125	50	25	8	8	8	2	4	2	1	
3001 to 10000	200	80	50	13	13	13	2	6	2	1	Upto 1500 nos. 15 nos. for MPI
10001 to 35000	315	125	75	20	20	20	4	10	4	2	Upto 5000 nos. 25 nos. for MPI
Above 35000	500	200	100	32	32	32	6	15	6	3	Upto 15000 nos. 50 nos. for MPI
Inspection by BHEL/BHEL AIA	W	W	W		W	W	W	W	W	W	Upto 50000 nos. 75 nos. for MPI

Remarks:

1. Acceptance Number is zero. If the sample is having deviations in Visual, Dimensional and MPI then the entire lot shall be 100% inspected. In case of deviations in Physical tests a second sample of twice the sample size of initial sample shall be taken. The lot will get rejected if the second sample fails.
2. Preservation & Packing: The bolts shall be supplied in the dull black heat treated condition with a residual coating of light oil. Finished products shall be packed in a bituminous coated Polythene lined Hessian cloth/bag. Each bag shall contain only the same size of bolts/nuts/washers respectively and the same shall be indicated in the tags.
3. Inspection by BHEL / BHEL AIA shown as "W" shall be witnessed for the sample size indicated against the lot size.

				
Haritha.C QA	Venkanna Rupani QA	Kalyanaraman.V QA	Sekar.S QC	Revisankaran.U QA
Prepared By		Reviewed By		Approved By