



MATERIAL MANAGEMENT - TRACTION MACHINES
HEAVY ELECTRICAL PLANT, BHOPAL
BHARAT HEAVY ELECTRICALS LIMITED

BHEL ENQUIRY NO. E5953000
DUE ON 22-04-2025

NIT TERMS & CONDITIONS:

SL. NO.	DESCRIPTION	DETAILS
1.	RATE CONTRACT TERMS	We intend to enter into a Rate Contract (RC) for ordering up to 12 months from RC freeze date, i.e. RC is to be kept valid for ordering up to 12 months from RC freeze date. Ordering shall be done against firm requirement as & when needed by BHEL. BHEL reserves the right to cancel/ short close the RC at any point of time even before the expiry of RC validity without assigning any reason whatsoever it may be.
2.	ITEM DESCRIPTION	TA 9901 AZ GEN. CPLG. DISC TO DRG. 14301076001 REV. 08. NOTE - HEAT TREATMENT WILL BE DONE BY PARTY OUT SIDE BHEL.
3.	QUANTITY	80 Nos
4.	QUANTITY VARIATION	± 30%
5.	DELIVERY SCHEDULE REQUIREMENT	PREFERRED DELIVERY OF 1ST LOT OF 40 NOS SHALL BE WITHIN 60 DAYS FROM DATE OF PLACEMENT OF PO AND THERE AFTER 2ND LOT OF 40 NOS SHALL BE WITHIN NEXT 30 DAYS FROM PREVIOUS LOT. EARLY DELIVERY ACCEPTABLE.
6.	DELIVERY TERMS	FOR Destination (BHEL Bhopal)
7.	DELIVERY INSTRUCTION	SUPPLIER'S IDENTIFICATION MARK SHOULD BE ON EACH JOB.
8.	PAYMENT TERMS	As per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 16) i.e. 100% payment in 90 days of receipt (45 days for Micro & Small and 60 days for Medium enterprises as registered in Udyam Certificate as per relevant MSME act in force) and subject to acceptance of material and relevant documents at BHEL. Any deviation from the above payment terms, if accepted (by BHEL), shall be loaded @ SBI base rate + 6% for the purpose of bid evaluation.
9.	SPLITTING OF ORDER	Not applicable. However, Distribution in compliance with latest guidelines for MII and MSE shall be followed.
10.	TECHNICAL PQR (T-PQR)	Technical Pre-Qualification Requirements (T-PQR) for procurement of the items is attached with the NIT. Compliance of all the points in T-PQR is mandatory. In absence of compliance of above and non-submission of documents required against the T-PQR, the Vendor's offer is liable to be rejected. Duly filled T-PQR with desired documents shall be submitted by the Vendor along with the offer. <i>Information/ compliance/ documents submitted by vendor shall be authentic in all aspects. In case any deviation/ false information/ forged documents are observed / revealed later on, BHEL is free to initiate appropriate punitive proceeding against the Vendor as per Prevalent Processes and Guidelines of Company.</i>
11.	FINANCIAL PQR (F-PQR)	Not applicable
12.	QAP	Applicable as attached with tender documents



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13.	BID PARTS	Offer shall be submitted by the bidders in Two Parts, i.e. Part-I Technical cum Commercial bid & Part-II Price bid.
14.	PENALTY / LD	As per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 9) i.e. 0.5% of the undelivered portion per week of delay or part thereof, subject to a maximum of 10% of the undelivered order value owing to delayed delivery.
15.	PRICE BASIS	Firm Price basis
16.	PRICING TERMS	As per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 12)
17.	PRICE VALIDITY	As per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 13) i.e. Offer shall be valid for a period of 90 days from the date of Techno- commercial (Part-I) bid opening date.
18.	TAXES & DUTIES	As per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 14)
19.	TECHNICAL CONDITION	As per attached List of Tools, Drawings, PQR, SPEC & QAP.
20.	SAMPLE	As per attached Spec
21.	INSPECTION CONDITION	BY BHEL AUTHORISED TPIA AT VENDOR WORKS
22.	TEST CERTIFICATE	All Material TC to be supplied along with material as per Spec. and TC should incorporate Spec.
23.	GUARANTEE / WARRANTY	As per BHEL GTC of ENQUIRY (BP200102B, Cl. No. 18)
24.	GUARANTEE CERTIFICATE	GC to be supplied along with the material
25.	EVALUATION CRITERIA	Overall L1 basis
26.	BID SECURITY/ Earnest Money Deposit (EMD)	Not Applicable
27.	PERFORMANCE SECURITY (PBG)	Not Applicable
28.	REVERSE AUCTION	Applicable
29.	MSE PREFERENCE	As per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 29)
30.	PUBLIC PROCUREMENT (PREFERENCE TO MAKE IN INDIA)	As per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 33) For this procurement, the local content to categorize a supplier as a Class I local supplier/ Class II local Supplier/ Non-local supplier and purchase preference to Class I local supplier, is as defined in Public Procurement (Preference to Make in India), Order 2017 dated 19.07.2024 issued by DPIIT. In case of subsequent orders issued by the nodal ministry, changing the definition of local content for the items of the NIT, the same shall be applicable even if issued after issue of this NIT, but before opening of Part-II bids against this NIT.



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		<p>The local content to categorize a supplier as a Class-I local supplier / Class-II local supplier / Non-Local supplier and purchase preference to Class-I local supplier, is as defined in above circular issued by DPIIT/ Nodal Ministry.</p> <p>Bidders to also inform the Actual Percentage of the Local Content and the Complete Address of the Location of Local Value Addition as per the attached MII format, failing which no purchase preference shall be granted.</p> <p>In case the bid value is more than Rs. 10 Crore, the declaration relating to the Actual Percentage of the Local Content and the Complete Address of the Location of Local Value Addition shall be Certified by the Statutory Auditor or Cost Auditor, if the OEM is a Company and by a Practicing Cost Accountant or a Chartered Accountant for OEM other than Companies as per the above circular.</p> <p>For contracts valuing more than Rs 10 Crores, local content (in cases of self-certification submitted by bidders at the time of tendering) will be re-verified during execution of contract by Cost/ Chartered Accountant/ Statutory Auditor/Cost Auditor (as applicable) and in case of defaults, penalty upto 10% of the contract value shall be imposed. However, contract once awarded shall not be terminated on this account.</p> <p><i>Bidders or successors can be debarred for false declarations for up to 2 years. Debarred suppliers not eligible for preference in any other procuring entity.</i></p>
31.	INTEGRITY PACT (IP)	Not Applicable
32.	RESTRICTION UNDER RULE 144 (xi) GFR	As per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 34)
33.	ANNEXURE-IX	The Bidder/Supplier/Contractor will, when presenting his bid, declare whether other Family Firms or Sister Concern Affiliates/Subsidiary firms are participating in the same tender, so as to eliminate the possibility of cartel formation. Format for declaration is available in the NIT documents for this enquiry (Annexure-IX). Same is to be submitted with the offer.
34.	BIDDER'S DECLARATION	<p>The bidder declares that they will not enter into any Illegal or Undisclosed Agreement or Understanding, whether Formal or Informal with other bidder(s). This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.</p> <p>In case, the bidder is found having indulged in above activities, suitable action shall be taken by BHEL as per extant Policies/ Guidelines.</p>
35.	CONFLICT OF INTEREST AMONG BIDDERS/ AGENTS	<p>A bidder shall not have conflict of interest with other bidders. Such conflict of interest can lead to anti-competitive practices to the detriment of Procuring Entity's interests. The bidder found to have a conflict of interest shall be disqualified. A bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:</p> <p>a) they have controlling partner (s) in common; or</p> <p>b) they receive or have received any direct or indirect subsidy/ financial stake from any of them; or</p> <p>c) they have the same legal representative/agent for purposes of this bid; or</p>



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		<p>d) they have relationship with each other, directly or through common third parties, <u>that puts them in a position to have access to information about or influence on the bid of another Bidder</u>; or</p> <p>e) Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all bids in which the parties are involved. <u>However, this does not limit the inclusion of the components/ sub-assembly/ Assemblies from. one bidding manufacturer in more than one bid</u>; or</p> <p>f) In cases of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorise only one agent/dealer. There can be only one bid from the following:</p> <ol style="list-style-type: none"> 1. The principal manufacturer directly or through one Indian agent on his behalf; and 2. Indian/foreign agent on behalf of only one principal; <p style="text-align: center;">or</p> <p>g) A Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid; or</p> <p>h) In case of a holding company having more than one independently manufacturing units, or more than one unit having common business ownership/management, only one unit should quote. Similar restrictions would apply to closely related sister companies. Bidders must proactively declare such sister/ common business/ management units in same/ similar line of business. "</p>
36.	EVALUATION IN CASE OF MORE THAN ONE L-1 BIDDER	<p>In the course of evaluation, if more than one bidder happens to occupy L-1 status, effective L-1 will be decided by soliciting discounts from the respective L-1 bidders.</p> <p>In case more than one bidder happens to occupy the L-1 status even after soliciting discounts, the L-1 bidder shall be decided by a toss/draw of lots, in the presence of the respective L-1 bidder(s) or their representative(s).</p> <p>Ranking will be done accordingly. Decision of BHEL in such situations shall be final and binding.</p>
37.	SPECIAL CONDITIONS	<p>Bidders who fall under MSE (Micro & Small Enterprises only) and fail to upload 'UDYAM Registration Certificate (URC)' shall automatically be considered as Non-MSE supplier for this tender.</p> <p>Further, it is to be noted that MSE benefits are not being extended to Agent/ Dealer/ Trader/ Distributor (i.e. Other than manufacturer). Supplier has to also provide supporting document(s) such as Agreement Between OEM & Bidder(s) etc.</p> <p>Identification must. Soon after rejection of material, it is to be ensured by supplier that material should be taken back maximum within two weeks after communication for rectification/ replacement & supply back the rectified/ fresh material to BHEL Bhopal within 30 days from rejection. In the event of non-lifting of rejected material by supplier, BHEL will not be responsible for loss of such items to the supplier in any case.</p> <p>Offers of suppliers who are in 'HOLD/BANNED' status in BHEL Bhopal PMD shall not be considered.</p> <p>Unregistered vendors to submit documents required for registration to BHEL Portal Online (https://bhel.com/supplier-registration).</p>



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38.	OTHER TERMS & CONDITIONS	Other Terms & Conditions as per attached BHEL GTC of ENQUIRY (BP200102B) Any deviation of NIT, BHEL GTC of ENQUIRY (BP200102B) and BHEL PO Terms, where vendor response is not affirmative to be clearly indicated, else BHEL will consider that all above Terms & Conditions are acceptable to vendors.
39.	GEM REGISTRATION	As you are kindly aware that Government e-Marketplace (GeM) is a one stop portal to facilitate Online Procurement of Goods & Services required by various Government Departments/ Organizations/ PSUs. BHEL being a PSU, would like that its suppliers/ contractors also have visibility on this portal so that GeM can be used for procurement by BHEL. Hence, you are requested to get yourselves registered on GeM.
40.	TENDER FEE	Not applicable
41.	BID SUBMISSION WITHIN DUE DATE & TIME	No request for extension of tender due date will be entertained at the time of tender opening and after due date under any circumstances. Hence, all bidders are requested to submit their bid well within due date and time only. <i>BHEL reserves the right for extension of tender based on the situation without assigning any reason whatsoever it may be.</i>
42.	DOCUMENTS TO BE FURNISHED ALONG WITH YOUR QUOTATION	Signed and Sealed copy of: <ul style="list-style-type: none"> - NIT - BHEL GTC of ENQUIRY (BP200102B) - BHEL PO Terms Duly Filled, Signed and Sealed copy of: <ul style="list-style-type: none"> - T-PQR along with all supporting documents - Annexure-IX in Company Letterhead - PPP-MII Certificate for local content - Techno-Commercial Annexure Others: <ul style="list-style-type: none"> - UDYAM Registration Certificate (<i>as applicable for MSME bidders only</i>)


IT IS HEREBY MENTIONED THAT THIS IS E-TENDER SO OFFER SUBMITTED THROUGH E-PROCUREMENT PORTAL (www.eprocurebhel.co.in) SHALL ONLY BE CONSIDERED.

Techno-Commercial Annexure
(To be filled by supplier and submit with offer)

Tender No.		E5953000 due on 22/04/2025		
Description :		RATE CONTRACT FOR GEN. CPLG. DISC TO DRG. 14301076001 V00 R08		
		TENDER QTY.: 80 Nos, +/- 30%		
		Delivery required as per NIT.		
Sr. No.	ELEMENTS	Standards	To be offered/confirmed by supplier	Remarks, if any
1	Quotation reference no. & date	As per supplier		
2	HSN / SAC code	As per supplier		
3	Quotation currency	In INR		
4	Contact person	As per supplier		
5	Phone / Mobile	As per supplier		
6	E-Mail	As per supplier		
7	Order to be placed on (Also provide supplier code at BHEL Bhopal, If registered)	As per supplier		
8	Address	As per supplier		
9	Please specify delivery in weeks/ days (Specify item wise, lot wise as per RFQ)	As per NIT/ Accepted with deviation (If select Accepted with deviation, please mention the deviation)		
10	Rate quoted on "Firm" price basis	Yes		
11	Quoted for all the items and full quantity of tender enquiry	Yes / No. (If "No" please mention item number with Qty of regreted items)		
12	Technical specifications	Accepted as per NIT / Accepted with deviation (If select Accepted with deviation, please mention the deviation)		
13	Inspection	As per NIT/ Accepted with deviation (If select Accepted with deviation, please mention the deviation)		
14	Test certificate & Gurantee certificate as per NIT, Drawings and specification will be submitted along with each consignment	Yes (In case of "No" your offer may be rejected).		
15	Brand name, if any.	As per supplier		
16	Supply from	As per supplier		
17	Terms of delivery ("FOR DESTINATION " means freight & insurance upto destination in supplier's scope (Destination: CRX Divn, BHEL Bhopal)	Accepted/ Accepted with deviation (If select Accepted with deviation, please mention the deviation)		
18	Transit insurance (In supplier's scope)	As per NIT/ Accepted with deviation (If select Accepted with deviation, please mention the deviation)		
19	CGST RATE (IN %)	As per supplier		
20	SGST RATE (IN %)	As per supplier		
21	IGST RATE (IN %)	As per supplier		
22	UGST RATE (IN %)	As per supplier		
23	Are you manufacturer of quoted item (s).	Yes / No		
24	Are you registered under MSMED ACT 2006 as small or micro. NOTE: - Firms registered under medium scale shall not be considered eligible for MSE benefits.	Yes / No (If select Yes, please enclosed valid UDYAM certificate)		

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		TENDER QTY.: 80 Nos, +/- 30%		
		Delivery required as per NIT.		
Sr. No.	ELEMENTS	Standards	To be offered/confirmed by supplier	Remarks, if any
25	Terms of Payment (100% payment in 90 days of receipt (45 days for Micro & Small and 60 days for Medium enterprises as registered in Udyam certificate as per relevant MSME act in force) and subject to acceptance of material and relevant documents at BHEL. Pl refer GTC BP200102B)	As per NIT/ Accepted with deviation (If select Accepted with deviation, please mention the deviation)		
26	SELF CERTIFICATION OF MINIMUM LOCAL CONTENT, IF MORE THAN 50% VALUE ADDITION IS IN INDIA. (Note- In case of tenders worth more than Rs. 10 crores, Suppliers shall necessarily submit certificate from statutory auditor or cost auditor or cost accountant or CA) Please also specify the amount of local content in India. EXAMPLE :if 100% INDIGENOUS (MADE IN INDIA) MARK "Y"/100%	As per supplier		
27	Details of location of value addition / manufacturing	As per supplier		
28	Other Charges (If any)	Applicable / Not Applicable. (If applicable please mention percentage (%) / Value (along with type of charges).		
29	Penalty for delayed performance as per BP200102B & NIT	Yes / No (In case of "No", your offer will be loaded suitably)		
30	Confirmation that documents pertaining to technical PQR & Financial PQR has been submitted	Yes / No		
31	Acceptance to "REVERSE AUCTION" if conducted (As per BHEL's RA policy)	Yes / No		
32	Submission of Declaration format with duly sealed & signed (Annexure IX, refer attached) regarding whether other family firms or sister concern affiliates / subsidiary firms are participating in the same tender.	(Yes / No) If No please specify the reason.		
33	General terms and conditions of enquiry (Form No. BP-200102B) and BHEL PO Terms & Conditions is Acceptable.	Yes (In case of "No" your offer may be rejected).		
34	Quotation Validity will be 90 days from the date of techno-commercial bid opening.	Yes		
35	Tender fees submitted	Yes / Not Applicable		

		BHARAT HEAVY ELECTRICALS LIMITED - BHOPAL TOOLS REQUIRED FOR INDENT ITEMS INDENT NO 121341104		Rev No 0 Rev Date 30-MAR-25 Tform Date	
Itm No	Indent Item Description	Tool Description	Tool No	Tool Value	
1	GEN. CPLG. DISC TO DRG. 14301076001 V00 R08	DRILL JIG ALL HOLES	1580135	50000	
1	GEN. CPLG. DISC TO DRG. 14301076001 V00 R08	PIN GAUGE 380.97	1580133	6000	
1	GEN. CPLG. DISC TO DRG. 14301076001 V00 R08	SPECIAL GAUGE FOR 229.38	1580190	10000	
PREPARED BY SHRI ASHOK KUMAR VISHV ENGINEER					

File No. HEP-TPTNOMNX(59)/29/2025-HEP-TAM21300 (Computer No. 168275)

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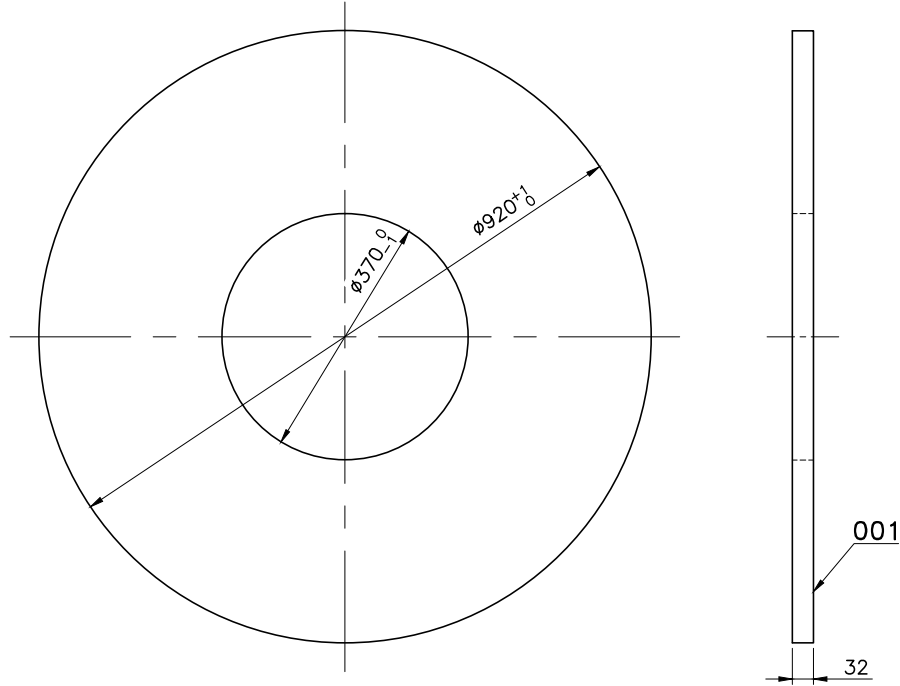
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FIRST ANGLE PROJECTION


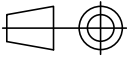
(ALL DIMENSIONS ARE IN mm)

REV.	DATE	ALTERED	REV.	DATE	ALTERED	SDB	ADDITIONAL INFORMATION
		CHECKED	01	19.1.16	CHECKED	JK	
		APPROVED			APPROVED	RC	
ZONE			ZONE	NOTE-2 ADDED. IT.001 DESCRIPTION CHANGED.			STATUS OF DRAWING
							DISTRIBUTION OF PRINTS TME-1, TAM-3, TNX-1




NOTE:-

1. QAP FOR FORGING SHALL BE AS PER-QTM/QAP/VENDOR/13-14/002.
2. MACHINE ALL OVER.

REF. DRG. NO.	001		COUPLING DISC (FORGING)		AA19334		140.0		
	VAR.00	REMARKS	ITEM NO.	DESCRIPTION	STD	MATL. CODE	UNIT	UNIT WT.	
						MATL. SPCN.		QTY.	
	28 → CARD TYPE-3		28 → CARD TYPE-1		28 → CARD TYPE-2				
SIGN. & DATE	TA9901AZ								
	 BHARAT HEAVY ELECTRICALS LTD. BHOPAL				DRN.	S.D.B.	SIGN	DATE	NO. OF VAR.
					CHD.	J.K.	SIGN	DATE	
					APPD.	J.K.	SIGN	DATE	
INVENTORY NO.	DEPT. TME	UNTOL. DIMS. GR.		SCALE	WEIGHT (K.G.)	REF. TO ASSY. DRG.	ITEM NO.	NO. OF ITEM	
	CODE 405	AA0230208 'M'		NTS	140.0	1 430 10 76 001	001	001	
	COUPLING DISC (FORGING) (ROUGH MACHINED)					DRAWING NO.		REV.	
						4 430 10 76 024		01	
					SHT. NO.	01	NO. OF SHT.	01	

SIZE A4

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	CORPORATE PURCHASE SPECIFICATION		AA 193 34		
			Rev. No. 09		
			PREFACE SHEET		
<h2 style="margin: 0;">CARBON STEEL FORGINGS, CLASS 4 – HARDENED AND TEMPERED</h2> <p style="margin: 20px 0 0 0;"> FOR INTERNAL USE ONLY REMOVE THIS PREFACE BEFORE ISSUE TO SUPPLIERS </p> <p style="margin: 20px 0 0 0;"> Comparable Standards: </p> <div style="margin: 10px 0 0 40px;"> 1. INDIAN : IS: 2004 - 1991 Gr: Class 4 (45 C8), Hardened and Tempered </div> <p style="margin: 20px 0 0 0;"> Suggested/Probable Suppliers and Grades: Refer plant vendors list. </p> <p style="margin: 20px 0 0 0;"> User Plant References: </p> <div style="margin: 10px 0 0 40px;"> 1. BHOPAL : PS10204 2. HEEP, HARDWAR : IS:2004, class 4, H&T 3. HYDERABAD : AISI C 1045 IS 2004, CI 4 CSN 412050.6 </div>					
Revisions : 36 th MOM OF MRC FCF+HTM			APPROVED : INTERPLANT MATERIAL RATIONALISATION COMMITTEE-MRC (FCF+HTM)		
Rev. No. 09	Amd.No.	Reaffirmed	Prepared	Issued	Dt. of 1st Issue
Dt.:23.01.2007	Dt :	Year:04-11-2011	HARDWAR	Corp. R&D	JANUARY.1978



CORPORATE PURCHASE SPECIFICATION

AA 193 34

Rev. No. 09

PAGE 1 OF 7

CARBON STEEL FORGINGS, CLASS 4 – HARDENED AND TEMPERED

1.0 GENERAL:

This specification governs the quality requirements of Carbon Steel Forgings, class 4, Hardened and Tempered.

2.0 APPLICATION:

Suitable for general engineering purposes and shafts for Hydro-turbines and generators.

3.0 CONDITION OF DELIVERY:

Hardened and tempered.

Rough machining of the forgings shall be carried out, unless otherwise specified in the BHEL order/drawing.

4.0 COMPLIANCE WITH NATIONAL STANDARDS:

The forgings shall comply, in general with the requirement of the following National standards and also meet the requirements of this specification.

IS::2004: 1991 (RA-2006) } Carbon Steel Forgings For General Engineering
Gr: Class 4 (45C8), H&T } Purposes.

5.0 DIMENSIONS AND TOLERANCES:

The dimensions and tolerances shall be as specified in the order/ drawing. Wherever these are not specified, specified, the machining allowances and tolerances shall be as specified below:

For finish machined drawings : 3 ± 1 mm

For rough machined drawings : ± 1 mm

Revisions : 36th MOM OF MRC FCF+HTM

APPROVED :
INTERPLANT MATERIAL RATIONALISATION
COMMITTEE-MRC (FCF+HTM)

Rev. No. 09

Amd.No.

Reaffirmed

Prepared

Issued

Dt. of 1st Issue

Dt. 23.01.2007


Dt :

Year:04-11-2011

HARDWAR

Corp. R&D

JANUARY 1978

AA 193 34	CORPORATE PURCHASE SPECIFICATION	
Rev. No. 09		
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6.0 MANUFACTURE:

Forgings shall be manufactured from steel produced by the open hearth, electric or such other ↑
process as may be agreed to between BHEL and the manufacturer.

Steel shall be fully killed.

Sufficient discard shall be made from each ingot to ensure freedom from pipe, segregation and other defects.

The amount of hot working and finishing temperature shall be such as to ensure complete soundness and adequate uniformity of structure and mechanical properties after heat treatment. The forgings shall not be overheated.

The minimum reduction ratio when forgings are made out of ingots shall be 4:1.

For sizes above 250 mm ruling section, the minimum reduction ratio shall be 3.5:1

Note: Raw material like Ingots/Blooms/Billets required for forgings should be procured from BHEL approved sources along with test certificate."

7.0 HEAT TREATMENT:

Forgings shall be hardened and tempered at suitable temperature to achieve the mechanical ↑
properties specified.

Test pieces shall also be heat treated along with the forgings they represent. ↑

8.0 FINISH:

As mentioned in the drawing.

9.0 FREEDOM FROM DEFECTS:

The forging shall be free from defects, such as cracks, fold, flakes, seams, segregation, nonmetallic inclusions and other defects which may affect the utility of the forging.

10.0 CHEMICAL COMPOSITION:

The melt analysis of steel and permissible variation in the composition of the forgings form the melt analysis shall be as follows:

Element	Melt analysis, percent		Permissible variation, percent
	Min.	Max.	
Carbon	0.40	0.50	± 0.03
Silicon	0.15	0.35	± 0.03
Manganese	0.60	0.90	± 0.04
Sulphur	---	0.040	+ 0.005
Phosphorus	---	0.040	+ 0.005

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Rev. No. 09		
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12.0 MECHANICAL PROPERTIES:

The test pieces, after being heat treated as per clause 7.0 above, shall show the following properties upto a limiting ruling section of 300 mm. Properties for thicker sections shall be ¹ subject to agreement between BHEL and the manufacturer. Test methods are specified below:

- 12.1 Tensile test : IS:1608
- 12.2 Hardness test (Brinell) : IS:1500
- 12.3 Charpy Impact Value (2mm U-Notch) : IS:1499

This test applicable for forgings of sizes above 16mm only.

Property	Sample (See Cl.11.3)	Limiting ruling section, mm	
		Upto & incl 100	>100 & upto 300
Tensile strength N/mm ²	Longitudinal/ Transverse/ Radial/Tangential	630 - 785	590 - 725
Yield strength min,N/mm ²	Longitudinal/ Transverse/ Radial/Tangential	375	345
Elongation on 5.65 √So gauge length percent, min	Longitudinal Transverse Radial Tangential	16 8 10 12	17 9 11 13
*Hardness, Brinell,HB	—	185-235	174-217
Charpy Impact Value (2mm, U-Notch) min.,Joules	Longitudinal Transverse Radial Tangential	39 20 23 29	39 20 23 29


Note: 1. Unless otherwise stated on the order/drawing, small forgings of non-critical nature weighing less than 300kg shall be accepted on the basis of chemical composition and hardness.

* 2. Hardness test can be conducted only, when tensile test can not be performed.

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I

- i) Reduction ratio
- ii) Dimensional Inspection.
- iii) Chemical composition including trace elements.
- iv) Results of mechanical tests.
- v) Results of Ultrasonic test
- vi) Details of heat treatment
- vii) Results of additional tests called for in the drawing/order.

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17.0 PACKING & MARKING:

Forgings shall be suitably packed to prevent corrosion and damage during transit.

Machined surfaces shall be properly protected with anticorrosive compounds.

Each package or forging (when supplied separately) shall be legibly marked with the following information:

AA 193 34 : Carbon Steel Forgings, Class 4: H&T ↑

BHEL Order No.

Supplier's Name

Consignment/ Identification No.

Batch No.

Weight.

18.0 REFERRED STANDARDS (Latest publications Including Amendments):

1) AA 085 01 18	2) IS:1499	3) IS:1500	4) IS:1599
5) IS: 1608	6) IS: 2004		



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ANNEXURE-I: RECOMMENDED TEST CERTIFICATE FORMAT FOR FORGINGS

SUPPLIER'S NAME AND ADDRESS														
TEST CERTIFICATE FOR FORGINGS														
1. Customer:					9. Reduction Ratio					} Ingot to Bloom Bloom to Blank				
2. TC No. & Date:					10. Batch No.:									
3. PO No.:					11. Heat/Melt No.									
4. Process of Melting Ingot:					12. Spec. No.									
5. Deoxidisation Process:					13. Test Bar Size & Nos.									
6. Forging Method:					14. Supplier of the ingot/billet/ Bloom and TC reference.									
7. BHEL's Reference for Approval of Bloom														
8. Discard: Top _____ %; Bottom _____ %														
15. FORGINGS COVERED BY TEST CERTIFICATE														
S.No.		Drawing No. & Item No.			Description					Quantity & Weight				
16. CHEMICAL COMPOSITION (PERCENT)														
Element		C	Si	Mn	S	P								
As Per Min.														
Specn. Max.														
Actual Values														
17. HEAT TREATMENT (To be accompanied by Recorder Chart, Whenever called for)														
Condition		Heating Rate, °C/hr.		Temp. °C		Soaking Time, Hrs.		Cooling Rate, °C/hr		Cooling Medium				
18. MECHANICAL PROPERTIES														
		T.S. N/mm ²	Y.S. 0.5/0.2% Proof N/mm ²	% Elongation 5.65√So GL	% R.A. Min.	Hardness BHN (Min. 3 values)	Impact Value Joules	Bend Test						
								Angle of bend	Dia of mandrel	Result				
As Per Min.														
Specn. Max.														
Actual Values														
19. SURFACE FINISH (When called for in the order/drg.)														
20. DIMENSIONAL INSPECTION														
21. NON-DESTRUCTIVE TESTS														
Nature of Test		Acceptance level		Instrument used		Range		Results		Any other detail				
Ultrasonic														
Radiographic														
Dye penetrant/ Magnetic Particle														
22. METALLOGRAPHIC EXAMINATION (To be conducted if called for and photo micrographs to be attached along with a report)														
Location of Sample		Etchant used		Magnification		Constituent observed		Relative %						
Microstructure		Macroetch		Inclusion Rating										
23. OTHER TESTS IF ANY (MICROSCOPIC, SULPHUR PRINTS, ETC)														
24. IDENTIFICATION OF FORGINGS AS PER PURCHASE SPEC.														
We hereby certify that the items mentioned above have been tested and inspected in our presence and are found to be in accordance with drawings, specifications and purchase order.														
SIGNATURE, NAME & SEAL OF THE INSPECTING OFFICER DATE:										SIGNATURE, NAME & SEAL OF THE CHIEF OF QUALITY CONTROL/ CHIEF METALLURGIST OF THE SUPPLIER DATE:				
INSTRUCTIONS														
a) Details of all heat treatment processes carried out should be furnished sequentially in 17.														
b) Test certificates are to be furnished as per Purchase order and specification, in A4 size preferably in transparent paper.														
c) All the entries including signature should be in block colour ink.														
d) If testing is done by outside agencies, the original TCs shall be furnished.														
e) The actual TC may run into more than one A4 size paper, if needed, to facilitate filling up of details.														

Duly filled Technical Pre-Qualification Requirements to be submitted along with the offer by vendor

For uploading along with the enquiry

Ref No: TME/PQR/Coupling disc_TA9906/TA9901 Rev.01

Dated: 20/03/2025

Technical Pre-Qualification Requirements (PQR)

Vendor should comply with the following clauses in order to qualify for supply of tendered item (duly filled PQR shall be submitted along with the offer by vendor):

Cl. No.	Description	Vendor to comment	
		Complied / Not complied (Please tick)	Supporting relevant document to be submitted along with offer
1.	Vendor shall supply item as per drawing no. & description mentioned in the enquiry.	Yes/No	Not Required
2.	Vendor should be a machinist with in-house CNC machining & CMM (coordinate measuring machine) facility and not a trader.	Machinist with in-house facility/ Trader	Not required.
3.	Vendor should have experience of successfully supplying any item involving machining operation of minimum dia. of 920 mm, in preceding 5 years from date of enquiry. Vendor to ensure that documents submitted against b) & c) shall correlate with the submitted P.O. copy.	Yes/No	a. PO copy. b. Drawing of supplied item. c. Supply proof i.e. invoice.
4.	For verification of information furnished by vendor, additional documents proofs etc. may be required by BHEL. Vendor to confirm providing the same.	Yes/No	Not Required

Notes:

1. Compliance of all the points in above T-PQR is mandatory. In absence of compliance of above, vendor's offer is liable to be rejected.
2. Information / compliance / documents submitted by vendor shall be authentic in all aspects. In case any deviation / false information / forged documents are observed, BHEL is free to initiate appropriate punitive proceeding against the vendor.

Important: This document is to be filled and submitted along with the offer. This document must be signed by authorized representative of the vendor and should contain the name of representative & seal of the company.

Date:

कदम कदम मिलाना है ग्राहक सफल बनाना है

Marching Towards Business Excellence



ENQUIRY

TWO PART BID

BPC 0007

E-TENDER

भारत हेवी इलेक्ट्रिकल्स लिमिटेड, पिपलानी, भोपाल- ४६२०२२ (भारत)

सामग्री प्रबंधन विभाग

BHARAT HEAVY ELECTRICALS LIMITED, PIPLANI, BHOPAL-462022 (INDIA)

MATERIALS MANAGEMENT DIVISION

TIN NO- 23573000001

ECC NO- AAACB4146PXM009

MPCT NO- HEL/05/01/0001/S15/11/79

PHONE NO : 91-755-2500100

FAX : 91-755-2500023

www.bhel.com

ENQUIRY NO

E5953000

ENQUIRY DATE

12/04/25

ENQUIRY DUE DATE

22/04/25

SUPP NAME AND ADDRESS	SUPP CODE	REV CD	REV NO	REV DATE	NO OF CATY2	NO OF CATY3	ENQ NO OF ITEMS	INDENT NO
OFFICE COPY		1	0	NA	1	2	1	121341104
	GUARANTEE CERTIFICATE		Y	SUPPLY CONDITION SUPPLIER'S IDENTIFICATION MARK SHOULD BE ON EACH JOB.				
	TEST CERTIFICATE		Y					
	INSTRUCTION BOOKLET		N	TECHNICAL CONDITION AS PER DRG				
	SAMPLE		N					
	GATE PASS		Y	INSPECTION CONDITION BHEL AUTHORISED TPIA AT VENDOR WORKS.				

NOTE: QUOTE PRICE BOTH IN FIGURES & WORDS.IN CASE OF MISMATCH PRICE IN WORDS WILL BE VALID,QUOTATIONS NOT BEARING ENQUIRY NO AND DUE DATE LIABLE TO BE REJECTED.

SL NO	MATERIAL CODE	DESC	UNIT	ITEM QTY	QTY VR%	LOT NO	LOT QTY	DEST	DELIVERY DATE
1	BP9094675650	TA 9901 AZ GEN. CPLG. DISC TO DRG. 14301076001 REV. 08. NOTE - HEAT TREATMENT WILL BE DONE BY PARTY OUT SIDE BHEL.	NO	80.000	30	1	40.000	213	30/05/25
						2	40.000	213	30/06/25

REMARK REFER NIC E- TENDER PORTAL FOR DETAILS.

DRAWING Y PURCH SPEC N CATALOUGE N PLAN N TWO PART BID Y

SUPP CD.	SUPP NAME	MSME	STATUS.	PMD	Cust Appr	S.NO	INDENT NO	ITEM NO	CATEGORY	ENQUIRY QTY.
						1	121341104	1	3700	80.000

NOTE:BHEL,BHOPAL'S Standard Terms & Conditions BP200102 (Latest Revision) form a part of this Enquiry. Bidders may obtain from us copies of these terms and conditions if not already available.

SPECIAL REMARKS: Bid to be submitted through e-procurement. Refer eproc link on BHEL Bhopal B2B site.

NAME : SHRI MANOJ KUMAR DUBEY

DESG : ENGINEER

0755-2502379

manojdubey@bhel.in

SIGN & SEAL

ENQUIRY