

## **TENDER DETAILS**

**ENQUIRY NO. – E5143151, DUE ON 28-09-2024.**

**Description:** RATE CONTRACT FOR BEARING SET CONSISTING 1 NO. OF N332 DE ECMSRL-340-370 VA 309 TO DIN 43283 AS PER BHEL DRG. C450068 REV.43 ITEM 26 AND 1 NO. OF BALL BEARING NDE 6326-M/C5, VA309 TO DIN 43283 AS PER BHEL DRG.C450067 IT#21 REV.26.

**TENDER QTY: 50 Sets +/- 30%**

**DELIVERY REQUIREMENT –** FOR THE FIRST LOT OF 25 SET SCHEDULED DELY.DT.SHALL BE WITHIN 60 DAYS FROM THE PO DT. & THEREAFTER SUBST. LOT OF 25 SET SCHEDULED DELY. DATE SHALL BE WITHIN 30 DAYS FROM THE SCHEDULED DELY. DATE OF THE PREVIOUS LOT.

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

**NOTE: ALL THE TERMS OF SUBJECT TENDER SHALL BE IN ACCORDANCE WITH “GENERAL TERMS AND CONDITIONS TO ENQUIRY BP 200102B”. VENDORS ARE REQUIRED TO COMPLY AFORESAID ENQUIRY TERMS OF BHEL.**

**1) RATE CONTRACT TERMS:** WE INTEND TO ENTER INTO RATE CONTRACT FOR ORDERING UPTO 12 (TWELVE) MONTHS FROM RC FREEZING DATE.

**2) NO. OF BID PARTS:** 2 (TWO)

**3) DELIVERY TERMS:** F.O.R. DESTINATION

**4) DELIVERY AT:** CRX, BHEL, BHOPAL- 462022

**5) VALIDITY OF OFFER:** 90 DAYS FROM TECHNICAL BID OPENING DATE

**6) PRICE BASIS:** FIRM.

**7) BHEL STANDARD PAYMENT TERMS:** 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. PI refer GTC BP200102B.

**8) PENALTY:** APPLICABLE, AS PER ATTACHED GTC BP 200102B and LD WILL BE APPLICABLE ON UNDELIVERED QTY. OF LOT.

**9) INSPECTION CONDITION:** AT BHEL

**10) SUPPLY CONDITION:** IDENTIFICATION MUST

**11) TECHNICAL CONDITION:** AS PER PQR & SPECIFICATION ETC AS ATTACHED

**12) GUARANTEE CERTIFICATE:** YES

**13) TEST CERTIFICATE:** YES

**14) SAMPLE: NO**

**15) TOOLS / GAUGES / FIXTURES CONDITION: NA**

**16) EVALUATION CRITERIA: OVERALL L1 BASIS (SINGLE LINE ITEM IN TENDER)**

**17) SPLITTING OF ORDER: NOT APPLICABLE**

**18) TENDER FEE: NOT APPLICABLE**

**19) REVERSE AUCTION: APPLICABLE**

It is declared upfront that Enquiry No. E5143151 shall be subjected to Reverse Auction (RA). Bidders may kindly note the Reverse Auction (RA) field as mentioned and asked for in enquiry template & ensure to proceed with choosing "YES" against same when asked during submission of their offer to give their acceptance for participation in RA.

"BHEL shall be resorting to Reverse Auction (RA) (Guidelines as available on [www.bhel.com](http://www.bhel.com)) for this tender. RA shall be conducted among the techno- commercially qualified bidders.

Price bids of all techno-commercially qualified bidders shall be opened and same shall be considered for RA. In case any bidder(s) do(es) not participate in online Reverse Auction, their sealed envelope price bid along with applicable loading, if any, shall be considered for ranking."

**20) EVALUATION CURRENCY: SHALL BE INR.**

**21) QTY. VARIATION: QTY. IS TENTATIVE & MAY VARY UPTO +/-30%**

**22) QAP: NOT APPLICABLE.**

**23) ADDITIONAL TENDER REMARKS:**

ENQUIRY IS FOR RATE CONTRACT WHICH IS TO BE KEPT VALID FOR ORDERING UPTO 12 MONTHS FROM RC FREEZING DATE. ORDERING WILL BE DONE AGAINST FIRM REQUIREMENT AS & WHEN NEEDED AND RC MAY BE CLOSED AT ANY TIME WITHOUT ASSIGNING REASONS WHATSOEVER IT MAY BE.

SUBMIT YOUR TENDER IN TWO PART BID BASIS.

ANNEXURE-IX OF NIT TO BE DULY FILLED / SIGNED & SHOULD FORM PART OF TECHNO-COMMERCIAL OFFER.

SPECIAL / GENERAL TERMS & CONDITIONS OF ENQUIRY, RA TERMS AND CONDITIONS AS PER NEW GUIDELINES, PQR ETC. ARE ENCLOSED.

UNREGISTERED VENDORS ARE REQUESTED TO SUBMIT THE REQUISITE DOCUMENTS FOR REGISTRATION BY BHEL ONLINE REGISTRATION PORTAL (<https://supplier.bhel.in>).

**SPECIAL CONDITIONS OF NIT:**

1. For this procurement, Public Procurement (Preference to Make in India) Order (PPP-MII Order), 2017 vide No. P-45021/2/2017-B.E.-II dated 15.06.2017, 28.05.2018, 29.05.2019 & 04.06.2020 and subsequent Orders issued by the respective Nodal Ministry shall be applicable even if issued after issue of this NIT but before finalization of contract / PO / WO against this NIT.

**2. Technical Pre-Qualification Requirements (PQR) for procurement of Item:** Technical PQR for "BEARING SET – 50 Set, +/- 30%" is attached as a part of NIT. The same is to be followed and complied with. Duly filled PQR shall be submitted along with the offer along with desired documents as per PQR.

**3. FINANCIAL PQR IS APPLICABLE:** Average Turnover of last three years should be at least **Rs 30 Lacs**. Documents to be submitted by the vendor: Audited Statement of P & L accounts OR CA certificate of **Turnover for FY 20-21, 21-22 and 22-23**".

**4. DULY FILLED INTEGRITY PACT FORMAT – NOT APPLICABLE.**

**5. Offers of suppliers who are in 'Hold/Banned' status in BHEL Bhopal PMD** shall not be considered.

**6. ANY DEVIATION OF GTC BP200102B (GENERAL TERMS & CONDITIONS OF ENQUIRY ATTACHED) WHERE VENDOR RESPONSE IS NOT AFFIRMATIVE TO BE CLEARLY INDICATED, ELSE BHEL WILL CONSIDER THAT ALL THE TERMS & CONDITIONS OF GTC BP200102B ARE ACCEPTABLE TO VENDORS.**

**7. IDENTIFICATION MUST AS PER TENDER TECHNICAL (DRAWING, SPECIFICATION ETC.) TERMS. REJECTION CLAUSE APPLICABLE AS PER GTC BP 200102B.**

**8. EVALUATION IN CASE OF MORE THAN ONE L-1 BIDDER:**

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.

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).

RANKING WILL BE DONE ACCORDINGLY. DECISION OF BHEL IN SUCH SITUATIONS SHALL BE FINAL AND BINDING.

**9. 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.**

IN CASE, THE BIDDER IS FOUND HAVING INDULGED IN ABOVE ACTIVITIES, SUITABLE ACTION SHALL BE TAKEN BY BHEL AS PER EXISTANT POLICIES / GUIDELINES.

**10. No request for extension of tender due date will be entertained after due date and time of tender opening under any circumstances. Hence all vendors are requested to submit their bid well within due date and time only.**

**11. 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.**

**12. For this procurement, Public Procurement (Preference to Make in India) Order (PPP-MII Order), 2017 vide No. P-45021/2/2017-B.E.-II dated 15.06.2017, 28.05.2018, 29.05.2019 & 04.06.2020 and subsequent Orders issued by the respective Nodal Ministry shall be applicable even if issued after issue of this NIT but before finalization of contract / PO / WO against this NIT.**

In the event of any Nodal Ministry prescribing higher or lower percentage of purchase preference and / or local content in respect of this procurement, same shall be applicable.

**13. Vendors to also inform:**

- a. Self-certification of Minimum Local content if more than 50% : Yes / No.
- b. Spell out details of location of value addition.

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.

**14.** Margin of purchase preference to make in India is 20% as per Govt. of India Order No. P-45021/2/2017-BE-II DTD 15.06.17, 28.05.2018, 29.05.2019 & 04.06.2020 and subsequent Orders issued by the respective Nodal Ministry. Suppliers to comply & take a note of the same.

**15.** 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 04.06.2020 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.

**16.** FRAUD PREVENTION POLICY: THE BIDDER ALONG WITH ITS ASSOCIATE / COLLABORATORS / SUB-CONTRACTORS / SUBVENDORS / CONSULTANTS / SERVICE PROVIDERS SHALL STRICTLY ADHERE TO BHEL FRAUD PREVENTION POLICY DISPLAYED ON BHEL WEBSITE [HTTP://WWW.BHEL.COM](http://www.bhel.com) AND SHALL IMMEDIATELY BRING TO THE NOTICE OF BHEL MANAGEMENT ABOUT ANY FRAUD OR SUSPECTED FRAUD AS SOON AS IT COMES TO THEIR NOTICE. BHEL CONCILIATION SCHEME SHALL BE APPLICABLE.

**17.** GST TDS CLAUSE: VIDE NOTIFICATION NO. 50/2018 DATED 13.09.18, SECTION 51 CGST HAS BEEN IMPLEMENTED BY CBIC WHICH PROVIDES FOR GST TDS @ 2% (IGST 2% OR CGST 1% + SGST 1%) & SHALL BE APPLICABLE WHERE CONTRACT VALUE IS MORE THAN RS. 2.5 LAKHS & SUPPLIER IS REGISTERED UNDER GST. TDS RETURN SHALL BE FILED AND TDS CERTIFICATES SHALL BE ISSUED BY BHEL AS PER APPLICABLE PROVISIONS. AS PER SEC 51 OF CGST ACT READ WITH NOTIFICATION 50 OF CENTRAL TAX DATED 13TH SEP 2018, TDS SO DEDUCTED SHALL BE REFLECTED ON THE GST PORTAL OF THE VENDOR / CONTRACTOR. IT SHALL BE AS PER PREVAILING GOVERNMENT NORMS AS APPLICABLE.

**18.** 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. GeM aims to enhance transparency, efficiency and speed in public procurement. Detailed Instructions/ Guides/ Videos/ FAQs for registration and processes are available on the portal (<https://gem.gov.in>).

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.

**19.** "The offers of the bidders who are under suspension as also the offers of the bidders, who engage the services of the firms debarred across BHEL, shall be rejected. The list of firms debarred across BHEL is available on BHEL web site [www.bhel.com](http://www.bhel.com).

**1.0 Integrity commitment, performance of the contract and punitive action thereof:**

**1.1. Commitment by BHEL:**

BHEL commits to take all measures necessary to prevent corruption in connection with the tender process and execution of the contract. BHEL will during the tender process treat all Bidder(s) in a transparent and fair manner, and with equity.

**1.2. Commitment by Bidder/ Supplier/ Contractor:**



1.2.1. The bidder/ supplier/ contractor commit to take all measures to prevent corruption and will not directly or indirectly influence any decision or benefit which he is not legally entitled to nor will act or omit in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India.

1.2.2. The bidder/ supplier/ contractor will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract and shall adhere to relevant guidelines issued from time to time by Govt. of India/ BHEL.

1.2.3. The bidder/ supplier/ contractor will perform/ execute the contract as per the contract terms & conditions and will not default without any reasonable cause, which causes loss of business/ money/ reputation, to BHEL.

If any bidder/ supplier/ contractor during pre-tendering/ tendering/ post tendering/ award/ execution/ post-execution stage indulges in malpractices, cheating, bribery, fraud or and other misconduct or formation of cartel so as to influence the bidding process or influence the price or acts or omits in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India, then, action may be taken against such bidder/ supplier/ contractor as per extant guidelines of the company available on [www. bhel.com](http://www.bhel.com) and/or under applicable legal provisions”.

**20.** "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:

a) they have controlling partner (s) in common;

**or**

b) they receive or have received any direct or indirect subsidy/ financial stake from any of them;

**or**

c) they have the same legal representative/agent for purposes of this bid;

**or**

d) they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder;

**or**

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. However, this does not limit the inclusion of the components/ sub-assembly/ Assemblies from. one bidding manufacturer in more than one bid;

**or**

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:

1. The principal manufacturer directly or through one Indian agent on his behalf; and

2. Indian/foreign agent on behalf of only one principal;

**or**

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**

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. "

**21. PERFORMANCE SECURITY: NOT APPLICABLE**

**GENERAL & SPECIAL TERMS AND CONDITIONS OF ENQUIRY AND INDIGENOUS P.O., BHEL SPECIFICATION, DRAWINGS, DECLARATION AGAINST CARTEL FORMATION ARE ENCLSOED. PLEASE FILL UP TECHNO-COMMERCIAL ANNEXURE AND DECLARATION AGAINST CARTEL FORMATION DULY SEALD AND SIGNED PROPERLY AND SEND IT ALONG WITH YOUR OFFER.**

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

Tender No.	E5143151 due on 28/09/2024			
Description :	<b>RATE CONTRACT FOR BEARING SET CONSISTING 1 NO. OF N332 DE ECMSRL-340-370 VA309 TO DIN 43283 AS PER BHEL DRG. C450068 REV.43 ITEM 26 AND 1 NO. OF BALL BEARING NDE 6326-M/C5, VA309 TO DIN 43283 AS PER BHEL DRG.C450067 IT#21 REV.26</b>  <b>TENDER QTY.: 50 Sets, +/- 30%</b>  <b>Delivery required as per NIT.</b>			
<b>Sr. No.</b>	<b>ELEMENTS</b>	<b>Standards</b>	<b>To be offered/confirmed by supplier</b>	<b>Remarks, if any</b>
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 of tender enquiry	Yes / No. (If "No" please mention item number 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)		

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

Tender No.	E5143151 due on 28/09/2024			
Description :	<b>RATE CONTRACT FOR BEARING SET CONSISTING 1 NO. OF N332 DE ECMSRL-340-370 VA309 TO DIN 43283 AS PER BHEL DRG. C450068 REV.43 ITEM 26 AND 1 NO. OF BALL BEARING NDE 6326-M/C5, VA309 TO DIN 43283 AS PER BHEL DRG.C450067 IT#21 REV.26</b>  <b>TENDER QTY.: 50 Sets, +/- 30%</b>  <b>Delivery required as per NIT.</b>			
<b>Sr. No.</b>	<b>ELEMENTS</b>	<b>Standards</b>	<b>To be offered/confirmed by supplier</b>	<b>Remarks, if any</b>
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	Not Applicable	

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

PQR/ TM Bearings/ IM4507

Dated: 12/09/2024

**Technical Pre-Qualification Requirements (PQR) of “Traction motor bearings (DE and NDE) for EMD locomotives”**

**Vendor should comply with the following clauses in order to qualify for supply of “Traction motor bearings for EMD locomotives” (duly filled PQR with seal and signature on each page shall be submitted along with the offer by vendor):**

Cl. No.	Description	Vendor to comment (€)	
		Complied / Not complied	Supporting relevant document to be submitted along with offer
1	Vendor shall confirm to supply RDSO approved “Traction motor bearings- TM Drive end side (DIN 43283-N 332-ECM-SRL 340-370-VA309) and TM Non-drive end side (DIN 43283-6326-M/C5-VA309) for EMD locomotives” .	Yes/No	Compliance
2	Vendor should be a RDSO approved source for supply of both the items “Traction motor bearings- TM Drive end side (DIN 43283-N 332-ECM-SRL 340-370-VA309)” and “Traction motor bearings- TM Non-drive end side (DIN 43283-6326-M/C5-VA309)” for EMD locomotives and its name should appear in Approved Vendors category against both RDSO item ID “3100282002” and “3100282001” in latest RDSO vendor directory (available on IREPS website) as on techno-commercial bid opening date.  Latest RDSO vendor directory can be accessed from Indian Railways E-Procurement System (IREPS) official website.  <a href="https://www.ireps.gov.in/epsn/cvap/admin/tab/vndrDirectoryAnon.do?activity=displayFirst&amp;aprovAgencyCode=-2">https://www.ireps.gov.in/epsn/cvap/admin/tab/vndrDirectoryAnon.do?activity=displayFirst&amp;aprovAgencyCode=-2</a>	Yes/No	Compliance  (Status of approval shall be checked by BHEL as on techno-commercial bid opening date).

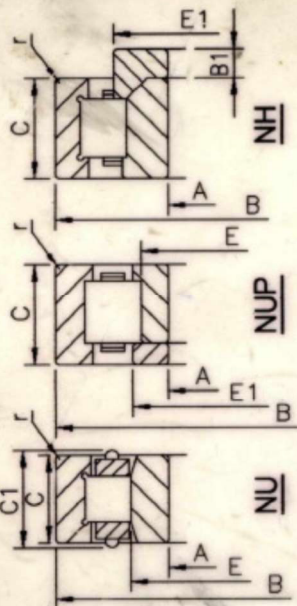
(€):

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 supplier.

**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.



## BEARINGS



NOTES: -

1. SUPPLIER TO FURNISH INFORMATION EVERY TIME WITH OFFERS AS PER C450067(SHEET I).  
2. ITEM 021 & 022 ARE FOR DEVELOPMENT PURPOSE AND CAN BE USED WITH PRIOR PERMISSION OF ENGG. DIVISION.

REV. 43 8.6.18	IT. 035 & 036 ADDED.
REV NO 42 17.8.16	IT. 022 & 023, M/C REF. AND ASSY. DRG. REF. ADDED. IT 033 & 034 RIVETLESS BEARING DELETED.
REV NO 41 26/05/15	IT. 033, 034 ADDED, NOTE-3 ADDED
REV NO 40 22/5/15	IN BOM IT. 023, ASSY. REF. 14394388001 CHANGED TO 04394328002.
REV NO 39	M/C REF. TM 4303 (PE), DRG. NO. - 04394328002 WAS NOT ON.
REV NO 39 28.12.14	IN ITEM 29, M/C REF. TM 3701 (CE), DRG. NO. - 14394431001 & STYLE NO. BL 3024706769 ADDED. IN ITEM 32, DRG. NO. 14394431104 & STYLE NO. BL 3024663636 ADDED. - CONTD -
REV NO 38 12.11.14	NOTE-2 WAS ON. MACHINE REF. TM 4906, TM 4907 & 16SM DELETED FROM ITS. 001, 002, 024. AND REF. ADDED IN ITS. 021, 022.
REV NO 37 26.9.14	M/C REF. TA10102 & TA10106 AND DRG. REF. 24304423002 DELETED FROM IT. 001 & ADDED TO IT. 021.
REV NO 36	IN BOM IT. 001 DIM. 193 WAS 190. DT. 05-05-12
REV NO 35	M/C REF. TA10102 & TA10106 AND DRG. REF. 24304423002 DELETED FROM IT. 021 AND ADDED TO IT. 001.
REV NO 34	IT. NO. 32 WAS NOT ON. DT. 26-05-08
REV NO 33	IT NOS 30 & 31 WERE NOT ON. VALUE OF 'Y' FOR IT. 5 WAS 5. M/C REF TA7003, TA6301 & OA7001 & THEIR ASSY REF ADDED FOR IT. 005. M/C REF & ASSY REF TA10102 & 32 FOR IT 001 WAS ON. TA10102 & TA10106 ADDED FOR
REV NO 32	IT. NO 30 WAS NOT ON.

I.T. NO.	BEARING NO.	MACHINE REF.	ASSY. DRG. REF.	STYLE NO. CODE NO.	BOUNDARY DIMENSIONS								CLEARANCE		MAX. SPEED OVER SPEED	DYNAMIC LOAD(N)	STATIC LOAD(N)
					A	B	C	E	E1	B1	C1	r	DIA.	AXIAL			
1	NU330 EM/C4	TM4906 +65M(PE) TM4939 TG10931AZ TG10919AZ TA-10-102AZ TA-10-102 TA-10-102	04394001001 G250 04314016001 04304059001 24394429902 24394429902	-	150.000 149.975	320.000 319.960	65.00 64.75	193	-	-	65	5	0.165 0.215	0.000 0.000	2275 2250	781000 965000	
2	NU320+ HJ320 (NH320EM/C4)	TM4906 +65M(GE) TM4939	04394001001 G250	-	100.000 99.980	215.000 214.970	47.001 46.80	-	140	13	-	4	0.105 0.140	0.210 0.405	2275 2750	391000 440000	
3	NU418EM/C4 133AW 133AZ (PE)	TM3603 133AW 133AZ (PE)	H022(9) G791 (29)	BP7211553987	90.000 89.980	225.000 224.970	54.00 53.80	123.5	-	-	-	5	0.105 0.140	0.000 0.000	2320 3000	380000 415000	

ISSUED (O.P.VERMA)SD/-	ISSUED BY:- TME (405)
APPD (A.K.DAS) SD/-	DISTRIBUTION:-
CHANGES TO BE APPD BY DIVISIONAL STDS ENGR ONLY	TME -1 , TNX -1 TAM -3 , TXM -3

BHARAT HEAVY ELECTRICALS LIMITED  
BHOPAL

SCALE: -NTS

C450068 (SH.1 OF 5)



564226/2024/HEP-TXM20500

## DIVISIONAL STANDARD

C450068 (SH.2 OF 5)

BEARINGS																
I.T. NO.	BEARING NO.	MACHINE REF.	ASSY. DRG. REF.	STYLE NO. CODE NO.	BOUNDARY DIMENSIONS						CLEARANCE		MAX. SPEED OVER SPEED	DYNAMIC LOAD(N) STATIC LOAD(N)		
					A	B	C	E	E1	B1	C1	r			DIA.	AXIAL
4	NJ315BM+ HJ315 (NH31BM/C4)	TM3601 133AW(CE)	G314 G017 H022	BP7211534966	75.000 74.985	160.000 159.975	37.00 36.85	-	104	11	-	3.5	0.090 0.125	0.120 0.320	2320 3000	242000 265000
5	NJ326EM/C4  VA-301	TM4601 TM4603 TM4605 TM4606 TM4501 TA7003(PE) TA6301(PE) OA7001(PE)	24394337001 24394341001 24394341001 24394341001 24394341001 34304341002 34304341002 34304341002	BP7211532890	130.000 129.975	280.000 279.965	58.00 57.75	167	-	-	-	4	0.145 0.190	0.000 0.000	2800 3500	627000 750000
6	NUP318EM/C4	TM4301 TM4601 TM4603 TM4605 TM4606	G134, G083 24394437002 24394441003 24394441003 24394441003	BP7211538996	90.000 89.980	190.000 189.970	43.000 42.800	115	125	-	-	3	0.105 0.140	0.205 0.385	2800 3500	319000 360000
7	NJ322EM/C4	TM3601 (PE)	G426(28) G410(28)	BP7211532874	110.000 109.98	240.000 239.97	50.00 49.98	143	-	-	-	4	0.125 0.165	0.000 0.000	2320 3000	468000 540000
8	NJ413M+ HJ413 (NH413M/C4)	TM3603AZ (CE)	H4505022	BP7211555988	65.000 64.985	160.000 159.975	37.00 36.85	-	98.5	11	-	3.5	0.080 0.110	0.120 0.250	2725 3850	183000 190000
9	NJ328EM/C4	TM4301(PE) TM5002AZ(PE) TAO 659(PE)	24394302002 14394327001 24394355003	BP7211532904	140.000 139.975	300.000 299.965	62.00 61.75	180	-	-	-	5	0.145 0.190	0.000 0.000	2470 3350	682000 830000
10	NJ314EM/C4 (BRASS CAGE ONLY)	AG3101(PE) PTU 70 AZ (DE)	H 048(20) 14341021001	BP7211532866	70.000 69.985	150.000 149.982	35.00 34.85	90	-	-	-	3.5	0.090 0.110	0.000 0.000	2380 3000	205000 228000
11	NJ320EM/C4	G320(PE)	04394038001 (13)	BP7211532866	100.000 99.980	215.000 214.970	47.00 46.88	127.5	-	-	-	3	0.105 0.140	0.000 0.000	2097 2620	319000 440000

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## BEARINGS

FOR LATEST REVISION, REFER SHEET NO. 1

ISSUED (O.P. VERMA)

APPD (A.K. DAS)

CHANGES TO BE APPD BY  
DIVISIONAL STDS ENGR ONLY

ISSUED BY:- TME (405)

DISTRIBUTION:-

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BHOPAL

SCALE:-NTS

C450068 (SH.2 OF 5)



564226/2024/HEP-TXM20500

## DIVISIONAL STANDARD

C450068 (SH.3 OF 5)

## BEARINGS

BEARINGS																	
I.T. NO.	BEARING NO.	MACHINE REF.	ASSY.DRG. REF.	STYLE NO. CODE NO.	BOUNDARY DIMENSIONS							CLEARANCE		MAX. SPEED OVER SPEED	DYNAMIC LOAD(N) STATIC LOAD(N)		
					A	B	C	E	E1	B1	C1	r	DIA.			AXIAL	
12	NU312 +HJ312 (NH312EQMC4)	G320(CE)	04394038001 (34)	BP7211534958	60.000 59.985	130.000 129.982	31.00 30.88	-	-	-	-	-	2.1	0.080 0.110	0.150 0.250	2097 2620	151000 160000
13	NU324M/C4	TM3701(PE)	14394331001	BP7211532882	120.000 119.980	260.000 259.965	55.00 54.80	154	-	-	-	-	3	0.105 0.160	0.000 0.000	2600 3200	539000 620000
14	NH318MC4 EX26	TM3701(CE) TM5002AZ TAO 659(CE)	14394431001 24394427002 24394455002	BP7211534974	90.000 89.980	190.000 189.970	43.00 42.98	165	-	-	-	-	3	0.090 0.140	0.205 0.385	2753 3200	319000 360000
15	NU446826 W2/W25B	TM4501(PE)	34394353002		130.000 129.975	280.000 279.965	58.00 57.75	167	-	-	-	-	5	0.145 0.190	0.000 0.000	3100 3800	627000 750000
16	NH324 EMACG175	HS15250(CE)	14394460003	BP7211534990	119.998 119.985	260.000 259.075	55.00 54.88	154	168.5	14.0	-	4	0.165 0.205	0.260 0.475	2200 2800	475000 550000	
17	NU330 EMA/C188	HS15250(PE)	14394360003	BP7211532920	149.998 149.982	320.000 319.972	65.00 64.75	193	-	-	-	4	0.165 0.210	0.000 0.000	2200 2800	715000 855000	
18	NH309C4	MG51CW ME	24414433003	-	45.00 44.988	100.00 99.985	25.00 24.88	-	64	7.0	-	1.5	0.070 0.100	0.12 0.18	1320 2400	79000 77500	
19	SKF NU2236 EMRDC4 VA301 FAG NU2236 E 801488	6FRA6068 (DE)	14454364001	-	180.00 179.975	320.00 319.972	86 85.75	215	-	-	-	4	0.170 0.220	0.000 0.000	2584 3230	1010000 1500000	
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ISSUED (D.P.VERMA)  
SD/-

ISSUED BY:- TME(405)

APPD (A.K.DAS)  
SD/-DISTRIBUTION:-  
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TAM -3, TXM -3CHANGES TO BE APPD BY  
DIVISIONAL STDS ENGR ONLYBHARAT HEAVY ELECTRICALS LIMITED  
BHOPAL

SCALE:-NTS

C450068 (SH.3 OF 5)



5642226/2024/HEP-TXM20500

## DIVISIONAL STANDARD

C450068 (SH.4 OF 5)

## BEARINGS

BEARINGS																
I.T. NO.	BEARING NO.	MACHINE REF.	ASSY.DRG. REF.	STYLE NO. CODE NO.	BOUNDARY DIMENSIONS						CLEARANCE		MAX. SPEED OVER SPEED	DYNAMIC LOAD(N) STATIC LOAD(N)		
					A	B	C	E	E1	B1	C1	r			DIA.	AXIAL
20	SKF NJ320 ECM C4 VA 309+HJ320 EC VA 301  FAG NJ320 EM 1 C4 F1 J 20 A +HJ320EF1	6FRA6068 (NDE)	14454464002	-	100.000 99.980	215.00 214.97	47.001 46.80	-	140	13	-	4	0.105 0.140	0.210 0.405	2584 3230	391000 440000
21	NU330/ECMRD/ C4/VA301 (CYL CAGE PROFILE)	TM4906AZ (PE) <del>TM4907</del> <del>TA10102</del> <del>TA10106</del>	04394001001  <del>24304423002</del>	9024684307	150.000 149.975	320.000 319.960	65.00 64.75	190	-	-	65	5	0.165 0.215	0.000 0.000	2275 2250	781000 965000
22	NH320/ECMRD/ C4P/VA301 (CYL CAGE PROFILE)	TM4906AZ (CE) <del>TM4303CE</del> <del>TM4907</del> <del>TM4303</del> <del>(CE)</del>	04394001001 <del>14394423002</del> <del>14394423002</del> <del>14394423002</del> <del>9024752523</del>	9024684315	100.000 99.980	215.000 214.970	47.001 46.80	-	140	13	-	4	0.105 0.140	0.120 0.320	2275 2750	391000 440000
23	NU328/ECMRD/ C4/VA301 RIVETLESS	TM5002 (PE) <del>TM4303 (PE)</del> <del>TM4701AZ</del> <del>TM4303 (PE)</del>	14394327001 <del>04394328002</del>	9024706084	140.000 139.975	300.000 299.965	62.0 61.75	180	-	-	-	5	0.145 0.190	-	2470 3350	682000 830000
24	NH320ECP/C4 POLYAMIDE CAGE	<del>TM4907</del> <del>TM4906</del>	04394001001	9024752531	100.000 99.980	215.000 214.970	47.001 46.80	-	140	13	-	4	0.105 0.140	0.210 0.405	2275 2750	391000 440000
25	NU2332ECMC4 VA301	TA10103AZ	24304490001	9024697573	160.000 159.975	340.000 339.96	114.000 113.75	-	-	-	-	4	0.165 0.215	-	-	1320000 1830000
26	N332-ECM-SRL 340-370-VA309 TO DIN43283 (OIL LUBRICATED ELECTRICALLY INSULATED)	IM4507 (DE)	24454392002	9024720125	160.000 159.975	340.000 339.96	68.000 67.85	-	-	-	-	4	0.165 0.215	-	-	865000 1060000

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SD/-CHANGES TO BE APPD BY  
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BHOPAL

SCALE:-NTS

C450068 (SH.4 OF 5)



DIVISIONAL STANDARD										C450068 (SH.5 OF 5)					BEARINGS				
I.T. NO.	BEARING NO.	MACHINE REF.	ASSY. DRG. REF.	STYLE NO. CODE NO.	BOUNDARY DIMENSIONS					CLEARANCE		MAX. SPEED OVER SPEED	DYNAMIC LOAD (N)	STATIC LOAD (N)					
					A	B	C	E	E1	B1	C1	r	DIA.	AXIAL					
27	NU1964 M1 A C4 TOLERANCE TO DIN620	6FRA6068 SUSPENSION DE	04451564002	9024726271	319.990 319.960	439.985 439.955	55.9 55.6	-	-	-	-	3	0.305 0.385	-	-	-	580000 1050000	-	-
28	NU1044- 566185 CAGE M1 RAD CL-C4 HJ1044 F 55 TOLERANCE TO DIN620	6FRA6068 SUSPENSION NDE	04451564002	9024726280	220.000 219.970	340.00 339.96	56.00 55.7	-	261.7	-	14	3	0.220 0.280	-	-	-	510000 765000	-	-
29	NH318 ECMR/ C4 VA 301 (CYL CAGE PROFILE)	TM5002AZ (CE) TM4701AZ (CE) TM3701 (CE)	24394427002 24394488002 14394431 001	BL 9D24 706769	90.00 89.980	190.00 189.970	43.00 42.98	165	-	-	-	3	0.090 0.140	0.205 0.385	2753 3200	319000 360000	-	-	-
30	NH324EM/C4 VA-301	TA-7003 BX (NDE)			120.000 119.980	260.000 259.965	55	-	168	14	3	0.125 0.165	0.260 0.475	1900 2200	539000 620000	-	-	-	-
31	NH326EM/C4 VA-301	TA-7003AZ AY (NDE)	34304473001		130.000 129.975	280.000 279.965	58.00 57.75	-	182	14	-	4	0.145 0.190	0.260 0.475	1800 2160	627000 750000	-	-	-
32	NU328AECM RD/C4VA301 RIVETLESS (CYL. CAGE PROFILE)	TM3701 (PE)	14394331104 14394331104	BL 902467366 BP902471802 (RIVETED)	120.000 119.980	260.000 259.965	55.00 54.80	154	-	-	-	3	0.105 0.160	0.000 0.000	2600 3200	539000 620000	-	-	-
33	NU328ECM/ C4 (RIVETED)	TM4303 (RE)	04391328002	BP902471802 (RIVETED)	140.000 139.975	300.000 299.965	62.0 61.75	180	-	-	-	5	0.145 0.190	-	2470 3350	682000 830000	-	-	-
34	NH320ECM/ C4 (RIVETED)	TM4303 (RE)	14394331104 14394331104	BP902471802 (RIVETED)	120.000 119.980	260.000 259.965	55.00 54.80	154	-	-	-	3	0.105 0.160	0.000 0.000	2600 3200	539000 620000	-	-	-
35	NU324 ECMRA /C4 VA301	IM3601AZ IM3301AZ/BZ IM3302	24454303001		120.000 119.980	260.000 259.965	55.00 54.80	154	-	-	-	3	0.105 0.160	0.000 0.000	2600 3200	539000 620000	-	-	-
36	NH318 ECMR/ C4 VA3091 (INSULATED)	IM3601AZ IM3301AZ/BZ IM3302	24454403001 24454409001		90.00 89.980	190.00 189.970	43.00 42.98	165	-	-	-	3	0.090 0.140	0.205 0.385	2753 3200	319000 360000	-	-	-

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APPD (CA.K.DAS)  
SD/-

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BHARAT HEAVY ELECTRICALS LIMITED  
BHOPAL

SCALE:-NTS

C450068(SH.5 OF 5)



# BEARINGS

AKD Copy

Technical Specification for Rolling Bearings

DRAWINGS AND TECHNICAL INFORMATION TO BE SUBMITTED WITH QUOTATION EVERY TIME ON BEARING OFFERED

C450067 (SH-15)

1. Dimensioned drawing of the bearing.
2. Type & Make of bearing.
3. Significance of each suffix/prefix.
4. Accuracy class (Normal/P5/P6)
5. Suitability for application (Traction / Industrial)
6. Number of rollers & size.
7. Radial internal clearance.
8. Axial clearance.
9. Type of cage construction (Standard/Drop roller).
10. Type of cage guiding (Roller/Outer race)
11. Cage Material (Brass/Steel)
12. Material specification for rollers & races.
13. Surface finish on rollers and races.
14. Dynamic capacity of bearing.
15. Static capacity of bearing.
16. Maximum permissible speed (with Grease Lubrication)

## GENERAL REQUIREMENTS

Bearings offered should conform to the below mentioned requirements :

1. Bearings should be of special execution for traction application with suffix VA301 (SKF), F1 (FAG), SV1 (STEYR), MT (RHP) etc. Following special features may be envisaged in design and manufacturing processes.

1.1 Improved and uniform surface finish by grinding of track chamfers, honing of tracks and lapping of rollers.

1.2 Optimized cage construction for efficient lubrication.

1.3 Vibration and noise level specially controlled.

1.4 Bearings rings stabilised for higher temperatures.

1.5 Uniform hardness on bearing rings and rollers, variation not exceeding 1/2 RC with in the same element.

1.6 We require BEARINGS WITH INTERCHANGABLE ASSEMBLY ONLY. Boundary dimensions and its tolerance to be as per this drawing and is generally based on ISO 15:1981 and ISO 492:1981.

3. Radial Bearing clearance & axial clearance in roller bearing to be as per this drawing and is generally based on draft ISO 5742 Rev. 1, DIN 620 & DIN 43283 unless stated otherwise in the drawing.

4. Accuracy class for internal dimensions of bearing to be P5/P6.

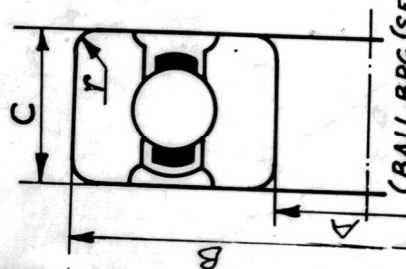
5. Rollers should be designed to cater for increased load carrying capacity.

## DIVISIONAL STANDARDS

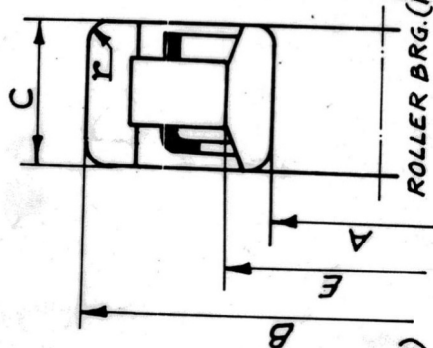
REV. 15	ISSUED BY: <i>AKD</i>	ISSUED BY: <i>AKD</i>	TRACTION MTS. D.O.	CHANGED TO BE APPD BY: <i>AKD</i>	SCALE: NTS.	C450067 (SH-15)
BHAVAT HEAVY ELECTRICALS LTD.		BHOPAL				

## DIVISIONAL STANDARDS

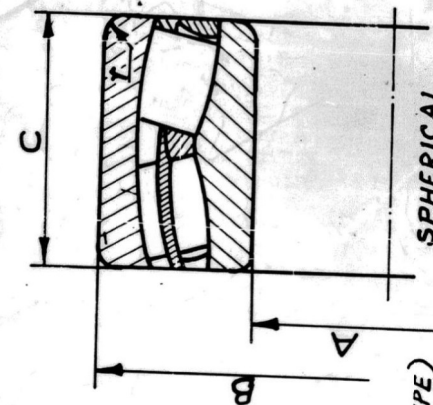
C450067(SH.2)



(BALL BRG. (SERIES 62,63,64)



ROLLER BRG. (NU TYPE)



**SPHERICAL  
ROLLER BRG.**

**NOTE:- SUPPLIER TO FURNISH INFORMATION EVERY TIME WITH OFFERS AS PER DRG. C450067(SHEET-1)**

SL. NO.	BEARING NO.	M/C REF.	ASSY. DRG. REFERENCE	STYLE/ CODE NO.	BOUNDRY DIMENSIONS (MM)						CLEARANCE		MAX. SPEED OVER SPEED	DYN. LOAD STAT. (N)
					A	B	C	E	T	DIA.	AXIAL			
1	NU309/C4	AG 51-DE PTU - NDE AG-51/M	04334017001	BP 7211532807	45.000 44.988	100.000 99.985	25.00 24.88	58.5	1.5	0.070 0.100	-	2380 3000	99000 100000	
2	6308Z/C4	AG 51/M (CE)	04334017001	BP 7210144994	40.000 39.988	90.000 89.986	23.00 22.88	-	2	0.028 0.046	-	2380 3000	41000 24000	
3	6309/C4	GB 13A GB 13A/M PTU (DE)	04341016001	BP 7210143971	45.000 44.988	100.000 99.985	25.00 24.88	-	2	0.03 0.051	-	2380 3000	52700 31500	
5	6308/C4	MG 51 BY MG 51 BX BX / M (CE)	G4515445(54)	BP 7210143904	40.000 39.988	90.000 89.985	23.00 22.88	-	2	0.028 0.046	-	1320 2400	41000 24000	

**BHARAT HEAVY ELECTRICALS LTD.**  
**BHOPAL**

SCALE :- N.T.S.

C450067(SH.2/5)

ISSUED *Jan 2*  
APPD. *RKSas*  
CHANGES TO BE APPD BY  
DIVISIONAL STD. ENGR. ONLY

ISSUED BY:  
TRACTION M/CS. D.O.  
O/C - 1, TAM-3  
TNX - 1  
TXM - 3



## BEARINGS

C450067(SH.4/5)

## DIVISIONAL STANDARDS

C450067														
SL. NO.	BEARING NO.	M/C REF.	ASSY DRG. REFERENCE	STYLE/ CODE NO.	BOUNDARY DIMENSIONS					CLEARANCE		MAX. SPEED OVER SPEED	DYN. LOAD (N)	
					A	B	C	E	F	DIA.	AXIAL		STAT. LOAD	LOAD
14	6313Z/C4 (CAN BE USED WITH POLYAMIDE CAGE.)	AG3101AY TM3604AZ (CE)	H4505048(14) H4505061	BP7210144986	65.00 64.985	140.00 139.982	33.00 32.85	-	35	0.038 0.061	-	2380 3000 1512	92300 60000	
15	6409/C3	DY3423/M (CE & NCE)	24434447001 24434347002	BP7210161996	45.00 44.988	120.00 119.985	29.00 28.88	-	2	0.018 0.036	-	3500 6000	76100 45000	
16	SPHERICAL ROLLER BRG. 22312CC/C3	TG4302	14314156005	BP721235399	60.000 59.985	130.000 129.982	46.00 45.88	-	2.1	0.065 0.090	-	2100 2625	235000 280000	
17	6318MC4	TM4501 (CE)	34394153002	BP7210143939	90.000 89.980	190.000 189.970	43.00 42.88	-	3	0.053 0.084	-	3100 3800	143000 108000	
18	6314Z/C3	PTU70 AZ (NDE)	14341021001	-	70.000 69.985	150.000 149.982	35.00 34.85	-	2.5	0.025 0.051	0.040 0.070	2500 3740	104000 68000	
19	NU312 EC/C3	IA-2601AZ (NDE)	24324478001	-	60.00 59.985	130.00 129.982	31.00 30.85	-	2	0.055 0.075	-	4300 5000	151000 98000	
20	7312B (ANGULAR CONTACT BALL BRG.)	IA2601AZ (DE)	24324378001	-	60.00 59.985	130.00 129.982	62.00 61.70	-	2	0.022 0.055	0.025 0.065	3400 4500	146000 112000	

50-1024/REP-TXM20500

ISSUED. 0209

PPD.

CHANGES TO BE APPD. BY  
DIVISIONAL STD. ENGR. ONLYISSUED BY  
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TNX-1  
TXM-3BHARAT HEAVY ELECTRICALS LTD.  
BHOPAL

SCALE:- N.T.S

C450067(SH.4/5)

12

564226/2024/HEP-TXM20500

# DIVISIONAL STANDARDS

C450067 (S. 5/5)

C450067 (3-515)															BEARINGS														
SL NO	BEARING NO.	M/C REF	ASSY. DRG. REFERENCE	STYLE/ CODE NO.	BOUNDARY DIMENSION										CLEARANCE		MAX SPEED OVER SPEED	DYN LOAD STAT LOAD											
					A	B	C	E	E1	B1	C1	Y	DIA	AXIAL															
21	6326-M/C5 VA 309 TO DIN 43203	1A0807 NDE	24454492001	9024720133	130 129.975	280 279.965	58 57.75	-	-	-	-	-	4	0.105 0.160	X	-	229000 216000												
22	22324 VAJ DOUBLE ROW SPHERICAL ROLLER BEARING IS ROLLER/ROW	TA9901	4430447001	9024677766	199.999 119.979	259.999 259.963	85.999 85.796	-	-	-	-	-	3	0.160 0.210	-	-	229000 216000												
23	6312/C3	TA7005 NDE TA6301 NDE TA7001 NDE	14321093001	9024812011	60.000 59.985	130.000 129.982	31.00 30.85	-	-	-	-	-	2.1	0.023 0.043	-	-	81500 45000												
24	6326M/C4 VA 301	TA7005 NDE TA6301 NDE TA7001 NDE	37164434004 34304411001 34304411001		130.000 129.975	280.000 279.965	58.00 57.75	-	-	-	-	-	4	0.071 0.114	0.060 0.100	1800 2160	229000 216000												

## BEARINGS

17.5, 21 & 22 WERE NOT ON. 17.5 WAS NOT ON.

ISSUED

APPD.

CHANGES TO BE APPD BY

DIVISIONAL STD. ENGR ONLY

ISSUED BY

TRACTION M/C/S.D.O.

OC

TNX

BHARAT HEAVY ELECTRICALS LTD  
BHOPAL

SCALE:

C450067





FORM NO. MM 5527

Rev - 03

**B.H.E.L., P.O. TERMS & CONDITIONS (INDIGENOUS)**

The purchase order is subject to the following terms &amp; conditions unless otherwise specified and directed :-

**1. ORDER ACKNOWLEDGEMENT :**

Order acknowledgement in the enclosed format must reach the concerned officer of Materials Management Divisions within 4 weeks of issue of purchase order. Failure to do so within stipulated period will be deemed to mean that the order has been accepted by the supplier.

**2. PACKING :**

a) The supplier shall securely protect and pack the goods against loss, damage or corrosion in transit. Packing shall allow for easy removal and checking on site and comply with carrier conditions of packing or established trade practice.

b) Cases and packing materials shall be supplied free of charge unless otherwise agreed to. Wherever specifically agreed to, empties shall be returned at suppliers expenses but no liability will be accepted by BHEL in respect thereof.

c) Damage to the consignment resulting out of poor/inferior packing shall be to the account of the supplier.

**3. MARKING :**

a) The following details to be clearly marked on each case/box/packing/bundle and reel.

i) Consignee ii) BHEL Order No. iii) Gross weight iv) Net weight v) Dimensions in CMS vi) Brief description of item vii) BHEL Destination Code (refer purchase order) viii) Consignor.

b) All markings for safety, proper handling, storage, protection etc. are to be clearly marked on the case as per Indian Standard.

**4. CONSIGNEE :**

Unless otherwise mentioned, all goods shall be consigned as noted below :

a) Rail : Sr. Manager, Central Receiving Section, HESG Central Railway via Bhopal.

Note : Goods must not be consigned to Bhopal Station, HESG via Bhopal is an assisted siding in IRCA Chapter VIII page 373. All goods in small or wagon loads should be booked to this siding.

b) Road : Sr. Manager, Central Receiving Section Block VII, BHEL Despatches must be arranged through BHEL's approved transporters on door delivery basis.

c) Post/Air parcel : Sr. Manager Central Receiving Section Block VII, BHEL, Bhopal - 462 022.

d) Supplier not complying with instructions at (a), (b) &amp; (c) above shall do so at their risk and cost.

**5. PRICE :**

Unless specifically agreed to other wise, all prices shall be treated as FIRM.

**6. TERMS OF PAYMENT :**

The standard payment terms shall be as specified below and specified in the Purchase Order. It is however made clear that BHEL shall not accept any interest liability.

**A. Local ancillary and SSI Units and other local parties.**

100% payment on receipt and acceptance of Materials within 90 days of the date of receipt in BHEL.

**B. Outstation SSI and other Suppliers.**

BHEL prefers 'door delivery' of material in which case payment shall be within 90 days from the date of despatch. In case documents through Bank 100% payments within 90 days from the date of despatch of Material. Delivery at our works.

In case of Payments through other negotiable instrument like Bill of Exchange/Hurdles etc. then the Material be delivered on 'door delivery' basis. 100% payment within 90 days from date of acceptance of negotiable Bill of Exchange/Hurdles. Hurdles will be accepted by BHEL within 7 days of presentation or otherwise in accordance with contract.

नोट :- भुगतान के पंजीकृत डाक द्वारा भेजा जायेगा। डाक विभाग द्वारा भेक विलम्ब से पहुंचने अथवा गिरावट-वस्तुओं या अन्य कारणों से अनधिकृत हानि व क्षति पर हमें कोई ज़िम्मेदारि नहीं है।  
NOTE :- The cheque will be sent by Registered post and the Company will in no way be responsible, if loss occurs due to delay by postal authorities or cheque falling into improper hands through forgery of fraud.

**7. DOCUMENTATION :**

The supplier shall forward four sets of the document as detailed below :-

a) 1 set to the concerned Purchase officer, Materials management Deptt. 2nd floor Administrative Building, BHEL Bhopal-462 022, comprising of

- |                                      |          |
|--------------------------------------|----------|
| i) Invoice                           | 1 copy   |
| ii) Challan/Despatch Advice note     | 2 copies |
| iii) Guarantee Certificate           | 3 copies |
| iv) Test Certificate                 | 4 copies |
| v) Proforma for insurance            | 2 copies |
| vi) Photo copy of ED Paying Document | 1 copy   |
| vii) Photo copy of LR/RR             | 1 copy   |

b) 11nd set to Dy. General Manager, Central Receiving Section, Block-VII, BHEL, Bhopal-462 022 comprising of :-

- |  |        |
|--|--------|
| i) Original LR/RR (if not negotiated through Bank) |        |
| ii) Invoice  | 1 copy |
| iii) Challan/Despatch advice note                  | 1 copy |
| iv) Excise Duty Paying document (Excise challan)   |        |

c) 111rd set to Dy. Manager Purchase Bills Section, 4th floor Administrative Building BHEL, Bhopal-462022 comprising of :-

- |  |          |
|--|----------|
| i) Signed invoice                                      | 2 copies |
| ii) Excise Duty Paying Document (duplicate/photo copy) | 1 copy   |

d) 1Vth set to the bank in case of documents negotiated through Bank separately to each Purchase order comprising of :-

- |   |          |
|---|----------|
| i) Original RR/LR   |          |
| ii) Signed invoice  | 2 copies |
| iii) Original Excise duty Paying Document (only in case of rail despatches) |          |
| iv) Test Certificate  | 1 copy   |
| v) Guarantee certificate  | 1 copy   |

**Note :**

'C' form shall be issued directly to the supplier. No 'C' form shall be exchanged against documents through Bank. This will be issued once in a year against a P.O.  
In case of materials going to site directly, 'C' form will be issued after suppliers confirmation that he will issue corresponding E1 form.

8. **Excise only :** The original Excise duty paying document or equivalent document indicating tariff Item No. and drawn in favour of BHEL, Bhopal for each consignment shall accompany the transporters in case of road despatches and with R/R in case of rail despatches. In case of any other mode of despatch (such as Regd. Post Parcel /Air Parcel etc.) the same shall be forwarded to Sr. Manager, Central Receiving Section, Block VII, BHEL, Bhopal-462 022 directly by registered post/hand delivery. The Excise duty paying document must not be enclosed inside the packing case No Excise Duty shall be paid in the absence of the above document.

**9. SALES TAX :**

BHEL Bhopal is registered as a manufacturer under Sales Tax registration No. BPL/HEL/11, MPST No. BPL/HKL/9, Sales Tax declaration form will be issued as per rules. Supplier is to furnish E-1 form within 15 days after receipt of 'C' form in favour of Sr. Mgr. (Sales Tax) Materials Management Deptt.  
for the despatches direct to customers i.e. Destination other than BHEL Bhopal Otherwise full CST & Penalty will be paid by Supplier.

supply. Wherever possible despatch particulars like MR with date, PO No. and value should be furnished by TLX. TLG to Sr. Mgr. concerned group and to our underwriters (Gram : National Insurance TLX : 0705-336 cable/NIC Div).

**11. QUALITY :**

All the goods supplied and services rendered must be the best of their kind and conform to the specification mentioned in the order and/ or to be strictly in accordance with approved samples or drawings.

**12. INSPECTION :**

All the goods and works are subject to BHEL's inspection or where stipulated by BHEL's client or his authorised nominees at supplier works. Despatch can be arranged against despatch clearance note issued by BHEL inspection and/or customer's representative. However final acceptance is subject to inspection and acceptance at the destination.

**13. TEST CERTIFICATE :**

All certificates called for in the specification or order must be sent by Registered Post with the Advice Note, BHEL may test any goods supplied and their decision is final irrespective of supplier's certificates.

If test certificate and guarantee certificate are not received alongwith the document and stipulated in these specifications, BHEL reserves the right to get the material tested and recover the expenses from the supplier without awaiting suppliers confirmation.

**14. GUARANTEE :**

All goods shall be free from any defect due to faulty design/material and / or workmanship/erection (Where called for) and will be guaranteed for a period of twelve months from the date of commissioning of the goods or 24 months from the date of despatch whichever is earlier. However, for any "Type defects" Supplier will be responsible even after 24 months, if failure of the item on a/c of this.

Where the contract stipulates submission of Bank guarantee the Suppliers shall get validity period of the same extended from the Bank as and when required, failing which it will be treated as Breach of the terms of the contract and the contract is liable to be cancelled and the loss suffered by BHEL shall be recoverable from the supplier.

**15. REJECTION :**

If any goods are rejected, BHEL shall be at liberty to take action as per following at the risk and cost of supplier: a) Allow the supplier, where ever mutually agreed, to rectify the rejected goods at BHEL's work within reasonable time as fixed by BHEL.

b) Allow the supplier to make free replacement within a specified period. Rejected goods can be lifted by the supplier thereafter.

c) Allow supplier to refund the full amount paid to him by BHEL by a demand draft before lifting the rejected goods. Fresh replacement shall be regulated as per terms and condition of the original Purchase Order.

d) Take alternate procurement action from elsewhere and recover the difference in cost. If any, incurred by BHEL in this regard from the supplier. The supplier shall not be entitled to any gain on repurchase.

e) Terminate the contract either in part or in whole at the discretion of BHEL and recover the loss if any from the supplier.

f) Any goods rejected by BHEL must be removed by the supplier after making payment through Demand Draft within 45 days from the date of intimation of rejection or 30 days after receipt to of the intimation of rejection which ever is earlier. If the goods are not removed within the period stipulated above, the goods shall be liable to be sold by BHEL and the proceeds there of shall be adjusted towards storage charge and or other dues.

**16. DRAWINGS, PATTERNS & TOOLS :**

All drawings as also all patterns and tool supplied by BHEL or made at BHEL's expense are BHEL's property. These cannot be used or referred to any other party and must only be used in the execution of BHEL's orders. These shall be preserved at the supplier's cost for a period of not less than 5 year.

**17. INDEMNITY :**

Supplier shall indemnify BHEL against the following:

a) Any claim or infringement of letters, patent or registered design by the use or sale of any article or materials supplied to BHEL and against all costs and damages which may incur in any action for such infringement or for which BHEL become liable in any such action.

b) All claims for injury or damages caused by the suppliers negligence or the negligence of supplier's employee or arising from any defect in the goods supplied or on the work carried out the supplier.

c) All claims for injury to the supplier's employees or agents employees whilst on BHEL premise.

**18. SUB-CONTRACT :**

BHEL's order or part there off, if further to be subcontracted in exceptional circumstances the details of subcontracting and to whom to be subcontracted shall be furnished to BHEL and written permission shall be obtained from BHEL. However it shall not absolve the supplier of the responsibility of fulfilling BHEL order requirements.

**19. VARIATION OF ORDERS :**

No variation to this order is permitted unless authorised in writing and signed by or on behalf of purchase executive, BHEL Bhopal.

**20. LIQUIDATION DAMAGE/PENALTY :**

a) Failure to effect supply by the time specified in the order or period of extension granted in writing by BHEL will make the supplier liable to pay liquidated damages/unconditional penalty, as the case may be, of 1/2% (Half Percent) of the price of the goods in arrears per week at the discretion of BHEL, subject to a maximum of 10% of the order value.

b) If the material is not supplied within stipulated time BHEL shall be within their right to cancel the contract and purchase, the material through any other source at the risk and cost of the supplier. In such an event it shall be obligatory on the defaulting supplier to make good any loss suffered by BHEL.

**21. ADJUSTMENT OF RECOVERY OF AMOUNT PAYABLE BY THE SUPPLIER :**

Any amount payable by the consignor/supplier under any of the condition of this contract shall be liable to be adjusted against any amount payable to the consignor/supplier under any other/works/contract awarded to him. This is without prejudice to any other action as may be deemed fit by BHEL.

**22. JURISDICTION :**

All suits or any matters arising out of this purchase order shall be lie in BHOPAL COURTS ONLY.

**23. ARBITRATION :**

In all cases of disputes emanating from and in reference to this Purchase Order the matter shall be referred to the arbitration of the sole arbitration of the Executive Director/ GM of BHEL, Bhopal or any other person (including an employee of BHEL, even though he had to deal with the matter relating to this P.O. in any manner) nominated by the said Executive Director/ GM to act as sole arbitrator. The arbitration shall be under THE ARBITRATION AND CONCILIATION ACT OF 1996 and the rules there under. The arbitrator may from time to times with the consent of the parties enlarge the time for making and publishing the award.

**24. HAZARDOUS/TOXIC CHEMICALS :**

Supplier to supply the "Material Safety Data Sheet (MSDS)" in the standard prescribed proforma as per the environment act Schedule-9 Rule 17, Manufacture, Storage And IMPORT of chemicals Rule-1989.

**25. SAFETY CLAUSE FOR PURCHASE ORDERS :**

The vendors shall maintain and ensure sufficient safety measures as required for inspections and test like HV test, Pneumatic test, Hydraulic test, Spring test, Bend test, Material handling and safe working environment etc. to enable Inspection Agency for performing inspection.

The vendor shall ensure that all the safety precautions specified in factories Act 1948 Chapter-IV Section-21 to 41 are complied with regard to employees to be benefited.



**DECLARATION BY VENDOR**

We declare that the following family firms or sister concern affiliates / subsidiary firms are participating in the tender no E .....

1.0 .....

2.0 .....

3.0 .....

I, ..... hereby declare on behalf of M/s ..... and the family firms or sister concern affiliates / subsidiary firms listed above that we are not indulging in cartel formation for Enquiry no E .....

(.....)

For M/s .....

(Seal & sign)



# COMPANY LETTER HEAD

**ANNEXURE-M**

## **Certification under Preference to** **“MAKE IN INDIA” Policy**

### **CERTIFICATE**

In line with Government Public Procurement Order No. P-45021/2/2017-BE-II, dated 15.06.2017, *as amended from time to time and as applicable on the date of submission of tender*, hereby certify that

M/s \_\_\_\_\_ (Bidder name)  
is meeting the requirement of minimum Local Content as defined in above orders for the material against Tender Ref. No. \_\_\_\_\_

Actual percentage of the Local Content (in %): \_\_\_\_\_

ADDRESS of the location at which local value addition shall be made:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

It is understood that false declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rule (GFR) for which the bidder or its successors can be debarred for upto two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.

\_\_\_\_\_  
(Signature of Authorized Signatory  
& Company Seal with Name)

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**NOTE:** In case the bid value more than Rs. 10 Crores, bidder shall necessarily submit certificate from Statutory Auditor or Cost Auditor (if the OEM is a Company) and Cost Accountant or Chartered Accountant (for OEMs other than Companies) as per the above Circular & NIT.

 <b>BPC 0007</b> <b>ENQUIRY</b> <b>TWO PART BID</b>	<b>भारत हेवी इलेक्ट्रिकल्स लिमिटेड, पिपलानी, भोपाल - ४६२०२२(भारत)</b> <b>सामग्री प्रबंधन विभाग</b> <b>BHARAT HEAVY ELECTRICALS LIMITED, PIPLANI, BHOPAL – 462022(INDIA)</b> <b>MATERIALS MANAGEMENT DIVISION</b>			<b>ENQUIRY NO</b> E5143151 <b>ENQUIRY DATE</b> 18/09/24 <b>ENQUIRY DUE DATE</b> 28/09/24	
	<b>TIN NO: 23573600001   ECC NO. AAACB4146PXM009   MPCT NO. HEL/05/01/0001/S15/11/79</b> <b>PHONE: 91-755-2500100 (7 LINE)   FAX: 91-755-2500023   WWW.BHEL.BHOPAL.COM</b>				

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	0	0	1	120541106
	GUARANTEE CERTIFICATE		Y	SUPPLY CONDITION IDENTIFICATION MUST				
	TEST CERTIFICATE		N					
	INSTRUCTION BOOKLET		N	TECHNICAL CONDITION AS PER PI				
	SAMPLE		N					
	GATE PASS		Y	INSPECTION CONDITION AT BHEL				

**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	LOT NO	LOT QTY	DEST	DELIVERY DATE
1	BP9024721954	BEARING SET CONSISTING 1 NO. OF N332 DE ECMSRL-340-370 VA 309 TO DIN 43283 AS PER BHEL DRG. C450068 REV.43 ITEM 26 AND 1 NO. OF BALL BEARING NDE 6326-M/C5, VA309 TO DIN 43283 AS PER BHEL DRG. C450067 IT#21 REV.26	ST	50.000	2	25.000	205	09/12/24
					1	25.000	205	09/11/24

**REMARK** AS PER NIT ON NIC PORTAL

<b>DRAWING</b> Y	<b>PURCH SPEC</b> N	<b>CATALOUGE</b> N	<b>PLAN</b> N	<b>TWO PART BID</b> Y
S.NO	INDENT NO	ITEM NO	CATEGORY	ENQUIRY QTY.
1	120541106	1	721010	50.000

**NOTE:** BHEL, BHOPAL'S Standard Terms & Conditions BP4255/MM5533 rev02 for imports and BP4255/MM5527 rev03 for indigeneous procurements form a part of this Enquiry. Bidders may obtain from us copies of these terms and conditions if not already available.

<b>SPECIAL REMARKS</b>	<b>NAME :</b> SHRI MANENDRA SINGH <b>DESG :</b> DY.MANAGER
	<b>SIGN &amp; SEAL</b>