

Buyers Specific Additional Terms & Conditions in addition to GTC

Item Name: Hydraulic Unit Assembly – 1 SET

Projects: MAHAN 2 x 800 MW

A. SCOPE OF ENQUIRY

E-bids on GeM are invited from bidders for the supply of **Hydraulic Unit Assembly for Projects: MAHAN 2 x 800 MW** as per requirement mentioned below:

| Sl. No. | Project/ address | Material Code & Item Description | Total Quantity | Date for Supply Completion |
|---------|---|--|----------------|----------------------------|
| 1. | <u>Projects: MAHAN 2 x 800 MW</u> Mahan Energen Limited. 2x800 MW (Phase-II) Thermal Power Project Village: Bandhaura, Karsulal, Tehsil: Waidhan District. Singrauli, Pin- 486886, Madhya Pradesh | Mat Code: W90413902617 HYDRAULIC UNIT CONSISTING OF: 4 NOS HYD PUMP,10 NOS HYD CYL, 16 NOS SEAL RINGS VAR00 20 NOS SEAL RINGS VAR01 10 NOS SUPER PRESS. HOSE L=5M 5 NOS SUPER PRESS. HOSE L=12M 2 NOS OIL DIST(1X2), 2 NOS OILDIST(1X4), 13NOS OF VALVE COUPL HALF-I 13NOS. VALVE COUPL HALF-II As per DRG: 11394501018 REV: 01 | 01 No. | Oct-2025 |
| 2. | | Mate Code: W93413901540 COMMISSIONING OF HYDRAULIC UNIT ASSEMBLY AT SITE BY SUPPLIER OF Mat Code: W90413902617 | 01 Visit | On intimation |

B. EARNEST MONEY DEPOSIT (EMD): NIL,

| Sl. No. | Terms | Description | Bidder confirmation |
|---------|---|--|---------------------|
| 1. | Confirmation to compliance of GTC | General terms and conditions on GeM 4.0 (Version 1.14) or subsequent rules/policies issued by GeM shall be applicable. | |
| 2. | Documents Checklist: | Kindly confirm that the following documents have been submitted along with your offer: 1. Pre-Qualification Requirements. 2. Any other document as specified in “ <u>Buyers Specific ATC</u> ”. | |
| 3. | Pre-Qualification Requirements (PQR) | The Pre-Qualification Requirements have been compiled and placed at ANNEXURE-1. All the bidders should ensure submission of complete details and documents as called for in these requirements. The Offers submitted by the bidders would be scrutinized with respect to Pre-Qualification Requirements first. Techno-Commercial offer of only those bidders shall be evaluated who meet the Pre-Qualification Requirements. | |
| 4. | Customer approval Condition | Please note that procurement shall be done only from the vendors, approved by end customer i.e. ADANI Mahan Project. BHEL will share successful vendor name and credentials to customer for approval before price bid opening and Part-2 will be opened for customer approved vendor only. | |

| | | VENDORS TO PROVIDE THEIR CREDENTIALS FOR ADANI CUSTOMER APPROVAL AS PROFILE, PAST EXPERIENCE PO, PERFORMANCE CERTIFICATE ETC. | | | | | | | | | |
|----------|--|---|--------------------------------|--------------------------------|----------------------------------|---------|--------------------|---------|----------|---------|--|
| 5. | Special Instruction of Technical requirement | HYDRAULIC UNIT (Mat Code.: W90413902617) as per drawing no 11394501018 REV:01 (Details mentioned in Scope of supply) | | | | | | | | | |
| | | Test and Guarantee certificates are required to be submitted. | | | | | | | | | |
| | | Operation and maintenance manual copy to be send with each packing box. | | | | | | | | | |
| | | Kindly confirm that quoted offer by you have been complied all technical requirements as given in tender documents and submit all documents to BHEL as per tender specifications and drawings without any deviations. | | | | | | | | | |
| 6. | Price basis | Prices should be quoted on F.O.R. Destination basis i.e. up to MAHAN Project Site including freight, packing & forwarding charges, GST etc. Please mention here the applicable GST rate included in the price quoted by you. | | | | | | | | | |
| | | The evaluation currency for this tender shall be INR. | | | | | | | | | |
| 7. | Evaluation criteria | Evaluation will be done on the basis of total landed cost to BHEL, with cost involved for delivery up to MAHAN Project Site (considering ITC). Bidders to insure applicability of ITC on Gem portal. | | | | | | | | | |
| 8. | Transit Insurance | Transit insurance shall be arranged by BHEL and not to be included in the prices. | | | | | | | | | |
| 9. | Payment Terms | The payment term shall be done after issue of consignee receipt-cum acceptance certificate (CRAC) as per the below details: | | | | | | | | | |
| | | <table><tr><th>Type of Bidder</th><th>Payment Terms (Number of Days)</th></tr><tr><td>Micro & Small Enterprises (MSEs)</td><td>45 days</td></tr><tr><td>Medium Enterprises</td><td>60 days</td></tr><tr><td>Non MSME</td><td>90 days</td></tr></table> | Type of Bidder | Payment Terms (Number of Days) | Micro & Small Enterprises (MSEs) | 45 days | Medium Enterprises | 60 days | Non MSME | 90 days | |
| | | Type of Bidder | Payment Terms (Number of Days) | | | | | | | | |
| | | Micro & Small Enterprises (MSEs) | 45 days | | | | | | | | |
| | | Medium Enterprises | 60 days | | | | | | | | |
| Non MSME | 90 days | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| 10. | MDCC clause | Material shall be dispatched only after issue of material dispatch clearance certificate (MDCC) by BHEL. All test certificates and relevant documents are to be sent to BHEL before dispatch of material for issue of MDCC, which will be issued after review of test certificates etc. MDCC will be issued within 07 days of receipt of these documents once found complete in all respects. In case of any delay on account of BHEL in issuing MDCC, delivery shall be extended by no. of days in excess of 7 days taken by BHEL in issuing MDCC and delays shall be dealt on merit basis. Material is to dispatched within 07 days of receipt of MDCC from BHEL without waiting for PO amendment. | | | | | | | | | |
| 11. | Quality Requirements | INSPECTION SHALL BE DONE BY BHEL NOMINATED INSPECTION AGENCY M/S QUEST AS PER BHEL SQP QA_BI_QP_932, REV01. Vendor to submit endorsed quality plan for BHEL approval with offer. | | | | | | | | | |
| 12. | Billing Documents | AFTER DISPATCH, DOCUMENTS (GR/LR, PACKING LIST, TEST CERTIFICATES) ARE REQUIRED IN ORIGINAL FOR BILLING. | | | | | | | | | |

| | | | |
|-----|---|---|--|
| 13. | Commissioning: | <p>Commissioning is to be done by supplier at BHEL project site as per site requirement. Vendor should be arranged technician visit with in a week/ 07 days after BHEL service/commissioning request. All irrespective expenditure of Technician, (fooding, Boarding and Lodging etc.) has been arrange by vendor</p> <p>Delivery date/ execution date mentioned in item description for commissioning is tentative. Supplier has to depute their representative at site for commissioning as per actual requirement of site.</p> <p>The delivery date of commissioning will keep on extending in Gem portal after contract date to till actual requirement. Please confirm</p> <p>Commissioning Charges quoted by vendor is fixed to 10% of total contract value. Please to quote on GeM in ratio accordingly.</p> | |
| 14. | Document submission for approval from BHEL | <p>Drawings/Data sheets/Documents/Type Test/ Quality Plan etc. as called for in the specifications shall be submitted for approval to BHEL within 30 days of purchase order. Approved documents/QP are to be followed by the supplier without any price implication. Any delay in delivery on account of late submission of drawings/data sheets/QAP/documents shall be to vendors account. BHEL will arrange the approval of the drawings/data sheets/ documents within 30 days of their receipt provided those are complete in all respect. Delays in approval shall be dealt on merit basis.</p> | |
| 15. | Guarantee | <p>Kindly confirm that all equipment shall be guaranteed for a minimum period of 18 months from the date of supply or 12 months from the date of commissioning, whichever is later. Buyer to submit guarantee certificate mentioning above guarantee period.</p> <p>Please note that offers with guarantee period lesser than above mentioned guarantee period may result in rejection of the offer.</p> | |
| 16. | Manufacturing Period | <p>Kindly quote your minimum delivery period in no. of weeks/months</p> <p>1. From the date of PO placement.....</p> <p>2. From the date of Manufacturing clearance.....</p> <p>BHEL reserve right to reject offer of the bidders not meeting BHEL's delivery requirement.</p> | |
| 17. | HSN Code of Material | <p>8 DIGIT GST HSN CODE OF ITEM MAY PLEASE BE FREEZED WITH VENDOR BEFORE PO PLACEMENT. PLEASE PROVIDE.....</p> | |
| 18. | Manufacturing clearance | <p>In case of ordering, vendor has to take manufacturing clearance from BHEL before starting manufacturing of material. No manufacturing is to be started without getting clearance from BHEL. Kindly confirm.</p> | |
| 19. | Liquidated Damages | <p>If the Seller/Service Provider fails to deliver any or all of the Goods/Services within the original/re-fixed delivery period(s) specified in the contract, the Buyer will be entitled to deduct/recover the Liquidated Damages for the delay, unless covered under Force Majeure conditions aforesaid, @ 0.5% of the contract value of delayed quantity per week or part of the week of delayed period as pre-estimated damages not exceeding 10% of the contract value of delayed quantity without any controversy/dispute of any sort whatsoever.</p> <p>The date of LR (Lorry Receipt) would be treated as the date of delivery for penalty purposes.</p> | |

| | | | |
|------------|---|---|--|
| 20. | Arbitration: | In case of any dispute arising out of as in connection with this contract, the same shall be referred to arbitration under Arbitration & Conciliation Act 1996 of a sole arbitrator who shall be appointed by mutual consent of the parties. The seat & venue of arbitration shall be Haridwar. The proceedings shall be conducted in English. The Governing law of contract shall be the substantive law of India. | |
| 21. | Breach of contract, Remedies and Termination | Please note that in case of breach of contract, at least 10% of the contract value shall be recovered from financial remedies (i.e. available bills of the contractor, retention amount, etc. with BHEL) or legal remedies be pursued. The balance scope shall be got done independently without Risk & Cost of the failed supplier/ contractor. Further, levy of liquidated damages, debarment, termination, de-scoping, short-closure, etc., shall be applied as per provisions of the contract. Please confirm. | |
| 22. | Firm prices | Price will remain firm and fixed during entire execution of tender/supply. | |
| 23. | Action against Bidders | In order to protect the commercial interests of BHEL, BHEL shall take action against supplies / contractors by way of suspension of business dealings, who either fail to perform or are in default without any reasonable cause, cause loss of business/ money/ reputation, indulge in malpractices, cheating, bribery, fraud or any other misconduct or formation of cartels so as to influence the bidding process or influence the price etc. Suspension of Business Dealings could be in the form of "Hold" or "Banning" a supplier/ contractor or a bidder and shall be as per "Guidelines for Suspension of Business Dealings with Suppliers/ Contractors" available at BHEL's website " https://www.bhel.com/guidelines-suspension-business-dealings-supplierscontractors " | |
| 24. | Bidder Contact details | Contact details of your representative: Mobile no. & Email id (minimum 2 person) 1. 2. | |

Please note:

- 1. Please fill your confirmation/ comments in all column. Blank column shall be understood confirmed/ accepted by bidder.**
- 2. During techno-commercial clarification, vendor to provide required documents/ clarification within 2-3 days of request. Such vendor Offer may be rejected in case of delay or un-complete documents submission.**

PQR ref. no.: 2023-24/EME/Stator Group/TG062/20231070

Pre-Qualification Requirements (Technical) for Hydraulic Unit Assembly (Material Code W90413902617)**Introduction**

Hydraulic Unit Assembly is to be used for alignment of large-size turbogenerator.

Mandatory Requirements

- 1.0 Vendor should have experience of supplying, in last ten years (from date of enquiry), at least 2 nos. of Hydraulic Unit Assembly (consisting of hydraulic pumps, hydraulic cylinders, seal rings, super pressure hoses, oil distributors, valve couplings, etc.) with capacity to handle 350MT (minimum).

- 1.1 In support of above, vendor shall furnish their experience list along-with P.O. copies, as per the following format to BHEL:

| Sl No | PO No. | Capacity (in Metric Tonnes) | Quantity | Name & address of customer | Date of supply |
|-------|--------|-----------------------------|----------|----------------------------|----------------|
| | | | | | |

- 1.2 Vendor should furnish customer acceptance letter or material receipt of customer for at-least one P.O. listed above.
- 1.3 Vendor to furnish Test Certificates for at-least one P.O. listed above.

- 2.0 Vendor should confirm that they have in-house facilities for manufacture of above item. In case any activity is off-loaded to sub-vendor, details and manufacturing facilities of sub-vendor also to be furnished to BHEL.
- 3.0 Vendor should confirm that they have in-house testing facilities for carrying out hydraulic testing of the complete unit. In case it is off-loaded to sub-vendor, details and testing facilities of sub-vendor to be furnished to BHEL.
- 4.0 Vendor to confirm that the item shall be supplied as per BHEL drawing 11394501018.

Prepared By

Vaibhav Bansal
07/07/23
Vaibhav Bansal
(DM/EME)

Checked By

Pratibha Gupta
07/07/23
Pratibha Gupta
(Mgr/EME)

Approved By

Amit Mittal
07/07/2023
Amit Mittal
(DGM/EME)

Pre-Qualification Requirements (Technical) for Hydraulic Unit Assembly (Material Code W90413902617)

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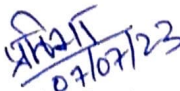
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Prepared By


Vaibhav Bansal
(DM/EME)

Checked By


Pratibha Gupta
(Mgr/EME)

Approved By


Amit Mittal
(DGM/EME)

| MANUFACTURER'S NAME AND ADDRESS | | | REFERENCE QUALITY PLAN | | | | | TO BE FILLED BY BHEL | | TO BE FILLED BY BHEL | | | | |
|---------------------------------|------------------------|-----------------|------------------------|-------------|---------------|---------------------|--------------------|----------------------|-------------------|----------------------|--------|---|---|---------|
| BHEL | VENDOR'S NAME | ITEM | HYDRAULIC UNIT | | QP NO. | QA_BI_QP_932, REV01 | | | | | | | | |
| | | | | DATED | 28.05.2024 | | | | | | | | | |
| | | DRG. NO. | | 11394501018 | | | | | | | | | | |
| REV | | 01 | | | Page 1 of 2 | | | | | | | | | |
| SL. NO. | COMPONENT & OPERATIONS | CHARACTERISTICS | | CLASS | TYPE OF CHECK | QUANTUM OF CHECK | REFERENCE DOCUMENT | ACCEPTANCE NORMS | FORMAT OF RECORDS | | AGENCY | | | REMARKS |
| | | | | | | | | | | | M | B | N | |
| 1 | 2 | 3 | | 4 | 5 | 6 | 7 | 8 | 9 | D | 10 | | | 11 |

| | | | | | | | | | | | | | |
|-----|---------------------------------------|----------------------------------|-------|-------------------------------|---------------------|-----------------------------|-----------------------------|-------------------|---|---|---|---|--|
| 1.0 | INCOMING MATERIAL/ BOUGHT OUT ITEMS | | | | | | | | | | | | |
| 1.1 | HYDRAULIC PUMP | CHEMICAL & MECHANICAL PROPERTIES | MAJOR | CHEMICAL & MECHANICAL TESTING | ONE SAMPLE PER HEAT | APPROVED DRAWING/ DATASHEET | APPROVED DRAWING/ DATASHEET | TEST CERTIFICATE | √ | P | V | - | |
| | | HYDRAULIC TEST | MAJOR | HYDRAULIC | 100% | APPROVED DRAWING/ DATASHEET | APPROVED DRAWING/ DATASHEET | TEST CERTIFICATE | √ | P | V | - | |
| 1.2 | HYDRAULIC CYLINDER | CHEMICAL & MECHANICAL PROPERTIES | MAJOR | CHEMICAL & MECHANICAL TESTING | ONE SAMPLE PER HEAT | APPROVED DRAWING/ DATASHEET | APPROVED DRAWING/ DATASHEET | TEST CERTIFICATE | √ | P | V | - | |
| | | HYDRAULIC TEST | MAJOR | HYDRAULIC | 100% | APPROVED DRAWING/ DATASHEET | APPROVED DRAWING/ DATASHEET | TEST CERTIFICATE | √ | P | V | - | |
| 1.3 | SUPER PRESSURE HOSE | HYDRAULIC TEST | MAJOR | HYDRAULIC | 100% | APPROVED DRAWING/ DATASHEET | APPROVED DRAWING/ DATASHEET | TEST CERTIFICATE | √ | P | V | - | |
| 1.4 | VALVE COUPLING | HYDRAULIC TEST | MAJOR | HYDRAULIC | 100% | APPROVED DRAWING/ DATASHEET | APPROVED DRAWING/ DATASHEET | TEST CERTIFICATE | √ | P | V | - | |
| 1.5 | OIL DISTRIBUTOR/UNION | MAKE, VISUAL & HYDRAULIC TEST | MAJOR | VISUAL/ HYDRAULIC | 100% | APPROVED DRAWING/ DATASHEET | APPROVED DRAWING/ DATASHEET | TEST CERTIFICATE | √ | P | V | - | |
| 2.0 | FINAL INSPECTION & COMPLETE ASSEMBLY | | | | | | | | | | | | |
| 2.1 | HYDRAULIC COMPLETE UNIT ASSEMBLY TEST | VISUAL & DIMENSION | MAJOR | PHYSICAL/MEASUREMENT | 100% | APPROVED DRAWING/ DATASHEET | APPROVED DRAWING/ DATASHEET | INSPECTION REPORT | √ | P | W | - | |

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

| MANUFACTURER'S NAME AND ADDRESS | | | REFERENCE QUALITY PLAN | | | | TO BE FILLED BY BHEL | | TO BE FILLED BY BHEL | | | | |
|---------------------------------|-----------------------------------|--|------------------------|---------------|---------------------|--------------------------------|--------------------------------|-------------------|----------------------|----|---|---------|----|
| BHEL | VENDOR'S NAME | ITEM | HYDRAULIC UNIT | QP NO. | QA_BI_QP_932, REV01 | | | | | | | | |
| | | | | DATED | 28.05.2024 | | | | | | | | |
| | | DRG. NO. | 11394501018 | | | | | | | | | | |
| | | REV | 01 | | | Page 2 of 2 | | | | | | | |
| SL. NO. | COMPONENT & OPERATIONS | CHARACTERISTICS | CLASS | TYPE OF CHECK | QUANTUM OF CHECK | REFERENCE DOCUMENT | ACCEPTANCE NORMS | FORMAT OF RECORDS | AGENCY | | | REMARKS | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | D | 10 | | | 11 |
| | | FUNCTIONAL PERFORMANCE CHECK 100% RATED PRESSURE FOR 30 MINUTES | CRITICAL | HYDRAULIC | 100% | APPROVED DRAWING/ DATASHEET | NO LEAKAGE & PRESSURE DROP | INSPECTION REPORT | √ | P | W | - | |
| 3.0 | IDENTIFICATION, MARKING & PACKING | | | | | | | | | | | | |
| 3.1 | PACKAGE | IDENTIFICATION | MAJOR | VISUAL | 100% | APPROVED DRAWING/ DATASHEET | APPROVED DRAWING/ DATASHEET | INTERNAL RECORDS | √ | P | V | - | |
| 3.2 | PACKAGE | PAINTING, PACKING | MAJOR | VISUAL & DFT | 100% | APPROVED DRAWING/ DATASHEET | APPROVED DRAWING/ DATASHEET | TEST CERTIFICATE | √ | P | V | - | |

NOTES :-

- TEST CERTIFICATES SHALL BE SUBMITTED BY THE VENDOR WITH CLEAR MARKING OF QP CLAUSE NUMBER AT THE TOP OF THE EACH PAGE. ALSO, TEST CERTIFICATES SHALL BE ARRANGED QP CLAUSE WISE. NO PAGES TO BE INCLUDED WITHOUT QP CLAUSE NUMBER IN TC DOSSIER.

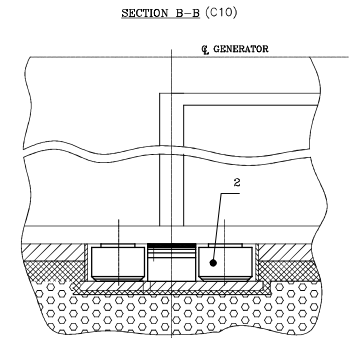
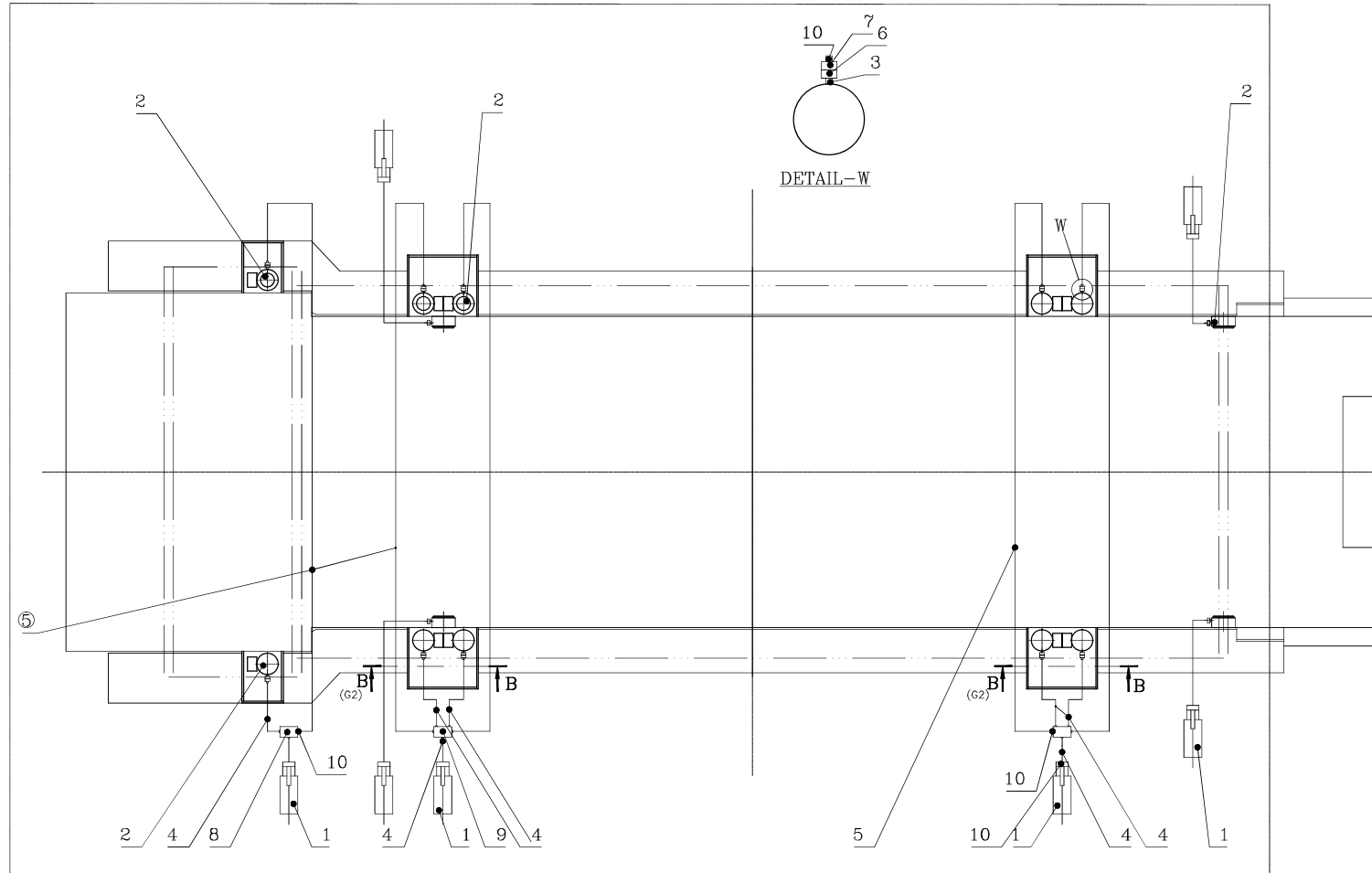
| | | | | |
|----------------------------|--|---|------------------|-------------|
| | | LEGEND: ! RECORDS IDENTIFIED WITH 'TICK' SHALL BE ESSENTIALLY INCLUDED BY CONTRACTOR IN QA DOCUMENTATION. COC: CERTIFICATE OF COMPLIANCE M: MANUFACTURER / SUBCONTRACTOR B: BHEL / NOM. INSPECTION AGENCY N: CUSTOMER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

FIRST ANGLE PROJECTION (ALL DIMENSIONS ARE IN mm)

FORM: DG 45(B)

11394501018
DRAWING NO.

THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED.
IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE COMPANY.



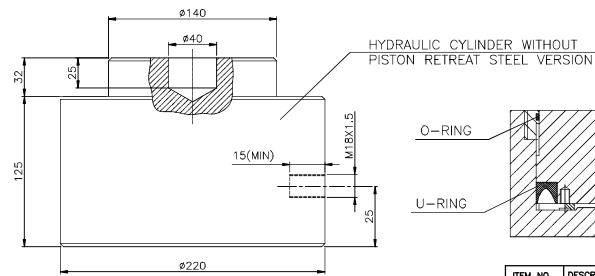
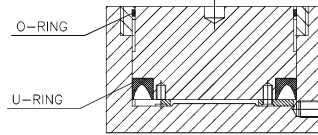
SCHEMATIC DIAGRAM OF HYDRAULIC UNIT ASSEMBLY

PURCHASED

W90413902617

| | | | | | |
|--|---------|---------------------|----------|--------------------------------|----------------|
| CROM NO. 01394501007 | | STATUS OF Dwg OR | | TYPE OF PRODUCT THDF 115/67 | |
| APPROVED | NAME | SIGN | DATE | NAME OF CUSTOMER/ PROJECT | |
| EMT | | AEMTNR | 28/01/11 | | |
| GRADE OF UNTOL. DIM.:— | | | | NAME | |
| M/CG- V/C/M/F AA 0230208 | | | | DRN | STGEAS1 |
| WELDING-A/B/C/D-AA621104 | | | | CHD | STGERLV |
| GAS CUTTING-T3AA0621101 | | | | APD | ATGEAKM |
| REV | DATE | ALTERED | AMISHRA | RS/C | DATE |
| 01 | 27.5.14 | CHECKED | AMISHRA | RS/C | 28/01/11 |
| CHANGES DONE AS PER CHANGE ADVICE NO TGE-14-F0159 | | | | DEPT. TGE | SCALE |
| | | | | CODE 4133 | NTS |
| | | | | WEIGHT(Kg.) | 507 |
| | | | | REF. TO ASSY. DRG. | 01394501007 01 |
| | | | | DRAWING NO. | 11394501018 |
| | | | | SHEET NO.1 | NO.OF SHEETS 3 |
| | | | | HYDRAULIC UNIT ASSEMBLY | |

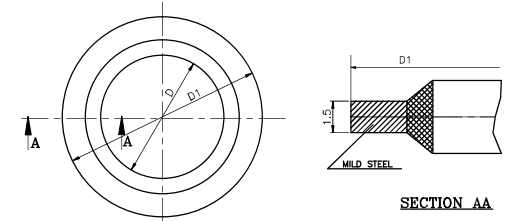
SIZE A1

11394501018
DRAWING NO.ITEM NO. 02 HYDRAULIC CYLINDER
SCALE 1:2

| ITEM NO. | DESCRIPTION | QTY |
|----------|-------------|-----|
| 1 | O-RING | 01 |
| 2 | U-RING | 01 |

HYDRAULIC CYLINDER SPARE PARTS

| | |
|----------------------------|--------------------|
| PRESSURE FORCE, NOM. VALUE | 1000KN |
| PRESSURE EFFECTIVE | 1005KN |
| IMPACT SURFACE (PISTON) | 201CM ² |
| OPERATING PRESSURE MAX | 500BAR |
| REQUIRED OIL VOLUME MAX | 0.643L |
| STROKE | 32MM |
| WEIGHT | 35KG |
| MATERIAL | STEEL |

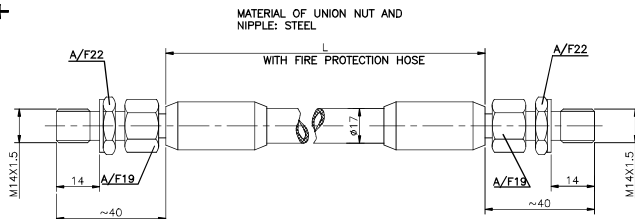


MATERIAL DESCRIPTION:-

SEALING RING -MILD STEEL RING PLATED WITH BRASS OR CADMIUM.
VULCANISED DOUBLE LIP SEAL-SIMRIT .70 NBR/120 OR EQUIVALENT
BASE: ACRYLONITRILE-BUTADIENE RUBBER
HARDNESS 70 SHORE A

ITEM NO 03.10
(SEALING RING)

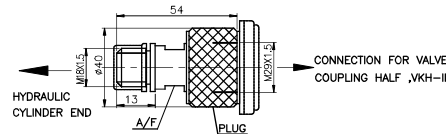
| ITEM NO. | D | D1 | VAR |
|------------|------|----|-----|
| ITEM NO.10 | 14.7 | 22 | 01 |
| ITEM NO.03 | 18.7 | 22 | 00 |



THE HOSE SHOULD BE WITH FIRE PROTECTION COVER &
SUITABLE FOR AN OPERATIONAL PRESSURE OF 700BAR
HYDRAULIC TEST PRESSURE 1000BAR FOR 30MINUTES.

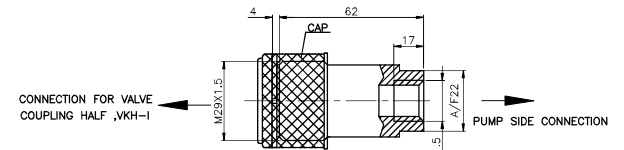
ITEM NO.4.5

| ITEM NO. | L (M) | VAR. |
|----------|-------|------|
| ITEM 04. | 5(M) | 00 |
| ITEM 05. | 12(M) | 01 |



OPERATIONAL PRESSURE = 500BAR
TEST PRESSURE = 750BAR
FLOW RATE = 15 L/min.
MATERIAL = STEEL

ITEM NO 06 (VALVE COUPLING HALF-I)



OPERATIONAL PRESSURE = 500BAR
TEST PRESSURE = 750BAR
FLOW RATE = 15L/min.
MATERIAL = STEEL

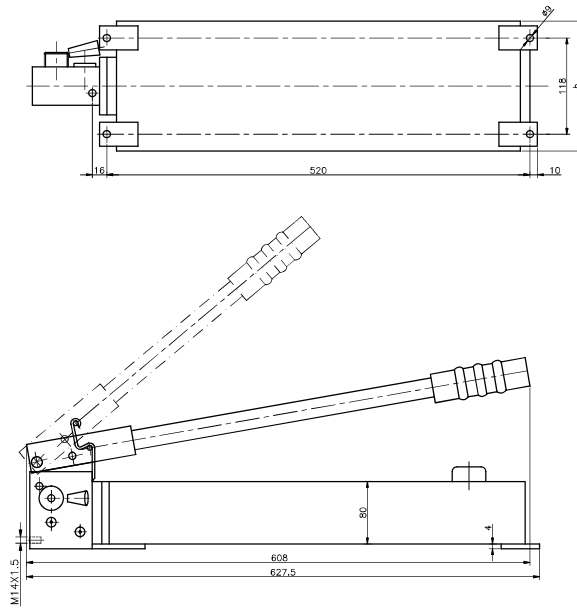
ITEM NO 07 (VALVE COUPLING HALF-II)

PURCHASED

W90413902617

| | | | | | |
|--|--------------------|---------------------|------------------|---|--------------------------------------|
| CROM NO. 01394501007 | | STATUS OF Dwg OR | | TYPE OF PRODUCT THDF 115/67 | |
| APPROVED E.M.T. | NAME J.E.M.T.NK | SIGN 30/01/01 | DATE 30/01/01 | NAME OF CUSTOMER/ PROJECT | |
| GRADE OF UNTOL. DIM:- M/CG- V/C/M/F AA 0230208 WELDING-A/B/C/D-AA621104 GAS CUTTING-T3AA0621101 | | | | Bharat Heavy Electricals Ltd. Hardwar | |
| REV. DATE 01 27.5.14 | ALTERED CHECKED | AMISHRA DAMISHRA | RS/C RS/C | DEPT. TGE CODE 4133 | SCALE NTS |
| CHANGES DONE AS PER CHANGE ADVICE NO TGE-14-F0159 | | | | WEIGHT(Kg.) 507 | REF. TO ASSY. Dwg. 01394501007 01 |
| TITLE HYDRAULIC UNIT ASSEMBLY | | | | DRAWING NO. 11394501018 SHEET NO.2 NO.OF SHEETS 3 | |

DRAWING NO. 11394501018



ITEM NO.-1(HYDRAULIC PUMP)

TECNICAL DATA

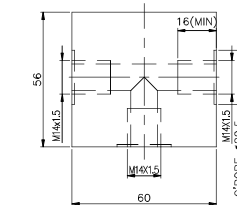
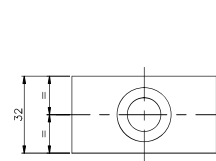
| | |
|---------------------------|---------|
| OIL CAPACITY | 5.2L |
| USABLE OIL CAPACITY | 4.5L |
| OPERATING PRESSURE | 800 BAR |
| DELIVERY/PISTON STROKE LP | 10 CM3 |
| AUTOMATIC SWITCH OVER AT | 100 BAR |
| DELIVERY/PISTON STROKE HP | 1.6 CM3 |
| WEIGHT INCL. OIL | 13.4 |
| TEST PRESSURE | 970 BAR |

TECHNICAL REQUIREMENTS:-

1. THE SCHEME PROVIDED HERE IS FOR GUIDANCE. SUPPLIER TO PROVIDE THEIR OWN DETAILED DRAWINGS WITH SCHEME AT THE TIME OF OFFER FOR APPROVAL OF BHEL.
2. VENDOR TO PROVIDE GENERAL ARRANGEMENT DRAWING OF THE ASSEMBLY WITH BILL OF MATERIAL AT THE TIME OF OFFER.
3. TESTING OF INDIVIDUAL COMPONENTS IS TO BE DONE AS PER DETAILS ON SHEET-2&3.
4. THE COMPLETE HYDRAULIC UNIT AFTER ASSEMBLY AT VENDOR WORKS TO BE HYDRAULICALLY TESTED AT 540kg/cm2 FOR 10Min. NO LEAKAGE IS ALLOWED (WORKING PRESSURE=450kg/cm2).

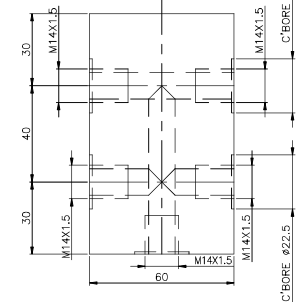
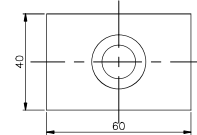
PURCHASED

W90413902617



OPERATIONAL PRESSURE = 500BAR
TEST PRESSURE = 750BAR
MATERIAL = STEEL

ITEM NO 8(OIL DISTRIBUTOR)



OPERATIONAL PRESSURE = 500BAR
TEST PRESSURE = 750BAR
MATERIAL = STEEL

ITEM NO 9(OIL DISTRIBUTOR)

| | | | |
|-------|-------------------------------------|------|--|
| 10 | SEALING RING VAR 01 | 20 | REFER SHEET 1 FOR DETAILS |
| 09 | OIL DISTRIBUTOR(1X4) | 2 | REFER SHEET 2 FOR DETAILS |
| 08 | OIL DISTRIBUTOR(1X2) | 2 | REFER SHEET 2 FOR DETAILS |
| 07 | VALVE COUPLING HALF-II | 13 | REFER SHEET 1 FOR DETAILS(INCLUDE 3 NOS SPARE) |
| 06 | VALVE COUPLING HALF-I | 13 | REFER SHEET 1 FOR DETAILS(INCLUDE 3 NOS SPARE) |
| 05 | SUPER PRESS HOSE VAR 01 | 5 | L=12M |
| 04 | SUPER PRESS HOSE VAR 00 | 10 | L=4M |
| 03 | SEALING RING VAR 00 | 16 | REFER SHEET 1 FOR DETAILS |
| 02 | HYDRAULIC CYLINDER WITH SPARE PARTS | 10 | REFER SHEET 1 FOR DETAILS |
| 01 | HYDRAULIC PUMP | 4 | REFER SHEET 3 FOR DETAILS |
| S.NO. | ITEM DESCRIPTION | QTY. | REMARKS |

THDF 115/67
NAME OF CUSTOMER/ PROJECT

| | | | | | |
|--------------------------|--|-----------------|--|----------------|--|
| GRADE OF UNTOL. DIM:- | | CROM NO. | | STATUS OF Dwg | |
| M/CG- V/C/M/F AA 0230208 | | 01394501007 | | APPROVED | |
| WELDING-A/B/C/D-AA621104 | | | | NAME | |
| GAS CUTTING-T3A0621101 | | | | SIGN | |
| REV. DATE | | ALTERED | | DATE | |
| 01 27.5.14 | | CHECKED | | AMISHRA | |
| CHANGES DONE AS PER | | NO TGE-14-F0159 | | | |
| DEPT. TGE | | SCALE | | WEIGHT(Kg.) | |
| CODE 4133 | | NTS | | 507 | |
| TITLE | | DRAWING NO. | | ITEM NO. | |
| HYDRAULIC UNIT ASSEMBLY | | 11394501007 | | 01 | |
| | | SHEET NO.3 | | NO.OF SHEETS 3 | |

SIZE A1