

TENDER ENQUIRY NO.: X/6620/2023/0345/F/1

SUB: - TERMS & CONDITIONS FOR FORMING OF AIR GUIDE COVER (WELDED, 0144040102800), AIR GUIDE COVER (WELDED, 0144040103100), COVER (WELDED, 1144040102300) & COVER (WELDED, 1144040103900)

NIT-Notice Inviting Tender

Salient Details of Notice Inviting Tender (NIT)		
Sl. No.	Issue	Description
1.	Item details	As per Enquiry Annexure X/6620/2023/0345/F/1
2.	Issue of Tender Documents	From BHEL eProcurement website https://eprocurebhel.co.in/nicgep/app (Tender documents will be available for downloading from BHEL e-Procurement website till due date of submission)
3.	Due Date Of Offer Submission	Date: 25-08-2023 Time: 13:45 hrs https://eprocurebhel.co.in/nicgep/app Offer to be submitted in online only through e-procurement Portal. (Bidders are requested to visit website to view corrigendum/ addenda/ amendments/ extension/ modification etc. before submitting offer).
4.	Opening of Tender (Techno-Commercial Bid)	Date: 25-08-2023 Time: 14.00 Hrs Notes: <i>This tender being an e-tender, it shall be opened online only through the E-Procurement Portal. Participating bidders may witness the Opening online only.</i>
5.	Cost of Tender	INR 2000/- (If hard copy of tender document is required from BHEL otherwise not applicable.)
6.	EMD (Earnest Money Deposit)	NIL
7.	Schedule Of Pre-Bid Discussion	Not Applicable
8.	Integrity Pact & Details of Independent External Monitor (IEM)	Not Applicable
9.	Latest Updates	Latest updates on the important dates, Amendments, Correspondences, Corrigenda, Clarifications, Changes, Errata, Modifications, Revisions, etc to Tender Specifications will be hosted in BHEL e-tender portal https://eprocurebhel.co.in/nicgep/app and not in the newspapers. Bidders to keep themselves updated with all such information

Please submit your offer only for the above requirement subject to our **GENERAL INSTRUCTIONS AND STANDARD TERMS & CONDITIONS (Version: June-2021, Rev.06)**. Please visit our site www.hwr.bhel.com for General Instructions and Standard Terms & Conditions (GISTC) for Tender Enquiries. All the bidders/vendors must ensure compliance of these GISTC. GISTC can also be referred by login to B2B Portal for Registered Vendors.

Tender Fee & EMD (If Applicable) will be submitted in the form of Pay Order / Demand Draft (drawn in favor of 'BHEL HARIDWAR') only. It may be noted that if hard copy of any tender document is required,

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then the same may be collected against copy of Pay Order / Demand Draft of requisite tender fee (while original to be submitted with Part-I).

If EMD is not submitted along with the offer, then the offer may not be considered.

For E-Payment, the RTGS details are mentioned as below:

Bank Details	SWIFT Details of bank
STATE BANK OF INDIA RANIPUR BRANCH, OPP: BHEL MAIN GATE, SECTOR-5, RANIPUR, HARIDWAR, UTTRAKHAND, INDIA PIN CODE : 249403	SWIFT NO.: SBININBB225 CC ACCOUNT NO.: 10667995458 IFSC CODE: SBIN0000586

As per notification reference no. NSIC/HO/GP/15(4)/2013-14 dated 07.07.2013 Micro & Small Enterprises (MSEs) are not required to submit Tender fees. A Valid MSE certificate such as Udyog Aadhar (UAN)/Udyam Certificate/NSIC/EM (Part-II) etc. issued from competent authority shall be submitted in support of Micro & Small Enterprises (MSEs).

“As per the OM No. F. No. 1(2)(1)/2016-MA dated. 09.02.2017 issued from the Office of Development Commissioner (Micro, Small & Medium Enterprises), “Traders and agents should not be allowed to avail the benefits extended under the PP Policy.”

Central / State – PSUs / Government departments are exempted from submission of EMD subject to approval by BHEL management.

BHEL will forfeit the EMD if, the successful bidder / vendor refuses to honor the order after award of the same on him and / or withdraws his bid and / or unilaterally changes the offer and / or any of its terms & conditions within the validity period.

INSTRUCTIONS TO BIDDERS FOR SUBMITTING OFFER

TECHNICAL QUALIFICATION: Technical Requirement, Pre-Qualifying Requirements/PQR to be submitted. It is the mandatory requirement. Offer of vendors not meeting these requirements may not be considered.

ESSENTIAL INSTRUCTIONS

The tender shall be **submitted in two parts** in separate cover as described below on or before the due date:

Part I (Cover-1) - Containing the following:

1. Techno -Commercial Bid
2. Tender Fee & EMD (Earnest Money Deposit) Or Valid certificate/Document towards exemption of Tender fee and/or EMD (applicable for Micro and small Enterprises, Central / State – PSUs / Government departments, PMD vendors etc.)

Part II (Cover-2) - Containing Price Bid in attached Format

Bidders against tender will necessarily have to obtain class – III DSCs. Procedure for application available on www.bhel.com.

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E-Procurement Portal Inputs

Procedure for Submission of Offer for E – Tender-Procedure for Submission of Tender is available in the “Bidder Manual for BHEL Bidders” at E-tender portal <https://eprocurebhel.co.in/nicgep/app> . Terms and conditions mentioned therein shall form integral part of the NIT and bidders shall abide by the same.

Hardware and Software requirements for participating in e-tender

Please refer the website for the minimum system requirements and setting document for Bidders under the link: <https://eprocurebhel.co.in/nicgep/app>

Digital Signature

To know the procedure for obtaining Digital Signature Certificate (DSC), suppliers who are not having the DSC are advised to visit our website [http://www.bhel.com/home.php/Tender Notifications/Sample Checklist](http://www.bhel.com/home.php/Tender%20Notifications/Sample%20Checklist).

NIC portal Helpdesk Contacts

For any technical related queries please call at 24 x 7 Help Desk Number

0120-4001 002

0120-4200 462

0120-4001 005

0120-6277 787

International bidders are requested to prefix 91 as country code

Email Support

Address: A) For any Issues or Clarifications relating to the published tenders, bidders are requested to contact the respective Tender Inviting Authority

Technical - support-eproc@nic.in

Note

Offers/tenders submitted in the E-tender portal shall only be considered for further evaluation. Offers sent by FAX / E-mail / any mode other than E-tender would not be entertained.

The Tenderers must submit their Tenders, as detailed below:

SPECIAL NOTE: All documents to be submitted should be uploaded in respective places in the E-Tender portal as per the list mentioned given in this NIT. BHEL shall not be responsible for incomplete documents.

TERMS & CONDITIONS FOR PRE-FAB. M/C & FAB. ONLY OF AIR GUIDE COVER (WELDED, 0144040102800), AIR GUIDE COVER (WELDED, 0144040103100), COVER (WELDED, 1144040102300) & COVER (WELDED, 1144040103900)

Online offers are invited through e-procurement portal <https://eprocurebhel.co.in/nicgep/app> from suppliers for the supply of the items.

The item name and drawing no. mentioned in the enquiry is for reference & will be available for ordering. A sample of Combined Bill of Materials and all reference drawings are also enclosed for having a general idea of the tender.

1. **SCOPE OF WORK:** -This enquiry is for pre-fabrication machining & fabrication of following items with Party & BHEL Material as per drg., QP & other specifications.

Sl. No.	Item Description	Drg. No.	Qty.	Party material Weight /Piece (Kg)	BHEL Material Weight /Piece (Kg)	Total Weight/Piece (in kg.)
1	AIR GUIDE COVER (WELDED)	0144040102800	5	1241.51	0.03	1241.54
2	a. AIR GUIDE COVER (WELDED)	0144040103100	5	656.177	18.073	674.24
	b. COVER (WELDED)	1144040102300	5	64.64	0	64.64
	c. COVER (WELDED)	1144040103900	5	63.78	0.86	64.64

Remark-

- T.R. OF THE DRAWINGS ARE TO BE STRICTLY FOLLOWED.
- MATERIAL SCOPE FOR ITEM NO. 6 (AS PER CBOM) OF DRG.NO. 0144040102800 SHALL BE SUPPLIED BY BHEL AND REST WITH PARTY MATERIAL
- MATERIAL FOR ITEM NO. 10, 11-1, 11-2, 15-2, 20, 22-2, 25, 26, 27, 28, 29 (AS PER CBOM) OF DRG. NO. 0144040103100 SHALL BE SUPPLIED BY BHEL AND REST WITH PARTY MATERIAL.
- MATERIAL SCOPE FOR ITEM NO. 7-1, 7-2, 7-3 (AS PER CBOM) OF DRG.NO.1144040103900 SHALL BE SUPPLIED BY BHEL AND REST WITH PARTY MATERIAL.
- Item no 2 (a, b & c) will be ordered together and L-1 vendor will be decided based on the cumulative cost of these three items.

- **TOTAL LOAD FOR THE Enquiry (Approximately) = 10225.35 Kg.**
- The rate (s) should be quoted in **Rupees/Pc.**
- Shot blasting if required will be done at BHEL.
- Cleaning of parts, removal of mill scale from components prior to assembly will be in scope of vendor.
- CHP Clearance may be obtained from NTPC/LLOYD/RITES/NPC at party's end.
- Final Assembly shall undergo cleaning to ensure that all parts are free from dents, mills, spatters.

- Customer's seal (if Any on supplied Material) to be transferred.
- Copies of the relevant certificates to be supplied to the receiving shop.
- Quality plan (if any) to be followed for Material induction and CHP.
- All special tests viz., UT, RT, HYDRAULIC & KEROSENE etc. are to be performed as per drg. requirements.
- Aesthetic appearance shall also be ensured and inspected before delivery to BHEL.
- Any Assembly, welding & NDT work as per drg/QP, if reqd. after SR/SB including customer clearance shall be done by supplier at BHEL.
- Vendor should submit manufacturing plan incl. technological support plan to BHEL & get it cleared prior to start of assembly.
- Relevant CBOM, details of material specifications, casting/forging drgs & all cross ref. docs must be send to vendors along with enquiry.
- Material used should be procured from BHEL approved vendors only.
- Supplier must furnish material test certificates for all the items.

2. VALIDITY: -

The validity of offers by vendors should be at least for a period of **90 days for this enquiry from the date of enquiry opening.**

3. SUBMISSION OF OFFERS: -

Open tender is hoisted on the <https://eprocurebhel.co.in/nicgep/app> and no hard copy of document is provided by BHEL, no tender fee shall be insisted upon from the bidders.

The offer is to be submitted in **two parts** on NIC portal only on website: <https://eprocurebhel.co.in/nicgep/app>

BHEL reserves the right to reject any or all the tenders either in full or part thereof without assigning any reasons thereof.

4. DELIVERY: -

F.O.R.: HEEP, BHEL Haridwar.

5. DELIVERY SCHEDULE: -

Sl. No.	Item Description	Drg. No.	Qty.	Delivery
1	AIR GUIDE COVER (WELDED)	0144040102800	5	45 Days from Last material sent by BHEL
2	a. AIR GUIDE COVER (WELDED)	0144040103100	5	45 Days from Last material sent by BHEL (clubbed items)
	b. COVER (WELDED)	1144040102300	5	
	c. COVER (WELDED)	1144040103900	5	

Note: - In case the delivery offered by any vendor is more than above mentioned Delivery days from Last Material Sent from BHEL to Vendor, loading shall be done @ 0.5% per week on the rate quoted by the vendor.

6. **Bank Guarantee/Indemnity Bond:** - 25 % Bank Guarantee and 75% Indemnity Bond for the value of materials to be given by vendor for free issue materials. Material value will be calculated on PPMIV/Challan value basis. On intimation from BHEL regarding BG & IB, the same shall be provided by the vendor (s) within 15 Days. If suitable BG and IB are not submitted to BHEL within 15 days of intimation, then the amount of days delayed beyond 15 days after intimation will be deducted from delivery days of that item and consequent PO amendment will be issued.

For Example: If intimation for requirement of BG & IB of an item of a PO is given to vendor on 01.04.2023 from BHEL, then vendor should mandatorily provide required BG and IB by 15.04.2023. In case, the vendor provides the same by 30.04.2023, then the difference of 15 days (between 30.04.2023 & 15.04.2023) will be deducted from delivery days of that item and consequent PO amendment will be issued.

7. **INSPECTION:** -

- The inspection will be carried out by BHEL/BHEL nominated inspection agency at Party's works. All facilities and equipment's, calibrated instruments and standard gauges required for inspection shall be provided by the vendor during inspection. In some cases, inspection by customer's representatives like NTPC/RITES etc. may also be carried out at Party's works and CHP clearance may be obtained. No additional charges will be paid on this account.
- The party is to follow system for material control, if applicable, as per BHEL Quality Control system.
- Identification marks shall be punched on each item by the vendor i.e. Purchase Order No., Drawing No., IR No. etc.
- Aesthetic appearance is to be maintained as per drg. requirement.

8. **GUARANTEE CERTIFICATE:** -

The vendor shall warrant that the supplied fabricated assemblies/items comply fully with the drawings and other technical conditions. If the fabrications/items are found defective owing to faulty workmanship/incomplete work within a period of eighteen (18) months from the date of dispatch, the vendor shall make good of it/replace the same free of cost. Alternatively, the rework/replacement charges will be recovered.

9. **PAYMENT TERMS:** -

- 9.1 90% after acceptance & final clearance of SRIV. 10% after FTS and final account of material.
- 9.2 No packing and forwarding charges will be paid extra.
- 9.3 In case of rejection, total cost of material will be recovered in case of BHEL Material and no labour cost will be paid.
- 9.4 For MSEs (covered under MSME Act) which are registered and periodically renewed with BHEL, the payment will be made within 45 days or as prescribed in the relevant act.
- 9.5 Detailed terms at clause 10.0 of GISTC Rev. 06, June 2021.

10. **LD CLAUSE:** -

@ 0.5% per week subject to max 10% for the delayed portion of supply. The entry date mentioned by CISF on the challan at BHEL material gate will be taken as material receipt date.

11. **GST:** -

As per clause 11.0 of GISTC (attached). At present GST rate applicable for this enquiry will be 18%. However, it will be as applicable as per Govt. guidelines/circulars.

12. QUALITY REQUIREMENTS: -

- a. Inspection by BHEL/BHEL nominated inspection agency as per drawing /Standard and quality plan requirements.
- b. All party material to be procured from BHEL HEEP Haridwar approved sources (attached Annexure C).
- c. Quality plan no. QP/QA/216378 rev 00 dated 19.07.2023 is attached, which is to be followed.
(For items: AIR GUIDE COVER (WELDED, 0144040102800), AIR GUIDE COVER (WELDED, 0144040103100), COVER (WELDED, 1144040102300) & COVER (WELDED, 1144040103900) for NPCIL project (GHAVP-1 & GHAVP-2).
- d. Quality plan no. QP/QA/216379 rev 00 dated 19.07.2023 is attached, which is to be followed.
(For items: AIR GUIDE COVER (WELDED, 0144040102800), AIR GUIDE COVER (WELDED, 0144040103100), COVER (WELDED, 1144040102300) & COVER (WELDED, 1144040103900) for other project (Talchar-1, Talchar-2 & Raghunathpur-1).
- e) Physical Inspection by BHEL / BHEL nominated inspection agency as per drawing and quality plan requirements.
- f) Additional Quality requirement For NPCIL project: All vendors to follow the NPCIL approved brand list for welding Consumables for GHAVP-1&2 (enclosed) in respect to the names of the consumable suppliers. However, lot testing of each batch of welding consumables shall have to be carried out separately before use in the job for meeting the requirements of respective specification and code. All vendors to follow the NPCIL approved brand list for DP Consumables for GHAVP-1&2 (enclosed).

13. REVERSE AUCTION: -

“BHEL shall be resorting to Reverse Auction (RA) (Guidelines as available on 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.”
For detailed terms and conditions of RA guidelines, kindly refer www.bhel.com.

14. EVALUATION OF BIDS:

All vendors will be assessed on total cost to BHEL basis that includes freight, taxes, ITC etc. Item wise evaluation will be applicable for this enquiry.

L1 Vendor must provide break up of Basic BM & PM rate (in Rs./Kg) post RA in price confirmation sheet.

In the course of evaluation, if more than one bidder happens to occupy L1 status, effective L1 will be decided by soliciting discounts from respective L1 bidders. In case more than one bidder happens to occupy the L1 status even after soliciting discounts, the L1 bidder shall be decided by toss/draw of lots, in the presence of respective L1 bidder(s) or their representative(s). Ranking will be done accordingly. BHEL's decision in such situation shall be final and binding.

15. TRANSPORTATION: -

Transportation of PPMIV material (raw material) will be in scope of BHEL and the freight will be borne by BHEL. However, the same will be loaded into the cost quoted by vendor in RA sheet. Vendor to deliver fabricated/machined/formed items to BHEL Haridwar at their own cost.

16. SCRAP: -

- Generated scrap is to be retained by the sub-contractor. This scrap is not chargeable. The scrap rate will be calculated based on the monthly market scrap price Published in MSTC Bulletin/any other document under category of scrap MELTING SCRAP/any other similar category. The calculated monthly price for charging scrap will be rounded off to two decimal places of Rupee. GST charges on scrap shall also be applicable.
- BHEL would recover the amount of GST and Trade Tax as applicable from the sub-contractor's account in lieu of scrap retained by them. The difference between raw material weight and finalized weight shall be considered for the calculation of scrap generation.
- A 3% invisible cutting allowance may be given on the finished weight.

17. RECTIFICATION: -

Any defect (noticed at Shop) arising out of the fabrication/machining/forming done by the Sub-Contractor, will have to be rectified or items replaced by the sub-contractor within 10 days at their own cost. Otherwise BHEL will be free to take necessary action as deemed fit and consequence/cost of the same will be to subcontractors-account.

18. RISK PURCHASE: -

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

Action against Bidders / vendor / supplier / contractor in case of default:

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-suppliers-contractors>."

19. DISTRIBUTION OF LOADS: -

Enquiry has been issued with following terms & conditions :

Vendor has to quote the rate **in Rs. per Piece basis**.

- 19.1 In view of shop manufacturing capacity constraints & to cope up with the increased Fabrication/machining load, it is proposed to distribute load with 2 BHEL approved subcontractors or as the case may be as per Annexure-A. Distribution of items will be in the ratio of **3:2** between L1 & L2 vendors (as per details in Annexure-A). Load distribution shall be done after counter offering finalized L-1 rate to L-2 vendor.
- 19.2 If L-2 vendor does not accept the counter offered rate then subsequent vendors (L-3 to L-n (n is number of vendors)) shall be counter offered the finalized L-1 rate in sequence till we get one such vendor who accepts L1 rates. And Load Distribution will be done as per Annexure-A between L1 & L2 (other Such vendor who accepts the counter offer).
If none of the vendors participating in RA accepts the counter offer rate, then L-1 vendor shall be approached for quantity discount (for that additional quantities) before ordering whole quantity.
- 19.3 In case more than one bidder happens to occupy the L1 status even after discounts/RA/Negotiation, the L1 bidder shall be decided by toss/draw of lots, in the presence of respective L1 bidder(s) or their representative(s). Ranking will be done accordingly. BHEL decision in such case shall be final and binding. In case of any ambiguity, BHEL HWR decision will be final.
- 19.4 In case of any ambiguity, BHEL HWR decision will be final.
- 19.5 Raghunathpur-1 project is under hold and likely to open in next month and in case hold is not lifted then distribution will be in the ratio of 3:1.

20. GENERAL INSTRUCTIONS: -

- 20.1** No further sub-contracting to third party or sister concern by the sub-contractor is allowed Without prior permission of BHEL. If found guilty, will be debarred.
- 20.2** BHEL reserves the right to suspend/cancel the PO/Enquiry unilaterally without any financial repercussions, if Sub-contractor's performance is not found to be satisfactory.
- 20.2.1** BHEL reserves the right to revise the drawing after placement of purchase order. The prices in the purchase order will be amended according to revised drawing.
- 20.3** Please refer general instructions and standard terms & conditions (GISTC) for bidding against tender enquiry (version June-2021, Rev:06) the bidder/vendor must ensure compliance of these GISTC (version June-2021, Rev:06). Please refer <https://hwr.bhel.com>.
- 20.4** MSE suppliers are exempted for submission of EMD & Tender Fee.
- 20.5** Central / State – PSUs / Government departments are exempted from submission of EMD subject to approval by BHEL management.
- 20.6** Documents submitted with the offer/bid by the bidder should be signed and stamped in each page by authorized representative of the bidder.
- 20.6.1** PQR required documents is to be submitted along with the Techno- Commercial offer (PART-I).
Note: - Offer shall be entertained only after submission of duly filled, signed and stamped PQR and relevant documents. Offers of the vendor(s) not submitting this may be ignored.
- 20.7** Vendor Contract clause regarding GST ITC and provision for E-invoices:
(i) E-invoicing under GST is being implemented w.e.f. 01.04.2022 for all the taxable persons having turnover more than Rs. 10 Cr. It has been specified by the Govt. that it is mandatory to mention a valid unique Invoice Reference No. (IRN) and QR code as generated from Govt. portal on a Tax Invoice. Based on such information, GST ITC as

claimed by BHEL in GST Returns shall be matched with the corresponding details uploaded by supplier in E-invoicing System.

(ii) In case the vendor /contractor delays or fails to provide all the documents as per the Purchase order / Work Order at the time of submitting Tax invoice to BHEL, any subsequent financial loss to BHEL on account of vendor/contractor shall be to vendor's / contractor's account. BHEL has further right to take necessary steps to protect its interest at the time of release of payment. This further requires inclusion of IRN and QR code on tax invoice as announced by Govt. of India w.e.f. 01.10.2020.

20.8 In case of ordering against the tender, vendor should submit their invoices against goods and services immediately after supply of goods & services but not later than 30 days from the invoice date. In case of delay, consequential losses like loss of input credit and non-availability of concessional forms etc. shall be to the vendor account.

20.9 The bidders against open tender will necessarily have to obtain class – III DSC (Digital signature). Procedure for application is available on hwr.bhel.com.

20.10 Following MSE conditions shall be followed: -
UDYAM Certificate.

Detailed MSE conditions is at clause no. 23.0 of GISTC Rev. 06, June 2021.

* Govt. guidelines will supersede all clauses of this tender for MSE benefits to vendor(s).

MSE Suppliers can avail the intended benefits only if they submit along with the offer, attested copies of UDYAM Certificate.

Detailed MSE conditions is at clause no. 23.0 of GISTC Rev. 06, June 2021. * Govt. guidelines will supersede all clauses of this tender for MSE benefits to vendor(s).

21. "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 who 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 authorize 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. "

- **Against vendor's replies, BHEL reserves the right to ask for more information/ documents / clarifications. Vendor's offer shall not be considered if vendor fails to furnish the document / information / clarifications as mentioned above or doesn't meet the acceptance criteria. Time period for technical/commercial clarification is 3 days.**

- Amendments/Corrigendum, if any, will be hosted on designated web site/ GePNIC Portal only. Other terms and conditions will be as per tender documents. Any vendor who is under hold (for the item)/ delisted/ banned with BHEL on date of opening of Part – 1 will not be allowed to quote for this tender. In case their offer is received, it may be out rightly rejected.

- In view of Covid-19 and present situation, the Tender Documents, Drawings, P.O copy etc. shall be sent by e-mails and shall not be sent in hard copies. Vendors to kindly note that the details sent by e-mail shall be considered for delivery against the finalized contract(s)/ P. O's placed.

- ****OFFERS SHALL BE ADMITTED THROUGH GePNIC PORTAL <https://eprocurebhel.co.in/nicgep/app> ONLY**

Authorized Signature:

(with date & seal of company)

Name of Supplier: -

Annexure - A**PRE-FAB. M/C & FAB. ONLY OF AIR GUIDE COVER (WELDED, 0144040102800), AIR GUIDE COVER (WELDED, 0144040103100), COVER (WELDED, 1144040102300) & COVER (WELDED, 1144040103900)**

OpenTender Enquiry No.: X/6620/2023/0345/F/1

Sl. No.	Item Description/Drg No.	MATERIAL BY	Qty	Weight in Kg / piece	Distribution of Load	Quoted/Not Quoted (Tick the correct option)
1	AIR GUIDE COVER (WELDED) 0144040102800	COMBINED MATERIAL	5 Nos.	1241.54	L1- 3 Nos.(Talchar-1, Talchar 2 & GHAVP-1) L2-2 Nos. (GHAVP-2 & Raghunathpur-1)	Quoted/Not Quoted
2	a. AIR GUIDE COVER (WELDED) 0144040103100	COMBINED MATERIAL	5 Nos.	674.24	L1 - 3 Set. (Talchar-1, Talchar 2 & GHAVP-1) L2 - 2 set (GHAVP-2 & Raghunathpur-1)	Quoted/Not Quoted
	b. COVER (WELDED) 1144040102300	PARTY MATERIAL	5 Nos.	64.64		
	c. COVER (WELDED) 1144040103900	COMBINED MATERIAL	5 Nos.	64.64		

Note: 1 set means here, combination of items against 2 a + 2 b + 2 c.

Annexure - B

Make in India Certificate

Certificate In line with Government Public Procurement Order No. P-45021/2/2017-BE-II dt. 15.06.2017 & P-45021/2/2017-PP (BE-II) dated 28.05.2018, we hereby certify that we M/s

_____ (supplier name) are local supplier meeting the requirement of minimum local content (50%) as defined in above orders for the material against Enquiry No.

_____ Details of location at which local value addition will be made is as follows: _____

_____ We also understand, false declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

Annexure C

Approved party scope raw material supplier against items of enquiry

PMD NO --SL024	
S. NO	VENDORS/SUPPLIERS
1	02851 SHAH BROTHERS ISPAT PVT. LTD. I0007021
2	06244 ARCELORMITTAL NIPPON STEEL I0002265
3	08166 STEEL AUTHORITY OF INDIA LTD I0000443
4	41307 JINDAL STEEL & POWER LTD. I0002230
5	41575 WELSPUN CORP LTD I0000006
6	70089 SUNLION PIPING ENGINEERING CO. F001742
7	72167 SALZGITTER MANNESMANN INTERNAT F001559
8	77007 DILLINGER INTERNATIONAL F000390
9	78004 STEEL FORCE ASIA NV-BEIGIUM F002684
10	78021 NLMK PLATES SALES SA F001330
11	90016 BURWILL RESOURCES LTD. F001060
12	90019 CUMIC STEEL LIMITED F001579
13	91021 DAEWOO INTERNATIONAL CORPORATI F000355
14	96026 SIJ ACRONI D.O.O. F001657
PMD NO --SL039	
S. NO	VENDORS/SUPPLIERS
1	02968 SANDOZ METALS (INDIA) I0000806
2	03598 ARCVAC FORGECAST PRIVATE LTD I0000654
3	04177 MAHAWAR IRON STORES PVT LTD I0005936
4	04191 SKYWAY STEEL INDUSTRIES I0013820
5	06068 STAR WIRE (INDIA) LTD. I0000670
6	08299 ALKA FORGINGS I0005653
7	09169 BHARAT HEAVY ELECTRICALS LTD. I0000185
8	16096 SAURABH METALS PVT. LTD. I0003271
9	19158 LAXCON STEELS LTD I0003509
10	20183 WELSPUN SPECIALTY SOLUTIONS I0002281
11	21050 ISMT LIMITED I0000327

12	21181 SAARLOHA ADVANCED MATERIALS I0001453
13	24025 RASHTRIYA ISPAT NIGAM LIMITED I0003241
14	40303 STEEL AUTHORITY OF INDIA LTD I0000443
15	41122 SUN FLAG IRON & STEEL CO. LTD. I0003923
16	41544 GORADIA SPECIAL STEEL LTD I0002883
PMD NO --SL050	
S. NO	VENDORS/SUPPLIERS
1	02968 SANDOZ METALS (INDIA) I0000806
2	04135 BHAWANI INDUSTRIES PRIVATE LTD I0002972
3	08166 STEEL AUTHORITY OF INDIA LTD I0000443
4	08360 K.L. STEELS (P) LIMITED I0003939
5	15017 RELIABLE SPONGE PVT LTD I0002966
6	17024 MAHAMAYA STEEL INDUSTRIES LTD I0002232
7	17025 NANDAN STEELS AND POWER LIMITE I0003747
8	17026 PRIME ISPAT LIMITED I0003943
9	17027 TOPWORTH STEELS & POWER PRIVAT I0000542
10	17029 MONNET ISPAT & ENERGY LIMITED I0003534
11	24025 RASHTRIYA ISPAT NIGAM LIMITED I0003241
12	41122 SUN FLAG IRON & STEEL CO. LTD. I0003923
13	41307 JINDAL STEEL & POWER LTD. I0002230
14	41353 P.R. ROLLING MILLS (P) LTD. I0006803
15	41642 SKS ISPAT & POWER LTD I0003954

AIR GUIDE COVER (WELDED) DRG NO- 01440401028

MATCODE	Description	Mat Size	Mat Spec	Applicable PMD	Approved supplier*
AA1010308050	ST-A(FE410 WA)FLAT	50X8	AA10108	SL039	1 TO 4 ,9 TO 10
AA1011808013	ST-A(FE410 WA)PLATE	5	AA10108	SL024	1,3,7 TO 10
AA1011819074	ST-FE410 WB-PLATE	10	AA10119	SL024	1 TO 11 ,13 TO 14
AA1012508099	ST-A(FE410 WA)ANGLE	65X65X6	AA10108	SL050	1 TO 3,5TO6,8,13,15
HW1012808980	ST-A(FE410 WA)BEAM	150 X 75	AA10108	SL050	1 TO 3,5TO6,8,13,15

AIR GUIDE COVER (WELDED) DRG NO- 01440401031

MATCODE	Description	Mat Size	Mat Spec	Applicable PMD	Approved supplier*
AA1010308084	ST-A(FE410 WA)FLAT	50X16	AA10108	SL039	1TO4 , 9 TO 10
AA1010308580	ST-A(FE410 WA)FLAT	40X10	AA10108	SL039	1TO4 , 9 TO 10
AA1011808013	ST-A(FE410 WA)PLATE	5	AA10108	SL024	1,3,7 TO 10

AA1011808030	ST-A(FE410 WA)PLATE	6	AA10108	SL024	1,3,7 TO 10
AA1011808056	ST-A(FE410 WA)PLATE	8	AA10108	SL024	1,3 , 7 TO 11
AA1011808099	ST-A(FE410 WA)PLATE	12	AA10108	SL024	1,3 , 7 TO 11
AA1011819074	ST-FE410 WB-PLATE	10	AA10119	SL024	1 TO 11 ,13 TO 14
AA1011819155	ST-FE410 WB-PLATE	25	AA10119	SL024	1 TO 11 ,13 TO 14
AA1011819171	ST-FE410 WB-PLATE	32	AA10119	SL024	1 TO 11 ,13 TO 14

COVER(WELDED DRG NO-11440401023

MATCODE	Description	Mat Size	Mat Spec	Applicable PMD	Approved supplier*
AA1011808013	ST-A(FE410 WA)PLATE	5	AA10108	SL024	1,3,7 TO 10
AA1011808056	ST-A(FE410 WA)PLATE	8	AA10108	SL024	1,3 , 7 TO 11
AA1012508056	ST-A(FE410 WA)ANGLE	45X45X5	AA10108	SL050	1 TO 2 ,13

COVER(WELDED DRG NO-11440401039

MATCODE	Description	Mat Size	Mat Spec	Applicable PMD	Approved supplier*
AA1011808013	ST-A(FE410 WA)PLATE	5	AA10108	SL024	1,3,7 TO 10
AA1011808056	ST-A(FE410 WA)PLATE	8	AA10108	SL024	1,3 , 7 TO 11
AA1012508056	ST-A(FE410 WA)ANGLE	45X45X5	AA10108	SL050	1 TO 2 ,13

TERMS AND CONDITIONS FOR Enquiry No.X/6620/2023/0345/F/1

SL.	TERMS	VENDOR'S ACCEPTANCE/ REMARKS
1	Scope of Work: - Complete PRE-FAB. M/C & FAB. ONLY is to be carried out by the vendor as per Drawing/Standard, QP and Technical requirements (as per clause 1 of terms & conditions).	
2	Quotation is valid for a minimum period of 90 days from date of opening of enquiry. (as per clause no. 2.0 of Terms and Conditions)	
3	Submission of offers (as per clause no. 3.0 of Terms and Conditions)	
4	Quoted rates are on F.O.R. sub-contract store, HEEP, Haridwar basis.(as per clause no. 4.0 of Terms and Conditions)	
5	Delivery schedule 45 days as per clause 5.0 of T& C of enquiry.	
6	Bank Guarantee/Indemnity Bond: 25% BG & 75% Indemnity bond (as per clause 6.0 of T& C of enquiry)	
7	Inspection shall be done (as per clause no. 7.0 of Terms and Conditions of Enquiry)	
8	Guarantee Certificate shall be valid for 18 months . (as per clause no. 8.0 of Terms and Conditions of Enquiry)	
9	Payment 90% after acceptance & final clearance of SRIV. 10% after FTS and final account of material (as per clause no. 9.0 of Terms and Conditions of Enquiry).	
10	LD clause is applicable@0.5% per week or part thereof with a maximum limit of 10% of the delayed portion of the PO (as per clause no. 10.0 of Terms and Conditions of Enquiry).	
11	GST shall be applicable against documentary proof. Input Tax Credit shall be applicable and BHEL can claim benefit (as per clause no. 11.0 of Terms and Conditions of Enquiry).	
12	Quality Requirements (as per clause no. 12.0 of Terms and Conditions of Enquiry).	
13	We accept Reverse Auction(RA) clause as per standard policy of BHEL (as per clause no. 13.0 of Terms and Conditions of Enquiry).	
14	Evaluation of bids (as per clause no. 14.0 of Terms and Conditions of Enquiry).	
15	Transportation:Confirm acceptance of clause 15.0 of T & C. Manufactured items shall be despatched by BHEL approved transporter only and Insurance shall be borne by BHEL.	
16	Scrap : Confirm acceptance of Clause 16.0 of T & C of Enq.	
17	Rectification:Confirm acceptance of Clause 17.0 of T & C of Enq.	
18	We accept Risk Purchase clause as per standard policy of BHEL.	
19	Distribution of Load: Accept the Clause 19 of T & C	
20	We have read clause no. 20 of terms and conditions of Enquiry and confirm to abide the same.(Clause 20.1 -20.10)	
21	Conflict of Interest:Confirm acceptance of Clause 21.0 of T & C of Enq.	
22	Duly Filled Annexure A (Unpriced- Quoted / Not Quoted)	
22	We have submitted Make in India certificate (duly filled and signed as per Annexure-B).	
23	We accept all terms and conditions of GISTC Rev. 06.	
24	Rates have been quoted in indian Rupees on per Piece basis.	
25	PQR : as per clause 20.6.1 of T&C of enquiry.(duly filled, signed and stamped PQR and relevant documents)	

I have read and agreed all the terms and conditions of enquiry in detail and agree.

Note: BHEL reserves the right to reject any or all the offers (on techno-commercial ground) without assigning any reason thereof.

(Vendor's signature with Stamp)

Item : Items of Indent no: 20230345

PRE-QUALIFICATION REQUIREMENT

Sl. No.	TECHNICAL REQUIREMENT	Required	Vendor's Offer
01.01	Vendors should have experience of fabricating (cutting/bending/assembly/welding/pre-fabrication machining) and supplying of atleast 1 no. Air Guide Cover Fabricated assembly or equivalent having size 2000X1000mmX2000mm (LXBXH) and above and weight 1 Tons and above in last 7 years from the date of enquiry.	Vendor to Comply & submit suitable evidence	
01.02	<p>Facilities Required:</p> <p>i) Lifting facility and capacity at vendor works should EOT crane 2 Tons and above.</p> <p>ii) Vendor must have levelled bed plate size : Length= 2,500mm and Breadth=1,500mm and above to fabricate the job (Note: Concrete floor not acceptable).</p> <p>(iii) Vendor must have suitable WPS/PQR and qualified welders for welding approved by Third Party and submit documentary evidence with offer.</p> <p>(iv) Vendor must have cutting facility to cut plate of thickness 10 mm and above.</p> <p>(v) Vendor must have rolling bending facility of plate thickness 10mm and above at width of 1000mm and above.</p> <p>(vi) Vendor must have drilling facility to drill holes of dia.30mm and above in plate thickness of 10mm and above</p>	Vendor to Comply & submit suitable evidence including technical specifications, technical brochure, photographs etc. of the facilities.	
01.03	Vendor to furnish certificate against clause 01.01 from the customer / company or end user duly confirming that Air Guide Cover Fabricated assembly or equivalent having size 2000X1000mmX2000mm (LXBXH) and above and weight 1 Tons and above was supplied and used for Hydro Pump or turbine/power plant/capital goods/infrastructure application OR Vendor to submit documentary evidence as per clause 1.04.	Vendor to Comply & submit suitable documents	
01.04	Vendor to furnish name of customer/company with complete contact details and month /year of previous supply along with copy of PO, type of manufacturing facility used for fabrication (assembly/welding/pre-fabrication machining), supply documents, Payment details(invoice copy) and inspection documents of supplied Air Guide Cover Fabricated assembly or equivalent having size 2000X1000mmX2000mm (LXBXH) and above and weight 1 Tons and above.	Vendor to Comply & submit suitable documents	
01.05	All PQR documents are to be stamped and signed in original by Vendor. In case documents and official stamp is in language other than English, documents and details of official stamp are to be translated in English and duly certified by Government agency/approved agency of Government/Embassy.	Vendor to Comply & submit suitable documents	
01.06	BHEL reserves the right to verify the information provided by vendor. In case the information provided by vendor is found to be false/ incorrect, their offers shall be rejected.	Vendor to agree	

NOTE: PQR is not restrictive



[Signature]
19/07/2023
Pankaj Deshpande
Manager (WT)

[Signature]
19/7/23
Santosh Goud
MGR/WT

[Signature]
20.07.2023
(B.S. Arora)
B7-WT



Manufacturer Name and Address		MANUFACTURING QUALITY PLAN								APPLICABILITIES TO			
BHEL Haridwar approved vendors/sub-contractors only		ITEM/ EQUIPM- ENTS	AIR GUIDE COVER (WELDED) & COVER (WELDED) – Item no. 1 to 4 of indent					Q.P. NO	QP/QA/216379			CONTRACTOR	BHEL (HEEP) HWR
								DATE	19.07.2023				
								REV. NO.	00			INDENT	Indent no. 20230345 dated 19.07.2023
								PAGE NO.	1 of 3				
Sl. No.	COMPONENT OPERATION	CHARACTRISTIC CHECKED	CATEGORY	TYPE/ METHOD OF CHECKED	QUANT-UM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE DOCUMENT	FORMAT OF RECORD	D	AGENCY			REMARKS
										M	B	C	
1	2	3	4	5	6	7	8	9	10	11	12	13	14

1	Material Receiving Inspection	Review of Supplier Test Certificate of Material for all the party materials	Major	Visual inspection	100 %	As per drg./ Standard	As per drg./ Standard	TC	✓	P	V	-	All party material to be procured from BHEL, Haridwar approved sources who are original steel manufactureres with following condition: In all the cases a mill test certificate correlating with the component for verification of conformance of the material as per the requirement is essential.
2	IN PROCESS-INSPECTION												
2.1	WPS, PQR & WPQ Qualification	Scrutinizing	Major	Record check	100%	ASME SEC IX	ASME SEC IX	Test Report	-	P	V	-	BHEL /BHEL approved agency WPS/PQR/WPQ shall be used
2.2	Marking, Cutting & Edge Preparation	i) Marking	Major	Marking check	100 %	As per drg./ Standard	As per drg./ Standard	-	-	P	-	-	
		ii) Dimension	Major	Measurement	100%	As per drg./ Standard	As per drg./ Standard	-	-	P	-	-	

Manufacturer/Subcontractor	Legends: P Perform by; W Witness by; V Record review; C Customer; B BHEL/BHEL Representative; M Manufacturer/ sub-contractor; D: Documents with tick mark shall be submitted by vendor to BHEL.	For BHEL Use  स्वाती जैन प्रबंधक गुणता आश्वासन	  ब्रज भूषण त्रिपाठी वरिष्ठ प्रबंधक गुणता आश्वासन
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Manufacturer Name and Address		MANUFACTURING QUALITY PLAN								APPLICABILITIES TO			
BHEL Haridwar approved vendors/sub-contractors only		ITEM/ EQUIPM- ENTS	AIR GUIDE COVER (WELDED) & COVER (WELDED) – Item no. 1 to 4 of indent					Q.P. NO	QP/QA/216379			CONTRACTOR	BHEL (HEEP) HWR
								DATE	19.07.2023				
								REV. NO.	00			INDENT	Indent no. 20230345 dated 19.07.2023
								PAGE NO.	2 of 3				
Sl. No.	COMPONENT OPERATION	CHARACTRISTIC CHECKED	CATEGORY	TYPE/ METHOD OF CHECKED	QUANT-UM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE DOCUMENT	FORMAT OF RECORD	D	AGENCY			REMARKS
										M	B	C	
1	2	3	4	5	6	7	8	9	10	11	12	13	14



		iii) Edge preparation	Minor	Measurement	100%	As per drg./ Standard	As per drg./ Standard	-	-	P	-	-	
2.3	Welding Operation	i) Fit up	Major	Visual	100%	As per drg./ Standard	As per drg./ Standard	Obs. sheet	√	P	V	-	1) BHEL approved electrode shall be used during welding 2) Qualified welders by BHEL /BHEL approved agency in accordance with ASME Section IX will be deployed on the job.
		ii) Visual inspection of welds	Major	Visual	100%	As per drg./ Standard	As per drg./ Standard	Obs. sheet	√	P	V	-	
		iii) NDT of welds, as applicable	Major	NDT	As per drg.	As per drg./ Standard	As per drg./ Standard	Report	√	P	W		
3	FINAL INSPECTION												
3.1		i) Verification of dimension & inspection	Major	Visual & measurement	100%	As per drg./ Standard	As per drg./ Standard	Obs. Sheet	√	P	W	-	
		iii) Painting & preservation	Major	Visual	100%	As per drg./ Standard	As per drg./ Standard	Obs. sheet	√	P	W	-	

Manufacturer/Subcontractor	Legends: P Perform by; W Witness by; V Record review; C Customer; B BHEL/BHEL Representative; M Manufacturer/ sub-contractor; D: Documents with tick mark shall be submitted by vendor to BHEL.	For BHEL Use	
			
		स्वाती जैन	ब्रज भूषण त्रिपाठी
		प्रबंधक	वरिष्ठ प्रबंधक
		गुणता आश्वासन	गुणता आश्वासन

Manufacturer Name and Address		MANUFACTURING QUALITY PLAN								APPLICABILITIES TO			
BHEL Haridwar approved vendors/sub-contractors only		ITEM/ EQUIPM- ENTS	AIR GUIDE COVER (WELDED) & COVER (WELDED) – Item no. 1 to 4 of indent					Q.P. NO	QP/QA/216379				
								DATE	19.07.2023				
								REV. NO.	00		CONTRACTOR	BHEL (HEEP) HWR	
								PAGE NO.	3 of 3		INDENT	Indent no. 20230345 dated 19.07.2023	
Sl. No.	COMPONENT OPERATION	CHARACTRISTIC CHECKED	CATEGORY	TYPE/ METHOD OF CHECKED	QUANT-UM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE DOCUMENT	FORMAT OF RECORD	D	AGENCY			REMARKS
										M	B	C	
1	2	3	4	5	6	7	8	9	10	11	12	13	14



		iv) Completeness of Job, Documentation	Major	Visual	-	-	Drg./QP	Record	-	P	V	-	Item shall be dispatched to BHEL after acceptance by BHEL nominated agency after duly identifying by punching P.O. No., drg no. Plant Order No. and I.R. No.
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Note: All requirements of P.O., drawing and standard shall be fulfilled.

Manufacturer/Subcontractor	Legends: P Perform by; W Witness by; V Record review; C Customer; B BHEL/BHEL Representative; M Manufacturer/ sub-contractor; D: Documents with tick mark shall be submitted by vendor to BHEL.	For BHEL Use  स्वाती जैन प्रबंधक गुणता आश्वासन	  ब्रज भूषण त्रिपाठी वरिष्ठ प्रबंधक गुणता आश्वासन
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Manufacturer Name and Address		MANUFACTURING QUALITY PLAN								APPLICABILITIES TO				
BHEL Haridwar approved vendors/sub-contractors only		ITEM/ EQUIPM- ENTS	AIR GUIDE COVER (WELDED) & COVER (WELDED) – Item no. 1 to 4 of indent					Q.P. NO	QP/QA/216378					
								DATE	19.07.2023					
								REV. NO.	00		CONTRACTOR	BHEL (HEEP) HWR		
								PAGE NO.	1 of 4		INDENT	Indent no. 20230345 dated 19.07.2023		
Sl. No.	COMPONENT OPERATION	CHARACTRISTIC CHECKED	CATEGORY	TYPE/ METHOD OF CHECKED	QUANT-UM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE DOCUMENT	FORMAT OF RECORD	D	AGENCY			REMARKS	
										M	B	C		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	

1	Material Receiving Inspection	Review of Supplier Test Certificate of Material for all the party materials	Major	Visual inspection	100 %	As per drg./ Standard	As per drg./ Standard	TC	√	P	V	-	All party material to be procured from BHEL, Haridwar approved sources who are original manufacturers with following condition: In all the cases a mill test certificate correlating with the component for verification of conformance of the material as per the requirement is essential.
2	IN PROCESS-INSPECTION												
2.1	WPS, PQR & WPQ Qualification	Scrutinizing	Major	Record check	100%	ASME SEC IX	ASME SEC IX	Test Report	-	P	V	-	BHEL & NPCIL approved WPS/PQR/WPQ shall be used
2.2	Marking, Cutting & Edge Preparation	i) Marking	Major	Marking check	100 %	As per drg./ Standard	As per drg./ Standard	-	-	P	-	-	
		ii) Dimension	Major	Measurement	100%	As per drg./ Standard	As per drg./ Standard	-	-	P	-	-	

Manufacturer/Subcontractor	Legends: P Perform by; W Witness by; V Record review; C Customer; B BHEL/BHEL Representative; M Manufacturer/ sub-contractor; D: Documents with tick mark shall be submitted by vendor to BHEL.	For BHEL Use  स्वाती जैन प्रबंधक गुणता आश्वासन	  ब्रज भूषण त्रिपाठी वरिष्ठ प्रबंधक गुणता आश्वासन
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Manufacturer Name and Address		MANUFACTURING QUALITY PLAN								APPLICABILITIES TO				
BHEL Haridwar approved vendors/sub-contractors only		ITEM/EQUIPMENTS	AIR GUIDE COVER (WELDED) & COVER (WELDED) – Item no. 1 to 4 of indent					Q.P. NO	QP/QA/216378				BHEL (HEEP) HWR	
								DATE	19.07.2023					
								REV. NO.	00		CONTRACTOR			
								PAGE NO.	2 of 4		INDENT	Indent no. 20230345 dated 19.07.2023		
Sl. No.	COMPONENT OPERATION	CHARACTRISTIC CHECKED	CATEGORY	TYPE/ METHOD OF CHECKED	QUANT-UM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE DOCUMENT	FORMAT OF RECORD	D	AGENCY			REMARKS	
										M	B	C		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	

		iii) Edge preparation	Minor	Measurement	100%	As per drg./ Standard	As per drg./ Standard	-	-	P	-	-	
2.3	Welding Operation	i) Fit up	Major	Visual	100%	As per drg./ Standard	As per drg./ Standard	Obs. sheet	√	P	V	-	1) BHEL & NPCIL approved welding consumable (refer QR) shall be used during welding 2) Qualified welders by BHEL & NPCIL approved in accordance with ASME Section IX will be deployed on the job. 3) All NDT shall be carried out by Level-I/Level-II/Level-III & evaluated by Level-II/Level-III qualified person from ISNT/ASNT.
		ii) Visual inspection of welds	Major	Visual	100%	As per drg./ Standard	As per drg./ Standard	Obs. sheet	√	P	V	-	

Manufacturer/Subcontractor	Legends: P Perform by; W Witness by; V Record review; C Customer; B BHEL/BHEL Representative; M Manufacturer/ sub-contractor; D: Documents with tick mark shall be submitted by vendor to BHEL.	For BHEL Use  स्वाती जैन प्रबंधक गुणता आश्वासन	  ब्रज भुषण त्रिपाठी वरिष्ठ प्रबंधक गुणता आश्वासन
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Manufacturer Name and Address		MANUFACTURING QUALITY PLAN								APPLICABILITIES TO			
BHEL Haridwar approved vendors/sub-contractors only		ITEM/EQUIPMENTS	AIR GUIDE COVER (WELDED) & COVER (WELDED) – Item no. 1 to 4 of indent					Q.P. NO	QP/QA/216378			CONTRACTOR	BHEL (HEEP) HWR
								DATE	19.07.2023				
								REV. NO.	00			INDENT	Indent no. 20230345 dated 19.07.2023
								PAGE NO.	3 of 4				
Sl. No.	COMPONENT OPERATION	CHARACTRISTIC CHECKED	CATEGORY	TYPE/ METHOD OF CHECKED	QUANT-UM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE DOCUMENT	FORMAT OF RECORD	D	AGENCY			REMARKS
										M	B	C	
1	2	3	4	5	6	7	8	9	10	11	12	13	14

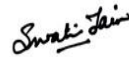

		iii) NDT of welds, as applicable	Major	NDT	As per drg.	As per drg./ Standard	As per drg./ Standard	Report	√	P	W	-	1) BHEL & NPCIL approved DP consumable (refer QR) shall be used during welding 2) All NDT shall be carried out by Level-I/Level-II/Level-III & evaluated by Level-II/Level-III qualified person from ISNT/ASNT.
3	FINAL INSPECTION												
3.1		i) Verification of dimension & inspection	Major	Visual & measurement	100%	As per drg./ Standard	As per drg./ Standard	Obs. Sheet	√	P	W	-	
		iii) Painting & preservation	Major	Visual	100%	As per drg./ Standard	As per drg./ Standard	Obs. sheet	√	P	W	-	

Manufacturer/Subcontractor	Legends: P Perform by; W Witness by; V Record review; C Customer; B BHEL/BHEL Representative; M Manufacturer/ sub-contractor; D: Documents with tick mark shall be submitted by vendor to BHEL.	For BHEL Use  स्वाती जैन प्रबंधक गुणता आश्वासन	  ब्रज भुषण त्रिपाठी वरिष्ठ प्रबंधक गुणता आश्वासन
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Manufacturer Name and Address		MANUFACTURING QUALITY PLAN								APPLICABILITIES TO				
BHEL Haridwar approved vendors/sub-contractors only		ITEM/ EQUIPM- ENTS	AIR GUIDE COVER (WELDED) & COVER (WELDED) – Item no. 1 to 4 of indent					Q.P. NO	QP/QA/216378					
								DATE	19.07.2023					
								REV. NO.	00		CONTRACTOR	BHEL (HEEP) HWR		
								PAGE NO.	4 of 4		INDENT	Indent no. 20230345 dated 19.07.2023		
Sl. No.	COMPONENT OPERATION	CHARACTRISTIC CHECKED	CATEGORY	TYPE/ METHOD OF CHECKED	QUANT-UM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE DOCUMENT	FORMAT OF RECORD	D	AGENCY			REMARKS	
										M	B	C		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	

		iv) Completeness of Job, Documentation	Major	Visual	-	-	Drg./QP	Record	-	P	V	-	Item shall be dispatched to BHEL after acceptance by BHEL nominated agency after duly identifying by punching P.O. No., drg no. Plant Order No. and I.R. No.
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Note: All requirements of P.O., drawing and standard shall be fulfilled.

Manufacturer/Subcontractor	Legends: P Perform by; W Witness by; V Record review; C Customer; B BHEL/BHEL Representative; M Manufacturer/ sub-contractor; D: Documents with tick mark shall be submitted by vendor to BHEL.	For BHEL Use  स्वाती जैन प्रबंधक गुणता आश्वासन	  ब्रज भूषण त्रिपाठी वरिष्ठ प्रबंधक गुणता आश्वासन
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न्यूक्लियर पावर कॉर्पोरेशन ऑफ इंडिया लिमिटेड

(भारत सरकार का उद्यम)

NUCLEAR POWER CORPORATION OF
INDIA LTD.

(A Government of India Enterprise)

गुणवत्ता आश्वासन निदेशालय

Directorate of Quality Assurance

नाभिकीय ऊर्जा भवन, अणुशक्तिनगर, मुंबई-400
094

Nabhikiya Urja Bhavan, Anushaktinagar,
Mumbai - 400 094.

Corporate Identification No. U40104MH1987GOI149458



थॉमस मैथ्यू Thomas Mathew

अधिकांश निदेशक (गु.आ.) Executive Director (QA)

Phone: 022- 25995030/25558487

Fax.No.: 022-25565354

e-mail: tmathew@npcil.co.in

सं. No. एनपीसीआईएल/NPCIL/02500/क्यूएडीQAD/ईडीED(क्यूएQA)/एमएम/2022/111 June 28, 2022

विषय : वेधी पदार्थों के अनुमोदित ब्रांड की सूची।

Sub: List of approved brands of penetrant materials

28-06-2022 की स्थिति में एनपीसीआईएल के उपयोग हेतु वेधी पदार्थों के अनुमोदित ब्रांड की सूची इसके साथ संलग्न है। यह अनुमोदन हमारी प्रक्रिया संख्या QAD/NDT-PROC-PT-05,R-03 (तरल वेधी परीक्षण के लिए उपयोग में आने वाले रसायन परिवार के अनुमोदन हेतु प्रक्रिया) के अनुसार आवश्यकताओं के अनुरूप प्रदान किया जाता है।

The list of approved brands of penetrant materials for use on NPCIL jobs as on 28-06-2022 is enclosed. The approvals are granted in conformance to the requirements as per our procedure no. QAD/NDT-PROC-PT-05,R-03 (Procedure for approval of Family of Chemicals used for Liquid Penetrant Examination).

(थॉमस मैथ्यू Thomas Mathew)

LIST OF APPROVED PENETRANT TESTING MATERIALS

(As on 28-06-2022)

Sr. No.	Manufacturers	Brand name	Description	Valid up to
1.	ORIENTAL CHEMICAL WORKS (P) LTD.KOLKATA	Orion 119 P	Red Dye Penetrant	FEB-2026
2.	ORIENTAL CHEMICAL WORKS (P) LTD.KOLKATA	Orion 119 PR	Penetrant Remover	FEB-2026
3.	ORIENTAL CHEMICAL WORKS (P) LTD.KOLKATA	Orion 119 D	Developer (Non-Aqueous)	FEB-2026
4.	MAGNAFLUX ITW INDIA PVT.LTD.SECUNDERABAD	SKL-SP 1	Red Coloured Solvent Removable Penetrant	July2024
5.	MAGNAFLUX ITW INDIA PVT.LTD.SECUNDERABAD	SKC-1	Solvent Cleaner	July2024
6.	MAGNAFLUX ITW INDIA PVT.LTD.SECUNDERABAD	SKD-S2	Solvent Base Developer	July2024
7.	MAGNAFLUX ITW INDIA PVT.LTD.SECUNDERABAD	SKL-WP2	Red Coloured Water Washable Penetrant	July2024
8.	MAGNAFLUX ITW INDIA PVT.LTD.SECUNDERABAD	SKL-SP2	Red Coloured Solvent Removable Penetrant.	July2024
9.	PRADEEP METAL TREATMENT CHEMICALS PVT. LTD., THANE	Flaw Guide Penetrant (NP Grade)	Red Coloured Solvent Removable Penetrant.	Oct2024
10	PRADEEP METAL TREATMENT CHEMICALS PVT. LTD., THANE	Flaw Guide Cleaner (NP Grade)	Solvent Cleaner	Oct2024
11	PRADEEP METAL TREATMENT CHEMICALS PVT. LTD., THANE	Flaw Guide Developer (NP Grade)	Solvent Base Developer	Oct2024
12	PRADEEP METAL TREATMENT CHEMICALS PVT. LTD., THANE	Flaw Guide Red Dye Penetrant-W	Water Washable Dye Penetrant	Oct2024
13	3AK Chemie India Pvt.Ltd. (Formerly known as MR Chemie India Pvt. Ltd.),Hyderabad	MR ^(R) 62	Solvent Removable Penetrant-Red	Dec2026
14	3AK Chemie India Pvt.Ltd. (Formerly known as MR Chemie India Pvt. Ltd.), Hyderabad	MR ^(R) 68 NF	Solvent Removable and Water Washable Penetrant-Red	Dec2026
15	3AK Chemie India Pvt. Ltd. (Formerly known as MR Chemie India Pvt. Ltd.), Hyderabad	MR ^(R) 67	Solvent Removable and Water Washable Penetrant-Red	Dec2026
16	3AK Chemie India Pvt. Ltd. (Formerly known as MR Chemie India Pvt. Ltd.), Hyderabad	MR ^(R) 672 F	Solvent Removable and Water Washable Penetrant-Fluorescent	Dec2026
17	3AK Chemie India Pvt. Ltd. (Formerly known as MR Chemie India Pvt. Ltd.), Hyderabad	MR ^(R) 85	Solvent Remover suitable for MR ^(R) 68NF, MR ^(R) 67, MR ^(R) 672F and MR ^(R) 62.	Dec2026
18	3AK Chemie India Pvt. Ltd. (Formerly known as MR Chemie India Pvt. Ltd.), Hyderabad	MR ^(R) 70	Non-Aqueous Developer suitable for MR ^(R) 68 NF, MR ^(R) 67 and MR ^(R) 672F	Dec2026

Sr. No.	Manufacturers	Brand name	Description	Valid up to
19	3AK Chemie India Pvt. Ltd. (Formerly known as MR Chemie India Pvt. Ltd.), Hyderabad	MR ^(R) 70 I	Non-Aqueous Developer suitable for MR ^(R) 62.	Dec2026
20	3AK Chemie India Pvt. Ltd. (Formerly known as MR Chemie India Pvt. Ltd.), Hyderabad	SP-10,SC-20, SD30	Solvent Removable Penetrant, Solvent Remover, Non - Aqueous Developer	April2027
21	3AK Chemie India Pvt. Ltd. (Formerly known as MR Chemie India Pvt. Ltd.), Hyderabad	WP-15, SC20, SD30	Water Washable Penetrant, Solvent Remover, Non - Aqueous Developer	April2027
22	3AK Chemie India Pvt. Ltd. (Formerly known as MR Chemie India Pvt. Ltd.), Hyderabad	MR311-R, MR85,MR70I	Water Washable & Solvent Removable Penetrant, Solvent Remover, Non - Aqueous Developer	April2027
23	P-MET HIGH TECH CO. PVT. LTD., VADODARA	PP-15/PP-15B	Red Coloured Solvent Removable Penetrant	AUG2026
24	P-MET HIGH TECH CO. PVT. LTD., VADODARA	PP-19/PP-19B	Red Coloured Water Washable Penetrant	AUG2026
25	P-MET HIGH TECH CO. PVT. LTD., VADODARA	PC-21/PC-21B	Solvent Cleaner	AUG2026
26	P-MET HIGH TECH CO. PVT. LTD., VADODARA	PD-31/PD-31B	Solvent Base Developer	AUG2026
27	P-MET HIGH TECH CO. PVT. LTD., VADODARA	PP-110/ PP110B	Red Coloured Solvent Removable Penetrant	AUG2026
28	P-MET HIGH TECH CO. PVT. LTD., VADODARA	PC 120/ PC-120B	Solvent Cleaner	AUG2026
29	P-MET HIGH TECH CO. PVT. LTD., VADODARA	PD 130 /PD-130B	Solvent Base Developer	AUG2026
30	P-MET HIGH TECH CO. PVT. LTD., VADODARA	FPS46/FPS46B	Solvent Removable Fluorescent Penetrant	AUG2026
31	P-MET HIGH TECH CO. PVT. LTD., VADODARA	FPS49/FPS49B	Water Washable Fluorescent Penetrant	AUG2026
32	FERROCHEM NDT SYSTEM PVT. LTD. PUNE	FC-911, FC-811 FC-711	Solvent Removable (Visible)	JAN2027
33	FERROCHEM NDT SYSTEM PVT. LTD. PUNE	FC-931, FC-811	Water Washable (Visible)	JAN2027
34	FERROCHEM NDT SYSTEM PVT. LTD. PUNE	FC-941, FC-821	Water washable (Fluorescent)	JAN2027
35	FERROCHEM NDT SYSTEM PVT. LTD. PUNE	FC-921, FC-821, FC-721	Solvent removable (Fluorescent)	JAN2027
36	DYEGLO PVT. LTD, PUNE	RP-81	Red Coloured Solvent Removable Penetrant	DEC2023
37	DYEGLO PVT. LTD, PUNE	RP-90	Red Coloured Water Washable Penetrant	DEC2023
38	DYEGLO PVT. LTD, PUNE	CL-01	Solvent Cleaner	DEC2023
39	DYEGLO PVT. LTD, PUNE	RD-01	Solvent Base Developer suitable for RP-81 & RP-90	DEC2023
40	DYEGLO PVT. LTD, PUNE	FP-01	Fluorescent Solvent Removable Penetrant	DEC2023
41	DYEGLO PVT. LTD, PUNE	WD-01	Solvent Base Developer suitable for FP-01.	DEC2023

Note:-

1. Halogen content in Penetrant, Cleaner and Developer is 25ppm (max) and Sulphur content is 500ppm (max). However when using penetrant materials for Austenitic Stainless Steel, Titanium, Nickel base or other high temperature alloys, Halogen and Sulphur content shall not exceed 25ppm. Manufacture has to mention for each batch, the Sulphur and Halogen content in the label of each container for selection of Penetrant materials for the stated application.
2. Developer is to be used in Aerosol Cane to get the best results.

Anoop Singh
28/06/2022

(Anoop Singh)
Head QA (Baroda & Dehej)

Through: ~~Shri Sundar Singh, AD (QA, M-1 &4)~~

Sundar Singh
28.06.2022

→ ~~Shri A.K. Deshmukh, AD (QA Group-2)~~

A.K. Deshmukh
28.6.2022

→ ~~Executive Director (QA)~~

Halhed
28.06.2022

NUCLEAR POWER CORPORATION OF INDIA LTD.

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Directorate of Quality Assurance

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1) LIST OF APPROVED CARBON STEEL & LOW ALLOY STEEL WELDING ELECTRODES (2 pages)

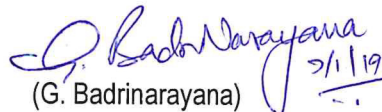
As on 07-01-2019

Sr. No.	Manufacturers	Brand name	AWS No.	Valid up to
1.	ADOR Welding Ltd., Silvassa	SUPABASE X PLUS	E7018	FEB2019*
2.	ADOR Welding Ltd., Silvassa	MOLYTEN	E7018-A1	APR2020
3.	ADOR Welding Ltd., Silvassa	TENALLOY Z PLUS	E7018-1	JUN2022
4.	ADOR Welding Ltd., Silvassa	CHROMOTEN	E8018 B2	APR2020
5.	ADOR Welding Ltd., Silvassa	CHROMOTEN-C	E9018 B3	APR2020
6.	D&H SECHERON, Indore	MOLYTHERME	E7018-A1	JUN2022
7.	D&H SECHERON, Indore	MEDIO	E6013	JUN2020
8.	D&H SECHERON, Indore	EXOBEL	E6013	JUN2020
9.	D&H SECHERON, Indore	SUPERTHERME	E7018	JUN2020
10.	D&H SECHERON, Indore	SUPERTHERME(SPL)	E7018-1	NOV2023
11.	D&H India Ltd., Indore	SUPER -LH (SPL)	E7018-1 (DCEP Only)	FEB2021
12.	D&H India Ltd., Indore	STANDARD	E6013	FEB2021
13.	D&H India Ltd., Indore	SUPER LH	E7018 (DCEP Only)	FEB2021
14.	D&H India Ltd., Indore	SUPER -CR-1	E8018 B2	DEC2020
15.	D&H India Ltd., Indore	SUPER -CR-2	E9018 B3	DEC2020
16.	ESAB INDIA LTD, AMBATTUR, CHENNAI	ESAB 28	E6013	SEP2019
17.	ESAB INDIA LTD, AMBATTUR, CHENNAI	ESAB 36H	E7018	SEP2019
18.	ESAB INDIA LTD, AMBATTUR, CHENNAI	ESAB 36H(SPL)	E7018-1	SEP2019
19.	ESAB INDIA LTD, AMBATTUR, CHENNAI	ESAB PIPEWELD 6010R	E6010	SEP2019
20.	HONAVAR ELECTRODES, THANE	REGULAR S	E6013	JAN2020
21.	HONAVAR ELECTRODES, THANE	ULTIMATE - 18	E7018	JAN2020
22.	HONAVAR ELECTRODES, THANE	ULTIMATE – 18 SPL	E7018-1	JAN2020
23.	MAILAM INDIA LTD., PUDUCHERRY	MAILARC -13R	E6013	SEP2020
24.	MAILAM INDIA LTD., PUDUCHERRY	MAILARC -18	E7018	SEP2020
25.	MAILAM INDIA LTD., PUDUCHERRY	MAILARC -18 PLUS	E7018-1	SEP2020
26.	MAILAM INDIA LTD., PUDUCHERRY	MAILARC -1 CR	E8018-B2	DEC2018*
27.	MAILAM INDIA LTD., PUDUCHERRY	MAILARC -2 CR	E9018-B3	DEC2018*
28.	ROYAL ARC ELECTRODES, VASAI	ROYAL THERME	E7018	SEP2018*
29.	ROYAL ARC ELECTRODES, VASAI	ROYAL S	E6013	SEP2018*
30.	ROYAL ARC ELECTRODES, VASAI	ROYAL THERM SPL.	E7018-1	SEP2021
31.	ROYAL ARC ELECTRODES, VASAI	ROYAL THERM MOLY	E7018-A1	MAR2023
32.	ROYAL ARC ELECTRODES, VASAI	ROYAL CHROM 1	E8018-B2	FEB2023
33.	ROYAL ARC ELECTRODES, VASAI	ROYAL CHROM 2	E9018-B3	FEB2023
34.	RAJ KESARI ELECTRODES, UDAIPUR	SUPERLET 18	E7018	AUG2022
35.	RAJ KESARI ELECTRODES, UDAIPUR	SUPERLET 18 (SPL.)	E7018-1	AUG2022
36.	RAJ KESARI ELECTRODES, UDAIPUR	RAJCORD 13S	E6013	AUG2022
37.	RAJRATNA ELECTRODES, AHMEDABAD	RATNA 7018	E7018	NOV2023

Sr. No.	Manufacturers	Brand name	AWS No.	Valid up to
38.	RAJRATNA ELECTRODES, AHMEDABAD	RATNA 7018 SPL.	E7018-1	MAR2020
39.	SUPERON SCHWEISSTECHNIK INDIA LTD. DELHI	GARANT MO	E7018-A1	SEP2020
40.	SUPERON SCHWEISSTECHNIK INDIA LTD. DELHI	SUPERCITO	E7018	SEP2019
41.	SUPERON SCHWEISSTECHNIK INDIA LTD. DELHI	SUPERCITO 7018-S	E7018-1	SEP2019
42.	SUPERON SCHWEISSTECHNIK INDIA LTD. DELHI	OVERCORD S	E6013	SEP2019
43.	SUPERON SCHWEISSTECHNIK INDIA LTD., DELHI	SUPER CROMO 1B	E8018-B2	DEC2020
44.	SUPERON SCHWEISSTECHNIK INDIA LTD., DELHI	SUPER CROMO 2B	E9018-B3	DEC2020
45.	VIJAY ELECTRODES & WIRES PVT. LTD., CHENNAI	VJ 6013 X	E6013	SEP2020
46.	VIJAY ELECTRODES & WIRES PVT. LTD., CHENNAI	VJ 7018	E7018	SEP2020
47.	VIJAY ELECTRODES & WIRES PVT. LTD., CHENNAI	VJ 7018 - 1	E7018-1	SEP2020
48.	WELD FAST ELECTRODES, NAGPUR	WELDFAST LH 18	E-7018	MAR2020
49.	WELD FAST ELECTRODES, NAGPUR	WELDFAST LH-18-1	E-7018-1	MAR2020
50.	WELD FAST ELECTRODES, NAGPUR	WELDFAST CROMO 0500	E7018-A1	FEB2023
51.	WELD FAST ELECTRODES, NAGPUR	WELDFAST CROMO 1500	E8018-B2	FEB2023
52.	WELD FAST ELECTRODES, NAGPUR	WELDFAST CROMO 2251	E9018-B3	FEB2023

The approvals are granted in conformance to the requirements stipulated in latest edition of ASME Section II Part C. However, batch qualification wherever called for in specific cases, will have to be carried out separately.

* Indicates renewal of approval is under progress.


(G. Badrinarayana) 2/1/19
Associate Director (QA), Gr.3

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2) LIST OF APPROVED STAINLESS STEEL & OTHER NI ALLOY ELECTRODES (2 Pages)

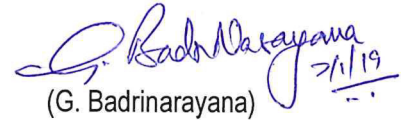
AS ON 07-01-2019

Sr. No.	MANUFACTURERS	BRAND NAME	AWS No.	VALID UPTO
1.	ADOR WELDING LTD., SILVASSA	BETANOX-DL	E 309L-16	SEP2020
2.	ADOR WELDING LTD., SILVASSA	SUPERINOX-2C	E 316-16	SEP2020
3.	ADOR WELDING LTD., SILVASSA	SUPERINOX-1C	E 308L-16	SEP2020
4.	D&H INDIA LTD., INDORE	SV-308L	E 308L-15	DEC2022
5.	D&H INDIA LTD., INDORE	SV-309L	E 309L-15	DEC2022
6.	D&H INDIA LTD., INDORE	CROMALLOY-B	E 308L-16	DEC2022
7.	D&H INDIA LTD., INDORE	CROMALLOY 309L	E 309L-16	DEC2020
8.	ADOR FONTECH, BENGALURU	LH 511	E Ni Cu7	OCT2020
9.	ADOR FONTECH, BENGALURU	LH 521	E Ni Cr Fe 3	OCT2020
10.	D&H SECHERON, INDORE	CRONITHERME 25/12	E 309-16	JUN2022
11.	D&H SECHERON, INDORE	RUTOX-D	E 316L-16	JUN2022
12.	D&H SECHERON, INDORE	BATOX-B	E 308L-15	JUN2020
13.	D&H SECHERON, INDORE	RUTOX-B	E 308L-16	JUN2020
14.	D&H SECHERON, INDORE	D&H 309L	E 309L-16	NOV2023
15.	D&H SECHERON, INDORE	D&H 1250	E NiCu-7	JAN2021
16.	D&H SECHERON, INDORE	D&H 1212NS	E NiCr Fe-3	JAN2021
17.	D&H SECHERON, INDORE	RUTOX-A	E 308-16	NOV2023
18.	D&H SECHERON, INDORE	RUTOX-A St	E 347-16	NOV2023
19.	D&H SECHERON, INDORE	RUTOX-Mo	E 316-16	NOV2023
20.	HONAVAR ELECTRODES, THANE	SILVER SHINE 308L-15	E 308L-15	SEP2018*
21.	HONAVAR ELECTRODES, THANE	SILVER SHINE 308L	E 308L-16	SEP2019
22.	HONAVAR ELECTRODES, THANE	SILVER SHINE 309L	E 309L-16	SEP2019
23.	HONAVAR ELECTRODES, THANE	SILVER SHINE 316L	E 316L-16	NOV2018*
24.	RAJRATNA ELECTRODES, AHMEDABAD	RATNA 308L	E 308L-16	MAR2020
25.	RAJRATNA ELECTRODES, AHMEDABAD	RATNA 316 L	E 316L-16	MAR2020
26.	SUPERON SCHWEISSTECHNIK INDIA LTD. DELHI	SUPER OPTIMAL 309L	E 309L-16	OCT2019
27.	SUPERON SCHWEISSTECHNIK INDIA LTD. DELHI	SUPER OPTIMAL 316L	E 316L-16	OCT2019
28.	SUPERON SCHWEISSTECHNIK INDIA LTD. DELHI	SUPER OPTIMAL 309 MoL	E 309MoL	OCT2019
29.	SUPERON SCHWEISSTECHNIK INDIA LTD. DELHI	SUPER STAINLESS 347	E 347-16	OCT2019
30.	SUPERON SCHWEISSTECHNIK INDIA LTD. DELHI	SUPER OPTIMAL 308L	E 308L-16	OCT2019
31.	MAILAM INDIA LTD., PUDUCHERRY	MAILEX-A	E 308-16	DEC2018*
32.	MAILAM INDIA LTD., PUDUCHERRY	MAILEX-AL	E 308L-16	DEC2018*
33.	MAILAM INDIA LTD., PUDUCHERRY	MAILEX-AL-15	E 308L-15	DEC2018*

Sr. No.	MANUFACTURERS	BRAND NAME	AWS No.	VALID UPTO
34.	MAILAM INDIA LTD., PUDUCHERRY	MAILEX-25/12	E 309-16	DEC2018*
35.	MAILAM INDIA LTD., PUDUCHERRY	MAILEX-25/12-L	E 309L-16	DEC2018*
36.	MAILAM INDIA LTD., PUDUCHERRY	MAILEX-25/12-Mo	E 309 Mo-16	DEC2018*
37.	MAILAM INDIA LTD., PUDUCHERRY	MAILEX Mo	E 316-16	DEC2018*
38.	MAILAM INDIA LTD., PUDUCHERRY	MAILEX MoL	E 316L-16	DEC2018*
39.	ROYAL ARC ELECTRODES, VASAI,	ROYAL 1C	E 308L-16	SEP2019
40.	ROYAL ARC ELECTRODES, VASAI,	ROYAL 2C	E 316L-16	SEP2019
41.	ROYAL ARC ELECTRODES, VASAI,	ROYAL-D2L	E 309L-16	SEP2019
42.	WELD FAST ELECTRODES, NAGPUR	WELDFAST 308L	E 308L-16	JAN2021
43.	WELD FAST ELECTRODES, NAGPUR	WELDFAST 316L	E 316L-16	JAN2021
44.	WELD FAST ELECTRODES, NAGPUR	WELDFAST 309L	E 309L-16	JAN2021
45.	WELD FAST ELECTRODES, NAGPUR	WELDFAST 309MoL	E 309LMo-16	JAN2021

The approvals are granted in conformance to the requirements stipulated in latest edition of ASME Section II Part C. However, batch qualification wherever called for in specific cases, will have to be carried out separately.

* Indicates renewal of approval is under progress.


 (G. Badrinarayana) 7/1/19

Associate Director (QA), Gr.3

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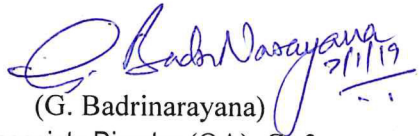
3) LIST OF APPROVED BRANDS OF WIRE AND WIRE FLUX COMBINATION (1 Page)

AS ON 07-01-2019

Sr. No.	MANUFACTURERS	BRAND NAME	AWS No.	VALID UPTO
1.	ANAND ARC, THANE	ANAND TIG-308L	ER 308L	SEP2019
2.	ANAND ARC, THANE	ANAND TIG-309L	ER 309L	SEP2019
3.	ADOR FONTECH, BENGALURU	TIG 120	ER 308L	JUL2019
4.	ADOR FONTECH, BENGALURU	TIG 121	ER 316L	JUL2019
5.	ADOR FONTECH, BENGALURU	TIG 123	ER 309L	JUL2019
6.	ADOR FONTECH, BENGALURU	TIG 120S	ER 347	JUL2019
7.	ADOR FONTECH, BENGALURU	TIG 521	ER NiCr3	JUL2019
8.	ADOR WELDING LTD., SILVASSA	TIGFIL 70S-2	ER 70S-2	FEB2022
9.	ADOR WELDING LTD., SILVASSA	TIGFILL 90S-B3	ER 90SB3	JUL2019
10.	ADOR WELDING LTD., SILVASSA	TIGINOX-308L	ER 308L	SEP2020
11.	ADOR WELDING LTD., SILVASSA	TIGINOX-309L	ER309L	SEP2020
12.	ADOR WELDING LTD., SILVASSA	AUTOMIG 70-S6	ER 70S-6	DEC2023
13.	ADOR WELDING LTD., SILVASSA	AUTOMELT-B71 AUTOMELT-EH 14 WIRE	F7A2-EH14	DEC2018*
14.	DWEKAM ELECTRODES, INDORE	MERGE ARC GRADE A	F7AZ/PZ-EL8	JUL2019
15.	DWEKAM ELECTRODES, INDORE	MERGE ARC GRADE C	F7AZ/PZ- EH14	JUL2019
16.	D&H INDIA LTD., INDORE	SUPER TIG 308L	ER 308L	DEC2020
17.	D&H INDIA LTD., INDORE	SUPER TIG 309L	ER 309L	DEC2020
18.	D&H SECHERON, INDORE	FILLER WIRE FW 308L	ER 308L	FEB2021
19.	D&H SECHERON, INDORE	FILLER WIRE FW 309L	ER 309L	FEB2021
20.	D&H SECHERON, INDORE	F 70 S2	ER 70S-2	JUN2022
21.	RAJRATNA ELECTRODES, AHMEDABAD	RAAJTIG ER 308L	ER 308L	MAR2020
22.	RAJRATNA ELECTRODES, AHMEDABAD	RAAJTIG ER 316L	ER 316L	MAR2020
23.	VENUS WIRES, KHOPOLI	VENUS 308L	ER 308L	SEP2021
24.	VENUS WIRES, KHOPOLI	VENUS 316L	ER 309L	SEP2021
25.	VENUS WIRES, KHOPOLI	VENUS 309L	ER 316L	SEP2021
26.	VENUS WIRES, KHOPOLI	VENUS 347	ER 347	SEP2021
27.	WELD FAST ELECTRODES, NAGPUR	TIG FAST-3	ER 70S-2	JAN2021
28.	WELD FAST ELECTRODES, NAGPUR	MIG FAST-1	ER 70S-6	JAN2021

The approvals are granted in conformance to the requirements stipulated in latest edition of ASME Section II Part C. However, batch qualification wherever called for in specific cases, will have to be carried out separately.

* Indicates renewal of approval is under progress


(G. Badrinarayana)
Associate Director (QA), Gr.3



COMBINED BILL OF MATERIAL

Printed On:24.07.2023

Printed By:

CBOM No: 01440401028 CBOM Var: 00

Revno: 2

Rev Date: 11.01.2020

Description: AIR GUIDE COVER (WELDED)

Total weight: 1241.54

RECORD OF CHANGES

Drawing No	Var	Revno	Rev Date	Description
01440401028	00	1	05.12.2019	MAT CODE OF ITEM NO. 7,10,14,17 AND 19 ARE CHANGED. ITEM NO. 11 IS REPLACED.

CBOM - 01440401028 00

	ENGG		EMT		WTX	
	Initial	Date	Initial	Date	Initial	Date
Worked By	tguessm	23.06.2010	emtncg	21.07.2010	wtxtsc	20.07.2010
Checked By	tguessm	28.06.2010	emtsk	21.07.2010	wtxtsc	20.07.2010
Approved By	tgevk	21.07.2010	emtsk	21.07.2010	wtxhpr	21.07.2010



COMBINED BILL OF MATERIAL

Printed On: 24.07.2023

Printed By:

CBOM No: **01440401028** CBOM Var: **00**
 Description: **AIR GUIDE COVER (WELDED)**

Revno: **2**

Rev Date: **11.01.2020**

Total weight: **1241.54**

Item No	Drawingno Var Mvar	Mat Code	Mat Spec	Weight	Blank Sizes	Nos	Qty	Norm/pc	Extra Norm	Total Norm
Qty(Total)	Description		Assy. Remarks	Inclusion?	Mat Shape			Remarks		
Typ Cat Zone	Var/Matl. Description		ENGG SIZE/GRP	Fab Wt	Route				Spare Code	Unit
0	01440401028 00			1241.54						
1(1)	AIR GUIDE COVER (WELDED)			Y						
MF DR	800MW B'LESS EXCITER		Y	1241.54	0306-0205					
1	31440401141 00 00	AA1011808013	AA10108	145.6	1918.0X1968.0	1	1	155.8	0.0	155.8
1(1)	PLATE			Y	PL 5					
MF DR					0072-0301-0306					KG
2	31440401142 00 00	AA1011819074	AA10119	135.0	1850.0X1918.0	1	1	180.0	0.0	180.0
1(1)	PLATE			Y	PL 10					
MF DR					0072-0301-0306					KG
3	41440401052 00 00	AA1011808013	AA10108	40.0	766.0X1330.0	1	2	48.0	0.0	96.0
2(2)	PLATE		CBOM91440401002	Y	PL 5					
MF DR					0072-0301-0306					KG
4	41440401047 00 00	AA1011819074	AA10119	105.9	1850.0X1918.0	1	2	306.0	0.0	612.0
2(2)	PLATE		CBOM91440401002	Y	PL 10					
MF DR					0072-0301-0306					KG
5	41440401046 00 00	AA1011819074	AA10119	102.4	1850.0X1918.0	1	1	306.0	0.0	306.0
1(1)	PLATE		CBOM91440401002	Y	PL 10					
MF DR					0072-0301-0306					KG
6		AA7151115024	AA7151115	0.005	0.0	0	0	0.0	0.0	6.0
6(6)	NUT HEX. A-8			Y						
SI DR	M8				0075-0306					NO
7	41440401302 00	HW1012808980	AA10108	3.8	540.0	1	3	4.0	0.0	12.0
3(3)	PROFILE		CUT TO SIZE	Y	150 X 75					
MF DR					0072-0301-0317-0306					KG
8		AA1011808013	AA10108	145.2	1874.0X1968.0	1	1	152.2	0.0	152.2
1(1)	PLATE 5X1874X1968			Y	PL 5					
MF DR	ST-A(FE410 WA)PLATE				0072-0301-0306					KG
9	41440401068 00 00	HW1012808980	AA10108	14.5	2000.0	1	4	15.0	0.0	60.0
4(4)	PROFILE		CBOM91440401002	Y	150 X 75			2 no. to be Cut		
MF DR					0072-0301-0306					KG

	ENGG		EMT		WTX	
	Initial	Date	Initial	Date	Initial	Date
Worked By	tgessm	23.06.2010	emtncg	21.07.2010	wtxtsc	20.07.2010
Checked By	tgessm	28.06.2010	emtsk	21.07.2010	wtxtsc	20.07.2010
Approved By	tgevk	21.07.2010	emtsk	21.07.2010	wtxhpr	21.07.2010



COMBINED BILL OF MATERIAL

Printed On: 24.07.2023

Printed By:

CBOM No: **01440401028** CBOM Var: **00**
 Description: **AIR GUIDE COVER (WELDED)**

Revno: **2**

Rev Date: **11.01.2020**

Total weight: **1241.54**

Item No	Drawing No	Var	Mvar	Mat Code	Mat Spec	Weight	Blank Sizes	Nos	Qty	Norm/pc	Extra Norm	Total Norm
Qty(Total)	Description				Assy. Remarks	Inclusion?	Mat Shape			Remarks		
Typ	Cat	Zone	Var/Matl. Description		ENGG SIZE/GRP	Fab Wt	Route				Spare Code	Unit
10	41440401304	00		HW1012808980	AA10108	7.8	1070.0	1	7	8.0	0.0	56.0
7(7)	PROFILE				CUT TO SIZE	Y	150 X 75					
MF	DR						0072-0301-0306					KG
11	41440401352	00		HW1012808980	AA10108	13.8	1880.0	1	2	14.0	0.0	28.0
2(2)	PROFILE				CUT TO SIZE	Y	150 X 75					
MF	DR						0072-0301-0306					KG
12	41440401305	00 00		AA1012508099	AA10108	10.8	1968.0	1	2	14.0	0.0	28.0
2(2)	PROFILE				CUT TO SIZE	Y	65X65X6					
MF	DR						0072-0301-0317-0306					KG
13	31440401143	00 00		AA1011808013	AA10108	144.7	1918.0X1968.0	1	1	155.8	0.0	155.8
1(1)	PLATE					Y	PL 5					
MF	DR						0072-0301-0317-0306					KG
14	41440401306	00		HW1012808980	AA10108	2.4	338.0	1	4	3.0	0.0	12.0
4(4)	PROFILE				CUT TO SIZE	Y	150 X 75					
MF	DR						0072-0301-0317-0306					KG
15				AA1010308050	AA10108	0.8	250.0	1	8	0.9	0.0	7.2
8(8)	FLAT 50X8 , L=250					Y	REC 50X8					
MF	DR				ST-A(FE410 WA)FLAT		0072-0301-0306					KG
16	41440401062	00 00		AA1011819074	AA10119	1.0	60.0X207.0	1	6	1.2	0.0	7.2
6(6)	STRIP				CBOM91440401002	Y	PL 10					
MF	DR						0072-0301-0306					KG
17	41440401303	00		HW1012808980	AA10108	3.9	540.0	1	4	4.0	0.0	16.0
4(4)	PROFILE				CUT TO SIZE	Y	150 X 75					
MF	DR						0072-0301-0306					KG
18	41440401061	00 00		AA1011819074	AA10119	0.5	60.0X150.0	1	2	0.6	0.0	1.2
2(2)	STRIP				CBOM91440401002	Y	PL 10					
MF	DR						0072-0301-0306					KG
19	41440401307	00		HW1012808980	AA10108	2.4	338.0	1	4	3.0	0.0	12.0
4(4)	PROFILE				CUT TO SIZE	Y	150 X 75					
MF	DR						0072-0301-0306					KG

	ENGG		EMT		WTX	
	Initial	Date	Initial	Date	Initial	Date
Worked By	tgessm	23.06.2010	emtncg	21.07.2010	wtxtsc	20.07.2010
Checked By	tgessm	28.06.2010	emtsk	21.07.2010	wtxtsc	20.07.2010
Approved By	tgevk	21.07.2010	emtsk	21.07.2010	wtxhpr	21.07.2010



COMBINED BILL OF MATERIAL

Printed On:24.07.2023

Printed By:

CBOM No: 01440401028 CBOM Var: 00
Description: AIR GUIDE COVER (WELDED)

Revno: 2

Rev Date: 11.01.2020

Total weight: 1241.54

Item No	Drawingno	Var	Mvar	Mat Code	Mat Spec	Weight	Blank Sizes	Nos	Qty	Norm/pc	Extra Norm	Total Norm
Qty(Total)	Description				Assy. Remarks	Inclusion?	Mat Shape		Remarks			
Typ	Cat	Zone	Var/Matl. Description		ENGG SIZE/GRP	Fab Wt	Route				Spare Code	Unit

CBOM - 01440401028 00

	ENGG		EMT		WTX	
	Initial	Date	Initial	Date	Initial	Date
Worked By	tgessm	23.06.2010	emtncg	21.07.2010	wtxtsc	20.07.2010
Checked By	tgessm	28.06.2010	emtsk	21.07.2010	wtxtsc	20.07.2010
Approved By	tgevk	21.07.2010	emtsk	21.07.2010	wtxhpr	21.07.2010



COMBINED BILL OF MATERIAL

Printed On:24.07.2023

Printed By:

CBOM No: **01440401031** CBOM Var: **00**
Description: **AIR GUIDE COVER (WELDED)**

Revno: **5**

Rev Date: **18.05.2020**

Total weight: **674.07**

RECORD OF CHANGES

Drawing No	Var	Revno	Rev Date	Description
01440401031	00	1	01.03.2013	IT.14 UPDATED
01440401031	00	2	27.12.2013	Auto Revision 41440401020/00
01440401031	00	3	02.01.2015	Mat. code. of it.20 changed.
01440401031	00	4	24.01.2017	item 12 added & quantity of item 2 updated.
01440401031	00	5	23.11.2019	item-2 replaced.

CBOM - 01440401031 00

	ENGG		EMT		WTX	
	Initial	Date	Initial	Date	Initial	Date
Worked By	tguessm	01.07.2010	emptkp	26.07.2010	wtxis	30.07.2010
Checked By	tguessm	01.07.2010	emtajt	03.08.2010	wtxhpr	30.07.2010
Approved By	tgevk	05.08.2010	emtsk	03.08.2010	wtxhpr	30.07.2010



COMBINED BILL OF MATERIAL

Printed On:24.07.2023

Printed By:

CBOM No: **01440401031** CBOM Var: **00**
Description: **AIR GUIDE COVER (WELDED)**

Revno: **5**

Rev Date: **18.05.2020**

Total weight: **674.07**

Item No	Drawingno Var Mvar	Mat Code	Mat Spec	Weight	Blank Sizes	Nos	Qty	Norm/pc	Extra Norm	Total Norm
Qty(Total)	Description		Assy. Remarks	Inclusion?	Mat Shape			Remarks		
Typ Cat Zone	Var/Matl. Description		ENGG SIZE/GRP	Fab Wt	Route				Spare Code	Unit
0	01440401031 00			674.07						
1(1)	AIR GUIDE COVER (WELDED)			Y						
MF DR			N	674.25	0306-0314-0202					
1	41440401311 00 00	AA1011808099	AA10108	2.87	170.0X320.0	1	4	5.39	0.0	21.56
4(4)	SHEET			Y	PL 12					
MF DR					0072-0301-0317-0306					KG
2	41440401351 00	AA1011808013	AA10108	1.255	295.0X165.0	1	9	2.0	0.0	18.0
9(9)	SHEET			Y	PL 5					
MF DR					0072-0301-0306					KG
3	41440401010 00 00	AA1011808030	AA10108	19.5	540.0X766.0	1	2	22.5	0.0	45.0
2(2)	SHEET		BOR 01440401003	Y	PL 6					
MF DR					0072-0301-0306					KG
4	31440401145 00 00	AA1011808099	AA10108	8.482	230.0X1140.0	1	4	30.0	0.0	120.0
4(4)	SHEET			Y	PL 12					
MF DR					0072-0301-0317-0306					KG
5	31440401010 00 00	AA1011808030	AA10108	62.642	540.0X2458.0	1	1	75.2	0.0	75.2
1(1)	SHEET		BOR 01440401003	Y	PL 6					
MF DR					0072-0301-0306					KG
6	31440401147 00 00	AA1011808030	AA10108	26.031	300.0X1920.0	1	1	28.5	0.0	28.5
1(1)	SHEET			Y	PL 6					
MF DR					0072-0301-0306					KG
7	41440401011 00 00	AA1011819074	AA10119	44.5	785.0X1570.0	1	2	97.4	0.0	194.8
2(2)	SHEET		BOR 01440401003	Y	PL 10					
MF DR					0072-0301-0306					KG
8	41440401020 00 00	AA1011819074	AA10119	0.66	100.0X115.0	1	4	1.0	0.0	4.0
4(4)	LIFTING LUG		BOR 01440401003	Y	PL 10					
MF DR					0072-0301-0306					KG
9	31440401011 00 00	AA1010308580	AA10108	6.296	1993.0	1	2	7.6	0.0	15.2
2(2)	FLAT		BOR 01440401003	Y	REC 40X10			L=1993		
MF DR					0072-0301-0306					KG

ENGG

EMT

WTX

Worked By	tguessm	01.07.2010	emptpkp	26.07.2010	wtxis	30.07.2010
Checked By	tguessm	01.07.2010	emtajt	03.08.2010	wtxhpr	30.07.2010
Approved By	tgevk	05.08.2010	emtsk	03.08.2010	wtxhpr	30.07.2010



COMBINED BILL OF MATERIAL

Printed On:24.07.2023

Printed By:

CBOM No: **01440401031** CBOM Var: **00**
Description: **AIR GUIDE COVER (WELDED)**

Revno: **5**

Rev Date: **18.05.2020**

Total weight: **674.07**

Item No	Drawingno Var Mvar	Mat Code	Mat Spec	Weight	Blank Sizes	Nos	Qty	Norm/pc	Extra Norm	Total Norm
Qty(Total)	Description		Assy. Remarks	Inclusion?	Mat Shape		Remarks			
Typ Cat Zone	Var/Matl. Description		ENGG SIZE/GRP	Fab Wt	Route				Spare Code	Unit
10	41440401045 00 00	AA1020218070	AA10218	0.013	55.0	1	2	0.049	0.0	0.098
2(2)	STUD		BOR01440401003	Y	RND 12		L=55			
MF DR					0072-0315-0317-0306					KG
11	21440401002 00			0.42						
2(2)	FRAME		BOR 01440401003	Y						
MF DR			N		0321-0306					
11-1	41440401044 00 00	AA1011711141	AA10111	0.054	15.0X160.0	1	8	0.065	0.0	0.52
4(8)	SHEET		BOR 01440401003	Y	SH 3.15					
MF DR					0072-0321					KG
11-2	41440401043 00 00	AA1011711141	AA10111	0.047	12.0X160.0	1	8	0.056	0.0	0.448
4(8)	SHEET		BOR 01440401003	Y	SH 3.15					
MF DR					0072-0321					KG
12	41440401338 00 00	AA1011808013	AA10108	1.18	295.0X165.0	1	1	2.0	0.0	2.0
1(1)	SHEET			Y	PL 5					
MF DR					0072-0301-0306					KG
13		AA1010308084	AA10108	2.3	400.0	1	1	3.0	0.0	3.0
1(1)	FLAT 16X50X400			Y	REC 50X16		L=400			
MF DR	ST-A(FE410 WA)FLAT				0072-0301-0306					KG
14	41440401324 00 00	AA1011808030	AA10108	13.379	951.0X300.0	1	4	14.2	0.0	56.8
4(4)	SHEET			Y	PL 6					
MF DR					0072-0301-0306					KG
15	31440401015 00			18.04						
1(1)	SUPPORT		BOR 01440401003	Y						
MF DR			N		0306					
15-1	31440401014 00 00	AA1011808056	AA10108	14.49	450.0X510.0	1	1	20.6	0.0	20.6
1(1)	SHEET		BOR 01440401003	Y	PL 8					
MF DR					0072-0301-0306					KG
15-2		AA1011052580	AA10152	3.45	510.0	1	1	0.51	0.0	0.51
1(1)	TUBE 60.8X4.5X510			Y	PI 60.8X4.50		L=510			
MF DR	ST-ERW-TUBE				0072-0315-0306					MR

	ENGG		EMT		WTX	
	Initial	Date	Initial	Date	Initial	Date
Worked By	tguessm	01.07.2010	emptpkp	26.07.2010	wtxis	30.07.2010
Checked By	tguessm	01.07.2010	emtajt	03.08.2010	wtxhpr	30.07.2010
Approved By	tgevk	05.08.2010	emtsk	03.08.2010	wtxhpr	30.07.2010



COMBINED BILL OF MATERIAL

Printed On:24.07.2023

Printed By:

CBOM No: **01440401031** CBOM Var: **00**
Description: **AIR GUIDE COVER (WELDED)**

Revno: **5**

Rev Date: **18.05.2020**

Total weight: **674.07**

Item No	Drawingno Var Mvar	Mat Code	Mat Spec	Weight	Blank Sizes	Nos	Qty	Norm/pc	Extra Norm	Total Norm
Qty(Total)	Description		Assy. Remarks	Inclusion?	Mat Shape			Remarks		
Typ Cat Zone	Var/Matl. Description		ENGG SIZE/GRP	Fab Wt	Route				Spare Code	Unit
16	41440401012 00 00	AA1011819074	AA10119	32.0	775.0X785.0	1	4	58.4	0.0	233.6
4(4)	SHEET		BOR 01440401003	Y	PL 10					
MF DR					0072-0301-0306					KG
17	31440401012 00 00	AA1010308580	AA10108	3.125	40.0X1388.0	1	4	5.5	0.0	22.0
4(4)	FLAT		BOR 01440401003	Y	REC 40X10					
MF DR					0072-0301-0306					KG
18		AA1011819171	AA10119	12.7	60.0X842.0	1	4	15.4	0.0	61.6
4(4)	STRIP 32X60X842			Y	PL 32					
MF DR	ST-FE410 WB-PLATE				0072-0301-0306					KG
19	41440401038 00 00	AA1011819171	AA10119	8.0	60.0X530.0	1	2	8.3	0.0	16.6
2(2)	STRIP		BOR 01440401003	Y	PL 32					
MF DR					0072-0301-0306					KG
20		HW1041046839	AA10446	1.017	510.0	1	1	0.51	0.0	0.51
1(1)	TUBE 33.7X2.6X510			Y	PI 33.7X2.6			L=510		
MF DR	ST-BQ-A1-CDS-TUBE				0072-0315-0306					MR
21	31440401144 00 00	AA1011808030	AA10108	24.353	300.0X1920.0	1	1	28.5	0.0	28.5
1(1)	SHEET			Y	PL 6					
MF DR					0072-0301-0306					KG
22	31440401016 00			13.85						
1(1)	SUPPORT		BOR 01440401003	Y						
MF DR			N		0306					
22-1	41440401041 00 00	AA1011808056	AA10108	10.301	320.0X510.0	1	1	12.4	0.0	12.4
1(1)	SHEET		BOR 01440401003	Y	PL 8					
MF DR					0072-0301-0306					KG
22-2		AA1011052580	AA10152	3.45	510.0	1	1	0.51	0.0	0.51
1(1)	TUBE 60.8X4.5X510			Y	PI 60.8X4.50			L=510		
MF DR	ST-ERW-TUBE				0072-0315-0306					MR
23	31440401017 00 00	AA1011808056	AA10108	30.42	510.0X945.0	1	1	36.5	0.0	36.5
1(1)	SHEET		BOR 01440401003	Y	PL 8					
MF DR					0072-0301-0306					KG

ENGG

EMT

WTX

	Initial	Date	Initial	Date	Initial	Date
Worked By	tguessm	01.07.2010	emptpkp	26.07.2010	wtxis	30.07.2010
Checked By	tguessm	01.07.2010	emtajt	03.08.2010	wtxhpr	30.07.2010
Approved By	tgevk	05.08.2010	emtsk	03.08.2010	wtxhpr	30.07.2010



COMBINED BILL OF MATERIAL

Printed On:24.07.2023

Printed By:

CBOM No: **01440401031** CBOM Var: **00**
Description: **AIR GUIDE COVER (WELDED)**

Revno: **5**

Rev Date: **18.05.2020**

Total weight: **674.07**

Item No	Drawingno Var Mvar	Mat Code	Mat Spec	Weight	Blank Sizes	Nos	Qty	Norm/pc	Extra Norm	Total Norm
Qty(Total)	Description		Assy. Remarks	Inclusion?	Mat Shape			Remarks		
Typ Cat Zone	Var/Matl. Description		ENGG SIZE/GRP	Fab Wt	Route				Spare Code	Unit
24	41440401040 00 00	AA1011808056	AA10108	13.52	420.0X510.0	1	1	16.2	0.0	16.2
1(1)	SHEET		BOR 01440401003	Y	PL 8					
MF DR					0072-0301-0306					KG
25		AA7121123371	AA7121123	0.039	0.0	0	0	0.0	0.0	58.0
58(58)	SCRU HEX A- 8.8			Y						
SI DR	M12X35				0075-0306					NO
26		HW7169098024	HW7169098	0.005	0.0	0	0	0.0	0.0	58.0
58(58)	WASHER LOCK WITH LUG-ST			Y						
SI DR	13				0075-0306					NO
27		AA7151115040	AA7151115	0.017	0.0	0	0	0.0	0.0	58.0
58(58)	NUT HEX. A-8			Y						
SI DR	M12				0075-0306					NO
28	41440401312 00 00	AA1011715112	AA10115	0.71	170.0X320.0	1	2	0.9	0.0	1.8
2(2)	SHEET		TECHNOLOGICAL	Y	SH 2.00					
MF DR					0072-0321-0317-0306					KG
29	31440401146 00 00	AA1011715112	AA10115	2.182	230.0X1140.0	1	2	4.3	0.0	8.6
2(2)	SHEET		TECHNOLOGICAL	Y	SH 2.00					
MF DR					0072-0321-0317-0306					KG
30	31440401070 00 00	AA1011819155	AA10119	2.39	220.0X220.0	1	1	10.0	0.0	10.0
1(1)	FLANGE		CBOM01440401011	Y	PL 25			DIA 220/116		
MF DR					0072-0301-0317-0306					KG

CB

	ENGG		EMT		WTX	
	Initial	Date	Initial	Date	Initial	Date
Worked By	tgessm	01.07.2010	emptkp	26.07.2010	wtxis	30.07.2010
Checked By	tgessm	01.07.2010	emtajt	03.08.2010	wtxhpr	30.07.2010
Approved By	tgevk	05.08.2010	emtsk	03.08.2010	wtxhpr	30.07.2010



COMBINED BILL OF MATERIAL

Printed On:24.07.2023

Printed By:

CBOM No: 11440401023 CBOM Var: 00

Revno: 1

Rev Date: 22.11.2002

Description: COVER(WELDED)

Total weight: 64.64

RECORD OF CHANGES

Drawing No	Var	Revno	Rev Date	Description
11440401023	00	1	25.10.2002	change in item 8-1-1,8-1-3

CBOM - 11440401023 00

	ENGG		EMT		WTX	
	Initial	Date	Initial	Date	Initial	Date
Worked By	tgevk	11.09.2001	emtrps	17.10.2001	wtxrsc	04.10.2001
Checked By	tgevk	11.09.2001	emtskk	17.10.2001	wtxrsc	04.10.2001
Approved By	tgekr	12.11.2001	emtsk	06.11.2001	wtxyss	04.10.2001



COMBINED BILL OF MATERIAL

Printed On:24.07.2023

Printed By:

CBOM No: 11440401023 CBOM Var: 00

Revno: 1

Rev Date: 22.11.2002

Description: COVER(WELDED)

Total weight: 64.64

Item No	Drawingno Var Mvar	Mat Code	Mat Spec	Weight	Blank Sizes	Nos	Qty	Norm/pc	Extra Norm	Total Norm
Qty(Total)	Description		Assy. Remarks	Inclusion?	Mat Shape			Remarks		
Typ Cat Zone	Var/Matl. Description		ENGG SIZE/GRP	Fab Wt	Route				Spare Code	Unit
0	11440401023 00			64.64						
1(1)	COVER(WELDED)			Y						
MF DR			N		0306-0314-0202					
1	31440401068 00 00	AA1012508056	AA10108	2.81	1396.0	1	2	4.3	0.0	8.6
2(2)	ANGLE			Y	45X45X5			L=1396		
MF DR					0072-0301-0306					KG
2	41440401177 00 00	AA1011808056	AA10108	12.26	390.0X885.0	1	2	23.84	0.0	47.68
2(2)	SHEET			Y	PL 8					
MF DR					0072-0301-0306					KG
3	31440401069 00 00	AA1012508056	AA10108	5.57	2382.0	1	1	7.1	0.0	7.1
1(1)	ANGLE			Y	45X45X5			L=2382		
MF DR					0072-0301-0306					KG
4	41440401178 00 00	AA1011808056	AA10108	24.36	610.0X1210.0	1	1	50.9	0.0	50.9
1(1)	SEGMENT			Y	PL 8					
MF DR					0072-0301-0306					KG
5	31440401074 00 00	AA1011808013	AA10108	2.0	270.0X1028.0	1	1	11.98	0.0	11.98
1(1)	PLATE			Y	PL 5					
MF DR					0072-0301-0306					KG
6	31440401075 00 00	AA1011808013	AA10108	1.0	220.0X600.0	1	2	2.85	0.0	5.7
2(2)	PLATE			Y	PL 5					
MF DR					0072-0301-0306					KG

CB

	ENGG		EMT		WTX	
	Initial	Date	Initial	Date	Initial	Date
Worked By	tgevk	11.09.2001	emtrps	17.10.2001	wtxrsc	04.10.2001
Checked By	tgevk	11.09.2001	emtskk	17.10.2001	wtxrsc	04.10.2001
Approved By	tgekr	12.11.2001	emtsk	06.11.2001	wtxyss	04.10.2001



COMBINED BILL OF MATERIAL

Printed On:24.07.2023

Printed By:

CBOM No: 11440401039 CBOM Var: 00

Revno: 2

Rev Date: 31.01.2015

Description: COVER (WELDED)

Total weight: 64.64

RECORD OF CHANGES

Drawing No	Var	Revno	Rev Date	Description
11440401039	00	1	15.01.2015	Auto Revision 31440401150/00
11440401039	00	2	31.01.2015	Auto Revision 31440401150/00

CBOM - 11440401039 00

	ENGG		EMT		WTX	
	Initial	Date	Initial	Date	Initial	Date
Worked By	tguessm	01.07.2010	emptkp	26.07.2010	wtxis	30.07.2010
Checked By	tguessm	01.07.2010	emtajt	03.08.2010	wtxhpr	30.07.2010
Approved By	tgevk	05.08.2010	emtsk	03.08.2010	wtxhpr	30.07.2010



COMBINED BILL OF MATERIAL

Printed On: 24.07.2023

Printed By:

CBOM No: **11440401039** CBOM Var: **00**
 Description: **COVER (WELDED)**

Revno: **2**

Rev Date: **31.01.2015**

Total weight: **64.64**

Item No	Drawing No	Var	Mvar	Mat Code	Mat Spec	Weight	Blank Sizes	Nos	Qty	Norm/pc	Extra Norm	Total Norm
Qty(Total)	Description			Assy. Remarks	Inclusion?	Mat Shape	Remarks			Spare Code	Unit	
Typ	Cat	Zone	Var/Matl. Description	ENGG SIZE/GRP	Fab Wt	Route						
0	11440401039 00				64.64							
1(1)	COVER (WELDED)				Y							
MF	DR				N	0306-0202						
1	31440401068	00	00	AA1012508056	AA10108	2.81	1396.0	1	2	4.3	0.0	8.6
2(2)	ANGLE			CBOM01440401011	Y	45X45X5	L=1396					
MF	DR					0072-0301-0306						
2	41440401177	00	00	AA1011808056	AA10108	12.26	390.0X885.0	1	2	23.84	0.0	47.68
2(2)	SHEET			CBOM01440401011	Y	PL 8						
MF	DR					0072-0301-0306						
3	31440401069	00	00	AA1012508056	AA10108	5.57	2382.0	1	1	7.1	0.0	7.1
1(1)	ANGLE			CBOM01440401011	Y	45X45X5	L=2382					
MF	DR					0072-0301-0306						
4	41440401310	00	00	AA1011808056	AA10108	24.36	610.0X1210.0	1	1	48.7	0.0	48.7
1(1)	PLATE				Y	PL 8						
MF	DR					0072-0301-0306						
5	31440401074	00	00	AA1011808013	AA10108	2.0	270.0X1028.0	1	1	11.98	0.0	11.98
1(1)	PLATE			CBOM01440401011	Y	PL 5						
MF	DR					0072-0301-0306						
6	31440401075	00	00	AA1011808013	AA10108	1.0	220.0X600.0	1	2	2.85	0.0	5.7
2(2)	PLATE			CBOM01440401011	Y	PL 5						
MF	DR					0072-0301-0306						
7	31440401150	00				0.86						
1(1)	PIPE ASSY.				Y							
MF	DR				N	0315						
7-1	41440401313	00	00	AA1041146108	AA10446	0.24	55.0	1	1	0.055	0.0	0.055
1(1)	PIPE				Y	PI 48.3X5						
MF	DR					0072-0315-0317-0315						
7-2	41440401315	00	00	W96413901683	TG60123	0.2	0.0	0	0	0.0	0.0	1.0
1(1)	BEND			CUT TO DRG.	Y	48.3X3.2						
MF	DR					0074-0315						

	ENGG		EMT		WTX	
	Initial	Date	Initial	Date	Initial	Date
Worked By	tguessm	01.07.2010	emptpkp	26.07.2010	wtxis	30.07.2010
Checked By	tguessm	01.07.2010	emtajt	03.08.2010	wtxhpr	30.07.2010
Approved By	tgevk	05.08.2010	emtsk	03.08.2010	wtxhpr	30.07.2010



COMBINED BILL OF MATERIAL

Printed On:24.07.2023

Printed By:

CBOM No: 11440401039 CBOM Var: 00

Revno: 2

Rev Date: 31.01.2015

Description: COVER (WELDED)

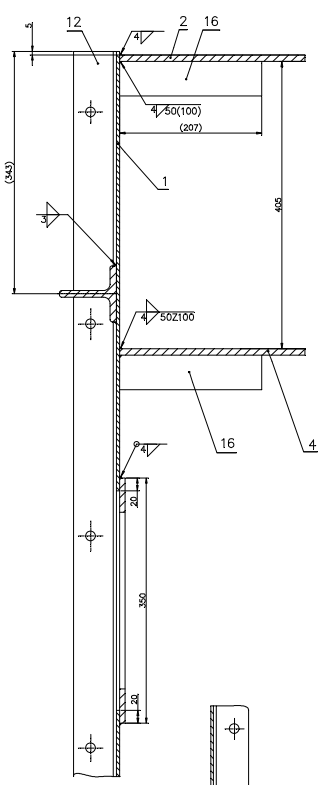
Total weight: 64.64

Item No	Drawingno Var Mvar	Mat Code	Mat Spec	Weight	Blank Sizes	Nos	Qty	Norm/pc	Extra Norm	Total Norm
Qty(Total)	Description		Assy. Remarks	Inclusion?	Mat Shape			Remarks		
Typ Cat Zone	Var/Matl. Description		ENGG SIZE/GRP	Fab Wt	Route				Spare Code	Unit
7-3	41440401314 00 00	AA1041146108	AA10446	0.42	110.0	1	1	0.11	0.0	0.11
1(1)	PIPE			Y	PI 48.3X5					
MF DR					0072-0315-0317-0315					MR

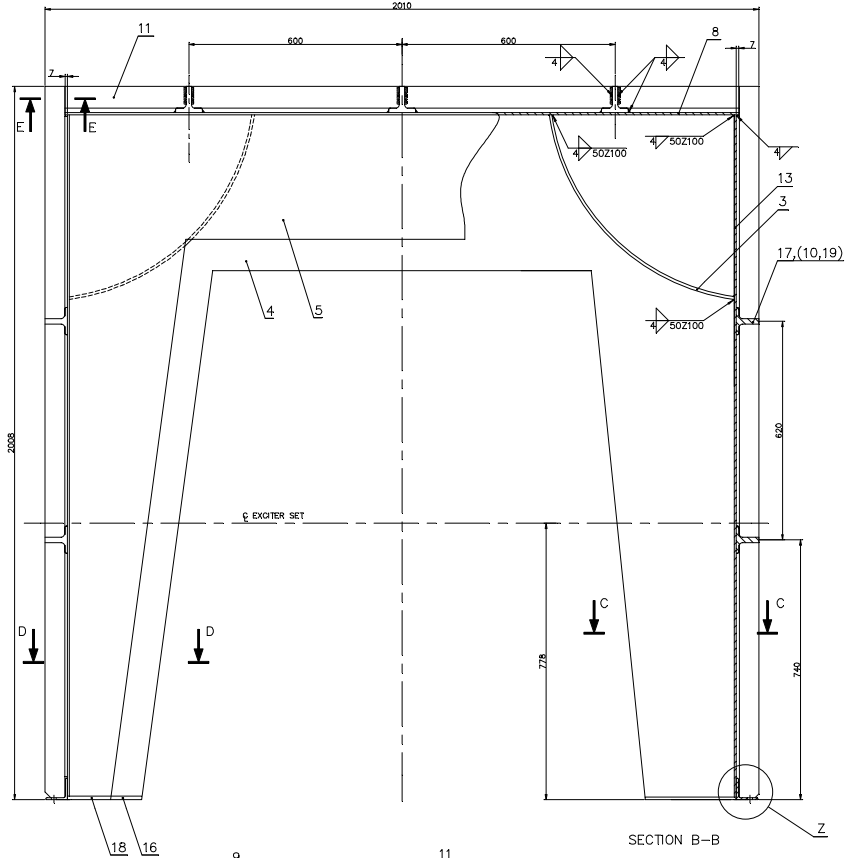
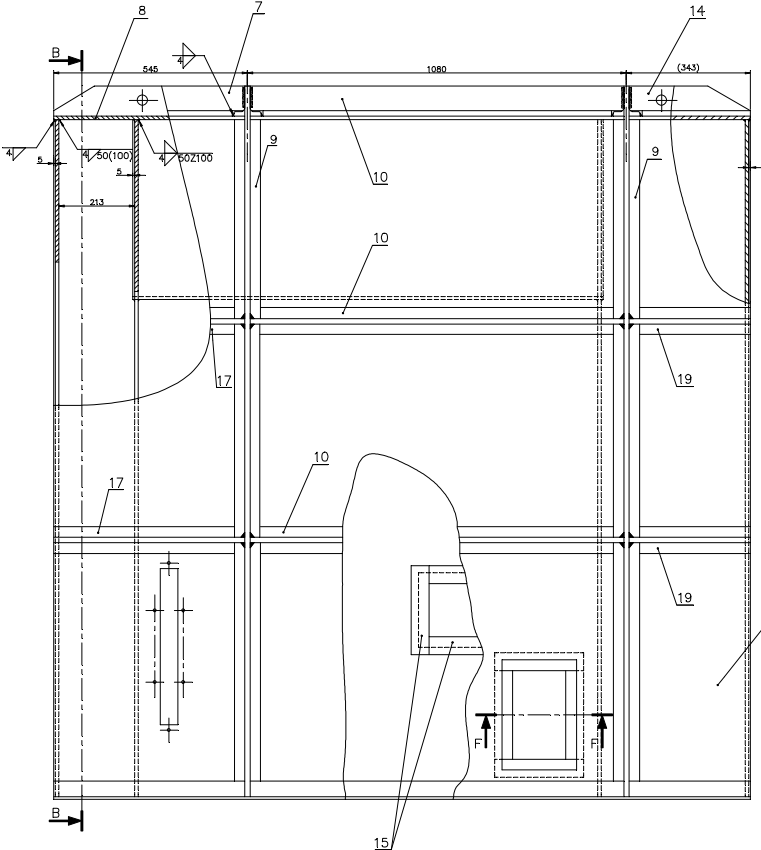
CBOM - 11440401039 00

	ENGG		EMT		WTX	
	Initial	Date	Initial	Date	Initial	Date
Worked By	tgessm	01.07.2010	emptkp	26.07.2010	wtxis	30.07.2010
Checked By	tgessm	01.07.2010	emtajt	03.08.2010	wtxhpr	30.07.2010
Approved By	tgevk	05.08.2010	emtsk	03.08.2010	wtxhpr	30.07.2010

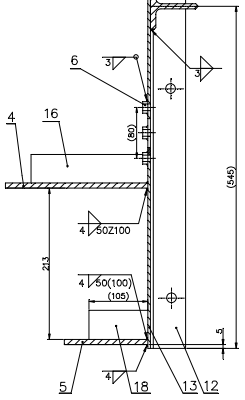
01440401028



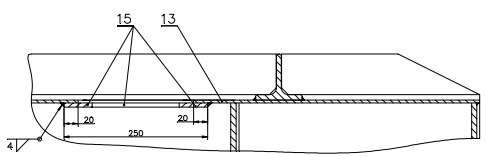
SECTION D-D (SCALE 1:2.5)



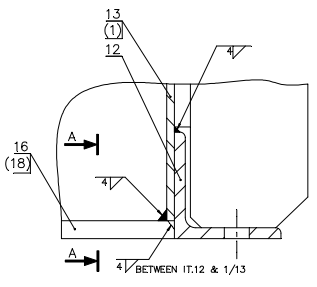
SECTION B-B



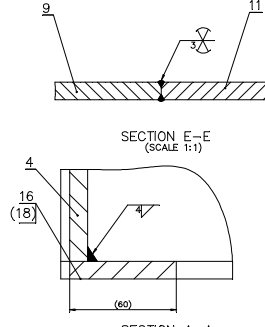
SECTION C-C (SCALE 1:2.5)



SECTION F-F (SCALE 1:2.5)



DETAIL-Z (SCALE 1:1)



SECTION A-A (SCALE 1:1)

SYMBOL & SIZE OF SEAM	4 ∇	3 ∇	4 ∇
SEAM LENGTH M	85.500	0.740	0.250
WT. OF DEPOSITED METAL Kg.	5.370	0.500	0.150
TYPE OF ELECTRODE	E-701B		

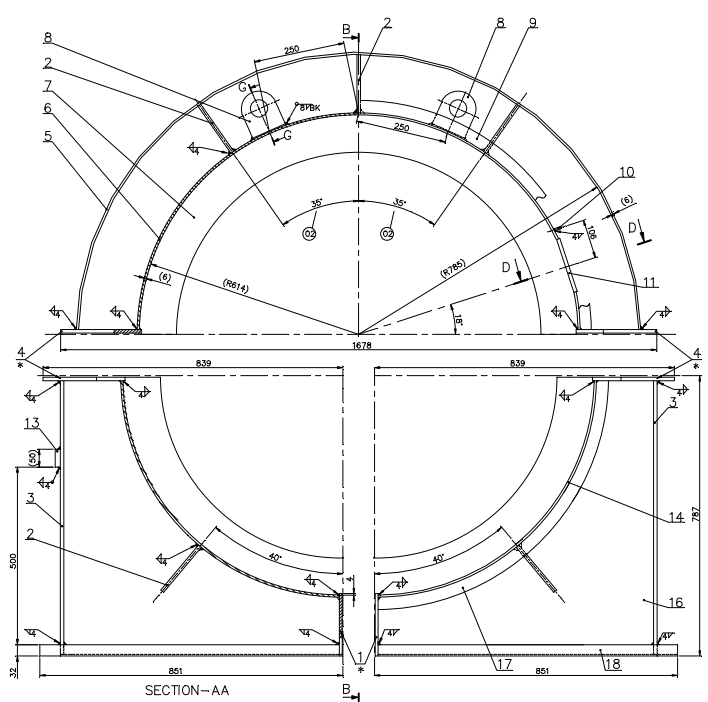
TECHNICAL REQUIREMENTS

1. MARK IDENTIFICATION ACCORDING TO HW0400397.
2. QUALITY GRADES OF WELDS AS PER HW0620099 CK.CS. TEST SCOPE ACCORDING TO HW0850199, CATEGORY OF SERVICE REQUIREMENTS 4.
3. MAINTAIN FEET PARALLEL TO HORIZONTAL AXIS AND ALL VERTICAL MEMBERS PERPENDICULAR TO HORIZONTAL AXIS. THIS IS ESSENTIAL AS THIS GROUP FORMS A CLOSED AND SEALED HOOD AROUND MAIN EXCITER OPERATING AT 3000RPM, GENERATING HEAVY CURRENT FOR 800MW TG ROTOR.
4. A SHAFT MOUNTED FAN BLOWS AIR INTO THE AIR GUIDE COVERS & HOT AIR IS DISCHARGED AT THE BOTTOM OF COVERS.
5. DIMENSIONS IN BRACKETS ARE FOR REFERENCE ONLY.
6. SURFACE TREATMENT ACCORDING TO TECHNOLOGICAL INSTRUCTION NO. 0912.015.

DRAWING NO. 01440401028 SHEET NO. 1 NO. OF SHEETS 1	TITLE AIR GUIDE COVER (WELDED)	SCALE 1:5 WEIGHT 1241.5 kg	CODE 4133	NAME OF CUSTOMER/PROJECT BHARAT HEAVY ELECTRICALS LTD. HARDWAR	TYPE OF PRODUCT B'LESS EXCITER FOR 800MW TG
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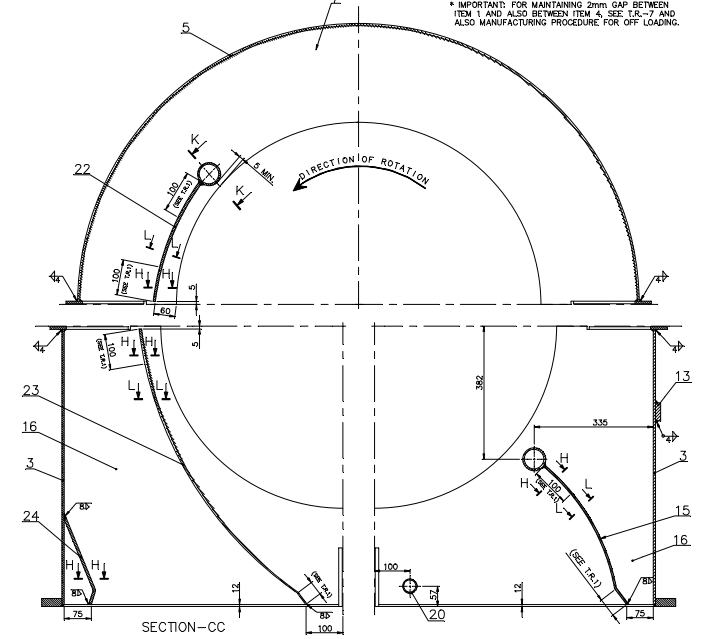
DRAWING NO. 01440401028
 SHEET NO. 1
 NO. OF SHEETS 1
 DATE 12/18/18
 CHECKED BY [Signature]
 DESIGNED BY [Signature]
 APPROVED BY [Signature]
 PROJECT NO. 1241.5
 WEIGHT 1241.5 kg

01440401031

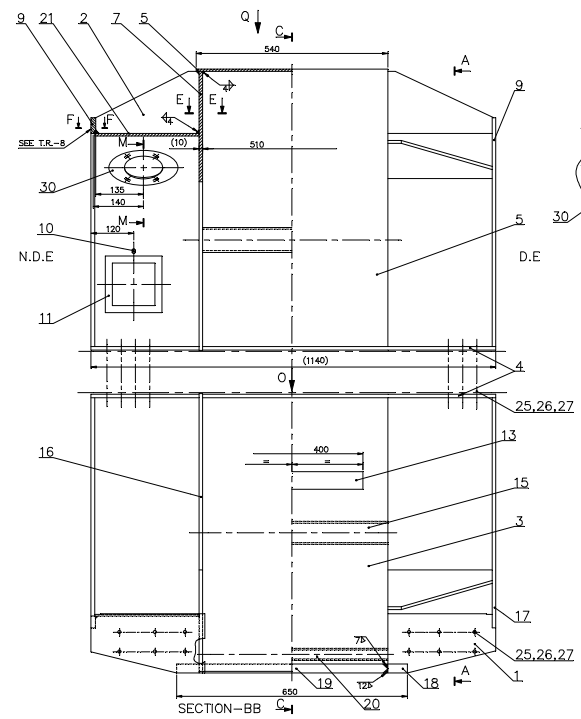


SECTION-AA

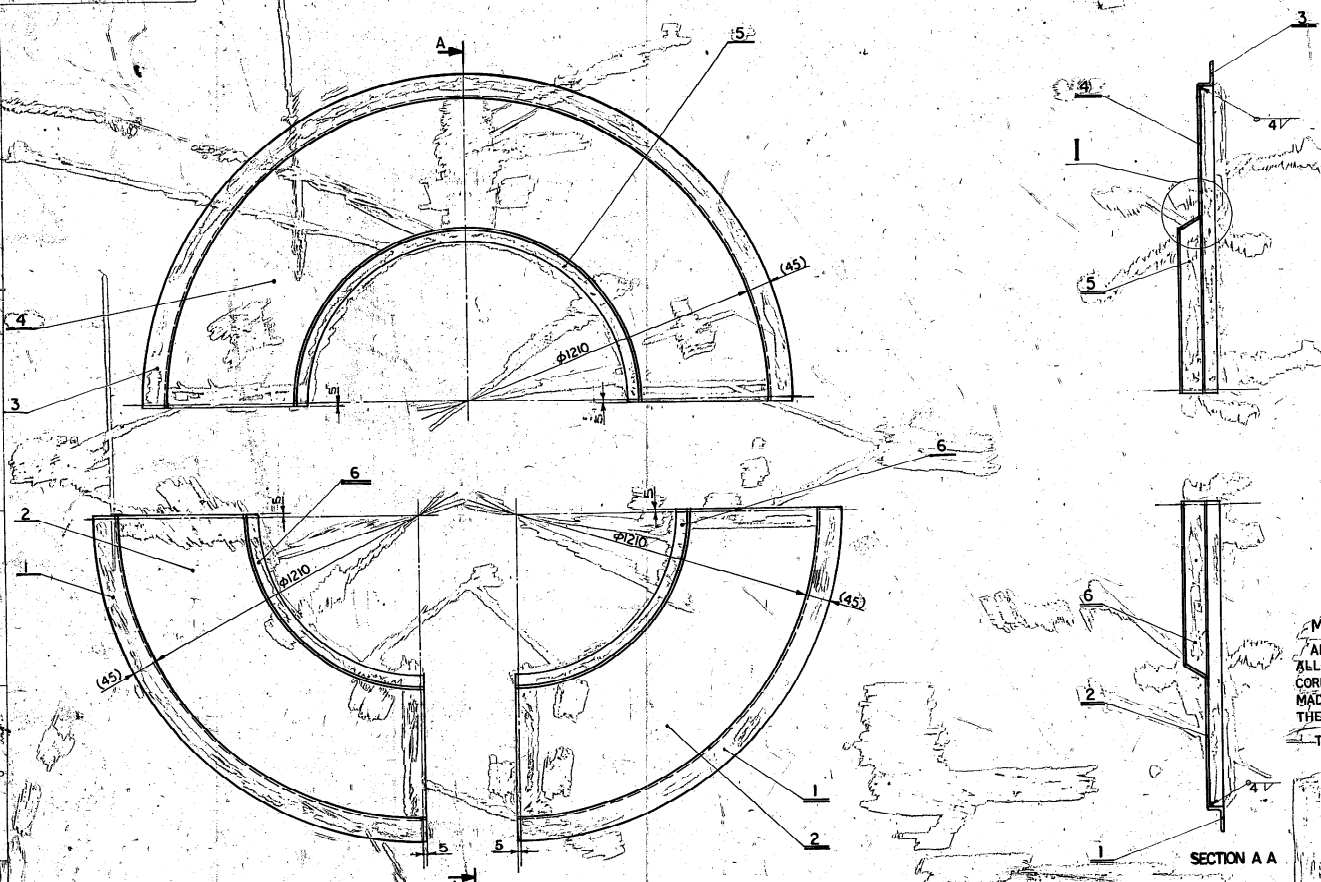
* IMPORTANT: FOR MAINTAINING 2mm GAP BETWEEN ITEM 1 AND ALSO BETWEEN ITEM 4, SEE TR-7 AND ALSO MANUFACTURING PROCEDURE FOR OFF LOADING.



SECTION-CC



02010-00-001-1
(FOR COMPANY)



SYMBOL AND SIZE OF SEAM	4 ▽
SEAM LENGTH M	6.050
WEIGHT OF DEPOSITED METAL Kg	0.570
TYPE OF ELECTRODE	E-6013

MANUFACTURING PROCEDURE
 ANGLES ITEM 1 & 3 TO BE BENT TO I.D. OF 1210 KEEPING BENDING ALLOWANCE OF 200 mm AT BOTH ENDS. CHECK THE BENDING CORRECTNESS OF THE ANGLES WITH TECHNOLOGICAL TEMPLATE (TO BE MADE BY SUBCONTRACTOR) AND RECTIFY IF NECESSARY. CUT OFF THE EXTRA LENGTH.
 TACK WELD ALL THE ITEMS FOLLOWED BY REGULAR WELDING.

TECHNICAL REQUIREMENTS

- DIMENSIONS IN THE BRACKETS ARE FOR REFERENCE ONLY.
- CLASSIFICATION GROUPS ACCORDING TO HW 0620099: CK.
- TEST SCOPE ACCORDING TO HW 0850199: CATEGORY OF SERVICE REQUIREMENTS 4.
- SURFACE TREATMENT (I.E. SHOT BLASTING/PAINTING ETC.) AS PER TECHNOLOGICAL INSTRUCTION NO. 0912:015.
- CHECK ALL THE 3 SEGMENTS BY TACK WELDING TOGETHER FOR COMPLETE DIMENSIONS AND FLATNESS OF THE COVER.
- THIS JOB IS TO BE OFF LOADED IN CONJUNCTION WITH AIR GUIDE COVER (WELDED) TO DRG. 0-144-04-01013, (APPLICABLE IF OFF LOADED).
- FOR COVER MACHINED REFER DRG. 1-144-04-01022.
- IDENTIFICATION ACCORDING TO HW 0400397.
- ALL THE THREE SEGMENTS OF COVER OF EACH PO ARE MATCHED & SUITABLY IDENTIFIED SO THAT MIXING OF SEGMENTS OF COVERS OF OTHER PLANT ORDER IS AVOIDED.

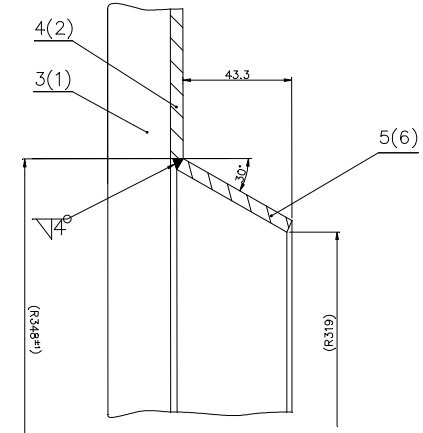
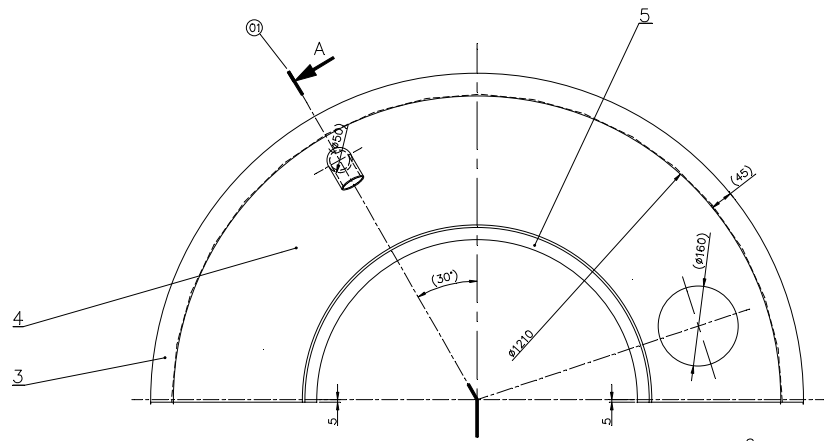
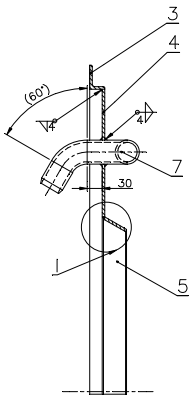
10. TECHNOLOGICAL SUPPORTS TO BE PROVIDED DURING WELDING TO MINIMISE DISTORTION.

SCALE: 1:1

002	---	006 PLATE	3-144-04-01075	AA101808013	NO	1.000	F
001	---	005 PLATE	3-144-04-01074	AA101808013	NO	2.000	H
001	---	004 SEGMENT	4-144-04-01178	AA101808056	NO	24.360	G
001	---	003 ANGLE	3-144-04-01069	AA101808056	NO	1.570	F
002	---	002 SHEET	4-144-04-01177	AA101808056	NO	12.260	E
002	---	001 ANGLE	3-144-04-01068	AA101808056	NO	2.810	E

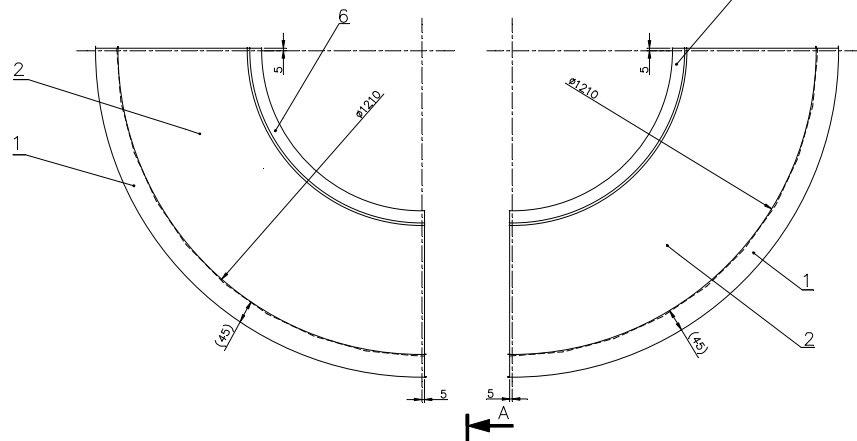
VAR.00	REMARKS	FEED	DESCRIPTION	DATE	VAR.	MATERIAL SPEC.
0						
CARD TYPE: 23 STATUS: 01 TYPE OF PRODUCT: BRUSHLESS EXCITER FOR 500 MW TG. NAME OF CUSTOMER / PROJECT: BHARAT HEAVY ELECTRICALS LTD. RANIPUR HARDWAR. T.N.G. SM I.C. RAO SCALE: 1:5 WEIGHT: 64.640 TITLE: COVER (WELDED) SHEET NO: 1-144-04-01022 NO. OF SHEETS: 001/006						

11440401039
DRAWING NO.



DETAIL-1
SCALE 1:1

SYMBOL AND SIZE OF SEAM	4
SEAM LENGTH M	6.050
WEIGHT OF DEPOSITED METAL Kg	0.570
TYPE OF ELECTRODE	E-7018



SECTION A A

TECHNICAL REQUIREMENTS

- DIMENSIONS IN THE BRACKETS ARE FOR REFERENCE ONLY.
- CLASSIFICATION GROUPS ACCORDING TO HW 0620099 : CK.
- TEST SCOPE ACCORDING TO HW 0850199 : CATEGORY OF SERVICE REQUIREMENTS 4.
- SURFACE TREATMENT (I.E. SHOT BLASTING/PAINING ETC.) AS PER TECHNOLOGICAL INSTRUCTION NO. 0912.015 .
- CHECK ALL THE 3 SEGMENTS BY TACK WELDING TOGETHER FOR COMPLETE DIMENSIONS AND FLATNESS OF THE COVER.
- THIS JOB IS TO BE OFF LOADED IN CONJUNCTION WITH AIR GUIDE COVER (WELDED) TO DRG. 0-144-04-01031.
- FOR COVER MACHINED REFER DRG. 1-144-04-01040.
- IDENTIFICATION ACCORDING TO HW 0400397.
- ALL THE THREE SEGMENTS OF COVER OF EACH P.O ARE MATCHED & SUITABLY IDENTIFIED SO THAT MIXING OF SEGMENTS OF COVERS OF OTHER PLANT ORDER IS AVOIDED.
- TECHNOLOGICAL SUPPORTS TO BE PROVIDED DURING WELDING TO MINIMISE DISTORTION.

MANUFACTURING PROCEDURE

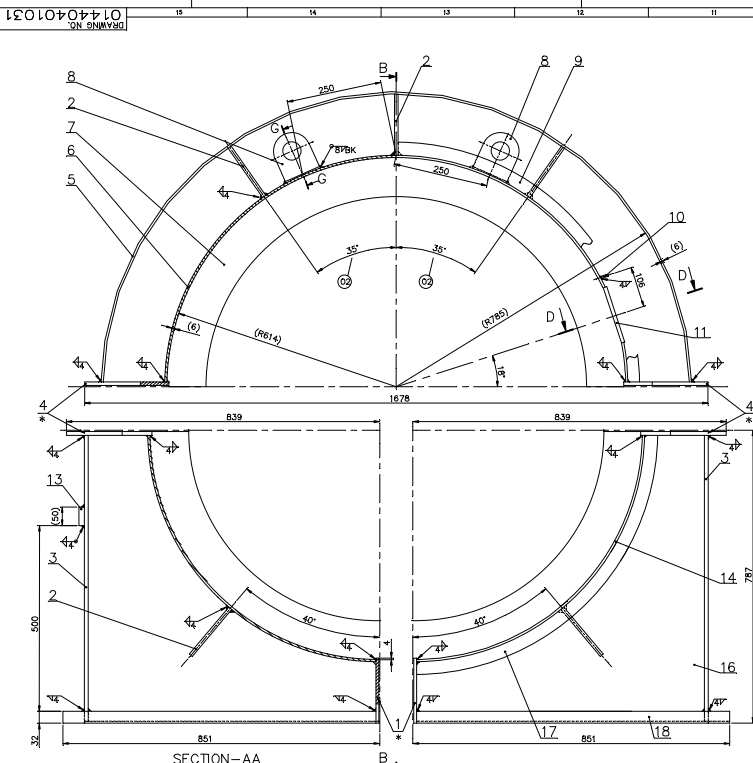
- ANGLES ITEM 1&3 TO BE BENT TO I.D. OF 1210 KEEPING BENDING ALLOWANCE OF 200mm AT BOTH ENDS. CHECK THE BENDING CORRECTNESS OF THE ANGLES WITH TECHNOLOGICAL TEMPLATE (TO BE MADE BY SUBCONTRACTOR) AND RECTIFY IF NECESSARY. CUT OFF THE EXTRA LENGTH.
- TACK WELD ALL THE ITEMS FOLLOWED BY REGULAR WELDING.

SUPERSEDES THE OLD DRG. UNDER THE SAME NO. TGE-13-F0393

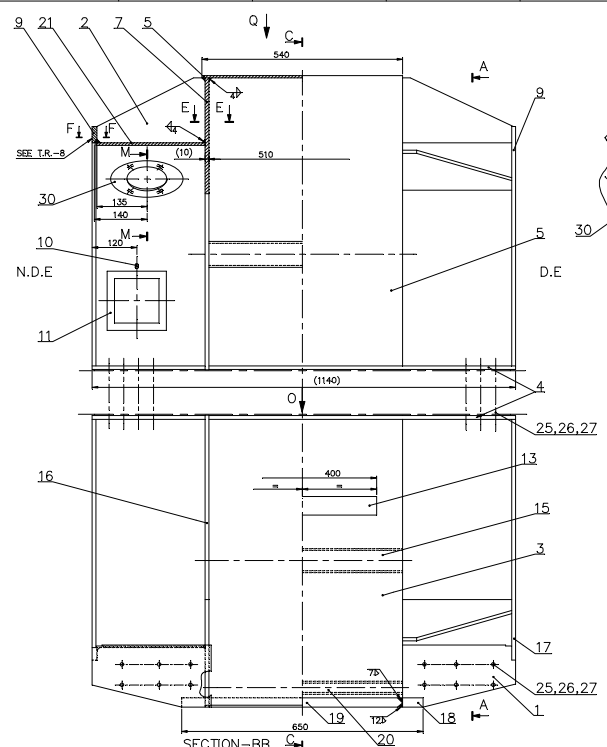
COPYRIGHT AND CONFIDENTIAL INFORMATION OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED WITHOUT THE WRITTEN PERMISSION OF THE COMPANY.

SIGN & DATE
26-5607-122988
REF. DRG. NO.

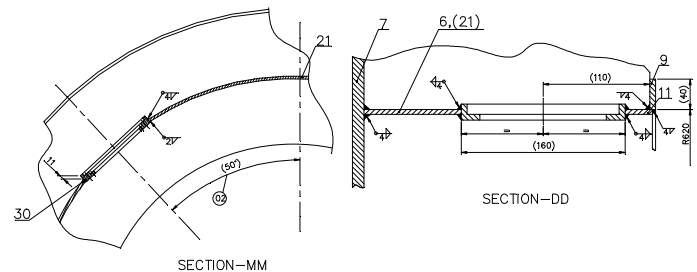
CBOM NO. 01440401029		DATE FOR ENR. 20/07/20		TYPE OF PRODUCT OR NAME OF CUSTOMER/ PROJECT		B'LESS EXCITER FOR 800MW TG	
GRADE OF UNTOL. DIM.: - M/CS- W/F/N/F AA 0230208	DESIGNER MTX	NAME AWDXS	SIGN AWDXS	DATE 20/07/20	DRN STGEVK	SIGN STGEVK	DATE 05/07/20
WELDING-K/B/C/P-AA621104	WELDING K/B/C/P	AWDXS	AWDXS	AWDXS	CHD STGESSM	SIGN STGESSM	DATE 05/07/20
GAS CUTTING-13'AA0621101	REV DATE 01	ALTERED CHECKED	PA CHECKED	SD SSM	DEPT. TGE CODE 4133	SCALE 1:5	WEIGHT(Kg.) 64.64
CHANGE AS PER C/A NO. TGE-13-F0393	TITLE COVER (WELDED)		REF. TO ASSY. DRG. 11440401040		DRAWING NO. 11440401039		NO. OF SHEETS 1



SECTION-AA

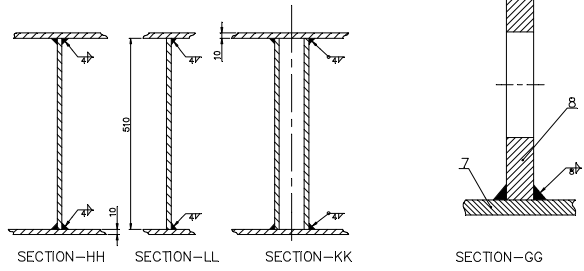


SECTION-BB



SECTION-MM

SECTION-DD



SECTION-HH

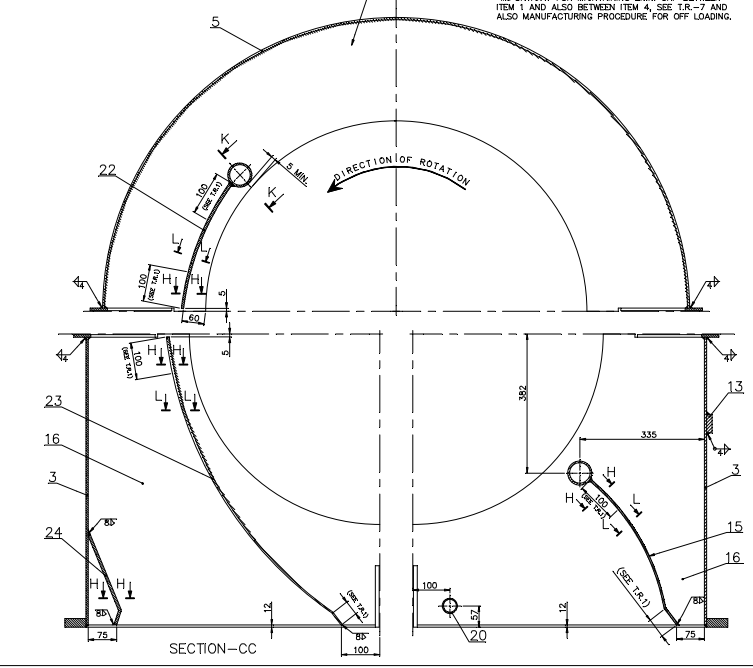
SECTION-LL

SECTION-KK

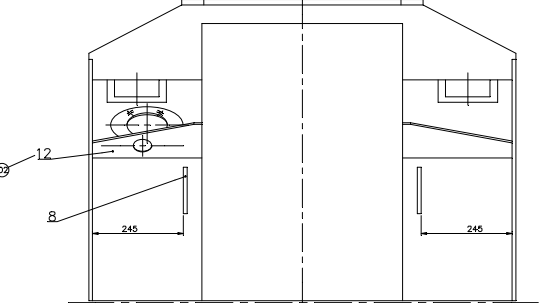
SECTION-GG

SYMBOL AND SIZE OF SEAM	2L	4L	6L	7L	8L	12L
SEAM LENGTH M.	0.872	61.388	0.860	0.120	2.040	0.120
WEIGHT OF DEPOSITED METAL KG.	0.025	7.650	0.296	0.045	0.515	0.103
TYPE OF ELECTRODE	E-7018					

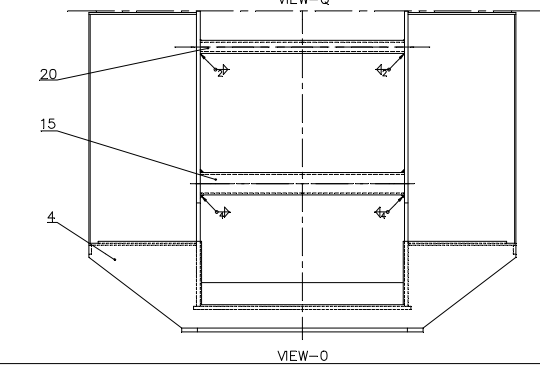
* IMPORTANT: FOR MAINTAINING 2mm GAP BETWEEN ITEM 1 AND ALSO BETWEEN ITEM 4. SEE T.R.-7 AND ALSO MANUFACTURING PROCEDURE FOR OFF LOADING.



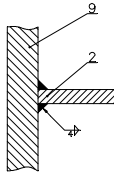
SECTION-CC



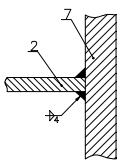
VIEW-Q



VIEW-O



SECTION-FF



SECTION-EE

MANUFACTURING PROCEDURE FOR OFF LOADING

-BEFORE STARTING WELDING CLAMP ALL JOINT FLANGES USING ITEMS 25 TO 28. TACK WELD ALL ITEMS. WELD FIRST AT JOINT FLANGES.
-ACHIEVE PROPER MATCHING AT JOINT FLANGES BY MARGINAL GRINDING IF NECESSARY.

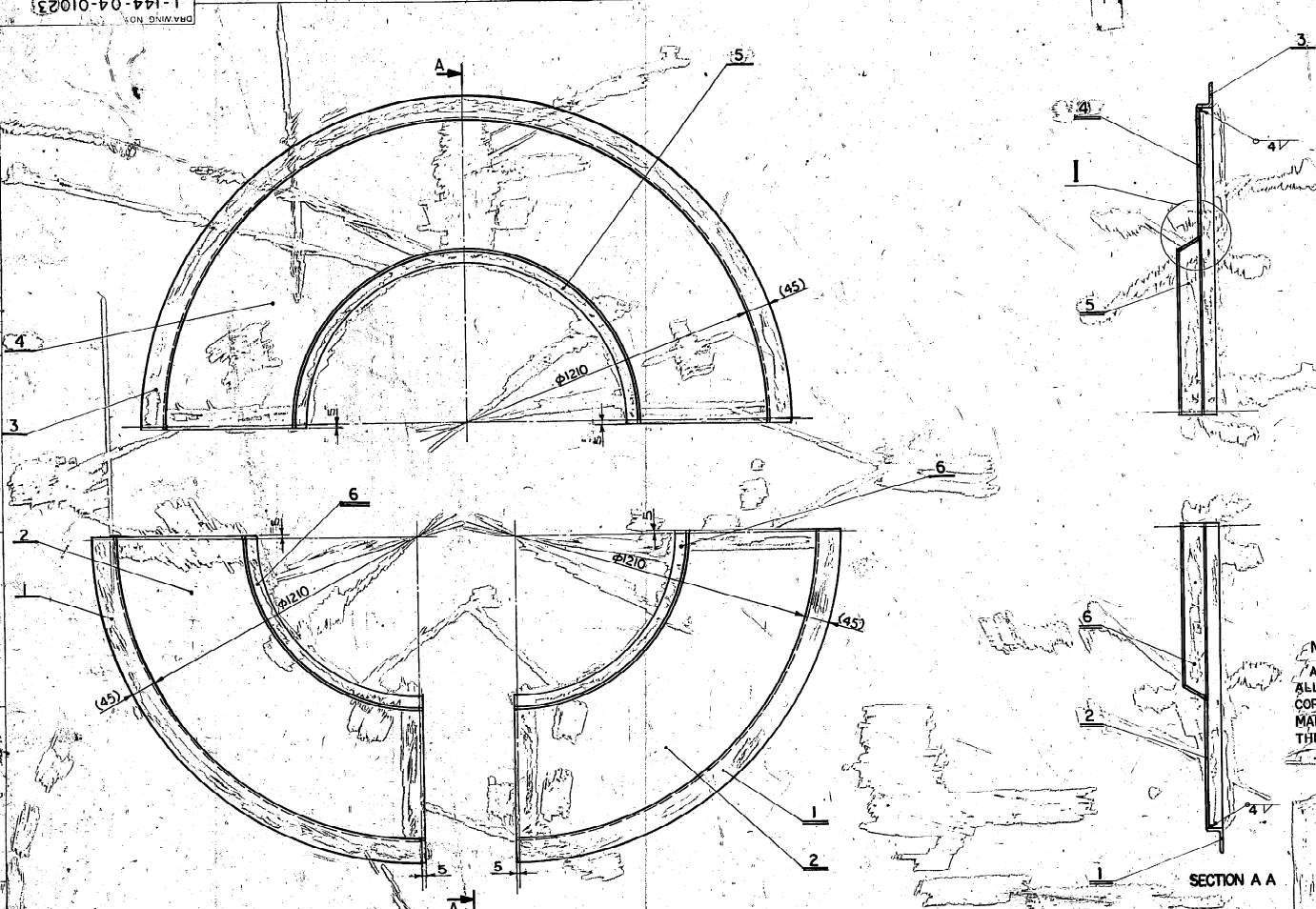
TECHNICAL REQUIREMENTS

1. THE WELD SEAM IS 4 ± 0.4 FOR THE LOCATIONS SPECIFIED BY THIS T.R. & FOR UNSPECIFIED.
2. CLASSIFICATION GROUPS ACCORDING TO HW 0620099: CKCS(BK).
3. TEST SCOPE ACCORDING TO HW 0850199 : CATEGORY OF SERVICE REQUIREMENTS 4.(1).
4. SURFACE TREATMENT (i.e. SHOT BLASTING, PAINTING ETC) AS PER TECHNOLOGICAL INSTRUCTION NO. 0912.015
5. DIMENSIONS IN BRACKETS ARE FOR REFERENCE ONLY.
6. MARK IDENTIFICATION ACCORDING TO HW 0400397.
7. ITEM 7 IN TOP HALF SHOULD REST ON ITEM 16 OF BOTTOM HALVES AT THE HORIZONTAL CENTER LINE. LIKEWISE ITEM 16 IN BOTH BOTTOM HALVES SHOULD COINCIDE AT THE VERTICAL CENTER LINE. MAXIMUM ALLOWABLE GAP 1mm. A UNIFORM GAP OF 2mm IS TO BE ENSURED BETWEEN ITEM 4, AND BETWEEN ITEM 1. FOR THIS PURPOSE USE ITEMS 28 & 29.
8. THE OUTER FACE OF ITEM 9 SHOULD BE PERPENDICULAR TO THE HORIZONTAL CENTER LINE.
9. THIS JOB SHOULD BE OFF LOADED IN CONJUNCTION WITH COVER (WELDED) DRG. 1-144-04-01023 & 1-144-04-01039 (IF OFF LOADED ONLY.)

SUPERSEDE THE OLD DRAWING UNDER THE SAME NO. 10E-12-10014

DRGN NO. 01440401039	REV. NO. 02	DATE 13.11.12	BY S.S.M	CHECKED S.S.M	TYPE OF PRODUCT B'LESS EXCITER FOR	NAME OF CUSTOMER / PROJECT 800MW TG.
GRADE OF UNTOL. DIM.- W/CC- V/4/M/A 0230208			WELDING-A/B/C/D-AAE2104			DEPT. TGE 4133
SCALE 1:5			WEIGHT(Kg.) REF. TO ASBY. DRG. 674.25			DRAWING NO. 01440401039
TITLE AIR GUIDE COVER (WELDED)			SHEET NO. 1			NO. OF SHEETS 01

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SYMBOL AND SIZE OF SEAM	4 N
SEAM LENGTH M	6.050
WEIGHT OF DEPOSITED METAL Kg	0.570
TYPE OF ELECTRODE	E-6013

MANUFACTURING PROCEDURE
 ANGLES ITEM 1 & 3 TO BE BENT TO I.D. OF 1210 KEEPING BENDING ALLOWANCE OF 200 mm AT BOTH ENDS. CHECK THE BENDING CORRECTNESS OF THE ANGLES WITH TECHNOLOGICAL TEMPLATE (TO BE MADE BY SUBCONTRACTOR) AND RECTIFY IF NECESSARY. CUT OFF THE EXTRA LENGTH.
 TACK WELD ALL THE ITEMS FOLLOWED BY REGULAR WELDING.

SECTION A A

TECHNICAL REQUIREMENTS

- DIMENSIONS IN THE BRACKETS ARE FOR REFERENCE ONLY.
- CLASSIFICATION GROUPS ACCORDING TO HW 0620099: CK.
- TEST SCOPE ACCORDING TO HW 0850199: CATEGORY OF SERVICE REQUIREMENTS 4.
- SURFACE TREATMENT (I.E. SHOT BLASTING/PAINTING ETC.) AS PER TECHNOLOGICAL INSTRUCTION NO. 0912.015.
- CHECK ALL THE 3 SEGMENTS BY TACK WELDING TOGETHER FOR COMPLETE DIMENSIONS AND FLATNESS OF THE COVER.
- THIS JOB IS TO BE OFF LOADED IN CONJUNCTION WITH AIR GUIDE COVER (WELDED) TO DRG: 0-144-04-01013, (APPLICABLE IF OFF LOADED).
- FOR COVER MACHINED REFER DRG. 1-144-04-01022.
- IDENTIFICATION ACCORDING TO HW 0400397.
- ALL THE THREE SEGMENTS OF COVER OF EACH PO ARE MATCHED & SUITABLY IDENTIFIED SO THAT MIXING UP OF SEGMENTS OF COVERS OF OTHER PLANT ORDER IS AVOIDED.

10. TECHNOLOGICAL SUPPORTS TO BE PROVIDED DURING WELDING TO MINIMISE DISTORTION.

SCALE: 1:1

VAR CD	REMARKS	ITEM NO.	DESCRIPTION	QTY	UNIT	VAR	MATERIAL SPEC.	QTY	UNIT
002		006	PLATE	3-144-04-01075			AA101808013	1.000	F
							AA101808013	2.000	H
001		005	PLATE	3-144-04-01074			AA101808013	2.000	H
							AA101808056	24.360	G
001		004	SEGMENT	4-144-04-01178			AA101808056	12.180	H
							AA101808964	1.570	F
001		003	ANGLE	3-144-04-01069			AA101808056	12.260	E
							AA101808056	12.260	E
002		002	SHEET	4-144-04-01177			AA101808056	2.810	E
							AA101808964	2.810	E
002		001	ANGLE	3-144-04-01068			AA101808013		F

CARD TYPE-3 28 28 CARD TYPE 1

0-144-04-01011

TYPE OF PRODUCT OR NAME OF CUSTOMER / PROJECT: BRUSHLESS EXCITER FOR 500 MWTC.

DATE: 15/05/2010

BY: T.N.G.

CHECKED: SM

APPROVED: C. RAO

SCALE: 1:5

WEIGHT: 64.640

REF: 1-144-04-01022

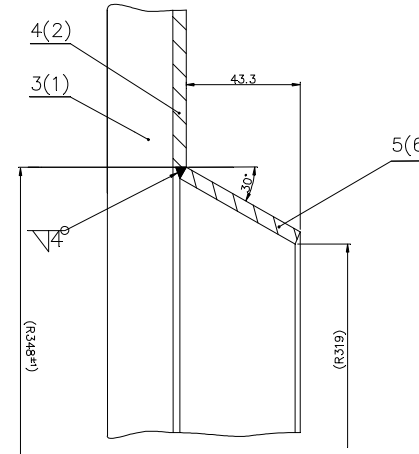
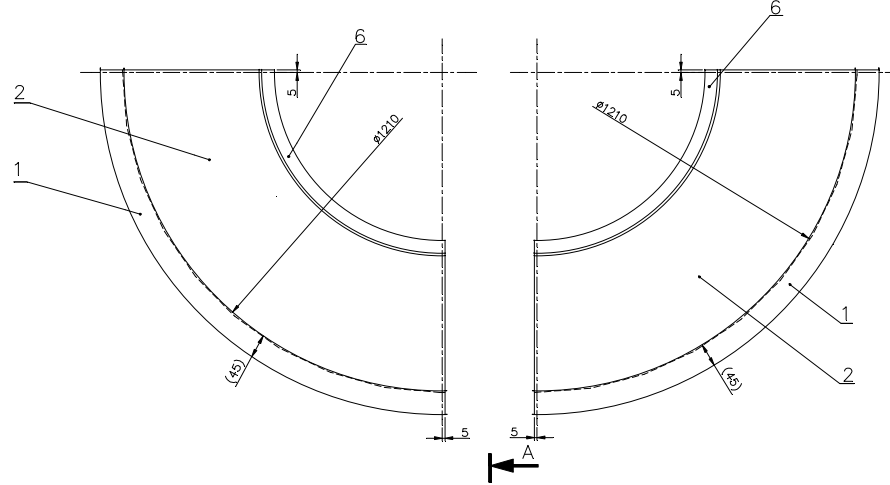
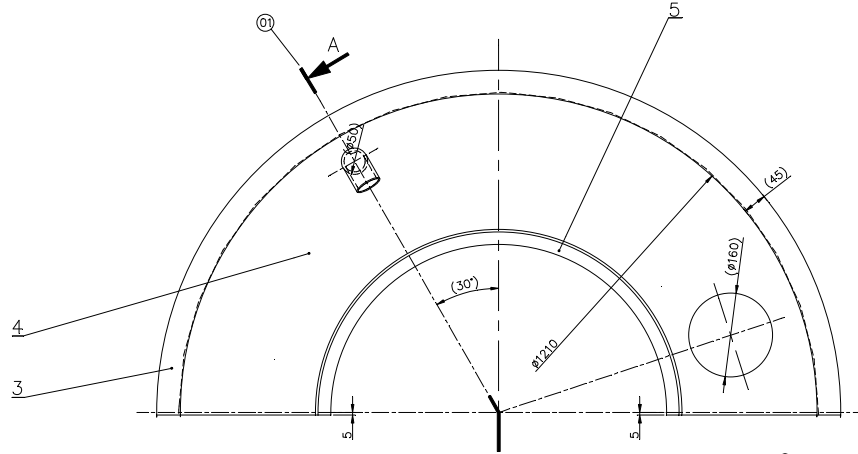
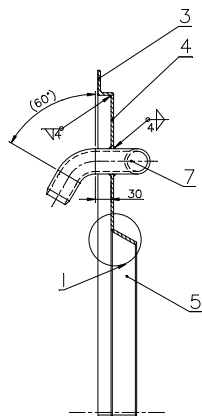
TITLE: COVER (WELDED)

DWG NO: 1-144-04-01023

SHEET NO: 001

TOTAL SHEETS: 006

11440401039
DRAWING NO.



DETAIL-I
SCALE 1:1

SYMBOL AND SIZE OF SEAM	4
SEAM LENGTH M	6.050
WEIGHT OF DEPOSITED METAL Kg	0.570
TYPE OF ELECTRODE	E-7018

SECTION A A

TECHNICAL REQUIREMENTS

1. DIMENSIONS IN THE BRACKETS ARE FOR REFERENCE ONLY.
2. CLASSIFICATION GROUPS ACCORDING TO HW 0620099 : CK.
3. TEST SCOPE ACCORDING TO HW 0850199 : CATEGORY OF SERVICE REQUIREMENTS 4.
4. SURFACE TREATMENT (i.e. SHOT BLASTING/PAINING ETC.) AS PER TECHNOLOGICAL INSTRUCTION NO. 0912.015 .
5. CHECK ALL THE 3 SEGMENTS BY TACK WELDING TOGETHER FOR COMPLETE DIMENSIONS AND FLATNESS OF THE COVER.
6. THIS JOB IS TO BE OFF LOADED IN CONJUNCTION WITH AIR GUIDE COVER (WELDED) TO DRG. 0-144-04-01031.
7. FOR COVER MACHINED REFER DRG. 1-144-04-01040.
8. IDENTIFICATION ACCORDING TO HW 0400397.
9. ALL THE THREE SEGMENTS OF COVER OF EACH P.O ARE MATCHED & SUITABLY IDENTIFIED SO THAT MIXING OF SEGMENTS OF COVERS OF OTHER PLANT ORDER IS AVOIDED.
10. TECHNOLOGICAL SUPPORTS TO BE PROVIDED DURING WELDING TO MINIMISE DISTORTION.

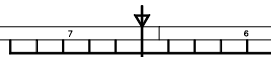
MANUFACTURING PROCEDURE

- ANGLES ITEM 1&3 TO BE BENT TO I.D. OF 1210 KEEPING BENDING ALLOWANCE OF 200mm AT BOTH ENDS, CHECK THE BENDING CORRECTNESS OF THE ANGLES WITH TECHNOLOGICAL TEMPLATE (TO BE MADE BY SUBCONTRACTOR) AND RECTIFY IF NECESSARY. CUT OFF THE EXTRA LENGTH.
- TACK WELD ALL THE ITEMS FOLLOWED BY REGULAR WELDING.

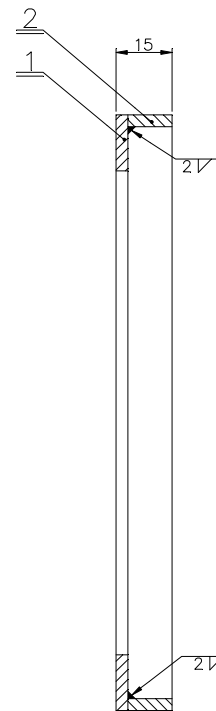
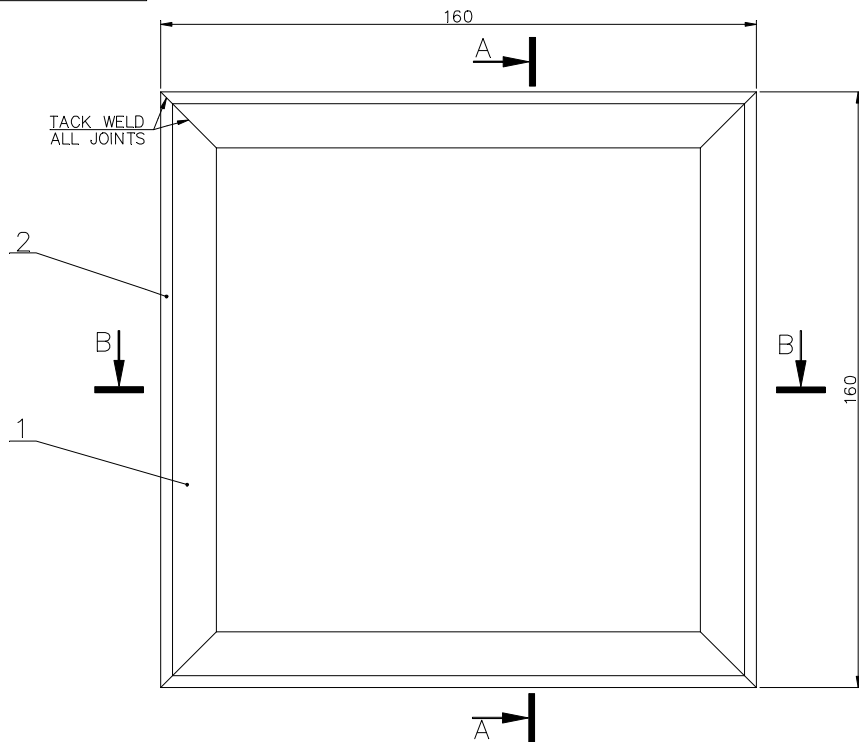
01
SUPERSEDES THE OLD DRG.
UNDER THE SAME NO.
TGE-13-F0393

INVENTORY NO. 20-5607-122988
SIGN & DATE
REV. DRG. NO.

CBOM NO. 01440401029		STATUS OF DRG. APPROVED		TYPE OF PRODUCT OR NAME OF CUSTOMER/ PROJECT		B'LESS EXCITER FOR 800MW TG			
GRADE OF UNTOL. DIM. :-	MTX	NAME	SIGN	DATE	DRN	NAME	SIGN	DATE	NO. OF VARS.
M/CG-4/C/M/Y AA 0230208		AWTXIS	AWTXIS	20/07/200	210	STGESSM	STGESSM	05/05/200	01
WELDING-X/B/C/B-AA621104					APD	ATGVEK	ATGVEK	01/05/200	01
GAS CUTTING-T3'AA0621101									
REV. DATE	ALTERED	REV. DATE	ALTERED	PA	SD	DEPT. TGE	SCALE	WEIGHT (Kg.)	REF. TO ASSY. DRG.
01	21.12.13	01	21.12.13	CHECKED	SSM	4133	1:5	64.64	11440401040
CHANGE AS PER C/A NO. TGE-13-F0393				TITLE		DRAWING NO.		ITEM NO. OF ITEMS	
				COVER (WELDED)		11440401039		001	
						SHEET NO. 1		NO. OF SHEETS 1	



DRAWING NO. 21440401002



SECTION A-A



SECTION B-B

SYMBOL & SIZE OF SEAM	2△
SEAM LENGTH M.	0.607
WT. OF DEPOSITED METAL KG.	0.018
TYPE OF ELECTRODE	E-42

01
SUPERSEDES

TECHNICAL REQUIREMENTS

1. CLASSIFICATION GROUPS ACCORDING TO HW0620099 : CK.
2. TEST SCOPE ACCORDING TO HW0850199: CATEGORY OF SERVICE REQUIREMENTS 4.
3. IDENTIFICATION ACCORDING TO HW0400397.

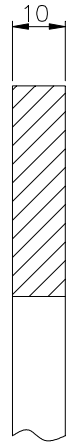
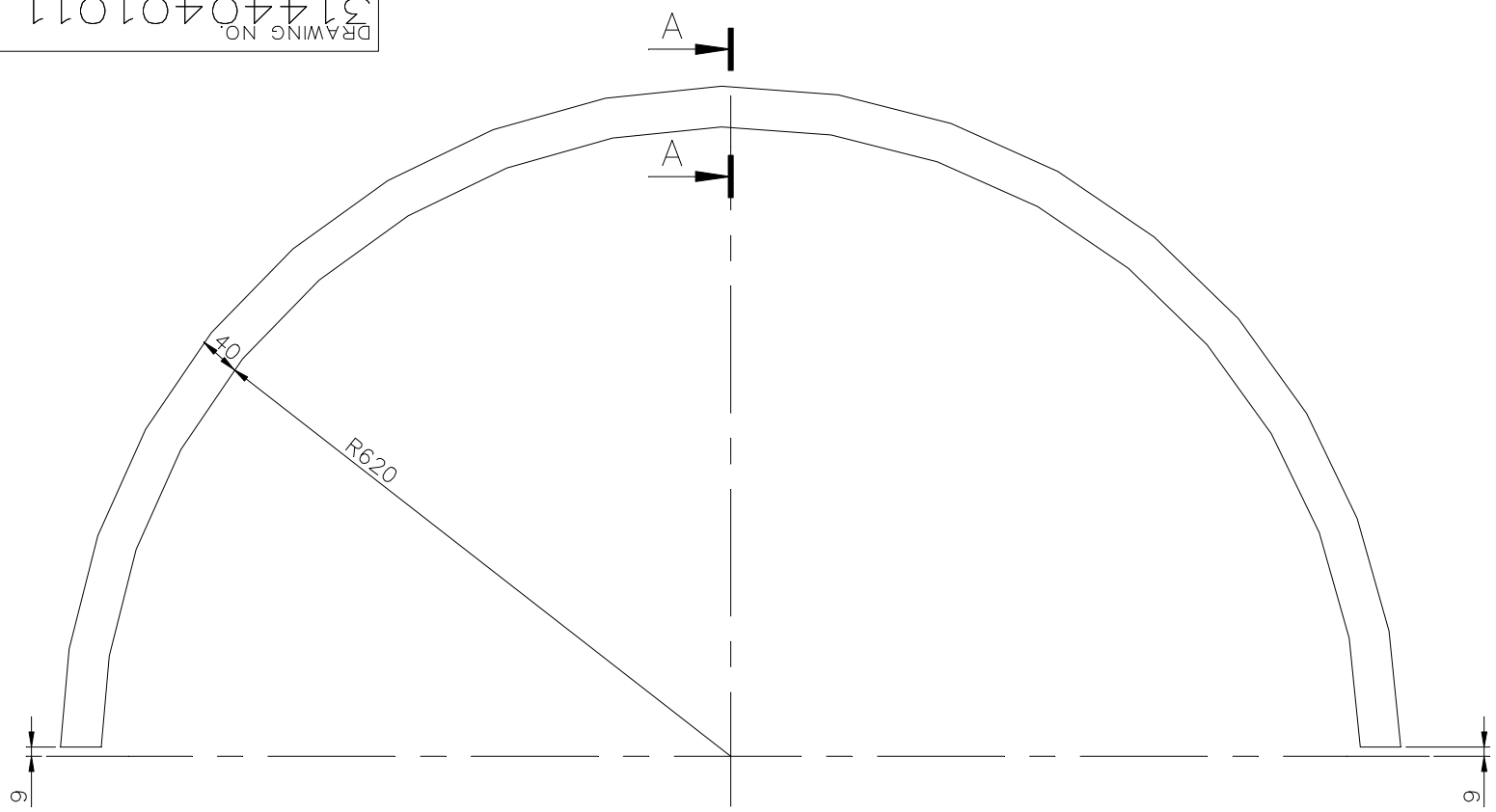
CBOM NO. 01440401003		STATUS OF DRG.	
AGREED DEPT.	NAME	SIGN	DATE
WT	CHHABRA	-SD-	23.9.81
GRADE OF UNTOL. DIM.: -			
M/CG- V/C/M/P' AA 0230208			
WELDING-A/B/C/D-AA0621104			
GAS CUTTING-'T3'AA0621101			
REV. DATE	ALTERED	REV. DATE	ALTERED PA
	CHECKED	01 26.02.22	CHECKED RM
		-SD-	
CHANGES AS PER C/A NO. TGE-22-F0039			

TYPE OF PRODUCT OR NAME OF CUSTOMER/ PROJECT		BRUSHLESS EXCITER FOR 500MW TG						
DEPT. TGE CODE 4133	SCALE 1:1	WEIGHT(Kg.) 0.422	NAME	SIGN	DATE	NO. OF VAR.		
			TNG	-SD-	25.4.81	-		
			CHD	KSR/KNW	-SD-	22.9.81	-	
TITLE FRAME		REF. TO ASSY. DRG. 01440401001		APD	NPG	-SD-	28.9.81	73, 74
DRAWING NO. 21440401002		ITEM NO. 011		NO. OF SHEETS 22, 23, 24		NO. OF SHEETS 1		

INVENTORY NO. SIGN & DATE REF. DRG NO. 28-5607-86456/KWU
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31440401011
DRAWING NO.

ALL OVER



SECTION A-A
SCALE 1:1

DEVELOPED LENGTH=1993

TECHNICAL REQUIREMENT: -

1. MARK IDENTIFICATION ACCORDING TO HW0400397.

01
SUPERSEDES

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26-5607-865459/KWU
 (ITEM NO:19)
 REF. DRG NO.

SIGN & DATE

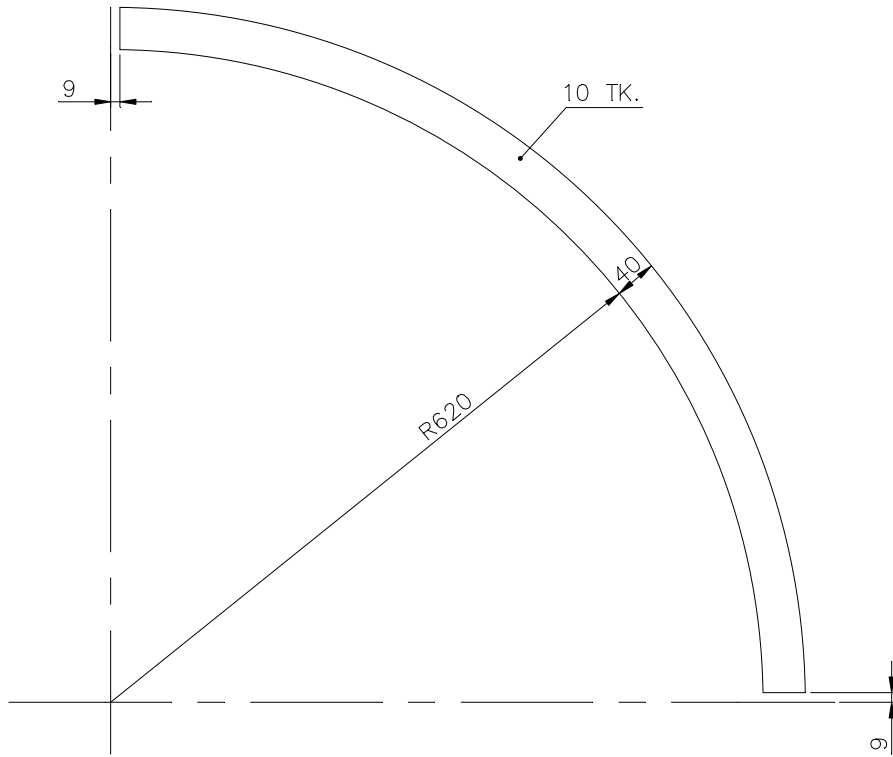
INVENTORY NO.

GRADE OF UNTOL. DIM.: -		CBOM NO. 01440401003		STATUS OF DRG.	
M/CG- vtc /M/V AA 0230208	WT	CHHABRA	-SD-	23.9.81	
WELDING- A/B/C/D -AA621104					
GAS CUTTING-'T3'AA0621101					
REV. DATE	ALTERED	REV. DATE	ALTERED PA	-SD-	
01	CHECKED	26.02.22	CHECKED RM	-SD-	
CHANGES AS PER C/A NO. TGE-22-F0039					

TYPE OF PRODUCT OR NAME OF CUSTOMER/ PROJECT		B'LESS EXCITER FOR 500MW TG.			
BHARAT HEAVY ELECTRICALS LTD. HARDWAR	DRN	TNG	-SD-	18.4.81	NO.OF VAR.
	CHD	KSR/KNW	-SD-	22.9.81	-
	APD	NPG	-SD-	28.9.81	73, 74
DEPT. TGE	SCALE	WEIGHT(Kg.)	REF. TO ASSY. DRG.		
CODE 4133	1:5	6.296	01440401001		
TITLE		FLAT		ITEM NO.	NO.OF ITEMS
				009	-
				7	22, 23, 24
				DRAWING NO. 31440401011	
				SHEET NO.1 NO.OF SHEETS 1	

DRAWING NO. 31440401012

ALL OVER



DEVELOPED LENGTH=988

TECHNICAL REQUIREMENTS: -

1. MARK IDENTIFICATION ACCORDING TO HW0400397.

01
SUPERSEDES

26-5607-865459/KWU
(ITEM NO.20)

REF. DRG NO.

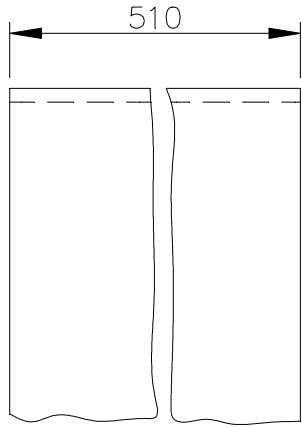
SIGN & DATE

INVENTORY NO.

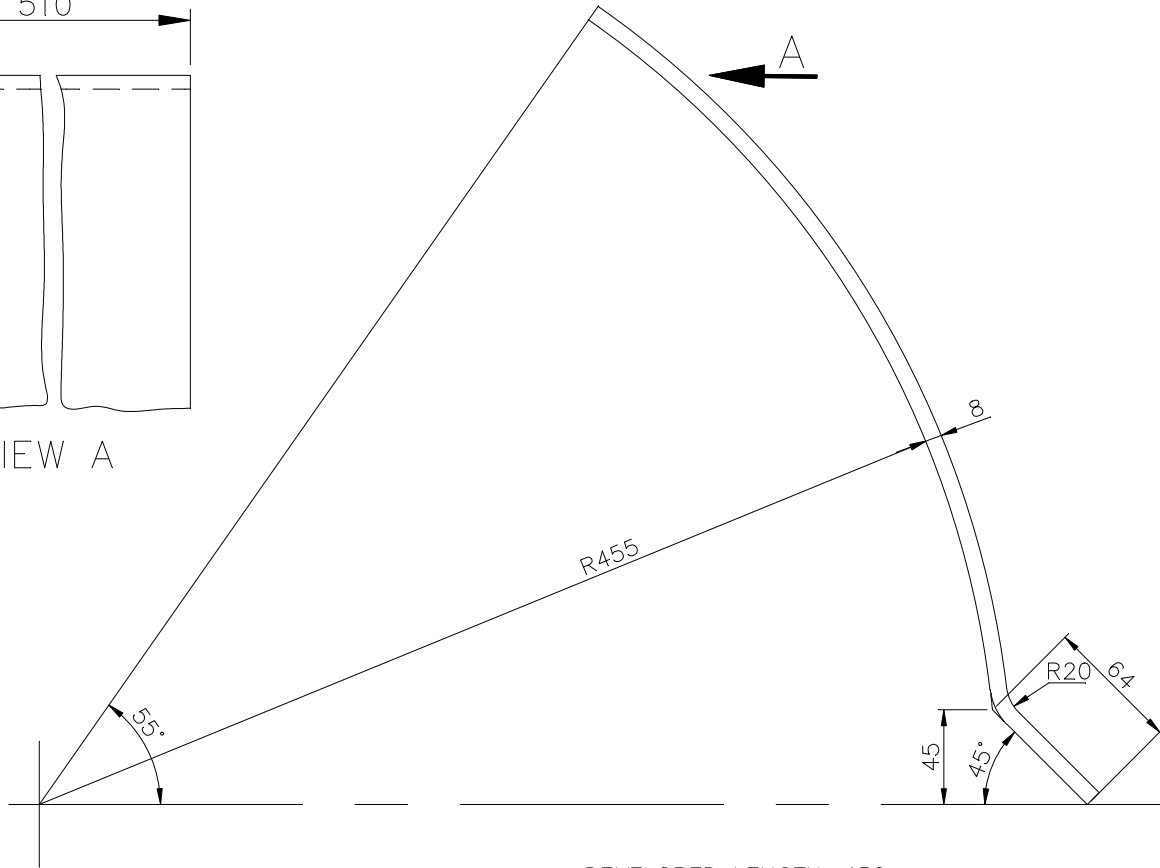
GRADE OF UNTOL. DIM.: -				CBOM NO. 01440401003		STATUS OF DRG.		TYPE OF PRODUCT OR NAME OF CUSTOMER/ PROJECT				B'LESS EXCITER FOR 500MW TG.					
M/CG- <i>v/c/m/v</i> AA 0230208				AGREED DEPT.	NAME	SIGN	DATE	BHARAT HEAVY ELECTRICALS LTD. HARDWAR				DRN	NAME	SIGN	DATE	NO.OF VAR.	
WELDING- <i>A/B/C/D</i> -AA621104				WT	CHHABRA	-SD-	23.9.81	DEPT. TGE				CHD	TNG	-SD-	18.4.81	-	
GAS CUTTING- 'T3'AA0621101								CODE 4133				APD	KSR/KNW	-SD-	22.9.81	-	
REV.	DATE	ALTERED	CHECKED	REV.	DATE	ALTERED PA	-SD-	SCALE				WEIGHT(Kg.)		REF. TO ASSY. DRG.		ITEM NO.	NO.OF ITEMS
01	26.02.22			01	26.02.22	CHECKED RM	-SD-	1:5				3.125		01440401001		017	-
CHANGES AS PER C/A NO. TGE-22-F0039								TITLE				FLAT		DRAWING NO.		NO.OF SHEETS	
														31440401012		23, 24	
														SHEET NO.1		NO.OF SHEETS 1	

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31440401014
DRAWING NO.



VIEW A



DEVELOPED LENGTH=450

TECHNICAL REQUIREMENTS: -

- 1. MARK IDENTIFICATION ACCORDING TO HW0400397.

02
SUPERSEDES

26-5607-86545a/KWU
(ITEM NO:12)
REF. DRG NO.

SIGN & DATE

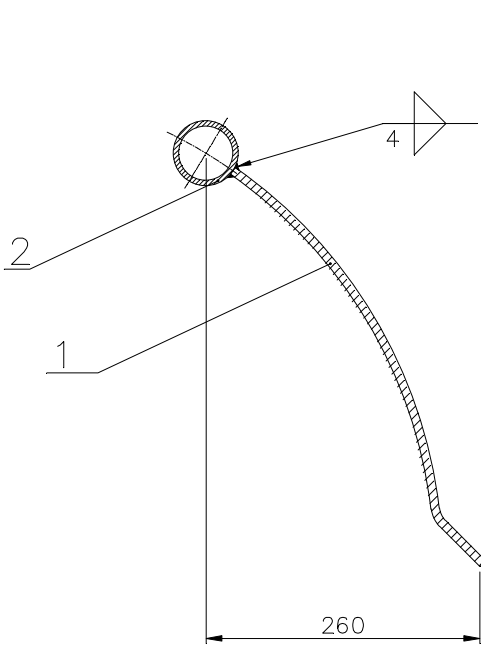
INVENTORY NO.

GRADE OF UNTOL. DIM.: -		CBOM NO. 01440401003		STATUS OF DRG.	
M/CG- <i>vtc/m/v</i> AA 0230208	WT	CHHABRA	-SD-	23.9.81	
WELDING- <i>A/B/C/D</i> -AA621104					
GAS CUTTING-'T3'AA0621101					
REV. DATE	ALTERED	REV. DATE	ALTERED PA	-SD-	
	CHECKED	02	26.02.22	CHECKED RM	-SD-
CHANGES AS PER C/A NO. TGE-22-F0039					

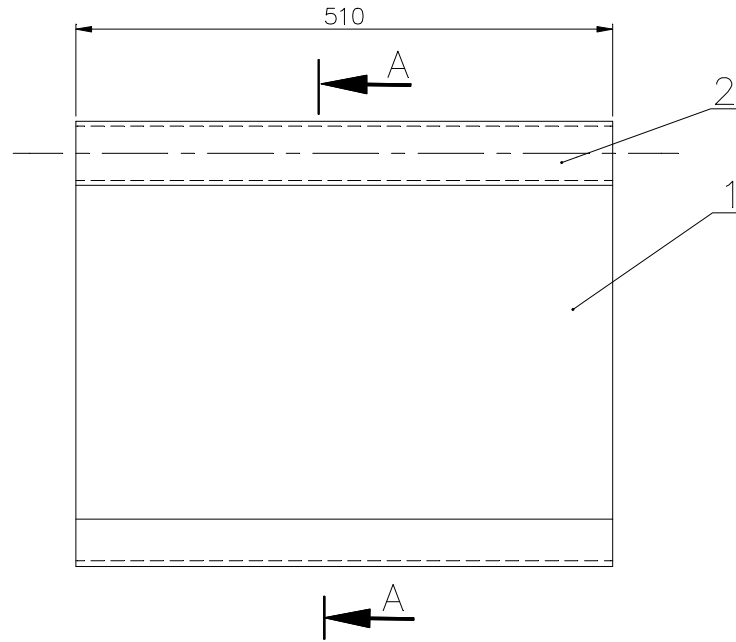
TYPE OF PRODUCT OR NAME OF CUSTOMER/ PROJECT		B'LESS EXCITER FOR 500MW TG.			
BHARAT HEAVY ELECTRICALS LTD. HARDWAR	DRN	TNG	-SD-	18.4.81	NO.OF VAR.
	CHD	KSR/KNW	-SD-	22.9.81	-
	APD	NPG	-SD-	28.9.81	73, 74
DEPT. TGE	SCALE	WEIGHT(Kg.)	REF. TO ASSY. DRG.		
CODE 4133	1: 2.5	14.490	31440401015		
TITLE		SHEET		DRAWING NO. 31440401014	
		1 3		SHEET NO.1 NO.OF SHEETS 1	

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DRAWING NO. 31440401015



SECTION A-A



SYMBOL & SIZE OF WELD SEAM	4 ∇
SEAM LENGTH IN METER	1.020
WT. OF DEPOSITED METAL IN KG.	0.096
TYPE OF ELECTRODE	E-42

TECHNICAL REQUIREMENTS: -

1. CLASSIFICATION GROUPS ACCORDING TO HW0620099: CK.
2. TEST SCOPE ACCORDING TO HW0850199: CATEGORY OF SERVICE REQUIREMENTS 4.
3. MARK IDENTIFICATION ACCORDING TO HW0400397.

02
SUPERSEDES

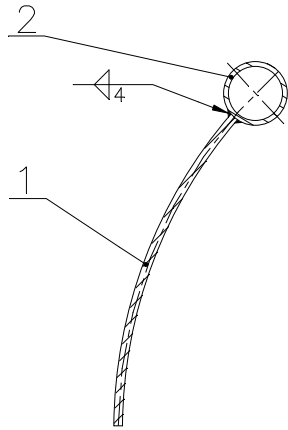
INVENTORY NO. SIGN & DATE REF. DRG NO. 26-5607-86545a/KWU

GRADE OF UNTOL. DIM.: -		CBOM NO. 01440401003		STATUS OF DRG.	
M/CG- Y/E/M/P AA 0230208	WT	CHHABRA	-SD-	23.9.81	
WELDING- A/B/C/D -AA621104					
GAS CUTTING-'T3'AA0621101					
REV. DATE	ALTERED	REV. DATE	ALTERED	PA	-SD-
	CHECKED	02	26.02.22	CHECKED	RM -SD-
CHANGES AS PER C/A NO. TGE-22-F0039					

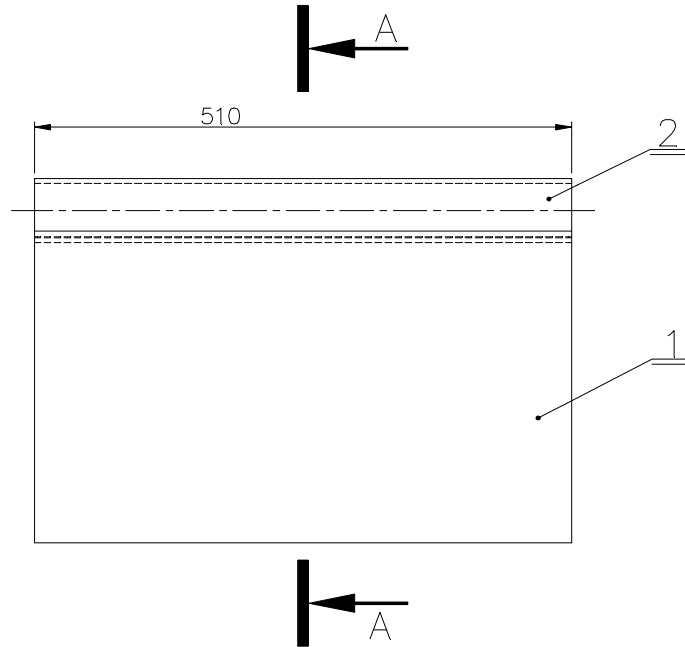
TYPE OF PRODUCT OR NAME OF CUSTOMER/ PROJECT		B'LESS EXCITER FOR 500MW TG.			
BHARAT HEAVY ELECTRICALS LTD. HARDWAR	DRN	NAME	SIGN	DATE	NO.OF VAR.
	CHD	TNG	-SD-	18.4.81	-
	APD	KSR/KNW	-SD-	22.9.81	-
DEPT. TGE	SCALE	WEIGHT(Kg.)	REF. TO ASSY. DRG.	ITEM NO.	NO.OF ITEMS
CODE 4133	1:5	18.036	01440401001	015	-
TITLE		DRAWING NO.		NO.OF SHEETS	
SUPPORT		31440401015		1	
		SHEET NO.1		NO.OF SHEETS 1	

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DRAWING NO. 31440401016



SECTION A-A



SYMBOL & SIZE OF WELD SEAM	4 ∇
SEAM LENGTH M.	1.020
WT. OF DEPOSITED METAL KG.	0.096
TYPE OF ELECTRODE	E-42

TECHNICAL REQUIREMENTS: -

1. CLASSIFICATION GROUPS ACCORDING TO HW0620099: CK.
2. TEST SCOPE ACCORDING TO HW0850199: CATEGORY OF SERVICE REQUIREMENTS 4.
3. IDENTIFICATION ACCORDING TO HW0400397.

SUPERSEDES 02

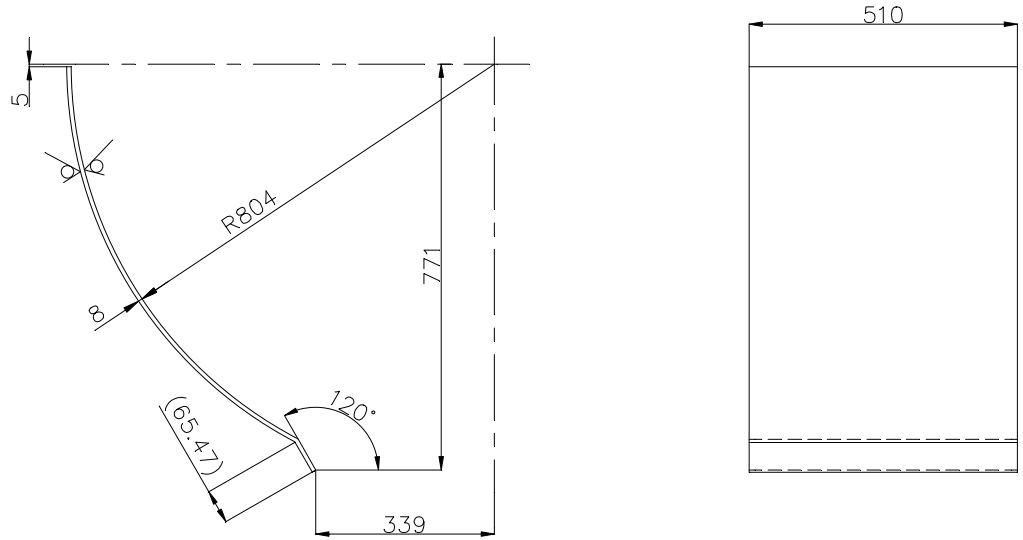
INVENTORY NO. SIGN & DATE REF. DRG NO. 26-5607-86459/K.W.U.

GRADE OF UNTOL. DIM.: -		CBOM NO. 01440401003		STATUS OF DRG.		TYPE OF PRODUCT OR NAME OF CUSTOMER/ PROJECT				BRUSHLESS EXCITER FOR 500MW TG													
M/CG- V/C/M/P AA 0230208		WELDING- A/B/C/D -AA0621104		GAS CUTTING- 'T3' AA0621101		AGREED DEPT. WT		NAME CHHABRA		SIGN -SD-		DATE 23.09.81		NAME T.N.G.		SIGN -SD-		DATE 18.4.81		NO.OF VAR. -			
REV. DATE		ALTERED CHECKED		REV. DATE		ALTERED PA		-SD- CHECKED RM		-SD-		DEPT. TGE		SCALE 1:5		WEIGHT(Kg.) 13.847		REF. TO ASSY. DRG. 01440401001		ITEM NO. 022		NO.OF ITEMS -	
						CHANGES AS PER C/A NO. TGE-22-F0039						CODE 4133		1		3		DRAWING NO. 31440401016		7		23, 24	
												TITLE SUPPORT						SHEET NO. 1		NO.OF SHEETS 1			

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DRAWING NO. 31440401017

500 THE REST



DEVELOPED LENGTH= 945

TECHNICAL REQUIREMENTS: -

- 1. MARK IDENTIFICATION ACCORDING TO HW0400397.

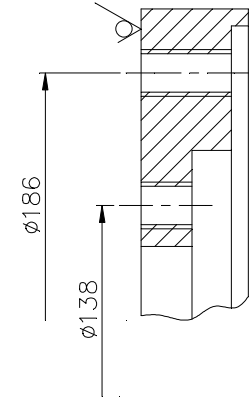
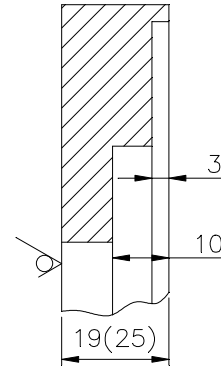
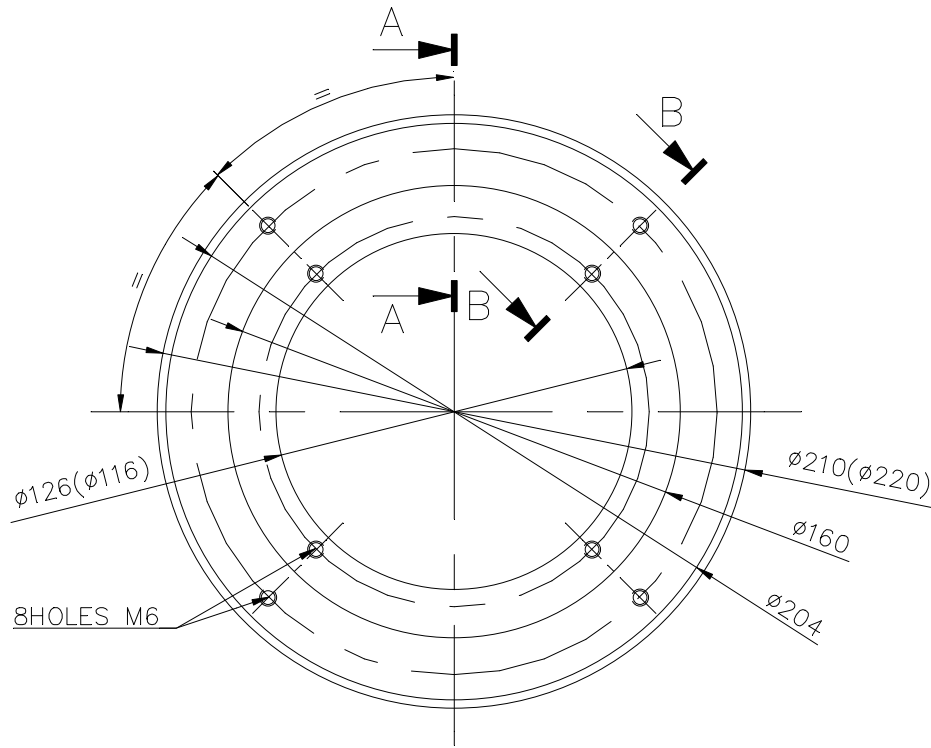
SUPERSEDES 02

INVENTORY NO. SIGN & DATE 26-5607-86545a/kwu (ITEM NO. 10) REF. DRG NO.

CBOM NO. 01440401003		STATUS OF DRG.	
AGREED DEPT.	NAME	SIGN	DATE
WT	CHHABRA	-SD-	23.9.81
GRADE OF UNTOL. DIM.: -			
M/CG- <i>v/c/m/v</i> AA 0230208			
WELDING- <i>A/B/C/D</i> -AA621104			
GAS CUTTING- 'T3'AA0621101			
REV.	DATE	ALTERED	PA -SD-
02	26.02.22	CHECKED	RM -SD-
CHANGES AS PER C/A NO. TGE-22-F0039			

TYPE OF PRODUCT OR NAME OF CUSTOMER/ PROJECT		B'LESS EXCITER FOR 500MW TG.			
BHARAT HEAVY ELECTRICALS LTD. HARDWAR	DRN	NAME	SIGN	DATE	NO.OF VAR.
	CHD	TNG	-SD-	18.4.81	-
	APD	KSR/KNW	-SD-	22.9.81	-
DEPT. TGE	SCALE	WEIGHT(Kg.)	REF. TO ASSY. DRG.	ITEM NO.	NO.OF ITEMS
CODE 4133	1:10	30.420	01440401001	023	-
TITLE		DRAWING NO.		NO.OF SHEETS	
SHEET		31440401017		1	
		SHEET NO.1		NO.OF SHEETS 1	

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TECHNICAL REQUIREMENTS

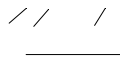
1. MARK IDENTIFICATION ACCORDING TO HW 0400397.
2. DIMENSIONS IN BRACKETS ARE BEFORE MACHINING.

01
SUPERSEDES THE OLD
DRG. UNDER THE SAME NO.
TGE-10-F0018

0-144-04-01011

B'LESS EXCITER FOR 500MW TG.

WT ROY -S/D- 21.5.90



TNG -S/D- 24.3.90
SM -S/D- 29.3.90
IC RAO -S/D- 16.6.90

01 16.1.10 VJAY -S/D-
TNG -S/D-
CHANGES ACCORDING TO

TGE
4133

1:2 2.390

0-144-04-01013 030

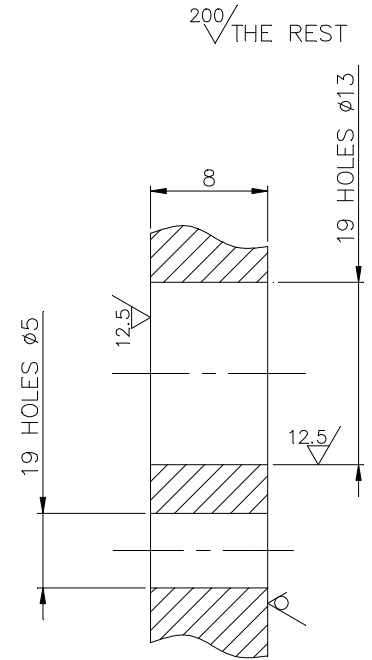
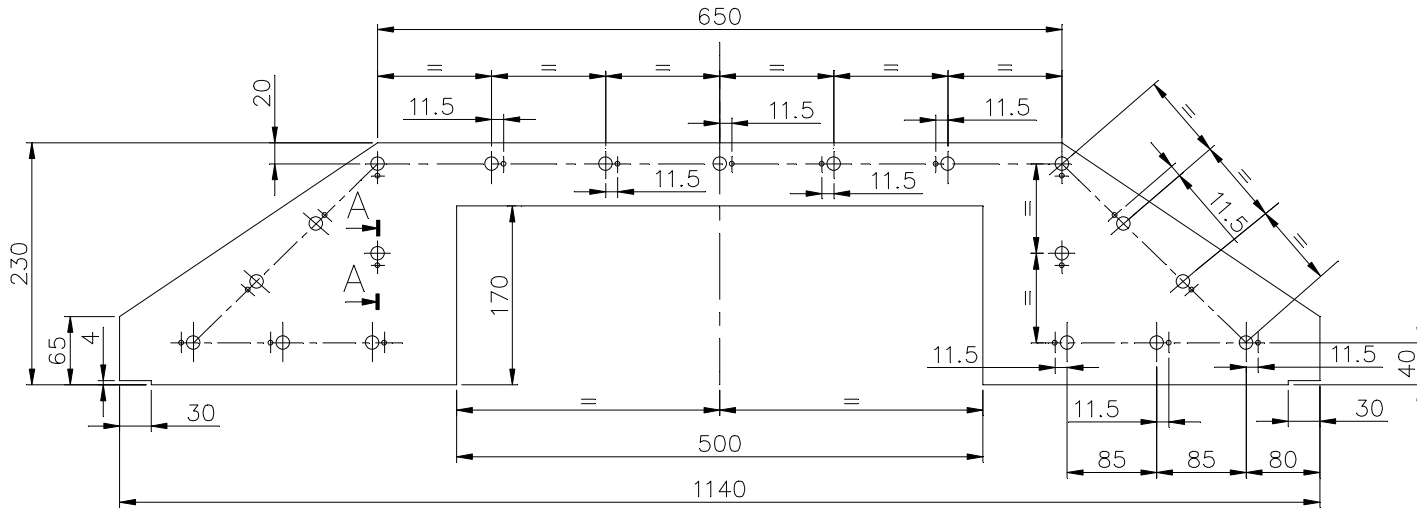
CH.AD. NO.-
TGE-10-F0018

FLANGE

3-144-04-01070 01

DRAWING NO. 31440401145

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SECTION-AA

TECHNICAL REQUIREMENTS


1. MARK IDENTIFICATION ACCORDING TO HW 0400397.

26-5607-122988 b/kwu
REF. DRG NO.

SIGN & DATE

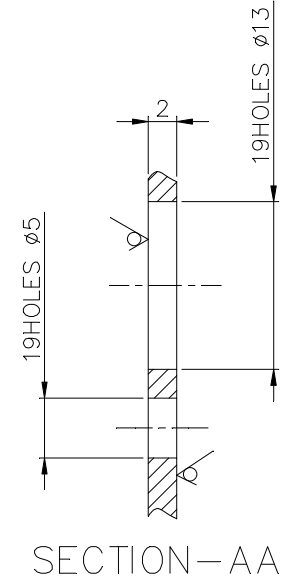
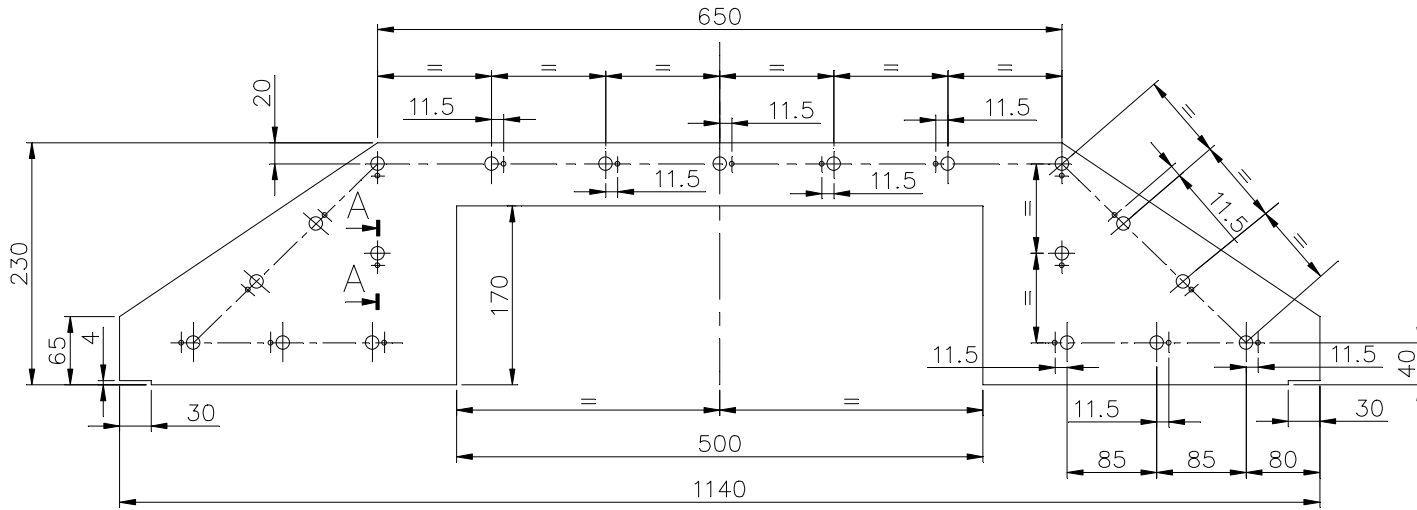
INVENTORY NO.

GRADE OF UNTOL. DIM.: -		CBOM NO. 01440401029		STATUS OF DRG.	
M/CG- v/c/M/V AA 0230208	WELDING-A/B/c/D-AA621104	GAS CUTTING-'T3'AA0621101	AGREED DEPT. WTX	NAME AWTXIS	SIGN AWTXIS
REV.	DATE	ALTERED	REV.	DATE	ALTERED
		CHECKED			CHECKED

TYPE OF PRODUCT OR NAME OF CUSTOMER/ PROJECT		B'LESS EXCITER FOR 800MW TG			
 BHARAT HEAVY ELECTRICALS LTD. HARDWAR	DRN	NAME STGEVK	SIGN STGEVK	DATE 05/08/2010	NO.OF VAR.
	CHD	STGESSM	STGESSM	05/08/2010	
	APD	ATGEVK	ATGEVK	01/10/2010	73, 74
DEPT. TGE	SCALE	WEIGHT(Kg.)	REF. TO ASSY. DRG.		ITEM NO.
CODE 4133	1:5	8.482	01440401031		004
TITLE		SHEET		DRAWING NO. 31440401145	
				SHEET NO.1 NO.OF SHEETS 1	

DRAWING NO. 31440401146

200/
√ THE REST



TECHNICAL REQUIREMENTS


1. MARK IDENTIFICATION ACCORDING TO HW 0400397.

26-5607-122988 b/kwu
REF. DRG NO.

SIGN & DATE

INVENTORY NO.

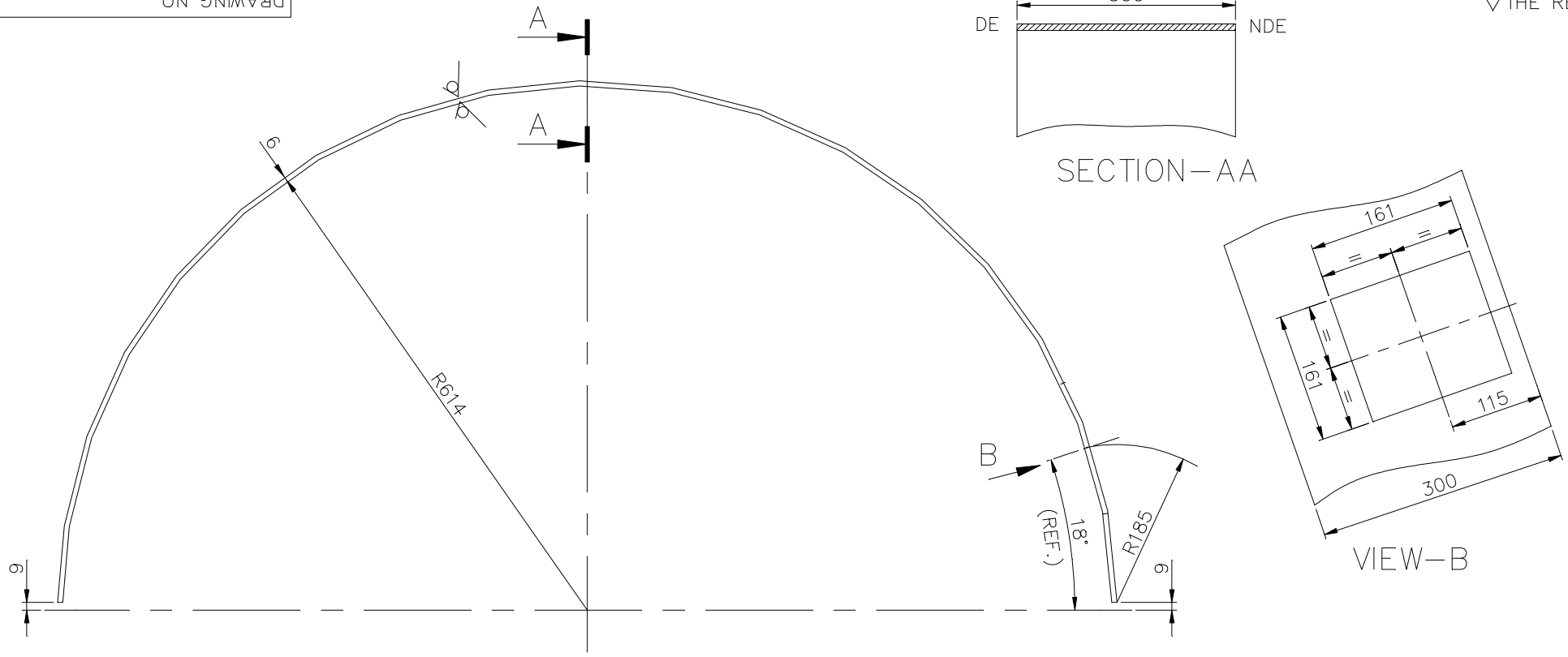
GRADE OF UNTOL. DIM.: -		CBOM NO. 01440401029		STATUS OF DRG.	
M/CG- v/c/M/F AA 0230208	WTX	AWTXIS	A	AWTXIS	28/08/2010
WELDING-A/B/C/D-AA621104	AGREED DEPT.	NAME	SIGN	DATE	
GAS CUTTING-T3'AA0621101					
REV. DATE	ALTERED CHECKED	REV. DATE	ALTERED CHECKED		

TYPE OF PRODUCT OR NAME OF CUSTOMER/ PROJECT		B'LESS EXCITER FOR 800MW TG.			
 BHARAT HEAVY ELECTRICALS LTD. HARDWAR	DRN	NAME	SIGN	DATE	NO.OF VAR.
	CHD	STGEVK	STGEVK	05/08/2010	
	APD	STGESSM	STGESSM	05/08/2010	
DEPT. TGE	SCALE	WEIGHT(Kg.)	REF. TO ASSY. DRG.	ITEM NO.	NO.OF ITEMS
CODE 4133	1:5	2.182	01440401031	029	75, 77
TITLE		SHEET		DRAWING NO. 31440401146	
		SHEET NO.1		NO.OF SHEETS 1	

DRAWING NO. 31440401147

500% THE REST

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DEVELOPED LENGTH=1920

TECHNICAL REQUIREMENTS

1. MARK IDENTIFICATION ACCORDING TO HW 0400397.

INVENTORY NO. SIGN & DATE 26-5607-122988 a/KWU REF. DRG NO.

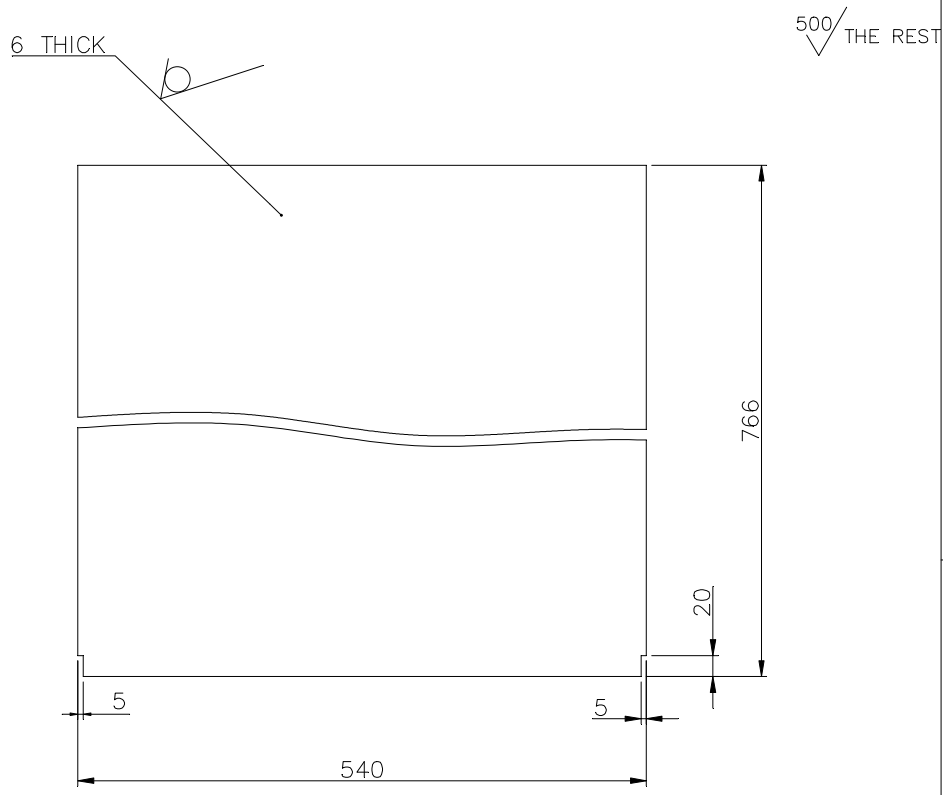
CBOM NO. 01440401029		STATUS OF DRG.	
AGREED DEPT.	NAME	SIGN	DATE
WTX	AWTXIS	AWTXIS	28/08/2010
GRADE OF UNTOL. DIM.: -			
M/CG- W/E/M/P AA 0230208			
WELDING- A/B/C/D -AA621104			
GAS CUTTING- 'T3'AA0621101			
REV.	DATE	ALTERED	CHECKED

TYPE OF PRODUCT OR NAME OF CUSTOMER/ PROJECT		B'LESS EXCITER FOR 800MW TG.			
BHARAT HEAVY ELECTRICALS LTD. HARDWAR	DRN	NAME	SIGN	DATE	NO.OF VAR.
	CHD	STGEVK	STGEVK	05/08/2010	
	APD	STGESSM	STGESSM	05/08/2010	
DEPT. TGE	SCALE	WEIGHT(Kg.)	REF. TO ASSY. DRG.	ITEM NO.	NO.OF ITEMS
CODE 4133	1:5	26.031	01440401031	006	75, 77
TITLE		SHEET		DRAWING NO. 31440401147	
				SHEET NO.1 NO.OF SHEETS 1	

FIRST ANGLE PROJECTION (ALL DIMENSIONS ARE IN mm) FORM DG 39(B)

REV	DATE	ALTERED	REV	DATE	ALTERED	PA -SD-	CBOM No.	STATUS
		CHECKED	01	26.02.21	CHECKED	DRM -SD-	01440401003	OF DRG
CHANGES AS PER C/A NO.			AGREED	NAME	SIGN	DATE		
TGE-22-F0039			DEPT.	WT	CHHABRA	-SD-	3.9.81	

GRADE OF UNTO L.DIM.M/CGC/M/F.AA0230208 WELDING A/B/C/D AA0621104 GAS CUTTING-T3 AA0621101



TECHNICAL REQUIREMENT

1. MARK IDENTIFICATION ACCORDING TO HW0400397.

01
SUPERSEDES

26-5607-86545 a/kwu
REF.DRG.No. IT.2

SIGN & DATE



BHARAT HEAVY ELECTRICALS LTD
HARDWAR

	NAME	SIGN	DATE	NO. OF VAR
DRN	YC GARG	-SD-	29.1.81	
CHD	KSR/KNW	-SD-	22.9.81	
APD	NP GUPTA	-SD-	28.9.81	

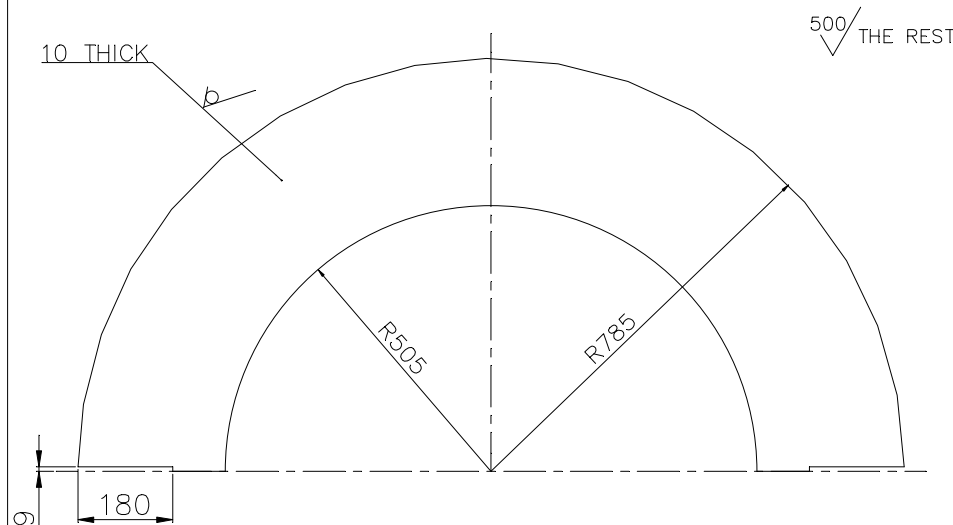
INVENTORY No.	DEPT.TGE	SCALE	WEIGHT(Kg)	REF.TO ASSY.DRG.	ITEM No.	No OF ITEMS
	CODE 4133	1:5	19.50	01440401001	003	-
TITLE				DRAWING No.		
SHEET				41440401010		
(B'LESS EXCITER FOR 500MW TG)				SHEET No.1 No.OF SHEETS!		

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FIRST ANGLE PROJECTION (ALL DIMENSIONS ARE IN mm) FORM DG 39(B)

REV	DATE	ALTERED	REV	DATE	ALTERED	PA -SD-	CBOM No.	STATUS	
		CHECKED	01	26.02.22	CHECKED	DRM -SD-	01440401003	OF DRG	
CHANGES AS PER C/A NO.			AGREED	NAME	SIGN	DATE			
TGE-22-F0039			WT	CHHABRA	-SD-	3.9.81			

GRADE OF UNTO	DIM/M/CG	M/F	AA0230208	WELDING	A/B/C/D	AA0621104	GAS CUTTING-T3	AA0621101
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TECHNICAL REQUIREMENT: -

1. MARK IDENTIFICATION ACCORDING TO HW0400397.

01
 SUPERSEDES

26-5607-86545 a/kwu REF.DRG.No. IT.3

SIGN & DATE



BHARAT HEAVY ELECTRICALS LTD
HARDWAR

	NAME	SIGN	DATE	NO. OF VAR
DRN	YC GARG	-SD-	30.1.81	-
CHD	KSR/KNW	-SD-	22.9.81	-
APD	NP GUPTA	-SD-	28.9.81	-

INVENTORY No.	DEPT.TGE	SCALE	WEIGHT(Kg)	REF.TD ASSY.DRG.	ITEM No.	No OF ITEMS
	CODE 4133	1:10	44.5	01440401001	007	-
TITLE				DRAWING No.		
SHEET				41440401011		
(B'LESS EXCITER FOR 500MW TG)				SHEET No.1 No.OF SHEETS!		

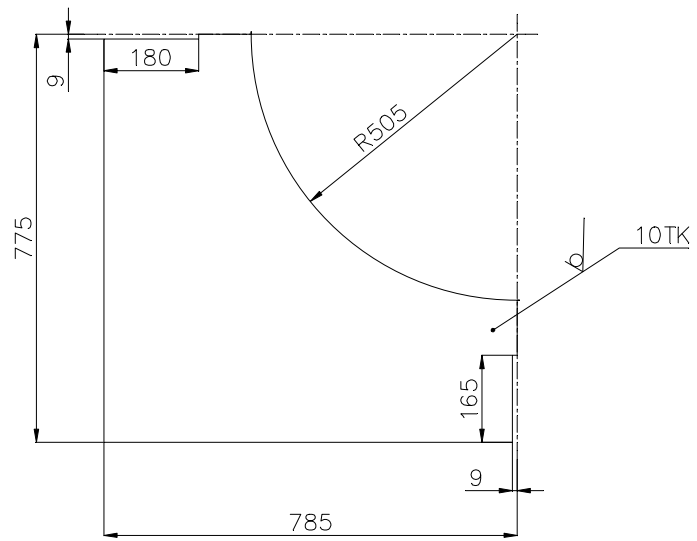
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FIRST ANGLE PROJECTION (ALL DIMENSIONS ARE IN mm) FORM DG 39(B)

REV	DATE	ALTERED	REV	DATE	ALTERED	PA -SD-	CBOM No.	STATUS
		CHECKED	01	26.02.22	CHECKED	DRM -SD-	01440401003	OF DRG
CHANGES AS PER C/A NO.			AGREED	NAME	SIGN	DATE		
TGE-22-F0039			WT	CHHABRA	-SD-	23.9.81		

GRADE OF UNTO L.DIM.M/CGG/M/F.AA0230208 WELDING A7B/C/D AA0621104 GAS CUTTING-T3 AA0621101

500/ THE REST



TECHNICAL REQUIREMENTS: -

- MARK IDENTIFICATION ACCORDING TO HW0400397.

01
SUPERSEDES

26-5607-86545 a/kwu
REF.DRG.No. IT. 4

SIGN & DATE



BHARAT HEAVY ELECTRICALS LTD
HARDWAR

	NAME	SIGN	DATE	NO. OF VAR
DRN	YC GARG	-SD-	6.2.81	
CHD	KSR/KNW	-SD-	22.9.81	
APD	NP GUPTA	-SD-	28.9.81	

INVENTORY No.	DEPT.TGE	SCALE	WEIGHT(Kg)	REF.TO ASSY.DRG.	ITEM No.	No OF ITEMS
	CODE 4133	1:10	32.00	01440401001	016	-
TITLE				DRAWING No.		
SHEET				41440401012		
(B'LESS EXCITER FOR 500MW TG)				SHEET No.1 No.OF SHEETS!		

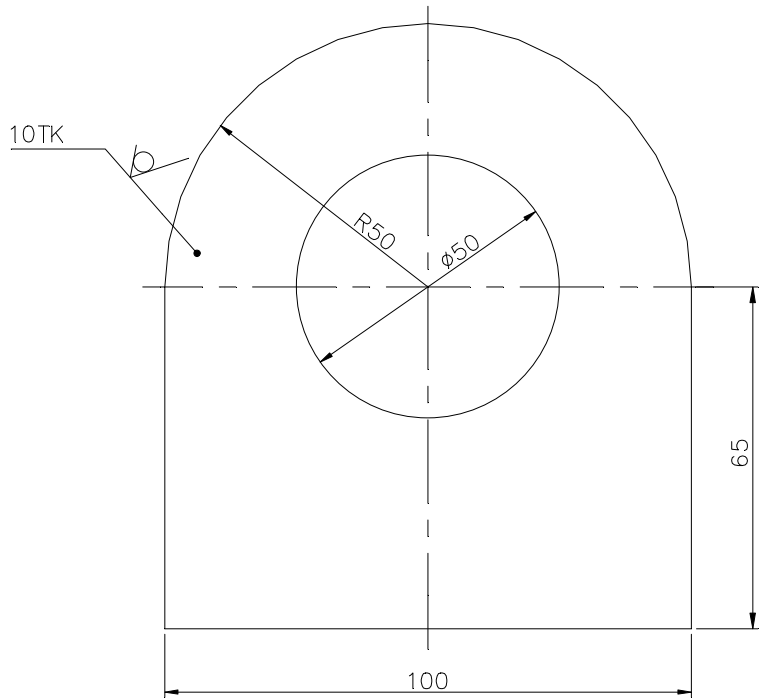
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FIRST ANGLE PROJECTION (ALL DIMENSIONS ARE IN mm) FORM DG 39(B)

REV	DATE	ALTERED	REV	DATE	ALTERED	PA -SD-	CBOM No.	STATUS
		CHECKED	01	26.02.22	CHECKED	DRM -SD-	01440401003	OF DRG
CHANGES AS PER C/A NO.			AGREED	NAME	SIGN	DATE		
TGE-22-F0039			DEPT.	WT	CHHABRA	-SD-	23.9.81	

GRADE OF UNTO	DIM/M/CG	M/F	AA0230208	WELDING	A/B/C/D	AA0621104	GAS CUTTING-T3	AA0621101
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500 / THE REST



TECHNICAL REQUIREMENT: -

1. MARK IDENTIFICATION ACCORDING TO HW0400397.

01
SUPERSEDES

EMT 307-110/kwu
REF.DRG.No. IT. 23

SIGN & DATE



BHARAT HEAVY ELECTRICALS LTD
HARDWAR

	NAME	SIGN	DATE	NO. OF VAR
DRN	YC GARG	-SD-	14.2.81	
CHD	KSR/KNW	-SD-	22.9.81	
APD	NPG	-SD-	28.9.81	

INVENTORY No.	DEPT.TGE	SCALE	WEIGHT(Kg)	REF.TO ASSY.DRG.	ITEM No.	No OF ITEMS
	CODE 4133					
TITLE				DRAWING No.		
LIFTING LUG				41440401020		
(B'LESS EXCITER FOR 500MW TG)				SHEET No.1 No.OF SHEETS!		

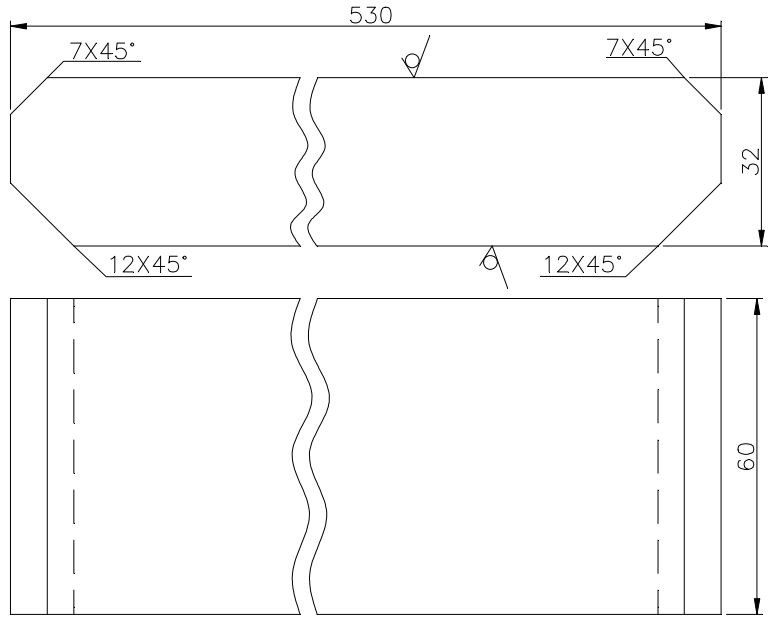
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FIRST ANGLE PROJECTION (ALL DIMENSIONS ARE IN mm) FORM DG 39(B)

REV	DATE	ALTERED CHECKED	REV	DATE	ALTERED PA CHECKED RM	-SD-	CBOM No. 01440401003	STATUS OF DRG
			03	26.02.22				
CHANGES AS PER C/A NO. TGE-22-F0039			AGREED DEPT.	NAME	SIGN	DATE		
			WT	B.CHOUDHARY	-SD-	11.6.88		

GRADE OF UNTOOL.DIM.M/CG/M/F.AA0230208 WELDING A/B/C/D.AA0621104 GAS CUTTING-T3 AA0621101

500 / THE REST



TECHNICAL REQUIREMENTS: -

1. IDENTIFICATION ACCORDING TO HW0400397.

SUPERSEDES 03

26-5907-865450/KWJ (ITEM No.22) REF.DRG.No.

SIGN & DATE



BHARAT HEAVY ELECTRICALS LTD
HARDWAR

	NAME	SIGN	DATE	NO. OF VAR
DRN	SCS	-SD-	19.4.88	-
CHD	KSR	-SD-	21.4.88	-
APD	DRC	-SD-	21.6.88	-

INVENTORY No.	DEPT. TGE	SCALE 1:1	WEIGHT(Kg) 8.00	REF.TD ASSY.DRG. 01440401001	ITEM No. 019	No OF ITEMS -
	CODE 4133					
TITLE STRIP (B'LESS EXCITER FOR 500MW TG)				DRAWING No. 41440401038		
				SHEET No.1	No.OF SHEETS 1	

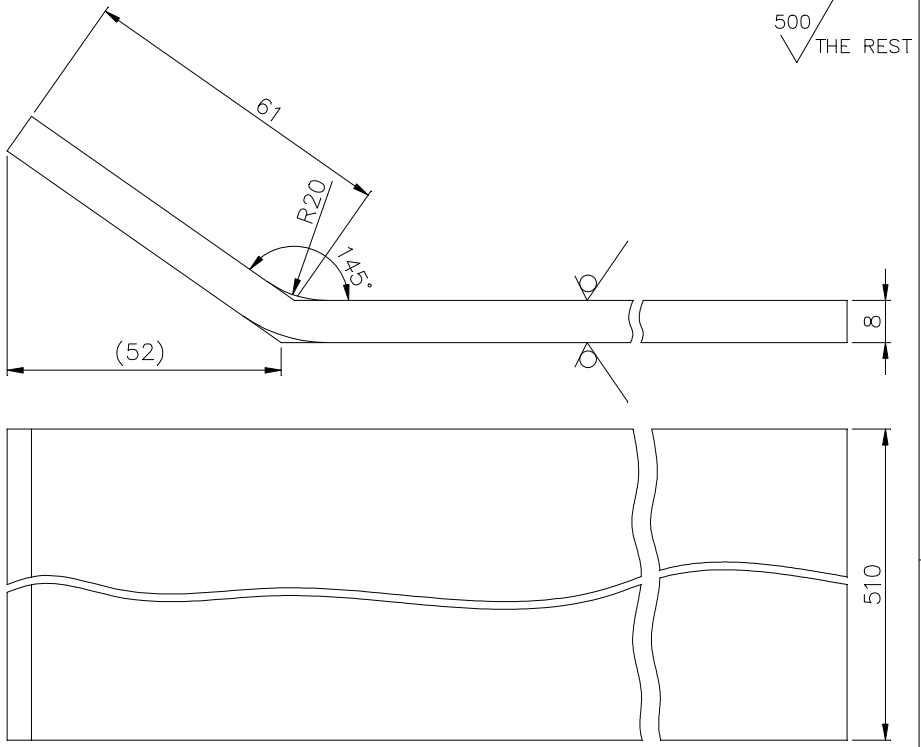
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FIRST ANGLE PROJECTION (ALL DIMENSIONS ARE IN mm) FORM DG 39(B)

REV	DATE	ALTERED	REV	DATE	ALTERED	PA -SD-	CBOM No.	STATUS
		CHECKED	02	26.02.21	CHECKED	DRM -SD-	01440401003	OF DRG
CHANGES AS PER C/A NO.			AGREED	NAME	SIGN	DATE		
TGE-22-F0039			DEPT.	WT	CHHABRA	-SD-	23.9.81	

GRADE OF UNTO L.DIM.M/CGC/M/F.AA0230208 WELDING A/B/C/D AA0621104 GAS CUTTING-T3 AA0621101

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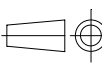
TECHNICAL REQUIREMENTS: -

1. MARK IDENTIFICATION ACCORDING TO HW0400397.

02
 SUPERSEDES

DEVELOPED LENGTH=420

 BHARAT HEAVY ELECTRICALS LTD HARDWAR	DRN	TNG	-SD-	18.4.81	NO. OF VAR
	CHD	KSR/KNW	-SD-	22.9.81	-
	APD	NPG	-SD-	28.9.81	-

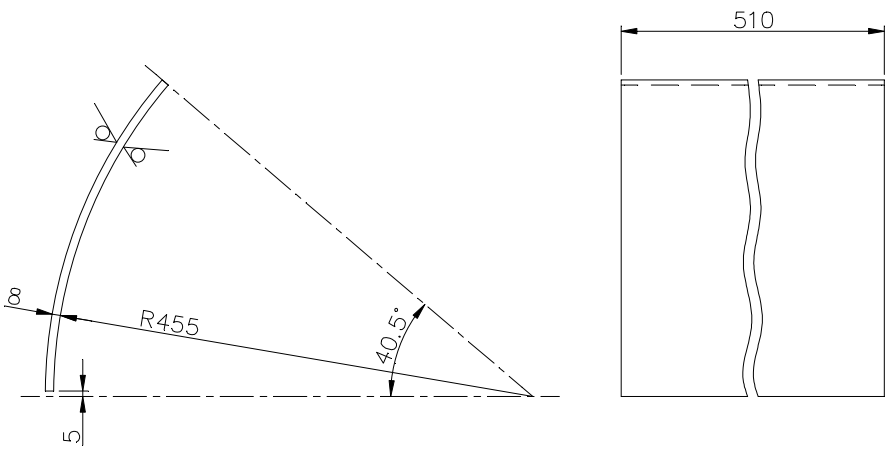
INVENTORY No.	DEPT.TGE	 SCALE 1:1	WEIGHT(Kg)	REF.TD ASSY.DRG.	ITEM No.	No OF ITEMS
	CODE 4133		13.520	01440401001	024	-
TITLE SHEET (B'LESS EXCITER FOR 500MW TG)				DRAWING No. 41440401040		
				SHEET No.1	No.OF SHEETS!	

FIRST ANGLE PROJECTION (ALL DIMENSIONS ARE IN mm) FORM DG 39(B)

REV	DATE	ALTERED CHECKED	REV	DATE	ALTERED PA CHECKED RM	-SD-	-SD-	CBOM No. 01440401003	STATUS OF DRG
			01	26.02.22					
CHANGES AS PER C/A NO. TGE-22-F0039					AGREED DEPT.	NAME	SIGN	DATE	
					WT	CHHABRA	-SD-	23.9.81	

GRADE OF UNTOOL.DIM.M/CGE/M/F.AA0230208 WELDING A/B/C/D.AA0621104 GAS CUTTING-T3 AA0621101

500/
THE REST



TECHNICAL REQUIREMENTS: -

1. IDENTIFICATION ACCORDING TO HW 0400397.

01
SUPERSEDES

DEVELOPED LENGHT=320

26-5607-865450/KWJ (ITEM No.09)
REF.DRG.No.

SIGN & DATE



BHARAT HEAVY ELECTRICALS LTD
HARDWAR

	NAME	SIGN	DATE	NO. OF VAR
DRN	TNG	-SD-	25.4.81	-
CHD	KSR/KNW	-SD-	22.9.81	-
APD	NPG	-SD-	28.9.81	-

INVENTORY No.	DEPT. TGE CODE 4133	SCALE 1:5	WEIGHT(Kg) 10.301	REF.TD ASSY.DRG. 31440401016	ITEM No. 001	No OF ITEMS -
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TITLE SHEET (B'LESS EXCITER FOR 500MW TG)	DRAWING No. 41440401041
SHEET No.1	No.OF SHEETS 1

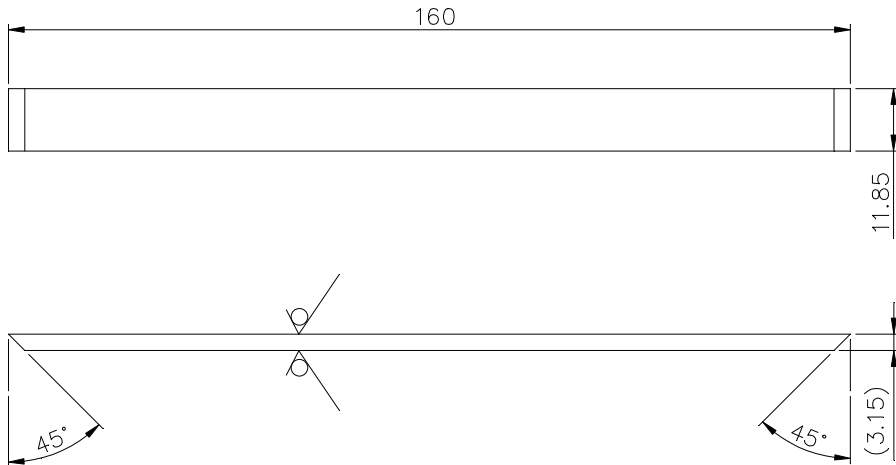
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FIRST ANGLE PROJECTION (ALL DIMENSIONS ARE IN mm) FORM DG 39(B)

REV	DATE	ALTERED	REV	DATE	ALTERED	PA -SD-	CBOM No.	STATUS
		CHECKED	01	26.02.21	CHECKED	DRM -SD-	01440401003	OF DRG
CHANGES AS PER C/A NO.			AGREED	NAME	SIGN	DATE		
TGE-22-F0039			DEPT.	WT	CHHABRA	-SD-	23.9.81	

GRADE OF UNTO L.DIM.M/CGC/M/F.AA0230208 WELDING A7B/C/D.AA0621104 GAS CUTTING-T3 AA0621101

500
THE REST



01
SUPERSEDES

TECHNICAL REQUIREMENT: -
1. MARK IDENTIFICATION ACCORDING TO HW0400397.

26-5607-865450/kwu
REF.DRG.No. IT.28

SIGN & DATE



BHARAT HEAVY ELECTRICALS LTD
HARDWAR

	NAME	SIGN	DATE	NO. OF VAR
DRN	TNG	-SD-	25.4.81	-
CHD	KSR/KNW	-SD-	22.9.81	-
APD	NPG	-SD-	28.9.81	-

INVENTORY No.	DEPT.TGE	SCALE	WEIGHT(Kg)	REF.TO ASSY.DRG.	ITEM No.	No OF ITEMS
	CODE 4133					
TITLE				DRAWING No.		
SHEET				41440401043		
(B'LESS EXCITER FOR 500MW TG)				SHEET No.1 No.OF SHEETS!		

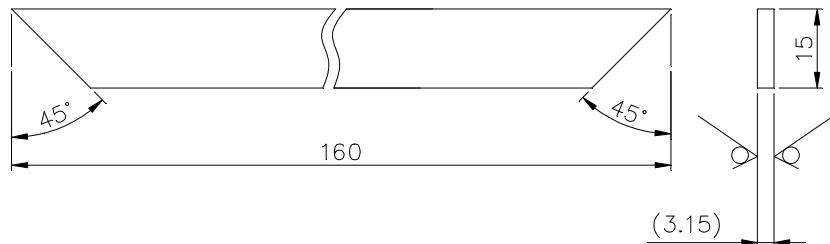
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FIRST ANGLE PROJECTION (ALL DIMENSIONS ARE IN mm) FORM DG 39(B)

REV	DATE	ALTERED	REV	DATE	ALTERED	PA -SD-	CBOM No.	STATUS
		CHECKED	01	26.02.22	CHECKED	DRM -SD-	01440401003	OF DRG
CHANGES AS PER C/A NO.			AGREED	NAME	SIGN	DATE		
TGE-22-F0039			DEPT.	CHHABRA	-SD-	23.9.81		
			WT					

GRADE OF UNTO	DIM/M/CG	M/F	AA0230208	WELDING	A/B/C/D	AA0621104	GAS CUTTING-T3	AA0621101
---------------	----------	-----	-----------	---------	---------	-----------	----------------	-----------

500
THE REST



TECHNICAL REQUIREMENT: -
1. MARK IDENTIFICATION ACCORDING TO HW0400397.

01
SUPERSEDES

26-5607-86545 a/kwu
REF.DRG.No. IT.28

SIGN & DATE



BHARAT HEAVY ELECTRICALS LTD
HARDWAR

	NAME	SIGN	DATE	NO. OF VAR
DRN	TNG	-SD-	25.4.81	
CHD	KSR/KNW	-SD-	22.9.81	
APD	NPG	-SD-	28.9.81	

INVENTORY No.	DEPT.TGE	SCALE	WEIGHT(Kg)	REF.TO ASSY.DRG.	ITEM No.	No OF ITEMS
	CODE 4133					
TITLE				DRAWING No.		
SHEET				41440401044		
(B'LESS EXCITER FOR 500MW TG)				SHEET No.1 No.OF SHEETS!		

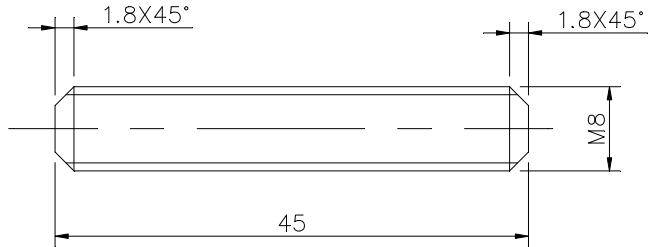
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FIRST ANGLE PROJECTION (ALL DIMENSIONS ARE IN mm) FORM DG 39(B)

REV	DATE	ALTERED	REV	DATE	ALTERED	PA -SD-	CBOM No.	STATUS	
		CHECKED	01	26.02.21	CHECKED	DRM -SD-	01440401003	OF DRG	
CHANGES AS PER C/A NO.			AGREED	NAME	SIGN	DATE			
TGE-22-F0039			DEPT.	WT	CHHABRA	-SD-	23.9.81		

GRADE OF UNTO L.DIM.M/CG/M/F.AA0230208 WELDING A/B/C/D.AA0621104 GAS CUTTING-T3 AA0621101

12.5
▽ ALL OVER



TECHNICAL REQUIREMENT

1. MARK IDENTIFICATION ACCORDING TO HW0400397.

01
SUPERSEDES

26-5607-865450K.W.U.
IT.45REF.DRG.No. (DIN976)

SIGN & DATE



BHARAT HEAVY ELECTRICALS LTD
HARDWAR

	NAME	SIGN	DATE	NO. OF VAR
DRN	TNG	-SD-	25.4.81	
CHD	KSR/KNW	-SD-	22.9.81	
APD	NPG	-SD-	28.9.81	

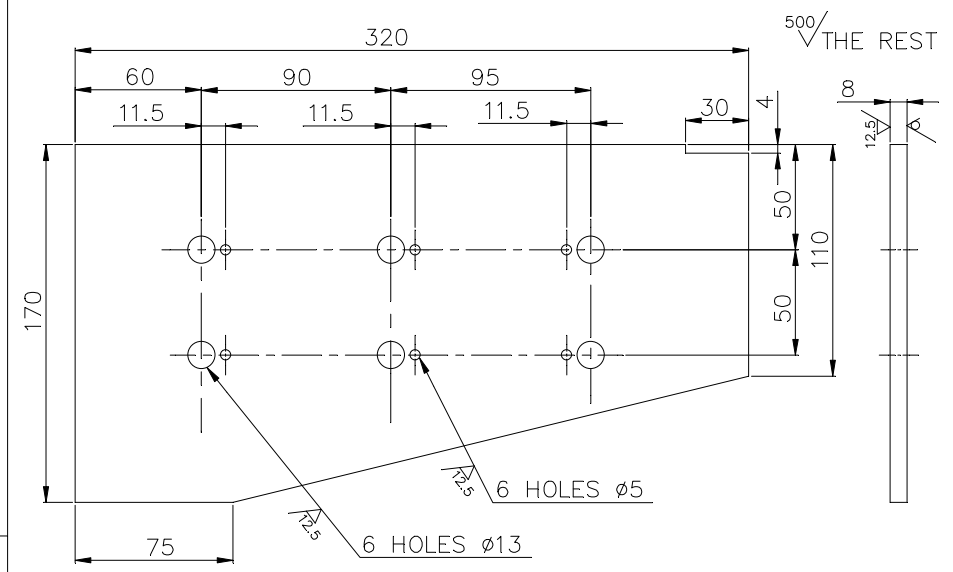
INVENTORY No.	DEPT.TGE	SCALE	WEIGHT(Kg)	REF.TO ASSY.DRG.	ITEM No.	No OF ITEMS
	CODE 4133					
TITLE				DRAWING No.		
STUD				41440401045		
(B'LESS EXCITER FOR 500MW TG)				SHEET No.1 No.OF SHEETS1		

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FIRST ANGLE PROJECTION (ALL DIMENSIONS ARE IN mm) FORM DG 39(B)

REV	DATE	ALTERED CHECKED	REV	DATE	ALTERED CHECKED	CBOM No. 01440401029	STATUS OF DRG
						AGREED DEPT. WTX	NAME AWTXIS SIGN DATE 28/08/2010

GRADE OF UNTOOL.DIM.M/CGC/M/F.AA0230208 WELDING A/B/C/D AA0621104 GAS CUTTING-T3 AA0621101



TECHNICAL REQUIREMENT :

1. MARK IDENTIFICATION ACCORDING TO HW 0400397.

26-5607-122988 b/kwu
REF.DRG.No.

SIGN & DATE



BHARAT HEAVY ELECTRICALS LTD
HARDWAR

	NAME	SIGN	DATE	NO. OF VAR
DRN	STGEVK	STGEVK	05/08/2010	
CHD	STGESSM	STGESSM	05/08/2010	
APD	ATGEVK	ATGEVK	01/10/2010	

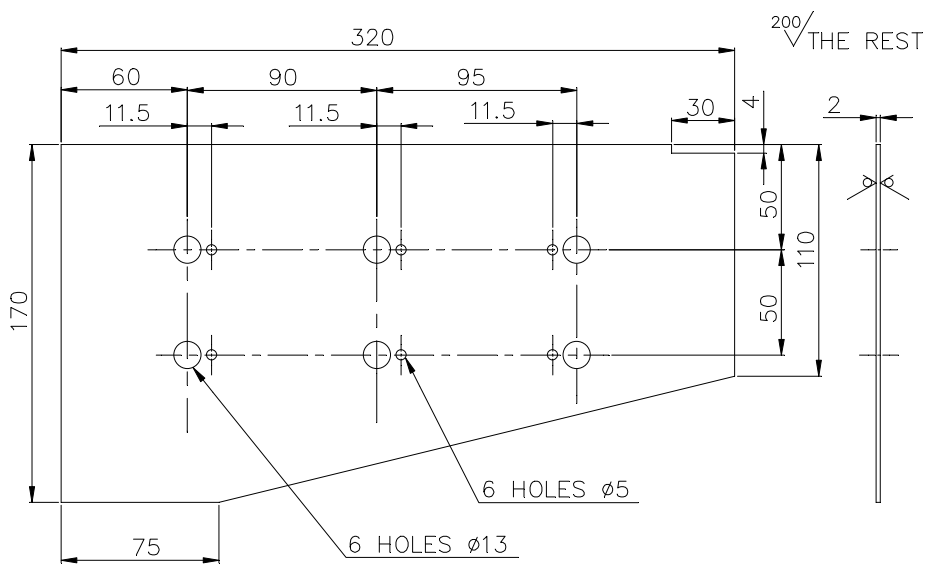
INVENTORY No.	DEPT.TGE	SCALE	WEIGHT(Kg)	REF.TO ASSY.DRG.	ITEM No.	No OF ITEMS
	CODE 4133	1:2.5	2.87	01440401031	001	
TITLE				DRAWING No.		
SHEET				41440401311		
(B'LESS EXCITER FOR 800MW TG)				SHEET No.1	No.OF SHEETS!	

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FIRST ANGLE PROJECTION (ALL DIMENSIONS ARE IN mm) FORM DG 39(B)

REV	DATE	ALTERED	REV	DATE	ALTERED	CBOM No.	STATUS
		CHECKED			CHECKED	01440401029	OF DRG
						AGREED DEPT.	SIGN
						WTX	DATE
						AWTXIS	28/08/2010

GRADE OF UNTO L.DIM.M/CGC/M/F.AA0230208 WELDING A/B/C/D AA0621104 GAS CUTTING-T3 AA0621101



TECHNICAL REQUIREMENT :

1. MARK IDENTIFICATION ACCORDING TO HW 0400397.

26-5607-122988 b/kwu
REF.DRG.No.

SIGN & DATE



BHARAT HEAVY ELECTRICALS LTD
HARDWAR

	NAME	SIGN	DATE	NO. OF VAR
DRN	STGEVK	STGEVK	05/08/2010	
CHD	STGESSM	STGESSM	05/08/2010	
APD	ATGEVK	ATGEVK	01/10/2010	

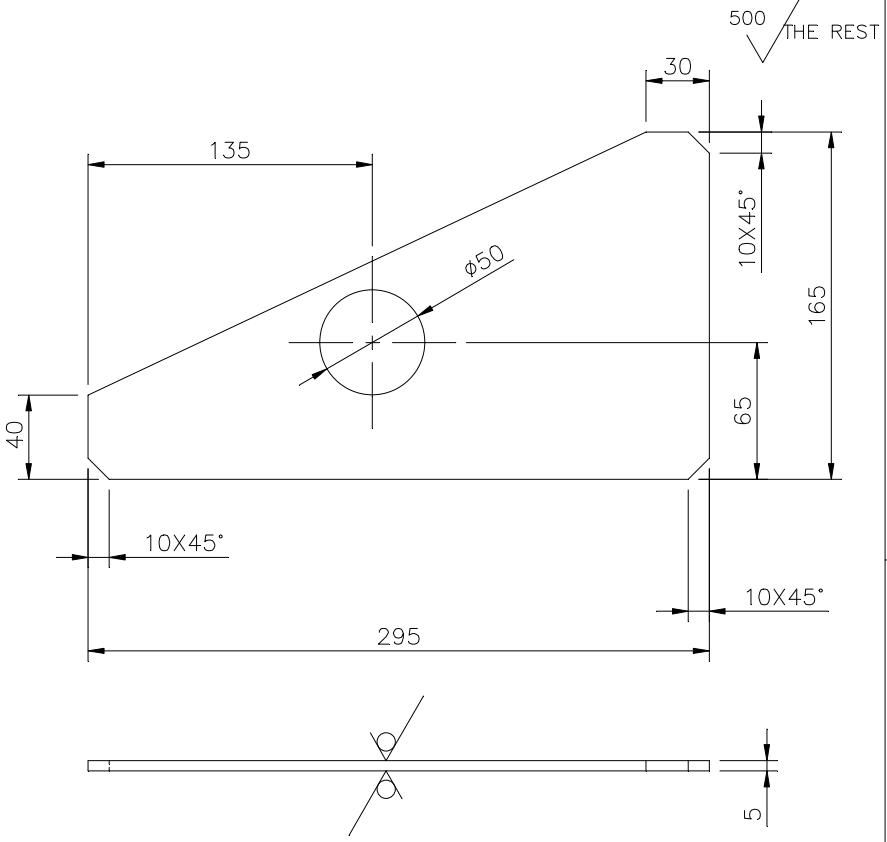
INVENTORY No.	DEPT.TGE	SCALE	WEIGHT(Kg)	REF.TO ASSY.DRG.	ITEM No.	No OF ITEMS
	CODE 4133	1:2.5	.71	01440401031	028	
TITLE SHEET				DRAWING No. 41440401312		
(B'LESS EXCITER FOR 800MW TG)				SHEET No.1 No.OF SHEETS!		

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FIRST ANGLE PROJECTION (ALL DIMENSIONS ARE IN mm) FORM DG 39(B)

REV	DATE	ALTERED CHECKED	REV	DATE	ALTERED CHECKED	CBOM No. 01440401029	STATUS OF DRG
						AGREED DEPT. WTX	NAME SIGN DATE AWTXBLM AWTXBLM 28/07/2020

GRADE OF UNTOL.DIM.M/CG/M/F.AA0230208 WELDING A/B/C/D AA0621104 GAS CUTTING-T3 AA0621101



TECHNICAL REQUIREMENT
1. IDENTIFICATION ACCORDING TO HW0400397.

3-436749/KWU
REF.DRG.No.

SIGN & DATE



BHARAT HEAVY ELECTRICALS LTD
HARDWAR

	NAME	SIGN	DATE	NO. OF VAR
DRN	STGEP A	STGEP A	07/03/2017	
CHD	STGESSM	STGESSM	07/03/2017	
APD	STGESSM	STGESSM	20/10/2020	

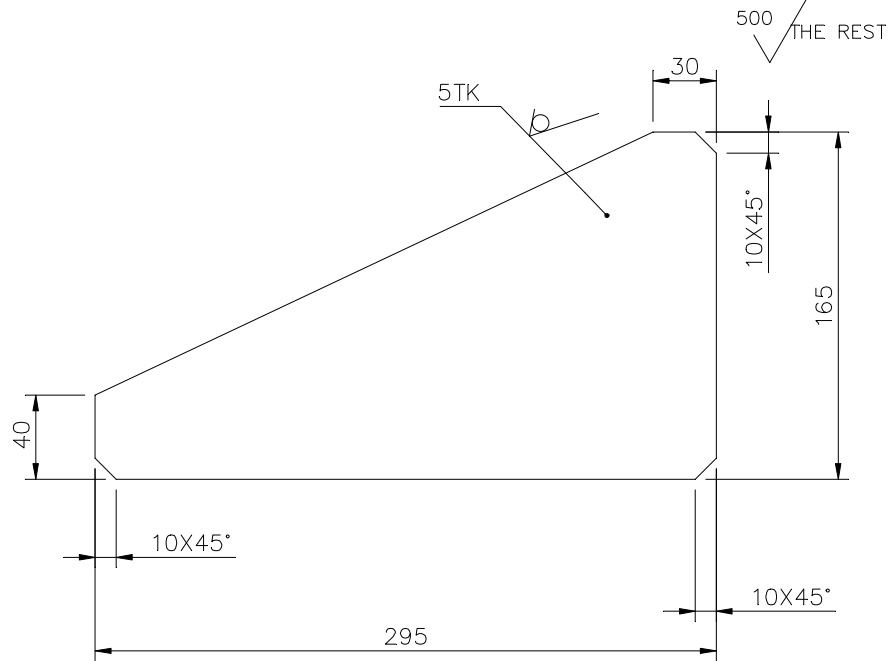
INVENTORY No.	DEPT.TGE	SCALE 1:2.5	WEIGHT(Kg) 1.18	REF.TO ASSY.DRG. 01440401031	ITEM No. 012	No OF ITEMS
	CODE 4133					
TITLE SHEET				DRAWING No. 41440401338		REV
SHEET No.1				No.OF SHEETS!		

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FIRST ANGLE PROJECTION (ALL DIMENSIONS ARE IN mm) FORM DG 39(B)

REV	DATE	ALTERED	REV	DATE	ALTERED	CBOM No.	STATUS
		CHECKED			CHECKED	01440401029	OF DRG
						AGREED DEPT.	NAME
						WTX	AWTXBLM
						WTXBLM	28/09/2020

GRADE OF UNTOL.DIM.M/CGC/M/F.AA0230208 WELDING A7B/C/D AA0621104 GAS CUTTING-T3 AA0621101



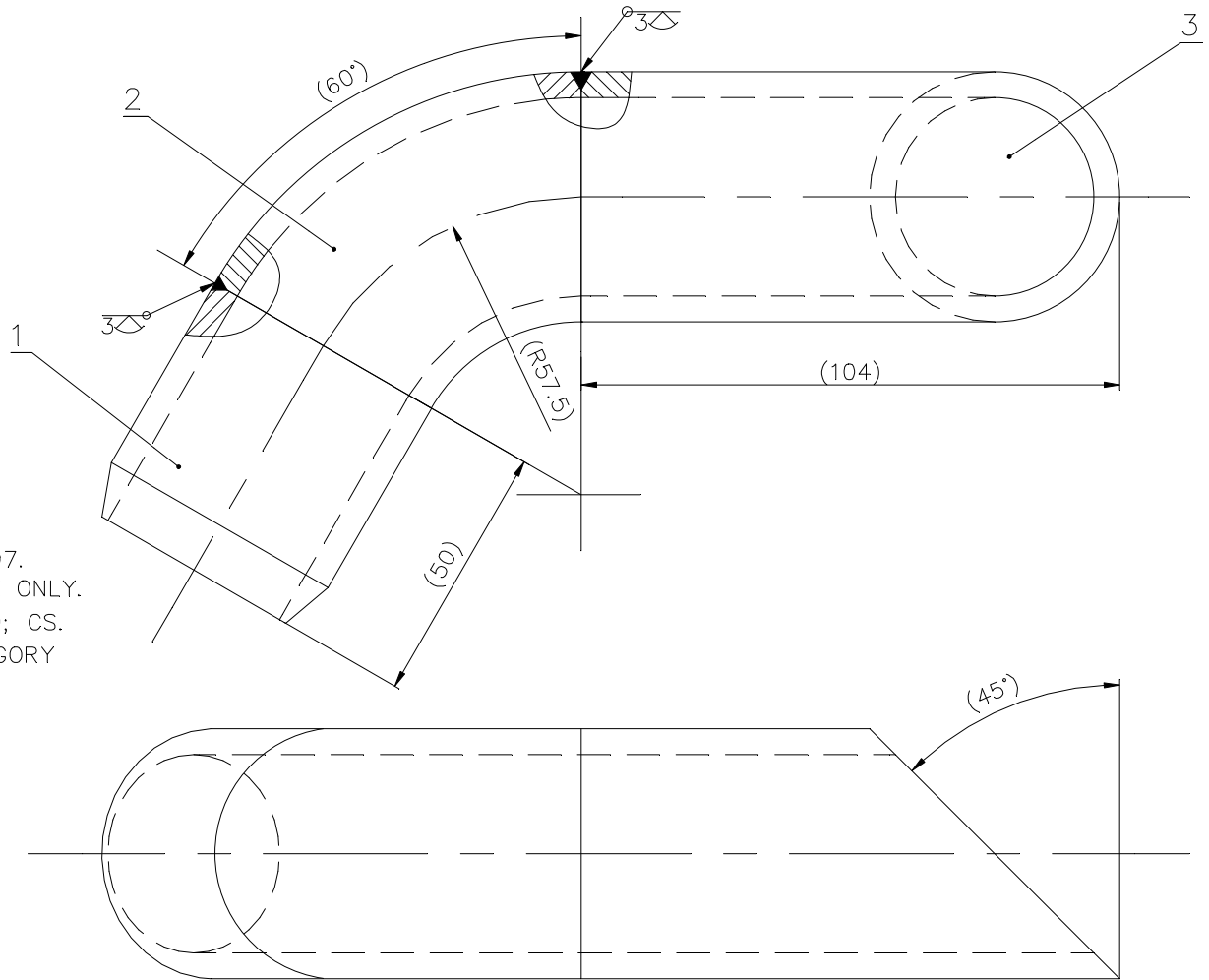
TECHNICAL REQUIREMENT

1. MARK IDENTIFICATION ACCORDING TO HW0400397.

SIGN & DATE	REF.DRG.No.	Bharat Heavy Electricals Ltd Hardwar		DRN	STGEP A	STGEP A	18/05/2020	NO. OF VAR
				CHD	STGER Y	STGER Y	07/09/2020	
				APD	STGESSM	STGESSM	20/10/2020	
INVENTORY No.	DEPT.TGE	SCALE	WEIGHT(Kg)	REF.TO ASSY.DRG.		ITEM No.	No OF ITEMS	
	CODE 4133			1: 2.5	1.255			01440401031
TITLE SHEET				DRAWING No. 41440401351				
				SHEET No.1		No.OF SHEETS!		

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DRAWING NO. 31440401150



TECHNICAL REQUIREMENTS:

1. MARK IDENTIFICATION ACCORDING TO HW0400397.
2. DIMENSIONS IN BRACKETS ARE FOR REFERENCE ONLY.
3. QUALITY GRADE OF WELDS AS PER HW0620099; CS.
4. TEST SCOPE ACCORDING TO HW0850199, CATEGORY OF SERVICE REQUIREMENT 4.

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26-5607-124552/KWU
(ITEM 1,2&3)
REF. DRG NO.

SIGN & DATE

INVENTORY NO.

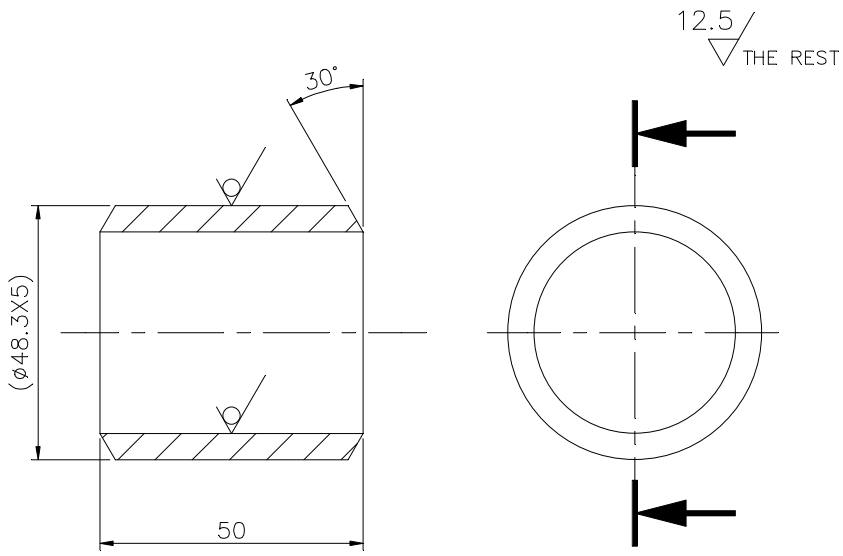
GRADE OF UNTOL. DIM.: -				CBOM NO. 01440401029		STATUS OF DRG.		
M/CG- V/C/M/F AA 0230208	WELDING-A/B/C/D-AA621104		GAS CUTTING-'T3'AA0621101		AGREED DEPT.	NAME	SIGN	DATE
REV.	DATE	ALTERED	REV.	DATE	AWTXTSC	AWTXTSC	AWTXTSC	30/09/2010
		CHECKED						

TYPE OF PRODUCT OR NAME OF CUSTOMER/ PROJECT				B,LESS EXCITER FOR 800MW TG.			
DEPT. TGE				SCALE		WEIGHT(Kg.)	
CODE 4133				1:1		.86	
TITLE				PIPE ASSY.		REF. TO ASSY. DRG.	
DRAWING NO. 31440401150				ITEM NO. 007		NO.OF ITEMS 75, 77	
SHEET NO.1				NO.OF SHEETS 1			

FIRST ANGLE PROJECTION (ALL DIMENSIONS ARE IN mm) FORM DG 39(B)

REV	DATE	ALTERED	REV	DATE	ALTERED	CBOM No. 01440401029		STATUS OF DRG	
		CHECKED			CHECKED	AGREED DEPT.	NAME	SIGN	DATE
						WTX	AWTXIS	AWTXIS	28/08/2010

GRADE OF UNTOOL.DIM.M/CGZ/M/F.AA0230208 WELDING-A/B/C/D AA0621104 GAS CUTTING-T3 AA0621101



TECHNICAL REQUIREMENT:
1. MARK IDENTIFICATION ACCORDING TO HW 0400397.

26-5607-124522/001
REF.DRG.No.

SIGN & DATE



BHARAT HEAVY ELECTRICALS LTD
HARDWAR

	NAME	SIGN	DATE	NO. OF VAR
DRN	STGEVK	STGEVK	05/08/2010	
CHD	STGESSM	STGESSM	05/08/2010	
APD	ATGEVK	ATGEVK	01/10/2010	

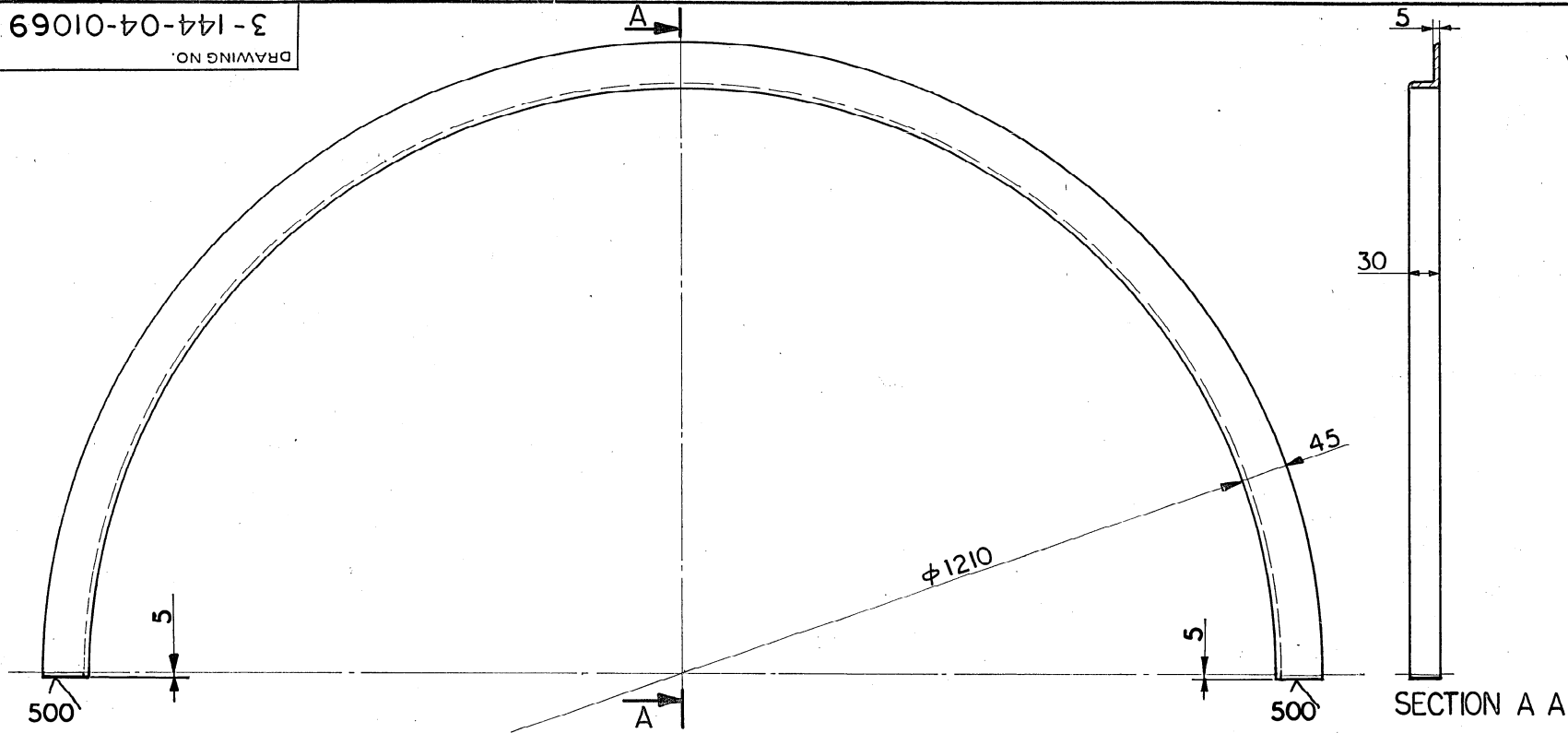
INVENTORY No.	DEPT.TGE	SCALE 1:1	WEIGHT(Kg) .24	REF.TO ASSY.DRG. 31440401150	ITEM No. 001	No OF ITEMS
	CODE 4133					
TITLE PIPE (B'LESS EXCITER FOR 800MW TG)				DRAWING No. 41440401313		
				SHEET No.1 No.OF SHEETS!		

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69010-4-04-01069

DRAWING NO.

✓ THE REST ✓



SECTION A A

DEVELOPED LENGTH = 1982

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TECHNICAL REQUIREMENT

I. IDENTIFICATION ACCORDING TO HW 0400397.

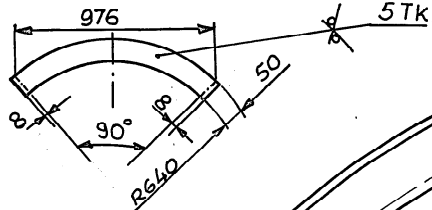
—		—		—		ANGLE		—		—		HW 1012608964		—		5 570		
VAR. 00		REMARKS		ITEM NO.		DESCRIPTION		DRAWING NO.		MATERIAL CODE		UNIT WT. (Kg.)		—		—		
59	04	65	75	25	27	29	58	60	77	32	33	46	54	55	57	66	71	72

GMS/GR. SP. NO. 0-144-04-01011				STATUS OF DRG.				TYPE OF PRODUCT OR BRUSHLESS EXCITER FOR 500 MW TG.													
AGREED DEPT.				NAME				SIGN.				DATE				NO. OF VAR.					
WT				Roy				<i>[Signature]</i>				20/3/90				—					
NAME				SIGN.				DATE				NO. OF VAR.									
I. C. RAO				<i>[Signature]</i>				16-6-90				73, 74									
REV		DATE		ALTERED		CHECKED		DEPT. T.G.E.		GRADE OF UNFOLD DIM		SCALE		WEIGHT (Kg)		REF. TO ASSY. DRG.		ITEM NO.		NO. OF ITEMS	
—		—		—		—		4135		ϕ/M/#		1:5		5-570		1-144-04-01023		003		—	
TITLE ANGLE												DRAWING NO. 3-144-04-01069		ITEM NO. 003		NO. OF ITEMS 75, 77					
CARD CODE												DRAWING NO.		ITEM NO.		NO. OF ITEMS					
—												3-144-04-01069		003		75, 77					
SHEET NO.												NO. OF SHEETS		REV.							
—												—		—							

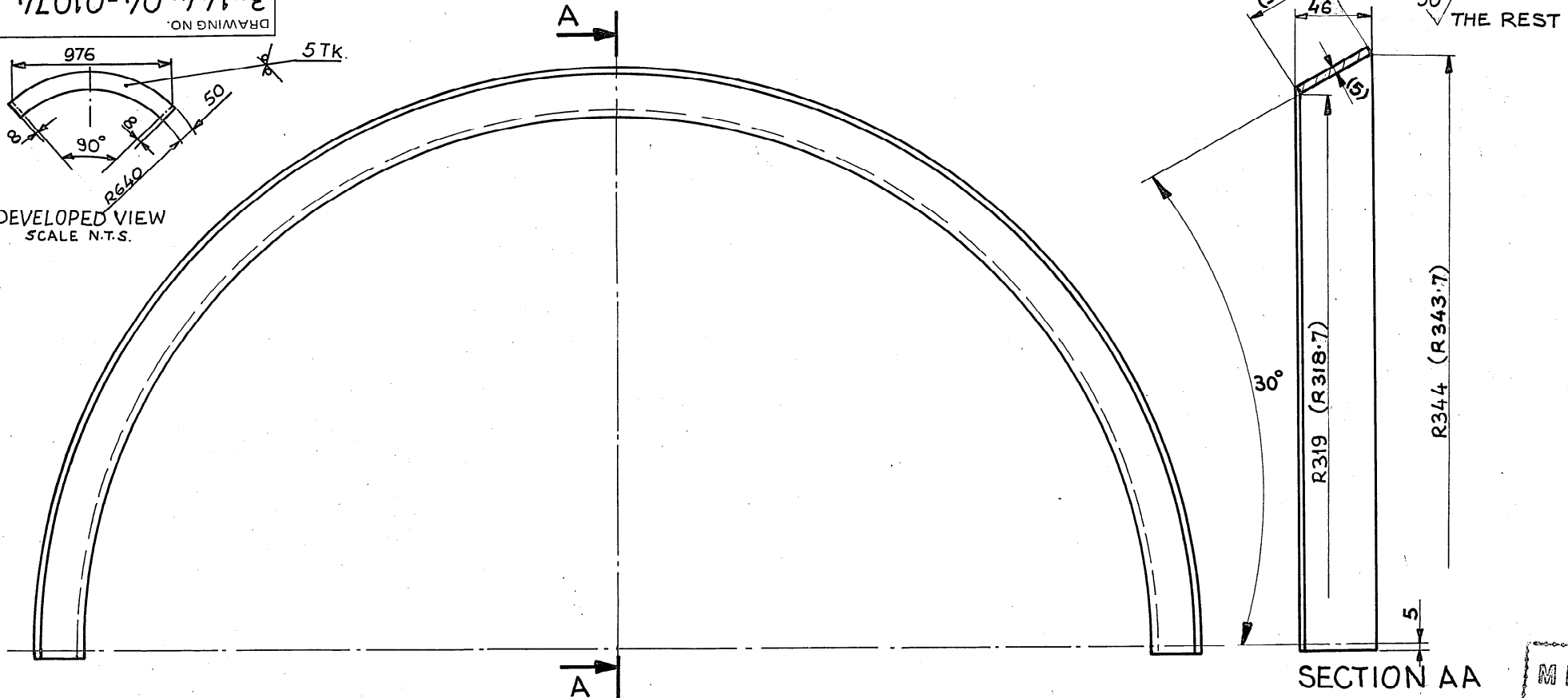
Inventory No. 661-14701
Sign & Date 18/7/90
Ref. Drg. No. 25-5607-98976 b (ITEM NO. 25)

3-144-04-01074

DRAWING NO.



DEVELOPED VIEW
SCALE N.T.S.



SECTION AA

MF

TECHNICAL REQUIREMENTS

1. IDENTIFICATION ACCORDING TO HWO400397.
2. DIMENSIONS IN BRACKETS ARE THEORITICAL.

VAR. 00	REMARKS	ITEM NO.	DESCRIPTION	DRAWING NO.	AA1011808013	2000
59	64 65	75 25 27 29	58 59 60	77 32 33 46	54	66 71
CARD TYPE-3			CARD TYPE-1			CARD TYPE-2

GMS/DRG. NO. 0-144-04-01011		STATUS OF DRG.		TYPE OF PRODUCT OR BRUSHLESS EXCITER FOR 500 MW TG.					
AGREED DEPT. WT	NAME Roy	SIGN. <i>[Signature]</i>	DATE 21/5/90	NAME OF CUSTOMER/PROJECT					
BHARAT HEAVY ELECTRICALS LTD. RANIPUR - HARDWAR.				DRN. T.N.G.	SIGN. <i>[Signature]</i>	DATE 15.5.90	NO. OF VAR.		
				CHD. S.M.	SIGN. <i>[Signature]</i>	DATE 15.5.90	NO. OF VAR.		
				APPD. I.C. RAO	SIGN. <i>[Signature]</i>	DATE 16.6.90	NO. OF VAR.		
REV	DATE	ALTERED	DEPT. T.G.E.	GRADE OF UNFOLDED	SCALE	WEIGHT (Kg)	REF. TO ASSY. DRG.	ITEM NO.	NO. OF ITEMS
		CHECKED	CODE 4233	d/m/y	1:2.5	2.000	1-144-04-01023	005	001
				TITLE PLATE		DRAWING NO. 3-144-04-01074		REV.	
						SHEET NO. 1		NO. OF SHEETS:- 1	

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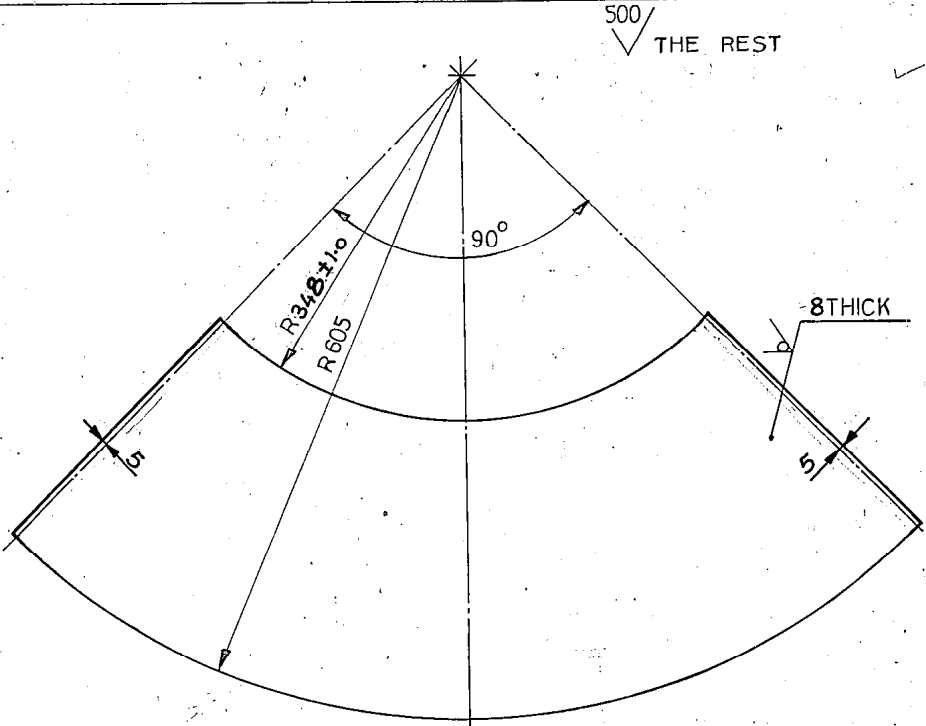
26-5607-99390/KWJ (ITEM NO. 68) Ref. Drg. No.

Sign & Date

Inventory No. 661-14706

FIRST ANGLE PROJECTION (ALL DIMENSIONS ARE IN mm)

REV	DATE	ALTERED	REV	DATE	ALTERED	G.M.S. NO.	STATUS OF DRG.
		CHECKED			CHECKED	0-144-04-01011	U
AGREED		NAME	SIGN	DATE			
DEPT							
WT		ROY	<i>[Signature]</i>	21/5/90			



TECHNICAL REQUIREMENT

1. MARK IDENTIFICATION ACCORDING TO HW 04 00 397.



REMARKS.	ITEM NO.	DESCRIPTION	STD.	VAR.	MATERIAL SPECN	A	C	UNIT WEIGHT
		SHEET			AA1011808056	-	-	12.260
					AA10108	-	-	
					MATERIAL CODE			
					MATERIAL SPECN			

CARD TYPE-3 → → → CARD TYPE-1 → → → CARD TYPE-2

26-5607-99390 (KWU) (ITEM No. 67)
 Ref. Drg. No.
 18/7/90
 Sign & Date
 14696
 Inventory No.

DG-39 **BHARAT HEAVY ELECTRICALS LTD.**
 HARDWAR
RANIPUR - HARDWAR.

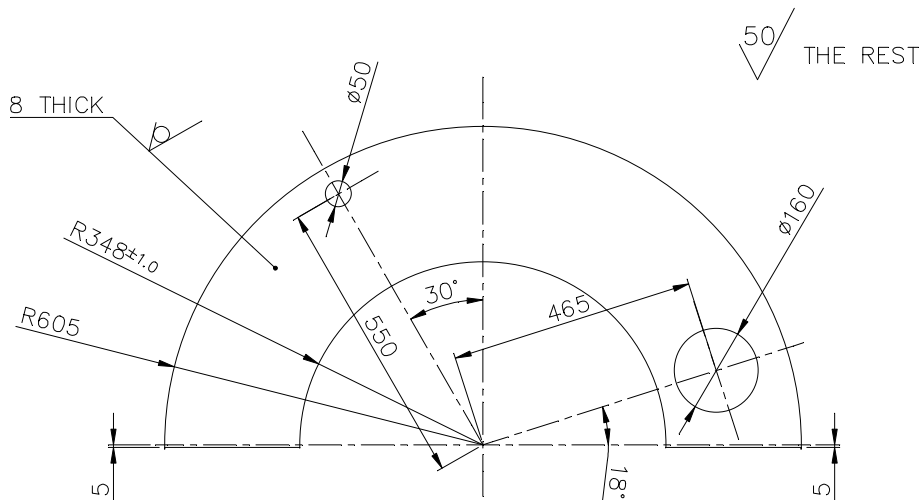
DEPT	CODE	SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.	ITEM NO.
TGE	4133	1:5	12.260	1-144-04-01023	002
SHEET			DRAWN		
(BRUSHLESS EXCITER FOR 500 MW TG.)			NAME		
			SIGN.		
			DATE		
			DRAWN		
			NAME		
			SIGN.		
			DATE		
			CHECKED		
			NAME		
			SIGN.		
			DATE		
			APPROVED		
			NAME		
			SIGN.		
			DATE		

Dimensions to be Controlled Within Limits as Shown.	CARD CODE	DRAWING NO.
Machining Tolerance ± 0.25 mm Unless Otherwise Shown.		4-144-04-01177
Shown Non-Machining Tolerance ± DIM & M/F		
	SHEET NO.	NO. OF SHEETS.
	1	1

FIRST ANGLE PROJECTION (ALL DIMENSIONS ARE IN mm) FORM DG 39(B)

REV	DATE	ALTERED	REV	DATE	ALTERED	CBOM No.	STATUS
		CHECKED			CHECKED	01440401029	OF DRG
						AGREED DEPT.	NAME
						WTX	AWTXIS
						SIGN	DATE
							28/08/2010

GRADE OF UNTOL.DIM.M/CGC/M/F.AA0230208 WELDING A/B/C/D AA0621104 GAS CUTTING-T3 AA0621101



TECHNICAL REQUIREMENT

1. MARK IDENTIFICATION ACCORDING TO HW 0400397.

26-5907-122988/IT-26 REF.DRG.No.

SIGN & DATE



BHARAT HEAVY ELECTRICALS LTD
HARDWAR

	NAME	SIGN	DATE	NO. OF VAR
DRN	STGEVK	STGEVK	05/08/2010	
CHD	STGESSM	STGESSM	05/08/2010	
APD	ATGEVK	ATGEVK	01/10/2010	

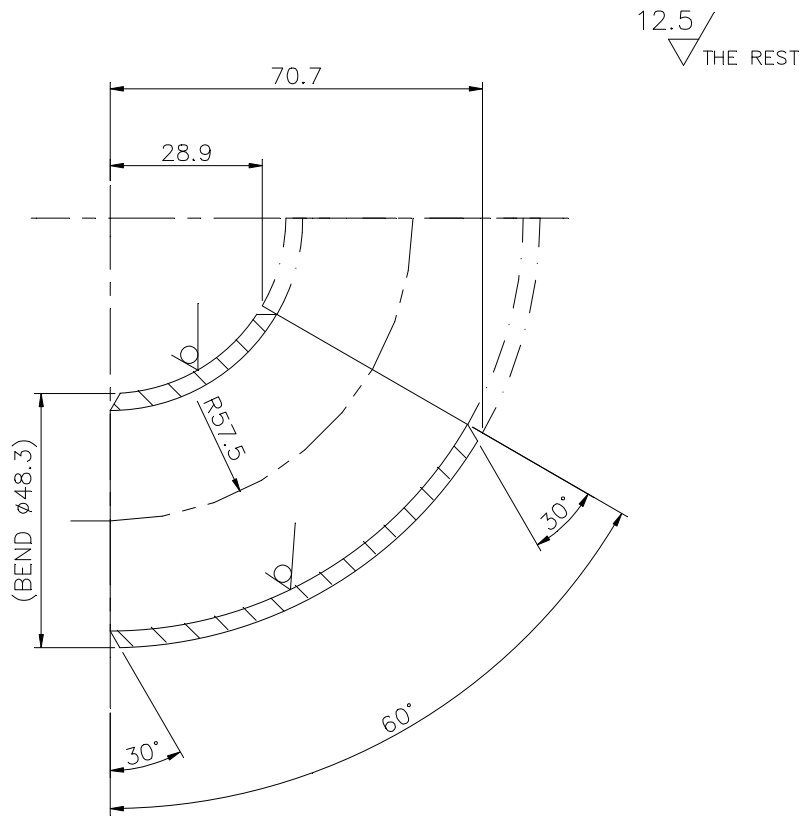
INVENTORY No.	DEPT.TGE	SCALE	WEIGHT(Kg)	REF.TO ASSY.DRG.	ITEM No.	No OF ITEMS
	CODE 4133					
TITLE				DRAWING No.		
PLATE				41440401310		
(B'LESS EXCITER FOR 800MW TG)				SHEET No.1 No.OF SHEETS!		

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FIRST ANGLE PROJECTION (ALL DIMENSIONS ARE IN mm) FORM DG 39(B)

REV	DATE	ALTERED	REV	DATE	ALTERED	CBOM No.	STATUS
		CHECKED			CHECKED	01440401029	OF DRG
						AGREED DEPT.	NAME
						WTX	AWTXIS
							SIGN
							DATE
							28/08/2010

GRADE OF UNTO L.DIM.M/CG/M/F.AA0230208 WELDING-A/B/C/D AA0621104 GAS CUTTING-T3 AA0621101



TECHNICAL REQUIREMENT:

1. MARK IDENTIFICATION ACCORDING TO HW 0400397 AT BHEL WORKS.

26-5607-124522/002 REF.DRG.No.

SIGN & DATE



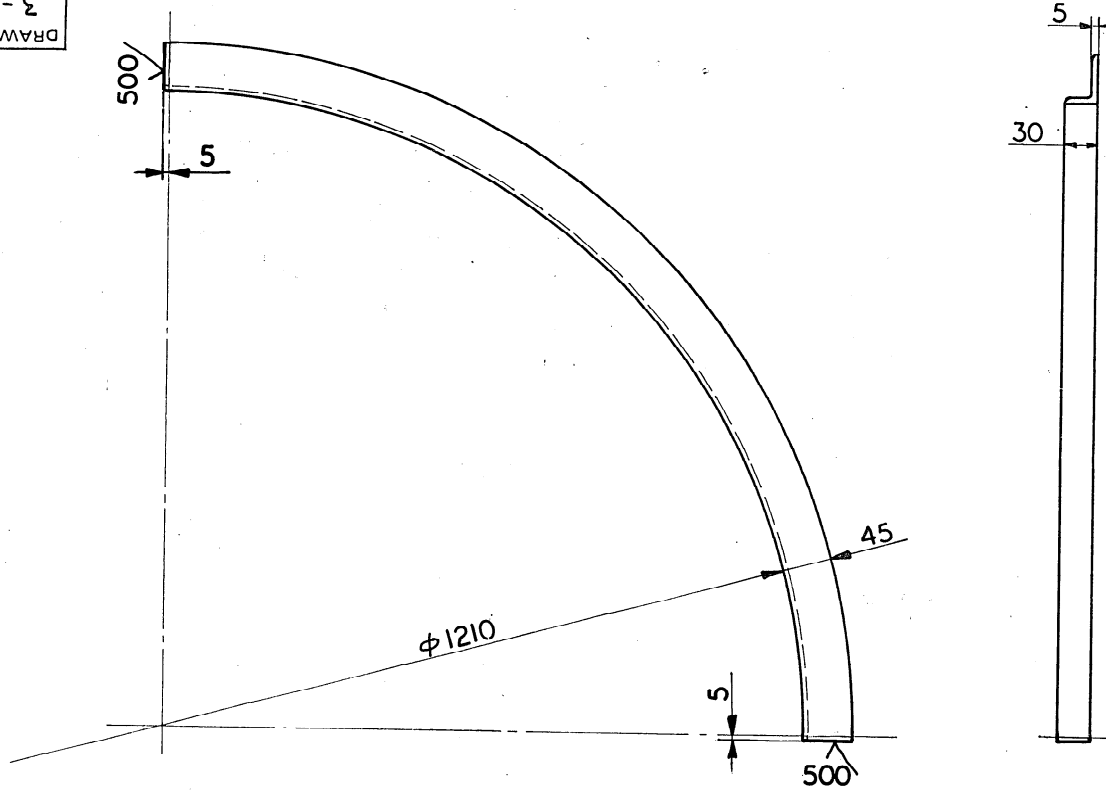
BHARAT HEAVY ELECTRICALS LTD
HARDWAR

	NAME	SIGN	DATE	NO. OF VAR
DRN	STGEVK	STGEVK	15/07/2010	
CHD	STGESSM	STGESSM	05/08/2010	
APD	ATGEVK	ATGEVK	01/10/2010	

INVENTORY No.	DEPT.TGE	SCALE	WEIGHT(Kg)	REF.TO ASSY.DRG.	ITEM No.	No OF ITEMS
	CODE 4133					
TITLE				DRAWING No.		
BEND				41440401315		
(B'LESS EXCITER FOR 800MW TG)				SHEET No.1 No.OF SHEETS!		

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89010-04-01068
DRAWING NO.



DEVELOPED LENGTH = 996

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26-5607-98976 b (ITEM no.30) Ref. Drg No.
18/7/90 Sign & Date
E-1-14700 Inventory No.

TECHNICAL REQUIREMENT

I. IDENTIFICATION ACCORDING TO HW 0400397.

VAR. 00	REMARKS	ITEM NO.	DESCRIPTION	DRAWING NO.	HW 012608964	2810
59	64 65	75 25 27 29	58 59 60	77	29 31 34	55 57 58 65
CARD TYPE-3			CARD TYPE-1		CARD TYPE-2	

GMS/GR. SP. NO.		STATUS OF DRG.	
0-144-04-01011			
AGREED DEPT.	NAME	SIGN.	DATE
WT	ROY	[Signature]	21/5/90

TYPE OF PRODUCT				
OR BRUSHLESS EXCITER FOR 500MW TG.				
NAME OF CUSTOMER/PROJECT				
DRN.	NAME	SIGN.	DATE	NO. OF VAR.
	T. N. G.	[Signature]	20/3/90	-
CHD.	S.M.	[Signature]	27-3-90	-
APPD.	I.C. RAO	[Signature]	16-6-90	73/74

REV	DATE	ALTERED	CHECKED

DEPT. T.G.E.	GRADE OF UNTOLDIM	SCALE	WEIGHT (Kg)	REF. TO ASSY. DRG.	ITEM NO.	NO. OF ITEMS
CODE 4133	φ/M/F	1:5	2.810	1-144-04-01023	001	75/77
TITLE				DRAWING NO.		
ANGLE				3-144-04-01068		
CARD CODE				SHEET NO. NO. OF SHEETS:-		



BHARAT HEAVY ELECTRICALS LIMITED

HEEP-HARIDWAR, UTTARAKHAND (249403)

General Instructions and Standard Terms & Conditions for bidding against Tender Enquiry (GISTC)

For Indian Bidders (Version June-2021, Rev: 06)

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1. GENERAL.

These general terms & conditions shall apply to all the Tender Enquiries, notice inviting tenders, request for quotations concerning the supply of goods and / or rendering of services to Bharat Heavy Electricals Ltd., HEEP, Haridwar (hereinafter referred to as BHEL or the Purchaser). In case of placement of order these conditions will become part of Purchase Order (P.O) until unless the deviations are specifically agreed by BHEL.

2. ORIGIN OF QUOTATION.

- a) The quotation should preferably be from the principal bidder. However tender specific authorized registered dealer/agent can also submit the bid on their behalf, failing which the quotation is liable to be ignored. BHEL prefers to deal directly with the principal manufacturers.
- b) An agent cannot quote on behalf of more than one principal in the same Tender Enquiry.

3. SUBMISSION OF TENDER.

- a) Bid / Quotation must be enclosed in sealed cover on which tender enquiry number and the due date MUST BE written and be invariably sent under REGISTERED POST / SPEED POST / COURIER / Dropped in the Tender Box: addressed as follows:

Quotation against Enquiry No. _____

Dated: _____

Due on: _____

To,

**THE HEAD OF MATERIALS MANAGEMENT,
Heavy Electrical Equipment Plant,
Bharat Heavy Electricals Limited,
HARIDWAR-249403 (Uttarakhand), INDIA.**

- b) TENDER ROOM is located at: Room No. - 415, 4th Floor, Main Admin. Building, BHEL-HEEP, Haridwar.

Quotations / Bids not in accordance with General Instructions and Standard Terms & Conditions are likely to be ignored.



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- c) In case of Three / Two Part Bid, technical bid containing technical offer, duly signed and un-priced copy of the Price Bid should be kept in one envelope. Price Bid containing only the price should be kept in a separate envelope. All envelopes indicating Part-1 or Part-2 or Part-3 as the case may be to be put in a bigger envelope. Please note that un-priced bid should be the exact replica of price bid but without prices.
- d) The bid / quotation must be posted before due date, keeping allowance for postal transit time. Quotations sent by any mode but not received in time will be ignored. Tender received through authorized E-mail is also acceptable. However, in time submission of tender in tender box shall be the responsibility of the bidder, sent through any mode. Documents submitted with the offer / bid shall be signed and stamped in each page by authorized representative of the bidder.
- e) Any additional documents submitted by supplier / bidder, during processing of registration application / tender or after placement of order shall not be accepted unless it is submitted with forwarding letter and duly signed and stamped.
- f) The bids of the bidders who are on the banned list and also the bids of the bidders, who engage the services of the banned firms, shall be rejected. The cutting / overwriting in the bid / offer must be duly attested by the signatories to the bid. The list of firms banned by BHEL is available on BHEL web site www.bhel.com.
- g) Being PMD vendor, if you are not quoting against this tender enquiry, please send your regret letter positively for our reference with valid reasons for not participating in the tender enquiry. Repeated lack of response on the part of bidder may lead to deletion such PMD vendor from BHEL's approved vendor list.
- h) The bidders will submit Integrity Pact, duly signed by its authorized signatory, along with their bids wherever estimated tender value is Rs. 2 Crore or more.
- i) In case of open tender, technically qualified unregistered bidders may apply online for registration through <http://www.bhel.com/index.php/vender>.
- j) BHEL reserves the right to award tendered quantities among more than one bidder (after acceptance of L1 price by the other bidders). BHEL can also consider awarding of part of the tendered quantity to other than L-1 bidder at L1 counter offered rates, if the quantity offered by the L-1 bidder is less than the quantity tendered for.
- k) In case of e-Tendering (Online bidding through e-portal), offline bid submitted in hard copy or in any other form by the vendor / supplier will not be accepted and will be rejected out rightly. Only e-portal bid will be accepted.

4. TENDER OPENING.

Tender opening is scheduled to start in the Tender Room at 2:00 PM, on the due date. Therefore, bid / quotations must reach this office / tender Box latest by 1:45 PM on due date. Only participating bidders are allowed to attend tender opening. **TENDERS RECEIVED AFTER THE SPECIFIED TIME OF THEIR 'SUBMISSION' WILL BE TREATED AS LATE TENDERS AND SHALL NOT BE CONSIDERED UNDER ANY CIRCUMSTANCES.** The bidders or their authorized representatives may be allowed to attend tender opening if duly authorized by their principals, through a tender specific letter on that particular day. General authorization letter is not acceptable.

Note: - Foreign bidders willing to attend the bid opening has to provide the requisite documents to the concerned Purchase executives for arranging gate pass for them.

5. SPECIFICATION, DRAWINGS & STANDARD.

- a) Bidders must give their detailed specification in the quotation along with relevant technical literature / catalogue etc. against the tender enquiry.
- b) The Bid should be accompanied with relevant copies of catalogues, drawings or specification as per tender enquiry.



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If these documents are not furnished, the offer is liable to be rejected.

- c) Wherever national / international (N/IN) standards are referred, the latest N/IN standards are to be followed. Mention year & date of standard revision that shall be followed for the supply.
- d) All Drawings and Standards are proprietary of BHEL. It must not be used in anyway detrimental to the interest of BHEL or without permission of BHEL.

6. PRICE SCHEDULE.

- a) Kindly quote your prices in figures and words both. In case of any discrepancy in value, the prices quoted in words shall be considered for evaluation and establishing L1 status.
- b) Prices quoted should not be more than the prices quoted to any other BHEL units / offices / divisions. Vendor to submit copy of latest Purchase Order placed by any unit of BHEL for similar items in the technical bid. In case no order has been placed on such items, specific confirmation that no order has been placed on such items should be provided.
- c) Prices should be quoted on F.O.R. Destination basis. Transit insurance shall be arranged by BHEL and not to be included in the prices. The offers quoted on other than F.O.R destination basis may result in non-consideration of such bids.
- d) In case BHEL accepts the EX-Works prices, such offers will be loaded by 1.5% of EX-Works value towards freight or with actual freight charges as per BHEL freight rate contract whichever is higher.
- e) In case of Indigenous items covered by DGS & D Rate Contract, the bidders should submit latest valid copy of the rate contract along with bid / quotation
- f) Applicable **IGST / CGST / SGST** and any other statutory levy should be indicated separately and clearly in the bid / quotation.

- g) Bidders can dispatch goods through any Indian Bank Association approved transporters having their branch at HARIDWAR / destination. If material is dispatched through other than Indian Bank Association approved transporter, material to be delivered on door delivery BHEL Stores basis.
- h) In case of dispatch of material through any other unapproved transporter, payment shall be made only after receipt of material and any additional charges payable to the transporter shall be to the bidder's account.
- i) Any demurrage / godown rent payable to the transporter / or to godown's owner due to any delay attributed by the supplier shall be recovered from supplier's account.
- j) Currency of Evaluation shall be INR.

NB: Financial evaluation of L1, L2Status will be on the basis of Landed Cost to BHEL.

7. REVERSE AUCTION.

Wherever RA is declared in the special terms and conditions of tender enquiry, following shall be applicable and Bidders to confirm the same:

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

Price bids of all techno-commercially qualified bidders shall be opened and same shall be considered as initial bids of bidders in 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."

8. DELIVERY TERMS.

- a) Goods shall be delivered on 'FOR Destination' basis to the named destination unless otherwise called for in the tender enquiry.
- b) Loading on account of 3rd party inspection charges in case of Indian bidders shall be 0.20%.

Quotations / Bids not in accordance with General Instructions and Standard Terms & Conditions are likely to be ignored.



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9. LIQUIDATED DAMAGES (LD) FOR LATE DELIVERY.

a) Where items of Purchase Order are independently usable.

Liquidated Damages (LD) for Late Deliveries shall be applicable @0.5% per week or part thereof on the value of respective delayed supplies subject to a maximum of 10% of the value of respective delayed supplies. Value of delayed supplies will mean the Gross Value payable to the vendor (Before LD) against such supplies excluding taxes and duties.

b) Where the total items are required for a main equipment and items are interdependent.

Liquidated Damages (LD) for Late Deliveries shall be applicable @0.5% per week or part thereof on total value of Purchase Order subject to maximum of 10% of the total value of Purchase Order. Purchase Order value for this purpose shall be the Total Gross Value payable to the vendor (Before LD) excluding taxes and duties.

c) Bidders are requested to quote the best delivery meeting the delivery requirements. BHEL reserves the right to reject the offers not meeting BHEL's delivery requirement.

d) Commencement of delivery period shall be reckoned from the date of PO / LOI or any other agreed milestone.

e) Bidder shall deliver the goods in the manner and schedule agreed under the terms and conditions of Purchase order.

f) **DELIVERY IN CASE OF REJECTION:** In case the material is rejected, then date of replacement will be considered as the actual date of delivery.

g) **DELIVERY AGAINST BANK DOCUMENTS:** In case payment terms quoted by bidder are documents through bank, and the delivery terms being "FOR Haridwar / FOR Transporter Go-down" then date of delivery will be date of intimation by transporter / bidder of delivery of material at Haridwar for the LD purpose.

h) Where the payments are through bank, the documents may be presented for negotiation to BHEL authorized / nominated bank.

i) Payment of Liquidated Damages (LD) shall not in any way relieve the vendor from any of its obligations & liabilities under the contract.

10. PAYMENT TERMS.

a) BHEL's standard payment term is Payment after receipt and acceptance of materials / items at HEEP, BHEL-Store or at desired destination unless otherwise specified in Special Terms attached to the tender enquiry.

b) BHEL reserves the right to accept or reject the offer of the bidder who quotes the payment term other than BHEL's standard payment term.

c) Loading on account of deviation in payment terms shall be done as per extant rules of BHEL-Haridwar.

d) 100% payment along with taxes, freight & insurance will be made after receipt and acceptance of material and within 75 days from the date of invoice subject to submission of non-discrepant documents within 15 days of supply as per terms and conditions of Purchase Order. In case any discrepancy found in the documents, BHEL will notify the same to vendor within 7 days of receipt. Vendor has to clear all the discrepancies in one go within 7 days thereafter else the payment of vendor may get delayed.

e) For MSEs (covered under MSME Act) which are registered and periodically renewed with BHEL, the payment will be made within 45 days or as prescribed in the relevant act.

f) Adherence to the above time schedule of payment is contingent upon Vendor complying with GST Rules w.r.t availment of Input Tax Credit by BHEL.

g) In case GST credit is delayed / denied to BHEL, due to non / delayed receipt of goods and / or tax invoice or expiry of the timeline prescribed in GST Law for availing such ITC, or any other reason not attributable to BHEL, GST amount shall be recoverable from Vendor along with interest levied / leviable on BHEL.

h) The taxes and duties that are reimbursed would be the ones applicable as on the contractual Purchase order delivery date or the amount actually paid whichever is less.



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i) **The loading criteria for the different payment terms shall be as under;**

Payment Terms	Days of Loading
After Receipt & Acceptance of material within 75 days of supply.	No Loading
Against Delivery at BHEL-Stores Haridwar.	45
Against documents through bank (CAD):	45
Letter of Credit (LC)	120
Usance LC	No Loading if usance period is > 120 Days.
	Loading of days' difference i.e. difference between 120 days and usance period if the usance period is < 75 days.
Advance	Delivery Period + 120 Days - Advance Payment Days.

11. TAXES & DUTIES.

- a) The bidder to specify in their offer (part 1 bid) the category of their registration under GST like Registered, Unregistered and composite dealer.
- b) The provisional GST registration number of Bharat Heavy Electrical Ltd, Heavy Electricals Equipment Plant, Ranipur, Haridwar is "05AAACB4146P1ZL" with state Code as "05" and State Name as "Uttarakhand".
- c) Please quote our provisional GST registration number in all invoices raised for supply of goods and services under GST regime and also ensure filing of timely return and payment of tax and compliance of other applicable provisions on supplier under GST regime.
- d) No GST will be reimbursed to unregistered or composite dealer. In the event, any GST is quoted by composite dealer, the same shall be added to the cost of supply in evaluating the bid.
- e) Since, input credit of GST will be available to BHEL-Haridwar only after correct filing of return and payment of applicable GST by supplier, reimbursement of GST shall be made by

BHEL-Haridwar on matching of vendor inputs at GST portal, ensuring availability of input credit to BHEL Haridwar. Payment of GST will be made to vendor after matching of input credit and vendor to ensure submission of their invoices along with consent to accept payment of tax after such matching in all cases where bills are submitted directly to BHEL-Haridwar or through bank or under LC or through any other mode.

- f) In the event of any disallowance of input credit or applicability of interest or any other financial liability arises on BHEL-Haridwar due to any default of supplier under GST, such implication shall be to supplier's account.
- g) In the event of any change in the status of the vendor after the submission of the bid but before the supply, GST applicable at the time of supply or in the bid, based on the registration status of the vendor, whichever is lower shall be payable.
- h) Where ever applicable If PAN (Permanent Account Number) of the recipient is not available, income tax is deductible either at the normal rate or at the rate of 20 percent, whichever is higher as per Section 206AA of Indian Income Tax Act 1961.
- i) The bidder shall clearly indicate HSN (*Harmonised System Nomenclature*) / SAC (*Service Accounting Code*), its description and applicable rate of GST for each item in his techno-commercial bid.
- j) Statutory Variation in Taxes & duties as applicable at the time of supply shall be payable. However, in the event of no change in law but bidder quoting certain tax structure in bid document which is lower than the applicable one, such amount shall be the maximum amount of tax that can be claimed by bidder.
- k) **IMPORTED GOODS OFFERED BY INDIAN BIDDERS AGAINST DEALER INVOICE:** Wherever the material being offered is imported, the bidder must quote the prices inclusive of IGST. The rate and value of IGST as included in the price must be indicated separately. In case quantum of IGST is not mentioned by the bidder the same will not be considered for



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evaluation. However, bidder will have to pass on the benefit of IGST to BHEL at the time supply.

- l) In case of directly dispatchable items to Customer's Site, BHEL-Haridwar will inform the GST registration number of the respective customer which must be mentioned on the vendor's invoice. Vendor to ensure availability of such information from BHEL-Haridwar before dispatch of any material. However, while filing GSTN-1, BHEL Haridwar GSTN number to be quoted.

Note: - Vendors must ensure compliance of all the applicable rules and procedure as envisaged in the GST Regime. Any loss to BHEL-Haridwar due to fault / non-compliance by the vendor will be to the vendor's account.

12. BANK GUARANTEE.

In case the bank guarantees are required to be deposited towards security deposit/performance guarantee or for any other purpose as per the terms of this tender enquiry, such bank guarantees of the requisite value in the denominated currency of the purchase order should be from one of the Indian branch of BHEL consortium banks and the bank guarantee should be in the proforma as prescribed by BHEL. The proforma of bank guarantee and the list of consortium banks are displayed at BHEL website www.bhelhwr.co.in. However, in case the bank guarantee is not from BHEL consortium banks, then the bidder has to get the bank guarantee confirmed from one of the Indian branch of BHEL consortium banks and the bank charges for such confirmation will be borne by the bidder.

13. GUARANTEE / WARRANTY AND CORRESPONDING REPAIRS / REPLACEMENT OF GOODS.

Goods shall comply with the specifications for material, workmanship and performance. Unless otherwise specified, the warranty shall be for a period of 18 months from the date of receipt. If the delivery is found non-compliant during the warranty period, leading to rejection, the Seller shall arrange free replacement / repair of goods, within one month from the date of intimation or any mutually agreed period. The rejected goods shall be taken away by the Seller at his cost and

replaced on Delivered Duty Paid (DDP) (FOR - BHEL Stores / designated destination basis) within such period. In the event of the Seller's failure to comply, Purchaser may take action as appropriate, including Repair / Replenish rejected goods & disposal of rejections, at the risk & cost of the Seller. In case the defects attributable to Seller are detected during processing of the goods at BHEL or at our subcontractor's works, the Seller shall be responsible for free replacement / repair of the goods as required by BHEL.

- b) **RETURN OF REJECTED MATERIAL FOR REPLACEMENT:** The bidder shall have to pay 5% incidental charges while taking back supplied material if it is found rejected on receipt. The rejected material shall be sent back only after receipt of replacement / submission of BG / refund of amount paid.

14. QUALITY REQUIREMENT.

Your bid / quotation should have specific confirmation regarding meeting all our quality requirements such as. (i) Test Certificate (TC), (ii) Guarantee Certificate (GC) / Warranty Certificate (WC), (iii) Quality Plan (QP) (if applicable); and (iv) Pre-Dispatch Inspection at your works (if applicable).

15. VALIDITY.

The quotation should be valid for a minimum period of 90 days effective from the date of opening of tender, unless otherwise specified in the tender enquiry.

16. RIGHT OF ACCEPTANCE.

- a) **BHARAT HEAVY ELECTRICALS LIMITED HARIDWAR** reserves the right to reject any or all the bids / quotations without assigning any reason thereof. BHEL also reserves the right to increase or decrease the tendered quantities. Bidders should be prepared to accept order for reduced quantity without any extra charges.
- b) Any discount / revised offer / bids submitted by a bidder on its own shall be considered, provided it is received on or before the due date and time of offer / bid submission (Part-1). Conditional discounts shall not be considered for evaluation of tenders.



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- c) Unsolicited discounts / revised offers / bids given after Part-1 bid opening shall not be accepted. No change in price will be permitted within the validity period asked for in the tender enquiry.
- d) In case of changes in scope and / or technical specification and / or commercial terms & conditions having price implication, techno-commercially acceptable bidders shall be asked by BHEL to submit the impact of such changes on their price bids. In case a bidder opts to submit revised price bid instead of impact called for then the latest price bid shall prevail. However, in both situations, original price bid will be necessarily opened.
- e) The bidder whose bid is technically not accepted will be informed & EMD wherever submitted shall be returned after finalization of contract. EMD shall be forfeited in the event of bidder opting out after tender opening.
- f) BHEL reserves the right to short close the existing Purchase Order / Rate Contract / Work Order or any extension thereof at any stage.

17. TRANSIT INSURANCE.

- a) Transit Insurance will be covered by BHEL under its open Insurance Policy. Seller shall inform dispatch particulars (Purchase Order, RR /GR, Invoice value etc.) to "Finance department (Store bill Section), BHEL Ranipur, Haridwar (Uttarakhand-India) with value of consignment to the Purchaser within 07 days of dispatch for BHEL to arrange insurance coverage in its policy. Failure on the part of seller to inform dispatch particulars will make him liable to pay for any transit damages / losses suffered by the Purchaser.
- b) If Quoted Prices are inclusive of transit insurance, no weightage shall be given while evaluating the bids for Cost of Insurance, being in BHEL Scope.

18. RISK PURCHASE.

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

19. FORCE MAJEURE CLAUSE.

Notwithstanding any other thing contained anywhere else in the contract or PO (Purchase Order), In case the discharge of obligation under the contract by either party is impeded or made unreasonably onerous, neither party shall be considered in breach of the contract to the extent that performance of their respective obligation is prevented by an event of Force Majeure that arises after the effective date (PO date).

In the above clause, Force Majeure means an event beyond the control of the parties to the contract which prevents a party from complying with any obligation of the contract including but not limited to:

- Act of God (Such as but not limited to earthquake, drought, tidal waves, floods etc.).
- War (whether war be declared or not), Hostilities Invasion, Act of foreign enemy etc.
- Rebellion, revolution, insurrection, civil war etc.
- Contamination of Radio Activity from any nuclear fuel or from any other nuclear waste or any other hazardous materials.
- Riots, commotions, strike unless restricted to the employees of supplier.
- Acts of terrorism.



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- g) Other unforeseeable circumstances beyond the control of the parties and which the affected party cannot avoid even by using its best efforts.
- h) Cancellation of contract by customer.
- i) Change in law / government. Regulation making the performance impossible.
- j) Pandemic or Epidemic.

The party claiming to be affected by force majeure shall notify the other party in writing immediately without delay on the intervention and on the cessation of such circumstances.

Irrespective of any extension of time, if an event of force majeure occurs and its effect continues for more than 180 days the affected party shall have right to cancel the contract.

As soon as reasonably practicable following the date of commencement of a Force Majeure Event, and within a reasonable time following the date of termination of a Force Majeure Event, either Party invoking it shall submit to the other Party reasonable proof of the nature of the Force Majeure Event and of its effect upon the performance of the Party's obligations under this Agreement.

The party shall, and shall ensure that its Subcontractors shall, at all times take all reasonable steps within their respective powers and consistent with Good Operating Practices (but without incurring unreasonable additional costs) to:

- a) Prevent Force Majeure Events affecting the performance of the party's obligations under this Agreement.
- b) mitigate the effect of any Force Majeure Event and
- c) Comply with its obligations under this Agreement.

If the war like situation has developed in a country where a seller's works is located in this P.O. or there is political instability and Indian Embassy located in that country forbids or advises for not having any business dealing with the sellers located in such zone / region/ country, then BHEL reserves the right to cancel the order.

20. NON-DISCLOSURE AGREEMENT.

All Drawing and Technical Documents relating to the product or it's manufacture submitted by one party to the other, prior or

subsequent to the formation of contract, shall remain property of the submitting party. Drawing, technical documents or other technical information received by one party, shall not without the consent of the other party, be used for any other purpose than that, for which they were provided. Such technical information shall not without the consent of the submitting party, otherwise be used or copied, reproduced, transmitted or communicated to a third party. Patterns supplied by BHEL will remain BHEL's property which shall be returned by the bidder on demand to BHEL. Bidder shall in no way share or use such intellectual property of BHEL to promote his own business with others or to gain a commercial advantage. BHEL reserves the right to claim damages from the bidder, or take appropriate action as deemed fit against the bidder, for any infringement of the provisions contained herein as available under law or equity.

21. SETTLEMENT OF DISPUTES / 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.

22. WHARFAGE / DEMURRAGE RESPONSIBILITY.

In the event of delay in receipt of documents by Manager (Stores-Shipping) BHEL-Haridwar and in case where dispatches are made through Unapproved Transporter the sole responsibility for wharfage / demurrage for such delay shall be that of supplier.

23. CONDITIONS FOR AVAILING MICRO & SMALL ENTERPRISES (MSE'S) BENEFITS.

- a) "MSE Suppliers can avail the intended benefits only if they submit along with the offer, attested copies of either EM II certificate having deemed validity (**five years** from the date of issue of acknowledgement in EM II) or valid NSIC certificate or EM II certificate along with attested copy of a CA certificate



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(Format enclosed at annexure-1 where deemed validity of EM II certificate of five years has expired) applicable for the relevant financial year (latest audited). Date to be reckoned for determining the deemed validity will be the date of bid opening (Part 1 in case of two-part bid) or vendor has to give Udyog Adhar Memorandum (UAM). Non submission of such documents will lead to consideration of their bid at par with other bidders. No benefit shall be applicable for this enquiry if any deficiency in the above required documents is found or the requisite documents are not submitted before price bid opening. If the tender is to be submitted through e-procurement portal, then the above require document are to be uploaded on the portal. Documents should be notarized or attested by a Gazetted officer. **UAM need not required to be notarized or attested.**

b) Any new supplier will be eligible for registration with BHEL as MSE supplier provided at least any one of the following documents are submitted along with application for registration: -

1. Udyog Adhar Memorandum (UAM).
2. Valid National Small Industries Commission (NSIC) Certificate.
3. Entrepreneurs Memorandum part II (EM II) certificate (valid based on deemed validity of 5 years) or
4. EM II certificate along with attested copy of CA Certificate (as per prescribed format at annexure-A) applicable for the relevant financial year (latest audited), where the deemed validity of EM II is over.
5. However, credentials of all MSE suppliers will be verified before advancing the intended benefits.
6. MSE bidders claiming SC/ST status will have to submit SC/ST certificate of the Proprietor from competent authority. Attested (notarized or attested by Gazetted officer) copy to be submitted along with the offer.
7. In case techno-commercial accepted bidders include MSE source and their prices (based on landed cost – considering quoted prices) are within the price band of 15% w.r.t. L-1 bidder, then BHEL can offer **25%** of quantity of respective item (rounded off to nearest number) to MSE bidders at L-1 price and in case, more than one MSE bidder is in 15 % band and the same is accepted by more than one MSE bidders then **25%** quantities of respective items will be considered for ordering on proportionate basis amongst MSE bidders.
8. There will be minimum of **3%** reservation for women owned MSEs within the above mentioned 25% reservation.
9. The reservation for MSEs owned by SC/ST will be **6.25%** { 25% out of target of 25% - refer para 4 of Public Procurement Policy for the Micro and Small Enterprises(MSEs)}.
10. The definition of MSEs owned by Women Entrepreneurs is clarified as under:
 - a) In case of proprietary MSE, proprietor shall be Woman.
 - b) In case of partnership MSE, the Woman partners shall be holding at least 51% of share in the unit.
 - c) In case of Private Limited companies, at least 51% share shall be held by Women promoters.
11. The definition of MSEs owned by SC/ST is clarified as under:
 - a) In case of proprietary MSE, proprietor(s) shall be SC/ST.
 - b) In case of partnership MSE, the SC/ST partners shall be holding at least 51% of shares in the unit.
 - c) In case of Private Limited companies, at least 51% share shall be held by SC/ST promoters.
12. While distributing the **25%** quantity amongst MSE bidders the decimal points in quantity shall be ignored for all the bidders except the L-1 amongst MSE bidders. Balance quantity after allocating the quantity to other MSE bidders ignoring the quantities in decimal, shall be given to L-1 (amongst MSE) bidder. However, if there are more than one MSE bidder at the same price level than preference for additional quantities due to ignoring off the decimal (as mentioned above) shall be given to the bidder offering favorable terms to BHEL and if the conditions offered are also same then preference will be given to the bidder having high SPR rating.
13. In case there are more than one MSE bidders (with different landed cost to BHEL) within 15% price band of lowest bidder and quantity to be offered is 1 no. only, then preference shall be given to the MSE bidder with lowest landed cost.
14. In case there are more than one MSE bidders (with same landed cost to BHEL) within 15% price band of lowest bidder and quantity to be offered is 1 no. only, then preference shall be given first, based on the favorable terms in the bid and in case terms are also same, the bidder with high SPR rating shall be given preference.
15. If L1 bidder is MSE bidder, entire quantity will be given to such MSE bidder only.

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16. Note: It may however be noted that MSE guidelines as on date (Date of Technical Bid Opening Part-1) shall prevail.

17. "As per the OM No. F.No. 1(2)(1)/2016-MA dtd. 09.02.2017 issued from the Office of Development Commissioner (Micro, Small & Medium Enterprises), "Traders and agents should not be allowed to avail the benefits extended under the PP Policy."

In view of this, it is clarified that benefits of MSE (such as EMD Waiver, Tender fee exemption, Price preference, Payment preference etc.) will be given only to those MSE Vendors who are manufacturers of offered items against the NIT. No MSE benefits shall be provided to Agents / Stockists / Dealers / Traders etc. for the items offered but not manufactured by themselves."

24. INFORMATION TO THE BIDDERS.

a) Purchase related information is available at our Business-to-Business (B2B) Portal available on our website <https://hwr.bhel.com>. The user ID & password can be obtained by sending a request to concerned purchase executives.

b) Intimate your change in mail address or communication address or changes, if any, by email to AGM (SDX/MM) giving your bidder Code.

c) Please resolve your rejections and unexecuted overdue purchase order immediately which are posted at our B2B Portal, which can be visited through our site <https://hwr.bhel.com>

d) Copy of this Tender Enquiry is being sent through the post.

e) 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 extant policies/guidelines.

f) Supplier must upload digitally signed e-Invoice on B2B portal for processing of Bills.

In other cases, inked signed hard copy of Invoice to be submitted for processing of Bills.

25. MAKE IN INDIA (GOVT-NOTIFICATION).

A. This tender enquiry shall be governed by notification no. P-45021/2/2017-PP (BE-II) dated 04.06.2020 of government of INDIA and subsequent circulars issued afterwards. Accordingly, the minimum local content, the margin of purchase preference and the procedure for preference to make in INDIA shall be adhered.

B. The margin of purchase preference shall be 20%.

- 'Class-I local Supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content equal to or more than 50%, as defined under this order.
- 'Class-II local Supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%, as defined under this order.
- 'Non- local Supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than or equal to 20%, as defined under this order.

C. Vendor to specifically confirm if they are Class-I or Class-II local supplier or not as per above mentioned notification. Accordingly, the 'Class-I local supplier' / 'Class-II local Supplier' at the time of tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for 'Class-I local supplier' / 'Class-II local Supplier', as the case may be. They shall also give details of the location(s) at which the local value addition is made.

D. In cases of Procurement for a Value in Excess of Rs. 10 Crores, the 'Class-I local supplier' / 'Class-II local Supplier' shall be required to provide a Certificate from the Statutory Auditor or Cost Auditor of the Company (in the case of companies) or from a practicing Cost Accountant or practicing Chartered Accountant (in respect of suppliers other than companies) giving the percentage of Local Content.



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E. Requirement of Purchase Preference:

Purchase preference shall be given to 'Class-I local supplier' in procurements undertaken by procuring entities in the manner specified hereunder -

a. In the procurements of goods or works, which are covered by para 3(b) of mentioned Govt. circular and which are divisible in nature, the 'class-I local supplier' shall get purchase preference over 'Class-II supplier' as well as 'Non-local supplier', as per following procedure:

- i. Among All qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract for full quantity will be awarded to L1.
- ii. If L1 bid is not a 'Class-I local supplier', 50% of the order quantity shall be awarded to L1. Thereafter, the lowest bidder among the 'Class-I local supplier' will be invited to match the L1 price for the remaining 50% quantity subject to the class-I local supplier's quoted price falling within the margin of purchase preference, and contract for that quantity shall be awarded to such 'Class-I local supplier' subject to matching the L1 price. In case such lowest eligible 'Class-I local supplier' fails to match the L1 price or accepts less than the offered quantity, the next higher 'Class-I local supplier' within the margin of purchase preference shall be invited to match the L1 price for remaining quantity and so on, and contract shall be awarded accordingly. In case some quantity is still left uncovered on Class-I local supplier, then such balance quantity may also be ordered on the L1 bidder".

b. In the procurements of goods or works, which are covered by para 3(b) of mentioned Govt. circular and which are not divisible in nature, and in procurement of services where the bid is evaluated on price alone, the 'class-I local supplier' shall get purchase preference over 'Class-II supplier' as well as 'Non-local supplier', as per following procedure:

- i. Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract will be awarded to L1.
- ii. If L1 is not 'Class-I local supplier', the lowest bidder among the 'Class-I local supplier', will be invited to match the L1 price subject to Class-I local supplier's quoted price falling

within the margin of purchase preference, and the contract shall be awarded to such 'Class-I local supplier' subject to matching the L1 price.

- iii. In case such lowest eligible 'Class-I local supplier', fails to match the L1 price, the 'Class-I local supplier' with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and contract shall be awarded accordingly. In case none of the 'Class-I local supplier' within the margin of purchase preference matches the L1 prices, the contract may be awarded to the L1 bidder.

c. 'Class-II local supplier' will not get purchase preference in any procurement, undertaken by procuring entities.

F. 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 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.

G. Procurements where estimated value to be procured is less than Rs. 5 lakhs shall be exempted from GOI order No. P-45021/2/2017-PP (BE-II) dated 04.06.2020.

H. For procurement of Goods & Services which are divisible in nature, following shall be operated for **MSE bidders** under Public procurement Policy for the Micro and Small Enterprises (MSEs) Amendment Order, 2019, Ref. No. AA:SSP: MSE: Amndt, dtd. 30.11.2018, Circular No. 44 of 2018-19;-

a. If L1 bid is not from "Class-I local Supplier" and price quoted by MSE bidder falls within the margin of Purchase preference (L1+15% for MSEs), then 25 % of total order quantity of respective item (rounded off to nearest number) shall be awarded to MSE bidder, subject to MSE bidder matching the L1 Price. Out of Remaining 75% quantity, distribution shall be operated as per below sub-clause (2) –

b. If "Class- I Local Supplier" (Next to L1, other than MSE) quoted price falling within the Margin of Purchase Preference, and "Class-I local supplier" matches the L1 price,



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then 50% of remaining Quantity (after allocation of 25% to MSE) i.e. 37.5% shall be awarded to local supplier and 37.5% shall be awarded to foreign bidder.

Note: L1 Price refers to lowest evaluated / landed cost to Company.

For Further details, please refer GOI order no. P-45021 / 2 / 2017 - PP (BE-II) dated 04.06.2020.

26. RESTRICTIONS UNDER RULE 144(XI) OF THE GENERAL FINANCIAL RULES (GFRs), 2017

All provisions of Order No. F.No.6/18/2019-PPD of Department of Expenditure (DoE) shall be applicable for this tender enquiry (Order copy is available at <https://doe.gov.in/procurement-policy-divisions>). Accordingly, any bidder from a country which shares a land border with India (except the countries to which the Govt. of India has extended lines of credit or in which the Govt. of India is engaged in development projects for which list is available at <https://www.mea.gov.in/>) will be eligible to bid in this tender only if the bidder is registered with the Competent Authority as specified in Annex I of the said Order of DoE.

Updated list of the countries to which lines of credit have been extended or in which development projects are undertaken are available on the Ministry of External affairs website (<https://www.mea.gov.in/>)

For the purpose of this order, definition of Bidder from a country which shares a land border with India shall be same as defined in the Annex III of the said order.

Registration with the competent authority as stipulated in the said order is responsibility of bidder. Bidder has to submit a certificate certifying following along with offer:

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that bidder (.... Name of Bidder) is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that bidder (.....Name of bidder) fulfils all requirements in this regard and is eligible to be considered"

If the bidder is from such country which shares a land border with India evidence of valid registration by the Competent Authority shall also be attached along with offer."

27. NOTE.

- a) Special conditions of enquiry, if enclosed by BHEL, will supersede the respective standard / general terms of enquiry.
- b) Any other Standard terms and Conditions of the bidder attached / referred against the tender enquiry will be treated as null and void ab initio.
- c) In order to protect the commercial interests of BHEL, it becomes necessary to take action against suppliers / 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, indulged in malpractices, cheating, bribery, fraud or any other misconducts or formation of cartel so as to influence the bidding process or influence the price etc. Guide- lines for Suspension of Business Dealings with Suppliers / Contractors shall prevail over which is available at BHEL website <http://www.bhel.com>
- d) The bidder along with its associate / collaborators / sub-contractors / sub-vendors / consultants / service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website <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.
- e) "BHEL shall recover the amount of compensation paid to victim(s) by BHEL towards loss of life / permanent disability due to an accident which is attributable to the negligence of contractor, agency or firm or any of its employees as detailed below;
 1. **Victim:** Any person who suffers permanent disablement or dies in an accident as defined below.
 2. **Accident:** Any death or permanent disability resulting solely and directly from any unintended and unforeseen injurious

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occurrence caused during the manufacturing / operation and works incidental thereto at BHEL factories/ **offices and precincts** thereof , project execution , erection and commissioning, services, repairs and maintenance, trouble shooting, serving , overhaul, renovation and retrofitting , trial operation, performance guarantee testing undertaken by the company or during any works / during working at BHEL Units/ Offices/ townships and premises/ project sites.

3. Compensation in respect of each of the victims:

- (i) In the event of death or **permanent disability** resulting from **Loss of both limbs**: Rs. 10,00,000/- (Rs. Ten Lakh).
- (ii) In the event of **other permanent disability**: Rs. 7,00,000/- (Rs. Seven Lakh).

4. Permanent Disablement: A disablement that is classified as a permanent total disablement under the proviso to Section 2(l) of the Employees Compensation Act, 1923.”

f) The bidder shall be in compliance with applicable laws, rules and regulations throughout the terms of the contract for conducting its business generally and to perform its obligations under this contract.