

# TENDER ENQUIRY NO.: X/6620/2023/0002/C/1

## SUB:- TERMS & CONDITIONS FOR FORMING OF LP CASING UPPER PART FAB.

### NIT-Notice Inviting Tender

Salient Details of Notice Inviting Tender (NIT)		
Sl. No.	Issue	Description
1.	Item details	As per Enquiry Annexure X/6620/2023/0002/C/1
2.	Issue of Tender Documents	From BHEL eProcurement website <a href="https://eprocurebhel.co.in/nicgep/app">https://eprocurebhel.co.in/nicgep/app</a> (Tender documents will be available for downloading from BHEL e-Procurement website till due date of submission)
3.	Due Date Of Offer Submission	Date: <b>02-06-2023</b> Time: <b>13:45 hrs</b> <a href="https://eprocurebhel.co.in/nicgep/app">https://eprocurebhel.co.in/nicgep/app</a> <b>Offer to be submitted in online only through e-procurement Portal.</b> (Bidders are requested to visit website to view corrigendum/ addenda/ amendments/ extension/ modification etc. before submitting offer).
4.	Opening of Tender (Techno-Commercial Bid)	<b>Date: 02-06-2023 Time: 14.00 Hrs</b> Notes: <b>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.</b>
5.	Cost of Tender	INR 2000/- (If hard copy of tender document is required from BHEL otherwise not applicable.)
6.	EMD (Earnest Money Deposit)	<b>Rs. 1,50,000/-</b>
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 <a href="https://eprocurebhel.co.in/nicgep/app">https://eprocurebhel.co.in/nicgep/app</a> 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](http://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, 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).

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**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](http://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](mailto: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.



**Tender No.: X/6620/2023/0002/C/1**

**Date: 10.05.2023**

**TERMS & CONDITIONS FOR PRE-FAB. M/C & FAB. ONLY OF LP CASING UPPER PART FAB.**

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 Combined Material (BHEL +PARTY) as per drg., QP & other specifications.

Sl. No.	Item Description	Drg. No.	Qty.	Tentative Weight (Kg/pc)
1	LP CASING UPPER PART FAB. (TS)	0107405010000	4 Nos.	12428.49
2	LP CASING UPPER PART FAB. (GS)	0107405020000	4 Nos.	12320.24

**\*BHEL Material Weight = 4365.45 KG. & Party Material Weight = 8063.04 KG. (FOR 0107405010000)**

**\*BHEL Material Weight = 4429.53 KG. & Party Material Weight = 7890.71 KG. (FOR 0107405020000)**

**Remark-**

1. ITEM NO. 50 OF CBOM 01074050100-00 SHALL be supplied by BHEL as per drg.
2. RAW MATERIAL OF ITEM NO.-1, 2, 26, 28, 46, 47 & 48 OF CBOM NO.-01074050100-00 in scope of vendor and rest BHEL material
3. ITEM NO. 59 & 61 OF CBOM 01074050100-00 are not in scope of vendor.
4. ITEM NO. 50 OF CBOM 01074050200-00 shall be supplied by BHEL as per drg.
5. RAW material of ITEM NO.-1, 2, 26, 29 & 48 OF CBOM NO.-01074050200-00 is in scope of vendor and rest BHEL material.
6. ITEM NO. 59 & 61 OF CBOM 01074050200-00 are not in scope of vendor.
7. S.R. is in scope of BHEL.
8. cleaning & NDT after S.R. (at BHEL works) is in scope of vendor.
9. painting is in scope of BHEL.
10. job shall be cleared in control marking, post control marking defects/deformation shall be attended by vendor within 7 days of intimation of problem.
11. delivery is 90 days from receipt of BHEL material.
12. "Vendor must ensure availability of machining facility - Vertical Boring/ Lathe for machining dia up to 1900mm required in Half Ring as per drawing. In case vendor does not have such facility and requires machining of the above item from other sub-vendor, then the vendor to mention/submit name of such sub-vendor along with consent along with consent letter and machine details of such sub-vendor to carry out work as per drawing requirements. Vendor must submit above details along with offer for BHEL's approval."



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- **TOTAL LOAD FOR THE Enquiry (Approximately) = 98994.92 Kg.**
- The rate (s) should be quoted in **Rupees/Piece.**
- S/R, S/B before final Assembly, if reqd., 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.

**2. LOAD DISTRIBUTION: -**

Load distribution of this enquiry will be as follows:

Sr. No.	Item Description	Drawing No.	Tentative Weight (Kg/pc)	QTY. (in no.)	L1(Qty.)	L2(Qty.)	L3(Qty.)
1	LP CASING UPPER PART FAB. (TS)	01074050100 00	12428.49	<b>4</b>	<b>2</b>	<b>1</b>	<b>1</b>
2	LP CASING UPPER PART FAB. (GS)	01074050200 00	12320.24	<b>4</b>	<b>2</b>	<b>1</b>	<b>1</b>

Load distribution shall be done after counter offering finalized L-1 rate to L-2, L-3...L-n vendors (n is total suitable vendors) in sequential order.

- L-1 rates, as finalized, shall be counter offered to the other bidders in case of splitting of order. In case any bidder(s) do not accept the L-1 rates, the counter-offer may be extended to other bidders.
- If any of the vendors (L-2 to L-3) do not accept finalized L1 c/offer rate, then subsequent vendors will be treated as L-2 to L-3 for load distribution purpose subject to their accepting finalized L-1 rate. For example, if L-2 doesn't accept finalized L-1 rate then L-3 to L-4 will be treated as L-2 to L-3 respectively for load distribution purpose.
- If none of the vendor (L-2 to L-n or as participated in RA) accept the c/offer rate, then L-1 vendor shall be approached for quantity discount for that additional quantity and order will be placed on L1 vendor accordingly.

**3. 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.



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**4. 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.

**5. DELIVERY: -**

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

**6. DELIVERY SCHEDULE: -**

Sl. No.	Item Description	Drg. No.	Qty.	Delivery
1	LP CASING UPPER PART FAB. (TS)	0107405010000	4 Nos.	Within 90 days from last BHEL material sent
2	LP CASING UPPER PART FAB. (GS)	0107405020000	4 Nos.	Within 90 days from last BHEL material sent

**If material of more than one LP Casing Upper Part are sent together (last material dispatch date to the vendor are same) then delivery date of first upper part should be 90 days from the material sent date and delivery date of the next upper part should be material sent date + 90 days + 30 days and so on.**

**7. 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. BG & IB conditions will as applicable as mentioned in PO. 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. (BG & IB value will be calculated on PPMIV /challan value)**

**For Example:** If intimation for requirement of BG & IB of an item of a PO is given to vendor on 01.04.2022 from BHEL, then vendor should mandatorily provide required BG and IB by 15.04.2022. In case, the vendor provides the same by 30.04.2022, then the difference of 15 days (between 30.04.2022 & 15.04.2022) will be deducted from delivery days of that item and consequent PO amendment may be issued.

**8. INSPECTION: -**



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- 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.

**9. 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.

**10. PAYMENT TERMS: -**

- 10.1 90% after acceptance & final clearance of SRIV. Balance 10% after FTS (Final Tally Sheet).
- 10.2 No packing and forwarding charges will be paid extra.
- 10.3 In case of rejection, total cost of material will be recovered for BHEL Material and no labour cost will be paid.
- 10.4 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.
- 10.5 Detailed terms at clause 10.0 of GISTC Rev. 06, June 2021.

**11. 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.

**12. 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.

**13. Quality Requirement: -**

- a. All party material to be procured from BHEL, approved sources only.
- b. Sub-contractor to provide a summary sheet of documents/TCs provided for correlation.
- c. Sub-contractor to mention relevant QP clauses on all TCs/ reports for every lot.
- d. Inspection by BHEL/BHEL nominated inspection agency and customer/customer nominated inspection agency as per drawing and quality plan requirements (Manufacturing Quality Plan no. 1.03.01 rev 02 Dated 18.01.2020 (DOC. NO. 4540-001-110-QVM-Q-134) is attached).



**14. Reverse Auction: -**

“BHEL shall be resorting to Reverse Auction (RA) (Guidelines as available on [www.bhel.com](http://www.bhel.com)) for this tender. RA shall be conducted among the techno-commercially qualified bidders. Price bids of all techno-commercially qualified bidders shall be opened and same shall be considered for RA. In case any bidder(s) do(es) not participate in online Reverse Auction, their sealed envelope price bid along with applicable loading, if any, shall be considered for ranking.” For detailed terms and conditions of RA guidelines, kindly refer [www.bhel.com](http://www.bhel.com).

**15. GENERAL INSTRUCTIONS: -**

**15.1** 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.

**15.2** 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.

**15.2.1** 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.

**15.3** 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>.

**15.4 MSE suppliers are exempted for submission of EMD & Tender Fee.**

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

**15.6** Documents submitted with the offer/bid by the bidder should be signed and stamped in each page by authorized representative of the bidder.

**15.6.1** 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.

**15.7** 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.

**15.8** 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.

**15.9** The bidders against open tender will necessarily have to obtain class – III DSCs (Digital signature).



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Procedure for application is available on hwr.bhel.com.

**15.10** Following MSE conditions shall be followed: -

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).

**16. EVALUATION OF BIDS:**

- Vendors should submit filled in MAIN CONTRACTOR'S PROPOSAL CUM EVALUATION REPORT & SUB-VENDOR QUESTIONNAIRE for NTPC/Customer approval with this enquiry. **Their price bid will be opened only when the vendor is approved by BHEL/BHEL Customer (refer attached annexure with this enquiry).**
- All vendors will be assessed on total cost to BHEL basis that includes freight, taxes, ITC etc.
- 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.

**17. Transportation: -**

Transportation of PPMIV material (BHEL 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.

**18. SCRAP: -**

- Generated scrap is to be retained by the sub-contractor. This scrap is 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. 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.

**19. 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.



**20. 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>."

**21. Conflict of Interest:**"A bidder shall not have conflict of interest with other bidders. Such conflict of interest can lead to anti-competitive practices to the detriment of Procuring Entity's interests. The bidder found to have a conflict of interest shall be disqualified. A bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:

- a) they have controlling partner (s) in common; or
- b) they receive or have received any direct or indirect subsidy/ financial stake from any of them; or
- c) they have the same legal representative/agent for purposes of this bid; or
- d) they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder; or
- e) Bidder participates in more than one bid in this bidding process.

Participation by a Bidder in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components/ sub-assembly/ Assemblies from one bidding manufacturer in more than one bid; or

- f) In cases of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorise only one agent/dealer. There can be only one bid from the following:



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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 own'ership/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 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**



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**Annexure - A**

**PRE-FAB. M/C & FAB. ONLY OF LP CASING UPPER PART FAB.**

OpenTender Enquiry No.: X/6620/2023/0002/C/1

Sl. No.	Item Description	MATERIAL BY	Quoted/Not Quoted (Price not to be quoted here)
1	LP CASING UPPER PART FAB. (TS) (0107405010000)	COMBINED MATERIAL (BM+PM)	
2	LP CASING UPPER PART FAB. (GS) (0107405020000)	COMBINED MATERIAL (BM+PM)	

Authorised Signature:  
(with date & seal of company)

Name of Supplier: -

**TERMS AND CONDITIONS FOR Enquiry No.X/6620/2023/0002/C/1**

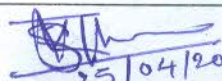
SL.	TERMS	VENDOR'S ACCEPTANCE/ REMARKS
1	<u>Scope of Work:</u> - Complete PRE-FAB. M/C & FAB. ONLY as per Drawing/Standard, QP and Technical requirements (as per clause 1 of terms & conditions of enquiry).	
2	<u>Load distribution:</u> - (as per clause no. 2 of Terms and Conditions of enquiry)	
3	Quotation is valid for a minimum period of 90 days from date of opening of enquiry. (as per clause no. 3 of Terms and Conditions of enquiry)	
4	Submission of offers (as per clause no. 4 of Terms and Conditions of enquiry)	
5	Quoted rates are on F.O.R. sub-contract store, HEEP, Haridwar basis.(as per clause no. 5 of Terms and Conditions of enquiry)	
6	Delivery schedule as per clause 6 of T& C of enquiry.	
7	Bank Guarantee/Indemnity Bond: 25% BG & 75% Indemnity bond (as per clause 7 of T& C of enquiry)	
8	Inspection shall be done (as per clause no. 8 of Terms and Conditions of Enquiry)	
9	Guarantee Certificate shall be valid for 18 months. (as per clause no. 9 of Terms and Conditions of Enquiry)	
10	PAYMENT TERMS:- 90% after acceptance & final clearance of SRIV. 10% after FTS and final account of material (as per clause no. 10 of Terms and Conditions of Enquiry).	
11	LD clause is applicable@0.5% per week or part thereof with a maximum limit of 10% of the delayed portion of supply (as per clause no. 11 of Terms and Conditions of Enquiry).	
12	GST shall be applicable against documentary proof. Input Tax Credit shall be applicable and BHEL can claim benefit (as per clause no. 12 of Terms and Conditions of Enquiry).	
13	Quality Requirements:- (as per clause no. 13 of Terms and Conditions of Enquiry).	
14	RA:-We accept Reverse Auction(RA) clause. (as per clause no. 14 of Terms and Conditions of Enquiry).	
15	We have read clause no. 15 of terms and conditions of Enquiry and confirm to abide the same.(Clause 15.1 to 15.10)	
16	Evaluation of bids:- (as per clause no. 16 of Terms and Conditions of Enquiry).	
17	Transportation:We accept Transportation clause. (as per clause no. 17 of Terms and Conditions of Enquiry).	
18	Scrap :Confirm acceptance of Clause 18 of T & C of Enq.	
19	Rectification:We accept Rectification clause. (as per clause no. 19 of Terms and Conditions of Enquiry).	
20	We accept Risk Purchase clause. (as per clause no. 20 of Terms and Conditions of Enquiry).	
21	Conflict of Interest:Confirm acceptance of Clause 21 of T & C of Enq.	
22	We have submitted Make in India (duly filled & signed and attached.)	
23	We have submitted GISTC Rev.06 (duly filled & signed and attached.)	
24	We have submitted MSE Certificate (if applicable)	
25	<b>Rates have been quoted in indian Rupees on per piece basis.</b>	

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)**

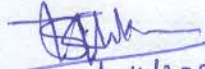
PQR for LP CASING UPPER PART - 01074050100-00 & 01074050200-00				
SL No	TECHNICAL REQUIREMENT	Required	Offered	Remarks
01.00	<p><b>Experience Required:</b></p> <p>Vendors should have experience of fabricating (cutting/bending/assembly/welding/pre-fabrication machining) and supplying of at least 1 No. LP Casing Upper Part (Weld) or similar fabricated components weighing 10T or above in the last 7 years from the date of enquiry.</p>	Vendor to agree and submit documents as per Clause 03.00 or 04.00		
02.00	<p><b>Job (LP Casing Upper Part - Fabricated) details:</b></p> <p>i) Dimensions of job: L= upto 8 metres, W=upto 3 meters, H= upto 3 metres            ii) Weight of fabricated structure - upto 15 Tons.            iii). Material Grade is Mild Steel with angle/ beam &amp; Plate thickness upto 80 mm.</p>			
	Compliance of following in-house facilities in-line with job requirements:	Vendor to agree		
02.01	Lifting facility at vendor works should be EOT crane with capacity 15 Tons or above. Hook height of min 4m to suit job requirements	Vendor to agree & submit suitable documents/		
02.02	Vendor must have levelled bed size to fabricate and accommodate job of dimensions: L=8 metres, W=3 metres & H=3 metres (Note: Concrete floor is not acceptable)	evidence – Manufacturing Facility list with capacity details, technical specifications,		
02.03	Vendor must have Gas Cutting facility for plate thickness 80mm or above.	technical brochure, photograph etc. of the facilities.		
02.04	Cone bending/rolling facility to bend plates for thickness 30mm or above with Width 2700mm or above.			
02.05	<p>Machining facility:</p> <p>General purpose machining facilities- lathe, milling, drilling etc. to cater for pre-fabrication machining requirements as per drawing</p>			
02.06	Welding shall be carried out by qualified WPS (Welding Procedure Specification)/ PQR (Procedure Qualification Record)/qualified welders with qualified WPQ (Welder Performance Qualification) as per ASME section-IX duly approved by third party (preferably by M/S Lloyds, M/S RITES, M/S TUV, M/S NTPC, M/S BVQI, M/S EIL, M/S NPCIL).	Vendor to agree and submit the copy of Third party approved WPS/PQR & WPQ		

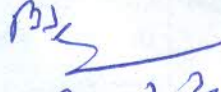
Tanzeem W.  
 25.04.2023  
 TANZEEM WAHAB  
 Engg. WT


  
 25/04/2023  
 Sushant Kr. Thakur  
 Dy. Manager, WTX

03.00	Vendor to furnish certificate against clause 01.00 from the customer / company or end user duly confirming that fabricated LP Casing Upper Part (Fabricated) or equivalent job was supplied and used for Generator/power plant/capital goods/infrastructure application OR vendor to submit documentary evidence as per clause 04.00	Vendor to agree & submit suitable documents		
04.00	Against Clause 01.00 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 LP Casing Upper Part (Fabricated) or equivalent.	Vendor to agree & submit suitable documents		
05.00	<b>PQR and all the relevant documents (every page) are to be signed and stamped in original by Vendor.</b> 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 agree & submit suitable documents		
06.00	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		
<b>NOTE: PQR IS NOT RESTRICTIVE</b>				

Tanzeem W.  
TANZEEM WAHAB  
Engg. WT

  
25/04/2023  
Kushant Kr. Thekur  
Dy. Manager, WTX

  
25.04.2023  
AS Arora  
AGI-WT

<b>ENDORSEMENT SHEET FOR QP</b>		
REFERENCE / <del>STANDARD</del> / <del>FIELD</del> QUALITY PLAN (RQP / SQP/RFQP/SFQP)		
<i>TO BE FILLED IN BY SUPPLIER AT TIME OF SUBMISSION</i>		 To be filled in by NTPC
PROJECT NAME	2 X 660 MW TALCHER TPP	
CONTRACT NO.:	CS-4540-001A-2-FC-NOA-7227/7228	
MAIN SUPPLIER	BHEL	
MANUFACTURER WORKS & ADDRESS	M/S BHEL HEEP HARIDWAR	
ITEM /EQUIPMENT / SYSTEM/ SUB-SYSTEM DETAILS i.e. MODEL TYPE/SIZE/RATING etc.	LP TURBINE OUTER CASING (CASING UPPER PART, CASING SIDE WALL (L&R), FRONT WALL (TS&GS))	BHEL QP NO. : 1.03.01
APPROVED QP NO.: RQP/SQP/RFQP/SFQP	9915-371-110-HWR-QVM-Q-106 REV. NO.: 02 DATE: 18.01.2020	
<i>Confirmation by Main Supplier (TICK WHICHEVER APPLICABLE)</i>		<i>(TICK APPLICABLE)</i>
I. That the item/ component is identical to that considered for QP approval. OR.		<input checked="" type="checkbox"/> The QP is endorsed for this project without any change  The QP is endorsed for this project with changes as indicated.
II. That there are minor changes in the item/ component with respect to that considered for QP approval, however the same do not affect the contents of QP. OR		
<input checked="" type="checkbox"/> III. That there are minor changes in the item/ component with respect to that considered for QP approval, however the same affect the QP slightly, as indicated below / in attached sheet.		
<p><del>NOTE: Remark for cl. no. 2,200 to 2,700 may be read as "*" in case of sub-contracting on BHEL accepted sub-contractors" in place of "*" in case of sub-contracting on BHEL approved sub-contractors. List attached"</del></p> <p><del>REASON FOR CHANGE: List of BHEL accepted sub-contractors is dynamic &amp; cannot be restricted to the list existing at the time of approval of QPs for 660 MW Khurja Project.</del></p>		
<i>Deepika Singh</i> SIGN.: (Main Supplier)      DATE:20.12.2022	SIGN.: (Manufacturer)      DATE:	NTPC (Reviewed /Approved by/ Date & Seal)

*Chandekar*



## MANUFACTURING QUALITY PLAN

ITEM: LP TURBINE OUTER CASING (CASING UPPER PART, CASING SIDE WALL (L&R), FRONT WALL (TS&GS))	PROJECT: KHURJA STPP (2 X 660 MW) PACKAGE: MAIN PLANT PACKAGE CONTRACT NO. 9915-371 MAIN SUPPLIER: BHEL, Haridwar
	QP NO.: 1.03.01 REV. 02 DATE: 18-JAN-2020 PAGE 1 OF 1

SL. NO	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORDS		AGENCY			REMARKS
								S	D	S	B	C	
1	2	3	4	5	6	7	8	9	D	10			11
1.000	Material receiving inspection.	Verification of supplier's Certificates of plates > 40 mm thickness.	Major	Certificate review	100%	Test Certificate	AA10119/ AA10401	List of Q. Nos.	✓	-	p	V	Refer Note-1
2.000	In process inspection												
2.100	Visual inspection	Visual inspection of welds	Major	Visual	100%	Drawing	Drawing	Obs. Sheet		-	P	-	
2.200	Stress relieving	Stress relieving Records	Major	Record Review of SR Graph	100%	Drawing	Drawing	SR Graph	✓	P*	P/ V*	V	* in case of sub-contracting on BHEL approved sub-contractors List attached.
2.300	NDT	RT of butt welds (if applicable)	Major	NDT	As per Drg.	Drawing	Drawing	Report	✓	P*	P/ V*	V	
2.400		UT of butt welds (if applicable)	Major	NDT	As per Drg.	Drawing	Drawing	Report	✓	P*	P/ W*	W/ V*	
2.500		DPT of welds	Major	NDT	As per Drg.	Drawing	Drawing	Report	✓	P*	P/ W*	V	
2.600		DPT of welds for lifting lugs	Major	NDT	As per Drg.	Drawing	Drawing	Report	✓	P*	P/ W*	V	
2.700	Dimensions	Verification of machined dimensions & visual inspection after Machining	Major	Measurement	Random	Drawing	Drawing	Obs. Sheet/ Logsheet	✓	P*	P/ W*	W/ <del>V*</del>	
3.000	Final inspection												
3.100		Predispatch inspection	Major	Visual	100%	Drawing	Drawing	COC		-	P	-	

Signature Not Verified  
 Digitally signed by HIRENDRA SONIKAR  
 Date: 2020.01.22 10:32:19 IST  
 Reason: CAT I

Note: 1) BHEL approved source of original plate manufacturer. Q number is to be verified by NTPC as per MOM dated: 17.10.07 pt. n 10

	 (I B Kumar)	Legend: Records identified with "tick" shall be submitted to customer as a QA Documentation package. S= sub-vendor, B= BHEL/ BHEL nominated inspection agency, C= Customer/customer representative, P= Perform, V= Review of records W= Customer witness (not hold, BHEL to give advance notice and customer to Associate but work will not stop. CHP= Customer Hold Point (work will not proceed unless the clearance from customer)	Location: NTPCEOC	DOC. NO. 9915-371-110-HWR-QVM-Q-106 REV 02 CAT .....		
MANUFACTURER/ SUB-CONTRACTOR	Approved By: (A K Swami)  MAIN-SUPPLIER		FOR CUSTOMER USE	REVIEWED BY	APPROVED BY	APPROVAL SEAL
<b>SIGNATURE</b>						



**CORPORATE QUALITY ASSURANCE**  
**MAIN CONTRACTOR'S PROPOSAL CUM EVALUATION REPORT**

<b>Ref No:</b>		<b>Date:</b>					
<b>i.</b>	<b>Main Contractor</b>						
<b>ii.</b>	<b>Project</b>						
<b>iii.</b>	<b>Package Name</b>	<b>Package No</b>					
<b>iv.</b>	<b>Proposed Item/Scope of Sub-contracting</b>						
<b>v.</b>	<b>Item covered under</b>	<b>Schedule-1</b>	<b>As per contract clause No-</b>				
		<b>Schedule-2</b>					
<b>vi.</b>	<b>If item is Schedule-1 and proposed sub-vendor is indigenous, Main Contractor to explain how the contractual provisions will be fulfilled</b>						
<b>vii.</b>	<b>Name and Address of the proposed Sub-vendor's works</b>						
<b>viii.</b>	<b>PO placement date/ Start of manufacturing (if self-manufactured) as per L2 network</b>						
<b>ix.</b>	<b>Item Description (Type/Size/Rating/Scope of Sub-Contracting)</b>	<b>Total quantity of proposed item envisaged in this package (Nos/ Running Meters/ Kgs/ Tons etc)</b>	<b>Quantity proposed to be procured from proposed sub-vendor (Nos/ Running Meters /Kgs /Tons etc)</b>	<b>Timeline for quantity requirements as per project schedule &amp; whether the proposed Sub-vendor equipped with adequate capacity to supply proposed order quantity in time</b>			
<b>x.</b>	<b>Supply experience of the proposed sub-vendor (including supplies to Main Contractor, if any) for similar item/scope of sub-contracting, for last 3 years (Note:- Only relevant experience details w.r.t. proposed item/scope of subcontracting to be brought out here)</b>						
	<b>Project/Package</b>	<b>Customer Name</b>	<b>Supplied Item (Type/Rating/Model /Capacity/Size etc)</b>	<b>PO ref no/date</b>	<b>Supplied Quantity</b>	<b>Date of Supply</b>	
<b>We confirm that as per our assessment, the proposed sub-vendor has requisite capabilities &amp; supply experience and is suitable for supplying the proposed item/scope of sub-contracting.</b>							
<b>Name:</b>		<b>Desig:</b>		<b>Sign:</b>		<b>Date:</b>	

Company's Seal/Stamp:-

Format No. : QS-01-QAI-P-04/F1-R3

1/1

Engg. div./QA&I



# CORPORATE QUALITY ASSURANCE

## SUB-VENDOR QUESTIONNAIRE

i.	Item/Scope of Sub-contracting	
ii.	Address of the registered office	Details of Contact Person (Name, Designation, Mobile, Email)
iii.	Name and Address of the proposed Sub-vendor's works where item is being manufactured	Details of Contact Person: (Name, Designation, Mobile, Email)
iv.	Annual Production Capacity for proposed item/scope of sub-contracting	
v.	Annual production for last 3 years for proposed item/scope of sub-contracting	
vi.	<b>Details of proposed works</b>	
1.	Year of establishment of present works	
2.	Year of commencement of manufacturing at above works	
3.	Details of change in Works address in past (if any)	
4.	Total Area	
	Covered Area	
5.	Factory Registration Certificate	Details attached at Annexure – F2.1
6.	Design/ Research & development set-up (No. of manpower, their qualification, machines & tools employed etc.)	Applicable / Not applicable if manufacturing is as per Main Contractor/purchaser design Details attached at Annexure – F2.2 (if applicable)
7.	Overall organization Chart with Manpower Details (Design/Manufacturing/Quality etc)	Details attached at Annexure – F2.3
8.	After sales service set up in India, in case of foreign sub-vendor (Location, Contact Person, Contact details etc.)	Applicable / Not applicable Details attached at Annexure – F2.4
9.	Manufacturing process execution plan with flow chart indicating various stages of manufacturing from raw material to finished product including outsourced process, if any	Details attached at Annexure – F2.5
10.	Sources of Raw Material/Major Bought Out Item	Details attached at Annexure – F2.6



# CORPORATE QUALITY ASSURANCE

## SUB-VENDOR QUESTIONNAIRE

11.	Quality Control exercised during receipt of raw material/BOI, in-process , Final Testing, packing			Details attached at Annexure – F2.7		
12.	Manufacturing facilities (List of machines, special process facilities, material handling etc.)			Details attached at Annexure – F2.8		
13.	Testing facilities (List of testing equipment)			Details attached at Annexure – F2.9		
14.	If manufacturing process involves fabrication then-			Applicable / Not applicable		
	List of qualified Welders			Details attached at Annexure – F2.10		
	List of qualified NDT personnel with area of specialization			(if applicable)		
15.	List of out-sourced manufacturing processes with Sub-Vendors' names & addresses			Applicable / Not applicable  Details attached at Annexure. –F2.11 (if applicable)		
16.	Supply reference list including recent supplies			Details attached at Annexure – F2.12 (as per format given below)		
<i>Project/ package</i>	<i>Customer Name</i>	<i>Supplied Item (Type/Rating/Model /Capacity/Size etc)</i>	<i>PO ref no/date</i>	<i>Supplied Quantity</i>	<i>Date of Supply</i>	
17.	Product satisfactory performance feedback letter/certificates/End User Feedback			Attached at annexure - F2.13		
18.	Summary of Type Test Report (Type Test Details, Report No, Agency, Date of testing) for the proposed product (similar or higher rating) Note:- Reports need not to be submitted			Applicable / Not applicable  Details attached at Annexure – F2.14 (if applicable)		
19.	Statutory / mandatory certification for the proposed product			Applicable / Not applicable  Details attached at Annexure – F2.15 (if applicable)		
20.	Copy of ISO 9001 certificate (if available)			Attached at Annexure – F2.16		
21.	Product technical catalogues for proposed item (if available)			Details attached at Annexure – F2.17		
<b>Name:</b> _____						
<b>Disig:</b> _____		<b>Sign:</b> _____		<b>Date:</b> _____		

Company's Seal/Stamp:-

**Self-certification**

As per Government Public procurement order no. P-45021/2/2017-BE-II dt.15.06.2017 & P-45021/2/2017-PP(BE-II) dated 28.05.2018,29.5.2019 & 04.6.2020, it is hereby certifying that we

.....

(supplier name) are .....(Class-I/Class-II) local supplier and will meet the requirement of minimum local content of ..... (50%/20%) as defined in public procurement order dated 04.6.2020 for 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.

Seal & Signature of Supplier



# COMBINED BILL OF MATERIAL

Printed On:01.05.2023

Printed By:

CBOM No: 01074050100    CBOM Var: 00    Revno: 14    Rev Date: 13.08.2020  
Description: LPOC UPPER PART FAB & M/C (TS)    Total weight: 12085.0

## RECORD OF CHANGES

Drawing No	Var	Revno	Rev Date	Description
01074050100	00	1	17.04.2018	Norm/pc update for item 35 Lifting Eye
01074050100	00	2	17.04.2018	Auto Revision 31071356137/03
01074050100	00	3	19.04.2018	WEIGHT OF ITEM NO. 51 TO 58 SHOWN.
01074050100	00	5	10.09.2018	Connection Item No. 33, 47 & 48 added. Qty of 46 reduced to 1.
01074050100	00	6	22.09.2018	Auto Revision 41074056129/00
01074050100	00	7	25.09.2018	item no. 59, 60 & 61 added.
01074050100	00	8	26.09.2018	Auto Revision 31074456001/00 41074456099/00;
01074050100	00	9	28.09.2018	Load Shackle-M42 (Item No. 62,added).
01074050100	00	10	30.09.2018	Auto Revision 31074056137/12
01074050100	00	11	12.12.2019	For Item No: 33: Material code changed from AA1011819341 to AA1041801343. For Item Nos. 51, 56 & 57: Material code changed from AA1012808050 to HW1012808980.
01074050100	00	12	12.06.2020	Weight Updated, item 8 qty increased to 2.
01074050100	00	13	13.06.2020	Auto Revision 21074050101/00
01074050100	00	14	31.07.2020	For Item No 2,26,46,47,48: Blank size and weight updated by combining these in 30mm nesting The nesting consists of 21074050102(2 no), 41074056123(2 no), 31074050146(1 no), 31074050047(1 no), 31074050048(1 no)  For Item No 3,4,5,7: Blank size and weight updated by combining these in 80mm nesting The nesting consists of 31074050103(2 no), 21074050104/01(2 no), 21074050104/02(2 no), 31074050107(2 no), 31074050147(2 no)

CBOM 01074050100 00

	ENGG		TTX		WTX	
	Initial	Date	Initial	Date	Initial	Date
Worked By	sterk	15.02.2018	ttxakm	23.03.2018	wtxhan	21.03.2018
Checked By	sterk	20.03.2018	ttxsso	23.03.2018	wtxskt	21.03.2018
Approved By	stedkr	24.03.2018	ttxsso	23.03.2018	bk6viv	21.03.2018



# COMBINED BILL OF MATERIAL

Printed On:01.05.2023

Printed By:

**CBOM No:** 01074050100 **CBOM Var:** 00  
**Description:** LPOC UPPER PART FAB & M/C (TS)

**Revno:** 14

**Rev Date:** 13.08.2020

**Total weight:** 12085.0

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	01074050100 00			12085.0						
1(1)	LPOC UPPER PART FAB & M/C (TS)			Y						
MF CD			N	12430.0	0306-0313-0314-0236					
1	21074050101 00	AA1011819155	AA10119	2560.0	2540.0X7618.0	1	1	3987.3	0.0	3987.3
1(1)	PLATE		~S235JR+N	Y	PL 25					made in 2 parts,Offcut900Kg/pc
MF DR					0072-0301-0306-0317-0306					KG
2	21074050102 00	HW1011819953	AA10119	465.0	2500.0X3700.0	1	1	1144.0	0.0	1144.0
1(1)	CONE HALF		~S235JR+N	Y	PL 30					Bend All Inc;Nesting Blnk & Wt
MF DR					0072-0301-0306-0301-0306					KG
3	31074050103 00	AA1011819260	AA10119	140.0	2500.0X2650.0	1	1	2184.5	0.0	2184.5
1(1)	RING		~S235JR+N+Z15	Y	PL 80					2H.Nesting Blnk & Wt
MF DR					0072-0301-0306-0301-0306					KG
4	21074050104 01	AA1011819260	AA10119	370.0	609.0X3300.0	1	0	0.0	0.0	0.0
1(1)	FLANGE		~S235JR+N+Z15	Y	PL 80					Wt in 01074050100 It3
MF DR					0072-0301-0306					KG
5	21074050104 02	AA1011819260	AA10119	370.0	609.0X3300.0	1	0	0.0	0.0	0.0
1(1)	FLANGE		~S235JR+N+Z15	Y	PL 80					Wt in 01074050100 It3
MF DR					0072-0301-0306					KG
6	31074058106 00	AA1011819244	AA10119	11.0	180.0X180.0	1	6	18.7	0.0	112.2
6(6)	BOSS M42X15000		~S355J2+N	Y	PL 70					DIA 180
MF DR					0072-0301-0317-0306					KG
7	31074050107 00	AA1011819260	AA10119	259.0	160.0X2575.0	1	0	0.0	0.0	0.0
2(2)	PLATE		~S235JR+N+Z15	Y	PL 80					Wt in 01074050100 It3
MF DR					0072-0301-0306					KG
10	41074050110 00	AA1011819198	AA10119	20.9	263.0X385.0	1	2	33.4	0.0	66.8
2(2)	41074050110		~S235JR+N	Y	PL 40					
MF DR					0072-0301-0306					KG
11	41074050111 00	AA1011819198	AA10119	18.7	259.0X335.0	1	2	28.61	0.0	57.22
2(2)	PLATE		~S235JR+N	Y	PL 40					
MF DR					0072-0301-0306					KG

**ENGG**

**TTX**

**WTX**

Worked By	sterk	15.02.2018	ttxakm	23.03.2018	wtxhan	21.03.2018
Checked By	sterk	20.03.2018	ttxsso	23.03.2018	wtxskt	21.03.2018
Approved By	stedkr	24.03.2018	ttxsso	23.03.2018	bk6viv	21.03.2018



# COMBINED BILL OF MATERIAL

Printed On: 01.05.2023

Printed By:

**CBOM No:** 01074050100 **CBOM Var:** 00  
**Description:** LPOC UPPER PART FAB & M/C (TS)

**Revno:** 14

**Rev Date:** 13.08.2020

**Total weight:** 12085.0

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
12	41074050112 00	AA1011819198	AA10119	19.2	262.0X346.0	1	2	29.9	0.0	59.8
2(2)	PLATE		~S235JR+N	Y	PL 40					
MF DR					0072-0301-0306					KG
13	41074050113 00	AA1011819198	AA10119	21.5	263.0X400.0	1	2	34.68	0.0	69.36
2(2)	PLATE		~S235JR+N	Y	PL 40					
MF DR					0072-0301-0306					KG
15	31074050115 00	HY1048655792	AA10455	112.0	1671.0	1	2	1.75	0.0	3.5
2(2)	PIPE		P235GH-TC2	Y	139.7X25					
MF DR					0072-0315-0306					MR
16	31074050115 01	HY1048655792	AA10455	127.0	1905.0	1	2	2.0	0.0	4.0
2(2)	PIPE		P235GH-TC2	Y	139.7X25					
MF DR					0072-0315-0306					MR
17	31074050115 02	HY1048655792	AA10455	140.0	2109.0	1	2	2.21	0.0	4.42
2(2)	PIPE		P235GH-TC2	Y	139.7X25					
MF DR					0072-0315-0306					MR
18	41074056117 00	AA1010209264	AA10109	2.3	60.0	1	1	3.696	0.0	3.696
1(1)	ROUND		~S235JR	Y	RND 100					
MF DR					0072-0315-0317-0306					KG
20	41074050120 00	AA1011819198	AA10119	20.5	263.0X376.0	1	2	32.6	0.0	65.2
2(2)	PLATE		~S235JR+N	Y	PL 40					
MF DR					0072-0301-0306					KG
21	41074050121 00	AA1011819198	AA10119	19.5	262.0X354.0	1	2	30.58	0.0	61.16
2(2)	PLATE		~S235JR+N	Y	PL 40					
MF DR					0072-0301-0306					KG
24	41074056121 00	AA1010209140	AA10109	0.2	50.0	1	3	0.316	0.0	0.948
3(3)	BOSS		~S235JR+N	Y	RND 32					
MF DR					0072-0315-0317-0306					KG
25	41074050125 00	HW1013608917	AA10108	2.8	150.0	1	4	3.0	0.0	12.0
4(4)	I-PROFILE		S235JR	Y	IPB 100					
MF DR					0072-0301-0306					KG

**ENGG**

**TTX**

**WTX**

Worked By	sterk	15.02.2018	ttxakm	23.03.2018	wtxhan	21.03.2018
Checked By	sterk	20.03.2018	ttxsso	23.03.2018	wtxskt	21.03.2018
Approved By	stedkr	24.03.2018	ttxsso	23.03.2018	bk6viv	21.03.2018



# COMBINED BILL OF MATERIAL

Printed On: 01.05.2023

Printed By:

**CBOM No:** 01074050100 **CBOM Var:** 00  
**Description:** LPOC UPPER PART FAB & M/C (TS)

**Revno:** 14

**Rev Date:** 13.08.2020

**Total weight:** 12085.0

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
26	41074056123 00	HW1011819953	AA10119	0.5	20.0X100.0	1	0	0.0	0.0	0.0
1(1)	FLAT		~S235JR+N	Y	PL 30		Wt in 01074050100 It2			
MF DR					0072-0301-0306					KG
28	11074050128 00	AA1011819155	AA10119	4770.0	2655.0X10378.0	1	1	5677.8	0.0	5677.8
1(1)	PLATE		~S235JR+N	Y	PL 25		can be made in parts.			
MF DR					0072-0301-0306-0301-0306					KG
31	41074056127 00	HW1050268075	HW10568	1.3	120.0	1	1	1.848	0.0	1.848
1(1)	CONNECTION		~S235JR+N+Z15	Y	RND 50					
MF DR					0072-0315-0317-0306					KG
32	41074056128 00	AA1011819244	AA10119	177.4	500.0X650.0	1	4	187.5	0.0	750.0
4(4)	PLATE		~S235JR+N+Z15	Y	PL 70					
MF DR					0072-0301-0306					KG
33	41074056129 00	AA1041801343	AA10401	37.3	260.0X260.0	1	2	72.4	0.0	144.8
2(2)	CONNECTION			Y	PL 150 MM		Dia 260			
MF DR					0072-0301-0317-0306					KG
35	31071356137 03	W97310713109		19.0	0.0	0	0	1.0	0.0	4.0
4(4)	LIFTING EYE		KUN693.20	Y						
BO DR					0074-0306					NO
46	31074050146 00	HW1011819953	AA10119	79.2	758.0X3623.0	1	0	0.0	0.0	0.0
1(1)	PLATE		~S235JR+N+Z15	Y	PL 30		Wt in 01074050100 It2			
MF DR					0072-0301-0306					KG
47	31074050047 00	HW1011819953	AA10119	47.0	322.0X2500.0	1	0	0.0	0.0	0.0
1(1)	PLATE			Y	PL 30		Wt in 01074050100 It2			
MF DR					0072-0301-0306					KG
48	31074050048 00	HW1011819953	AA10119	27.0	160.0X1450.0	1	0	0.0	0.0	0.0
1(1)	PLATE			Y	PL 30		Wt in 01074050100 It2			
MF DR					0072-0301-0306					KG
50	21073850108 00	AA1010209302	AA10109	11.2	200.0	1	2	31.53	0.0	63.06
2(2)	WELD IN LUG		~S235JR+N	Y	RND 160					
MF DR					0072-0236-0306					KG

	ENGG		TTX		WTX	
	Initial	Date	Initial	Date	Initial	Date
Worked By	sterk	15.02.2018	ttxakm	23.03.2018	wtxhan	21.03.2018
Checked By	sterk	20.03.2018	ttxsso	23.03.2018	wtxskt	21.03.2018
Approved By	stedkr	24.03.2018	ttxsso	23.03.2018	bk6viv	21.03.2018



# COMBINED BILL OF MATERIAL

Printed On:01.05.2023

Printed By:

CBOM No: 01074050100 CBOM Var: 00  
Description: LPOC UPPER PART FAB & M/C (TS)

Revno: 14

Rev Date: 13.08.2020

Total weight: 12085.0

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
51		HW1012808980	AA10108	114.73	7700.0	1	1	120.5	0.0	120.5
1(1)			ISMB150X80,L=7700	Y	150 X 75					
MF DR	ST-A(FE410 WA)BEAM				0072-0301-0306					KG
52		HW1011052946	AA10152	39.14	2400.0	1	2	2.52	0.0	5.04
2(2)			PIPE 76.1X10, L=2400	Y	PI 76.1X10					
MF DR	ST-ERW-TUBE				0072-0315-0306					MR
53		HW1011052946	AA10152	29.35	1800.0	1	6	1.9	0.0	11.4
6(6)			PIPE 76.1X10, L=1800	Y	PI 76.1X10					
MF DR	ST-ERW-TUBE				0072-0315-0306					MR
54		HW1011047926	AA10147	361.8	6700.0	1	1	7.03	0.0	7.03
1(1)			PIPE 114.3X13, L=6700	Y	PI 114.3X13.49					
MF DR	ST-B-ERW-PIPE				0072-0315-0306					MR
55		HW1011052946	AA10152	79.0	4850.0	1	1	5.1	0.0	5.1
1(1)			PIPE 76.1X10, L=4850	Y	PI 76.1X10					
MF DR	ST-ERW-TUBE				0072-0315-0306					MR
56		HW1012808980	AA10108	23.85	1600.0	1	1	25.03	0.0	25.03
1(1)			ISMB 150X80,L=1600	Y	150 X 75					
MF DR	ST-A(FE410 WA)BEAM				0072-0301-0306					KG
57		HW1012808980	AA10108	8.95	600.0	1	1	9.4	0.0	9.4
1(1)			ISMB 150X80,L=600	Y	150 X 75					
MF	ST-A(FE410 WA)BEAM				0072-0301-0306					KG
58		HW1011052946	AA10152	31.0	1900.0	1	2	2.0	0.0	4.0
2(2)			PIPE 76.1X10L=1900	Y	PI 76.1X10					
MF DR	ST-ERW-TUBE				0072-0315-0306					MR
59		AA7121123517	AA7121123	0.092	0.0	0	0	0.0	0.0	16.0
16(16)	SCRU HEX A- 8.8		~8.8	Y						
SI DR	M16X40				0075-0236					NO
60	31074456001 00	AA1041801157	AA10401	8.42	250.0X250.0	1	2	12.9	0.0	25.8
2(2)	FLANGE		EN1092-1, P265GH	Y	PL 25			DIA 250		
MF DR	05/A/DN125/PN16				0072-0301-0236					KG

ENGG

TTX

WTX

Initial

Date

Initial

Date

Initial

Date

Worked By

sterk

15.02.2018

ttxakm

23.03.2018

wtxhan

21.03.2018

Checked By

sterk

20.03.2018

ttxsso

23.03.2018

wtxskt

21.03.2018

Approved By

stedkr

24.03.2018

ttxsso

23.03.2018

bk6viv

21.03.2018



# COMBINED BILL OF MATERIAL

Printed On:01.05.2023

Printed By:

CBOM No: 01074050100 CBOM Var: 00  
Description: LPOC UPPER PART FAB & M/C (TS)

Revno: 14

Rev Date: 13.08.2020

Total weight: 12085.0

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
61	41074456099 00	W97310744284		0.02	0.0	1	2	1.0	0.0	2.0
2(2)	GASKET IBC125PN16X2		EN1514-1,ARAMID-NBR	Y						
BO DR					0074-0236					NO
62	31074056137 12	W97310724011		10.7	0.0	1	2	1.0	0.0	2.0
2(2)	LOAD SHACKLE		LOAD SHACKLE-M42	Y						
BO DR					0074-0236					NO

CBOM - 01074050100

	ENGG		TTX		WTX	
	Initial	Date	Initial	Date	Initial	Date
Worked By	sterk	15.02.2018	ttxakm	23.03.2018	wtxhan	21.03.2018
Checked By	sterk	20.03.2018	ttxsso	23.03.2018	wtxskt	21.03.2018
Approved By	stedkr	24.03.2018	ttxsso	23.03.2018	bk6viv	21.03.2018



## COMBINED BILL OF MATERIAL

Printed On:01.05.2023

Printed By:

CBOM No: 01074050200 CBOM Var: 00  
Description: LP CASING UPPER PART FAB. (GS)

Revno: 14

Rev Date: 09.02.2021

Total weight: 11976.0

### RECORD OF CHANGES

Drawing No	Var	Revno	Rev Date	Description
01074050200	00	1	17.04.2018	Norm/pc update for item 35 Lifting Eye
01074050200	00	2	17.04.2018	Auto Revision 31071356137/03
01074050200	00	4	19.04.2018	WEIGHT OF ITEM NO. 51 TO 58 SHOWN.
01074050200	00	6	10.09.2018	Connection Item No. 33 added.
01074050200	00	7	25.09.2018	item no. 59, 60 & 61 added.
01074050200	00	8	28.09.2018	Load Shackle-M42 (Item No. 62,added).
01074050200	00	9	12.12.2019	For Item No: 33: Material code changed from AA1011819341 to AA1041801343. For Item Nos. 51, 56 & 57: Material code changed from AA1012808050 to HW1012808980.
01074050200	00	11	12.06.2020	weight updated
01074050200	00	13	09.07.2020	Weight of item no. 47 & 29 updated
01074050200	00	14	31.07.2020	For Item No 47: Blank size and weight updated by combining in 80mm nesting.The nesting consists of 31074050103(2 no), 21074050104/01(2 no), 21074050104/02(2 no), 31074050107(2 no), 31074050147(2 no)

CBOM - 01074050200

	ENGG		TTX		WTX	
	Initial	Date	Initial	Date	Initial	Date
Worked By	sterk	15.02.2018	ttxakm	23.03.2018	wtxhan	21.03.2018
Checked By	sterk	20.03.2018	ttxsso	23.03.2018	wtxskt	21.03.2018
Approved By	stedkr	24.03.2018	ttxsso	23.03.2018	bk6viv	21.03.2018



# COMBINED BILL OF MATERIAL

Printed On:01.05.2023

Printed By:

CBOM No: 01074050200    CBOM Var: 00    Revno: 14  
Description: LP CASING UPPER PART FAB. (GS)

Rev Date: 09.02.2021  
Total weight: 11976.0

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	01074050200 00			11976.0						
1(1)	LP CASING UPPER PART FAB. (GS)			Y						
MF DR			N	12321.0	0306-0313-0314-0236					
1	21074050101 00	AA1011819155	AA10119	2560.0	2540.0X7618.0	1	1	3987.3	0.0	3987.3
1(1)	PLATE		~S235JR+N	Y	PL 25					made in 2 parts,Offcut900Kg/pc
MF DR					0072-0301-0306-0317-0306					KG
2	21074050102 00	HW1011819953	AA10119	465.0	2500.0X3700.0	1	1	1144.0	0.0	1144.0
1(1)	CONE HALF		~S235JR+N	Y	PL 30					Bend All Inc;Nesting Blnk & Wt
MF DR					0072-0301-0306-0301-0306					KG
3	31074050103 00	AA1011819260	AA10119	140.0	2500.0X2650.0	1	1	2184.5	0.0	2184.5
1(1)	RING		~S235JR+N+Z15	Y	PL 80					2H.Nesting Blnk & Wt
MF DR					0072-0301-0306-0301-0306					KG
4	21074050104 01	AA1011819260	AA10119	370.0	609.0X3300.0	1	0	0.0	0.0	0.0
1(1)	FLANGE		~S235JR+N+Z15	Y	PL 80					Wt in 01074050100 It3
MF DR					0072-0301-0306					KG
5	21074050104 02	AA1011819260	AA10119	370.0	609.0X3300.0	1	0	0.0	0.0	0.0
1(1)	FLANGE		~S235JR+N+Z15	Y	PL 80					Wt in 01074050100 It3
MF DR					0072-0301-0306					KG
6	31074058106 00	AA1011819244	AA10119	11.0	180.0X180.0	1	6	18.7	0.0	112.2
6(6)	BOSS M42X15000		~S355J2+N	Y	PL 70					DIA 180
MF DR					0072-0301-0317-0306					KG
10	41074050110 00	AA1011819198	AA10119	20.9	263.0X385.0	1	2	33.4	0.0	66.8
2(2)	41074050110		~S235JR+N	Y	PL 40					
MF DR					0072-0301-0306					KG
11	41074050111 00	AA1011819198	AA10119	18.7	259.0X335.0	1	2	28.61	0.0	57.22
2(2)	PLATE		~S235JR+N	Y	PL 40					
MF DR					0072-0301-0306					KG
12	41074050112 00	AA1011819198	AA10119	19.2	262.0X346.0	1	2	29.9	0.0	59.8
2(2)	PLATE		~S235JR+N	Y	PL 40					
MF DR					0072-0301-0306					KG

ENGG

TTX

WTX

Initial

Date

Initial

Date

Initial

Date

Worked By

sterk

15.02.2018

ttxakm

23.03.2018

wtxhan

21.03.2018

Checked By

sterk

20.03.2018

ttxsso

23.03.2018

wtxskt

21.03.2018

Approved By

stedkr

24.03.2018

ttxsso

23.03.2018

bk6viv

21.03.2018



# COMBINED BILL OF MATERIAL

Printed On:01.05.2023

Printed By:

CBOM No: 01074050200    CBOM Var: 00    Revno: 14  
Description: LP CASING UPPER PART FAB. (GS)

Rev Date: 09.02.2021  
Total weight: 11976.0

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	ENG SIZE/GRP	Fab Wt	Route		Spare Code	Unit	
13	41074050113 00	AA1011819198	AA10119	21.5	263.0X400.0	1	2	34.68	0.0	69.36
2(2)	PLATE		~S235JR+N	Y	PL 40					
MF DR										KG
15	31074050115 00	HY1048655792	AA10455	112.0	1671.0	1	2	1.75	0.0	3.5
2(2)	PIPE		P235GH-TC2	Y	139.7X25					
MF DR										MR
16	31074050115 01	HY1048655792	AA10455	127.0	1905.0	1	2	2.0	0.0	4.0
2(2)	PIPE		P235GH-TC2	Y	139.7X25					
MF DR										MR
17	31074050115 02	HY1048655792	AA10455	140.0	2109.0	1	2	2.21	0.0	4.42
2(2)	PIPE		P235GH-TC2	Y	139.7X25					
MF DR										MR
18	41074056117 00	AA1010209264	AA10109	2.3	60.0	1	1	3.696	0.0	3.696
1(1)	ROUND		~S235JR	Y	RND 100					
MF DR										KG
20	41074050120 00	AA1011819198	AA10119	20.5	263.0X376.0	1	2	32.6	0.0	65.2
2(2)	PLATE		~S235JR+N	Y	PL 40					
MF DR										KG
21	41074050121 00	AA1011819198	AA10119	19.5	262.0X354.0	1	2	30.58	0.0	61.16
2(2)	PLATE		~S235JR+N	Y	PL 40					
MF DR										KG
24	41074056121 00	AA1010209140	AA10109	0.2	50.0	1	3	0.316	0.0	0.948
3(3)	BOSS		~S235JR+N	Y	RND 32					
MF DR										KG
25	41074050125 00	HW1013608917	AA10108	2.8	150.0	1	4	3.0	0.0	12.0
4(4)	I-PROFILE		S235JR	Y	IPB 100					
MF DR										KG
26	41074056123 00	HW1011819953	AA10119	0.5	20.0X100.0	1	0	0.0	0.0	0.0
1(1)	FLAT		~S235JR+N	Y	PL 30					Wt in 01074050100 It2
MF DR										KG

ENGG

TTX

WTX

Worked By	sterk	15.02.2018	ttxakm	23.03.2018	wtxhan	21.03.2018
Checked By	sterk	20.03.2018	ttxsso	23.03.2018	wtxskt	21.03.2018
Approved By	stedkr	24.03.2018	ttxsso	23.03.2018	bk6viv	21.03.2018



## COMBINED BILL OF MATERIAL

Printed On:01.05.2023

Printed By:

**CBOM No:** 01074050200 **CBOM Var:** 00 **Revno:** 14  
**Description:** LP CASING UPPER PART FAB. (GS)

**Rev Date:** 09.02.2021  
**Total weight:** 11976.0

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
29	11074050129 00	AA1011819155	AA10119	4716.0	2682.0X10378.0	1	1	5735.5	0.0	5735.5
1(1)	PLATE		~S235JR+N	Y	PL 25		can be made in parts.			
MF DR					0072-0301-0306-0301-0306					KG
31	41074056127 00	HW1050268075	HW10568	1.3	120.0	1	1	1.848	0.0	1.848
1(1)	CONNECTION		~S235JR+N+Z15	Y	RND 50					
MF DR					0072-0315-0317-0306					KG
32	41074056128 00	AA1011819244	AA10119	177.4	500.0X650.0	1	4	187.5	0.0	750.0
4(4)	PLATE		~S235JR+N+Z15	Y	PL 70					
MF DR					0072-0301-0306					KG
33	41074056129 00	AA1041801343	AA10401	37.3	260.0X260.0	1	1	72.4	0.0	72.4
1(1)	CONNECTION			Y	PL 150 MM		Dia 260			
MF DR					0072-0301-0317-0306					KG
35	31071356137 03	W97310713109		19.0	0.0	0	0	1.0	0.0	4.0
4(4)	LIFTING EYE		KUN693.20	Y						
BO DR					0074-0306					NO
36	31071456001 00	AA1041801297	AA10401	84.1	1030.0X1030.0	1	1	962.0	0.0	962.0
1(1)	flange		S235JRG2+N	Y	PL 110		off cut wt=380.0 kg/pc			
MF DR					0072-0301-0317-0306					KG
47	31074050147 00	AA1011819260	AA10119	259.0	160.0X2575.0	1	2	271.7	0.0	543.4
2(2)	FLANGE			Y	PL 80					
MF DR					0072-0301-0306					KG
48	31074050148 00	AA1011819058	AA10119	59.6	620.0X2528.0	1	1	103.4	0.0	103.4
1(1)	PIPE		~S235JR	Y	PL 8					
MF DR					0072-0301-0306					KG
50	21073850108 00	AA1010209302	AA10109	11.2	200.0	1	2	31.53	0.0	63.06
2(2)	WELD IN LUG		~S235JR+N	Y	RND 160					
MF DR					0072-0236-0306					KG
51		AA1012808050	AA10108	114.73	7700.0	1	1	120.5	0.0	120.5
1(1)			ISMB150X80,L=7700	Y	ISMB 150X80					
MF DR	ST-A(FE410 WA)BEAM				0072-0301-0306					KG

	ENGG		TTX		WTX	
	Initial	Date	Initial	Date	Initial	Date
Worked By	sterk	15.02.2018	ttxakm	23.03.2018	wtxhan	21.03.2018
Checked By	sterk	20.03.2018	ttxsso	23.03.2018	wtxskt	21.03.2018
Approved By	stedkr	24.03.2018	ttxsso	23.03.2018	bk6viv	21.03.2018



## COMBINED BILL OF MATERIAL

Printed On:01.05.2023

Printed By:

**CBOM No:** 01074050200 **CBOM Var:** 00  
**Description:** LP CASING UPPER PART FAB. (GS)

**Revno:** 14

**Rev Date:** 09.02.2021

**Total weight:** 11976.0

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
52		HW1011052946	AA10152	39.14	2400.0	1	2	2.52	0.0	5.04
2(2)			PIPE 76.1X10, L=2400	Y	PI 76.1X10					
MF	DR	ST-ERW-TUBE			0072-0315-0306					MR
53		HW1011052946	AA10152	29.35	1800.0	1	6	1.9	0.0	11.4
6(6)			PIPE 76.1X10, L=1800	Y	PI 76.1X10					
MF	DR	ST-ERW-TUBE			0072-0315-0306					MR
54		HW1011047926	AA10147	361.8	6700.0	1	1	7.03	0.0	7.03
1(1)			PIPE 114.3X13, L=6700	Y	PI 114.3X13.49					
MF	DR	ST-B-ERW-PIPE			0072-0315-0306					MR
55		HW1011052946	AA10152	79.0	4850.0	1	1	5.1	0.0	5.1
1(1)			PIPE 76.1X10, L=4850	Y	PI 76.1X10					
MF	DR	ST-ERW-TUBE			0072-0315-0306					MR
56		AA1012808050	AA10108	23.84	1600.0	1	1	25.03	0.0	25.03
1(1)			ISMB 150X80,L=1600	Y	ISMB 150X80					
MF	DR	ST-A(FE410 WA)BEAM			0072-0301-0306					KG
57		AA1012808050	AA10108	8.95	600.0	1	1	9.4	0.0	9.4
1(1)			ISMB 150X80,L=600	Y	ISMB 150X80					
MF	DR	ST-A(FE410 WA)BEAM			0072-0301-0306					KG
58		HW1011052946	AA10152	31.0	1900.0	1	2	2.0	0.0	4.0
2(2)			PIPE 76.1X10, L=1900	Y	PI 76.1X10					
MF	DR	ST-ERW-TUBE			0072-0315-0306					MR
59		AA7121123517	AA7121123	0.092	0.0	0	0	0.0	0.0	8.0
8(8)		SCRU HEX A- 8.8	~8.8	Y						
SI	DR	M16X40			0075-0236					NO
60		31074456001 00	AA1041801157	8.42	250.0X250.0	1	1	12.9	0.0	12.9
1(1)		FLANGE	EN1092-1, P265GH	Y	PL 25			DIA 250		
MF	DR	05/A/DN125/PN16			0072-0301-0236					KG
61		41074456099 00	W97310744284	0.02	0.0	1	1	1.0	0.0	1.0
1(1)		GASKET IBC125PN16X2	EN1514-1,ARAMID-NBR	Y						
BO	DR				0074-0236					NO

**ENGG**

**TTX**

**WTX**

**Initial**

**Date**

**Initial**

**Date**

**Initial**

**Date**

Worked By

sterk

15.02.2018

ttxakm

23.03.2018

wtxhan

21.03.2018

Checked By

sterk

20.03.2018

ttxsso

23.03.2018

wtxskt

21.03.2018

Approved By

stedkr

24.03.2018

ttxsso

23.03.2018

bk6viv

21.03.2018



# COMBINED BILL OF MATERIAL

Printed On:01.05.2023

Printed By:

CBOM No: 01074050200 CBOM Var: 00  
Description: LP CASING UPPER PART FAB. (GS)

Revno: 14

Rev Date: 09.02.2021

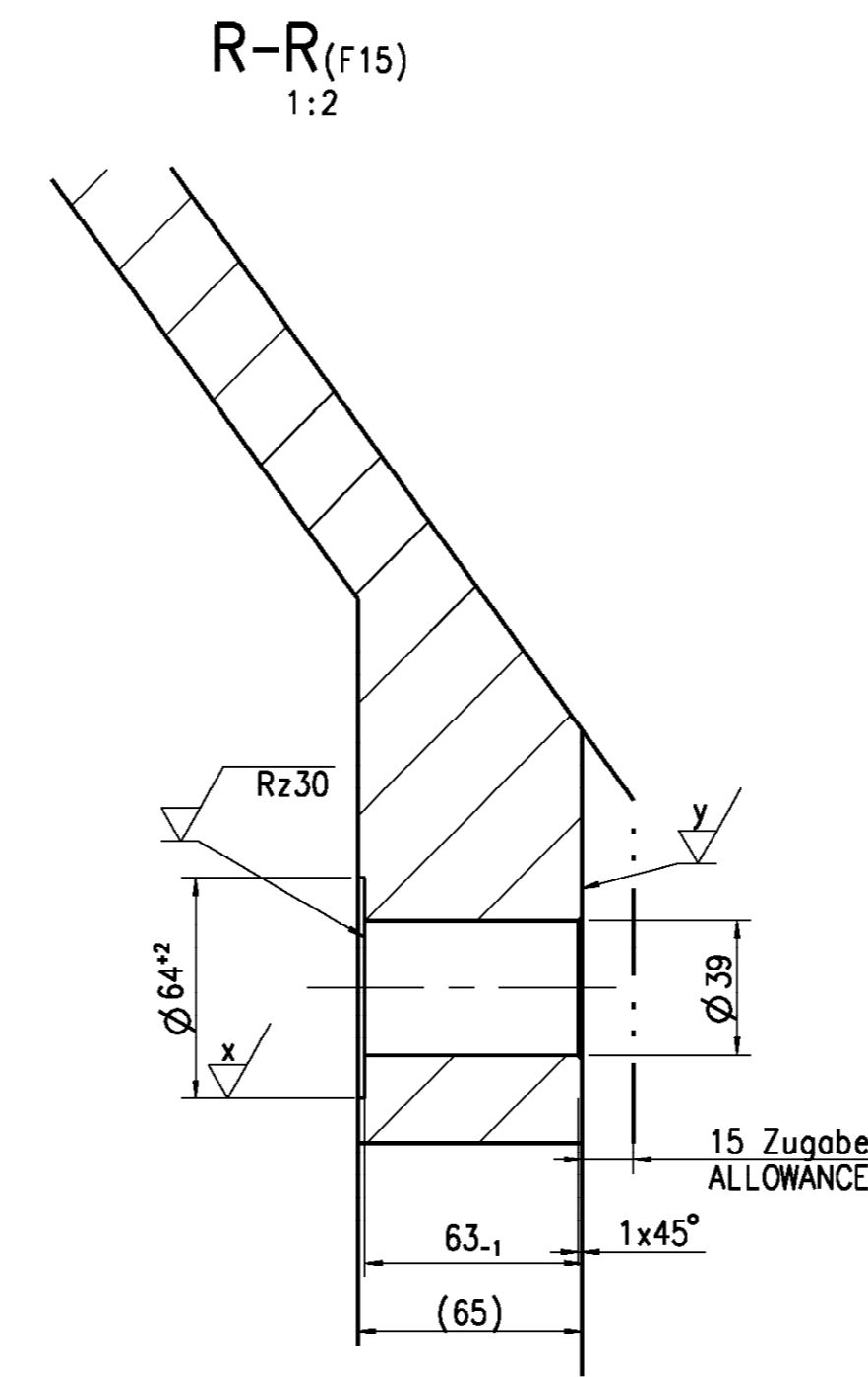
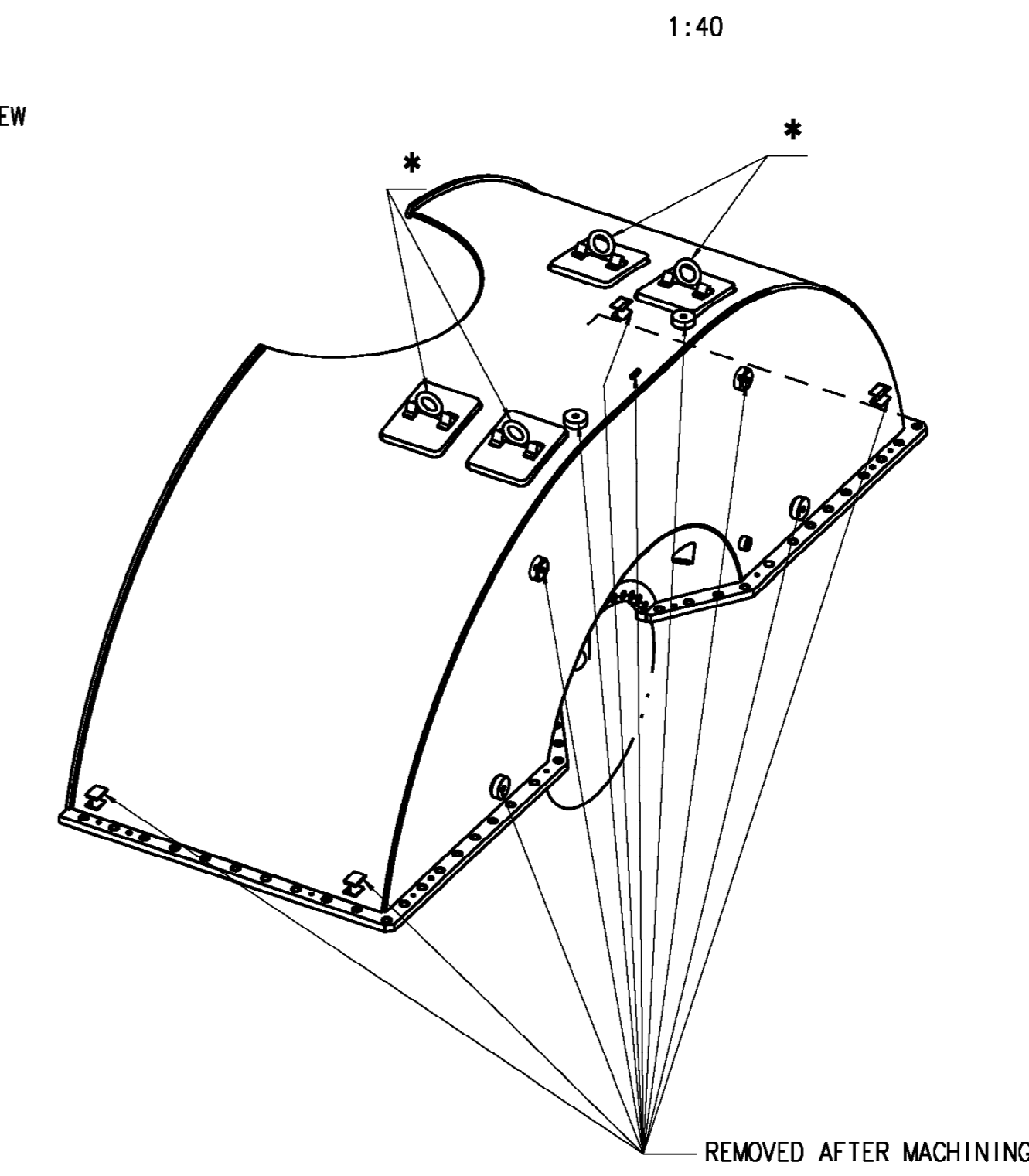
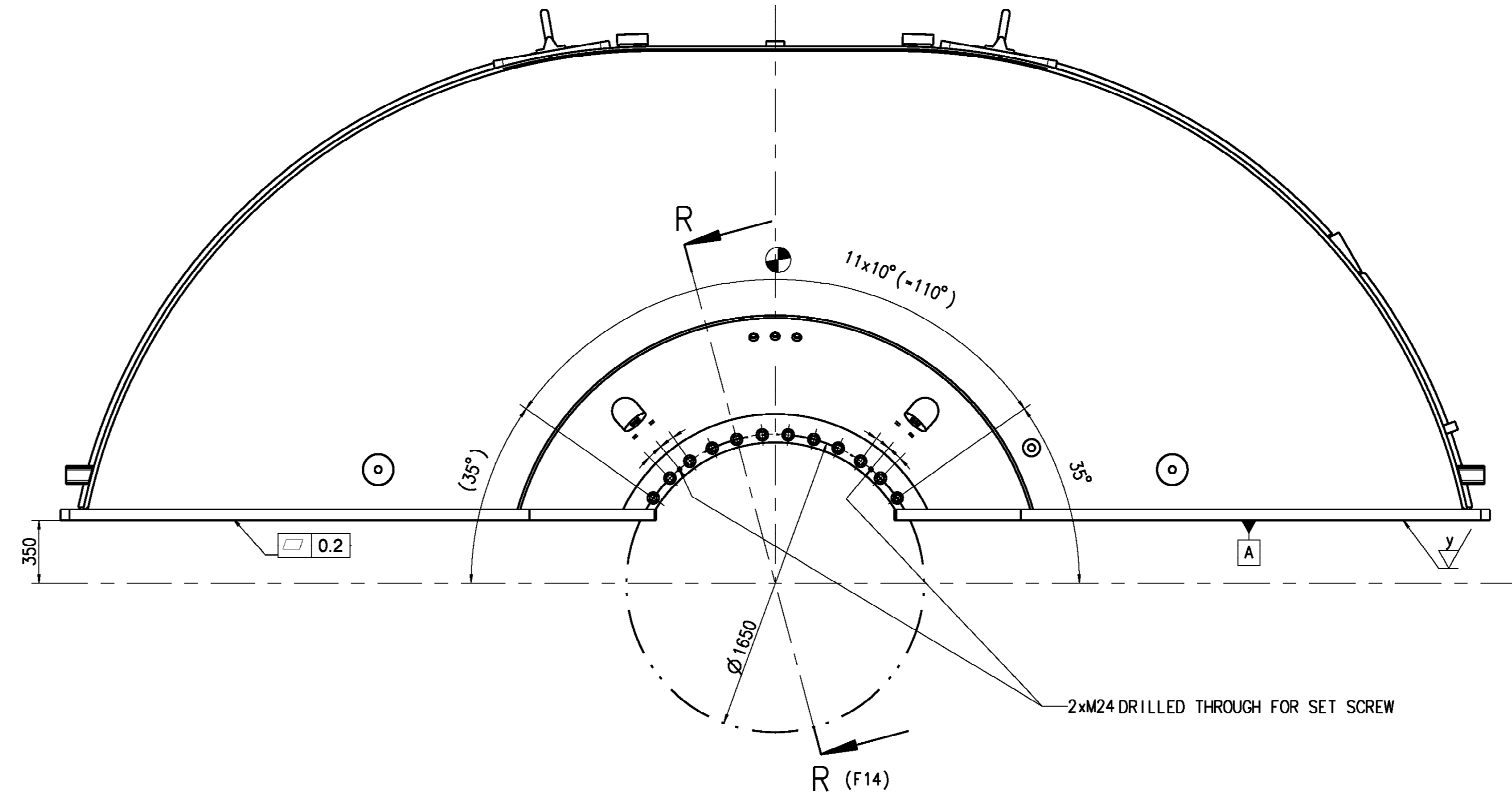
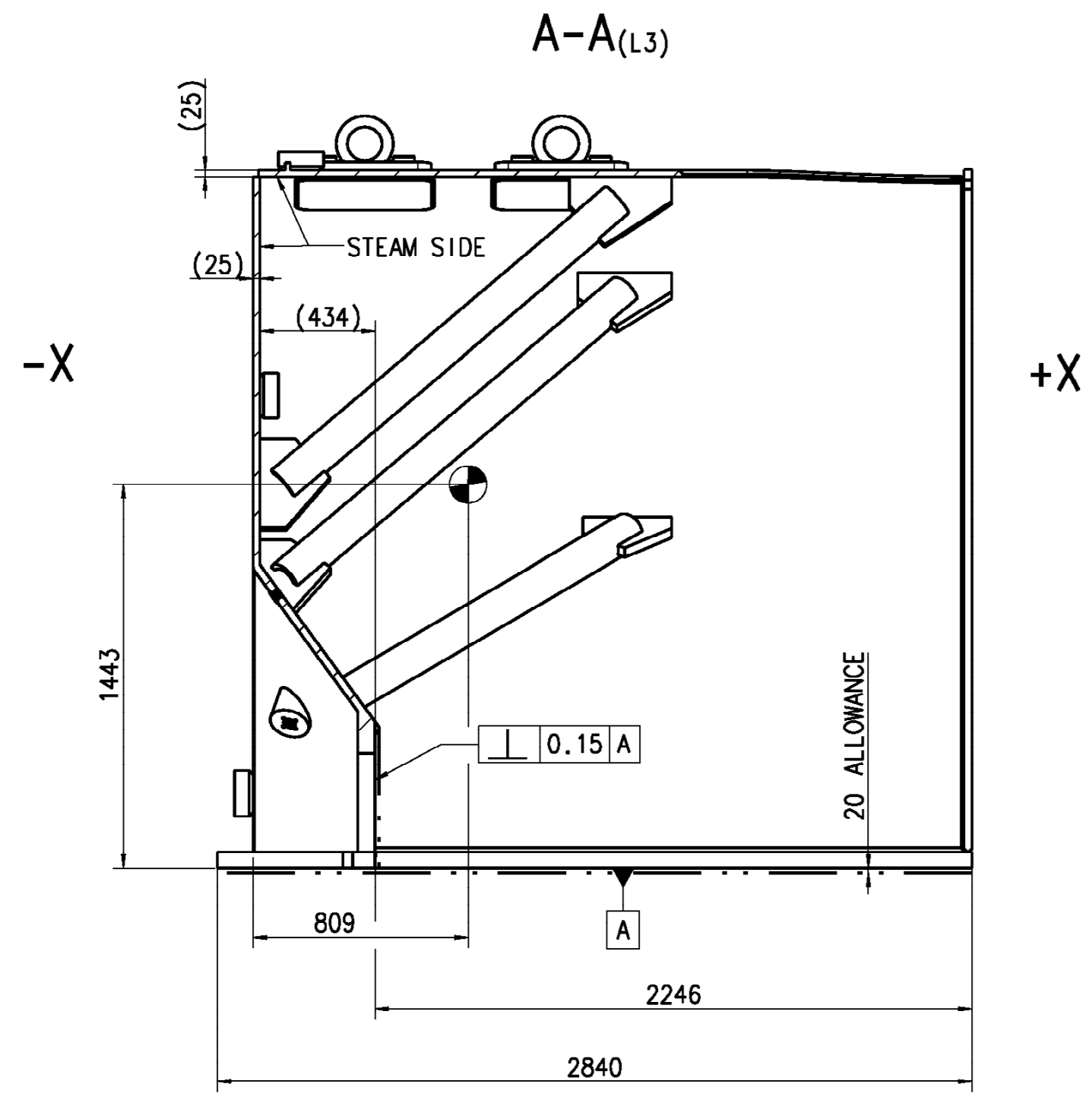
Total weight: 11976.0

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
62	31074056137	12		W97310724011		10.7	0.0	1	2	1.0	0.0	2.0
2(2)	LOAD SHACKLE				LOAD SHACKLE-M42	Y						
BO	DR						0074-0236					NO

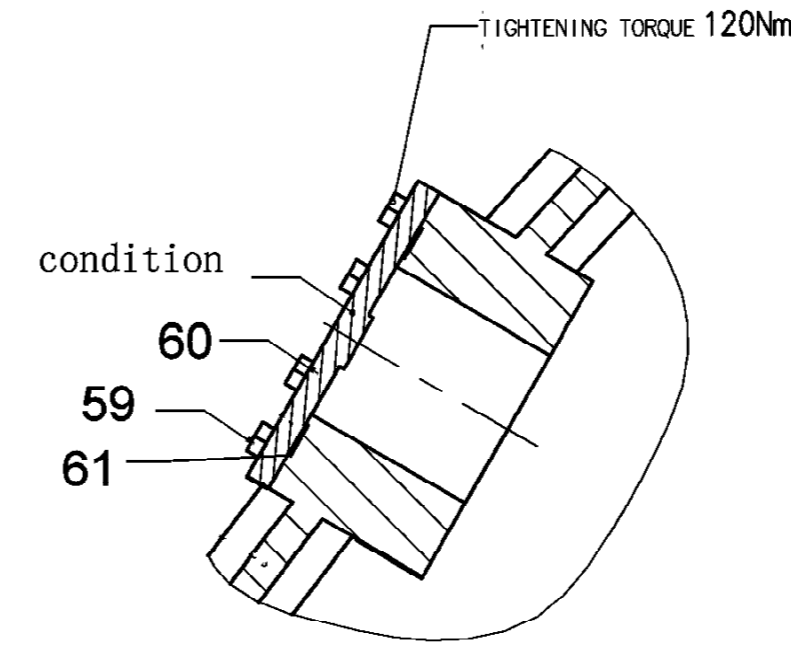
CBOM - 01074050200 00

	ENGG		TTX		WTX	
	Initial	Date	Initial	Date	Initial	Date
Worked By	sterk	15.02.2018	ttxakm	23.03.2018	wtxhan	21.03.2018
Checked By	sterk	20.03.2018	ttxsso	23.03.2018	wtxskt	21.03.2018
Approved By	stedkr	24.03.2018	ttxsso	23.03.2018	bk6viv	21.03.2018

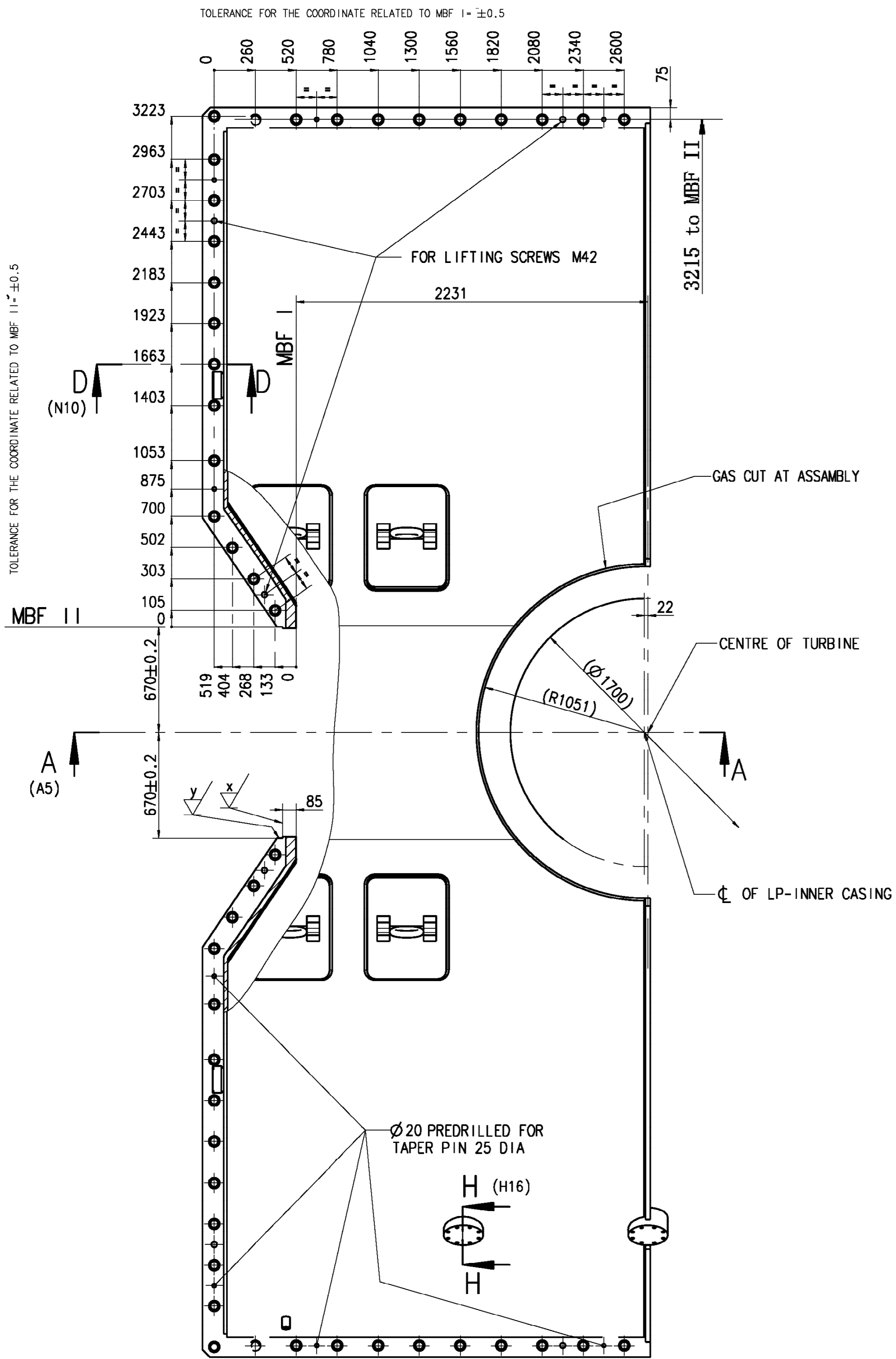
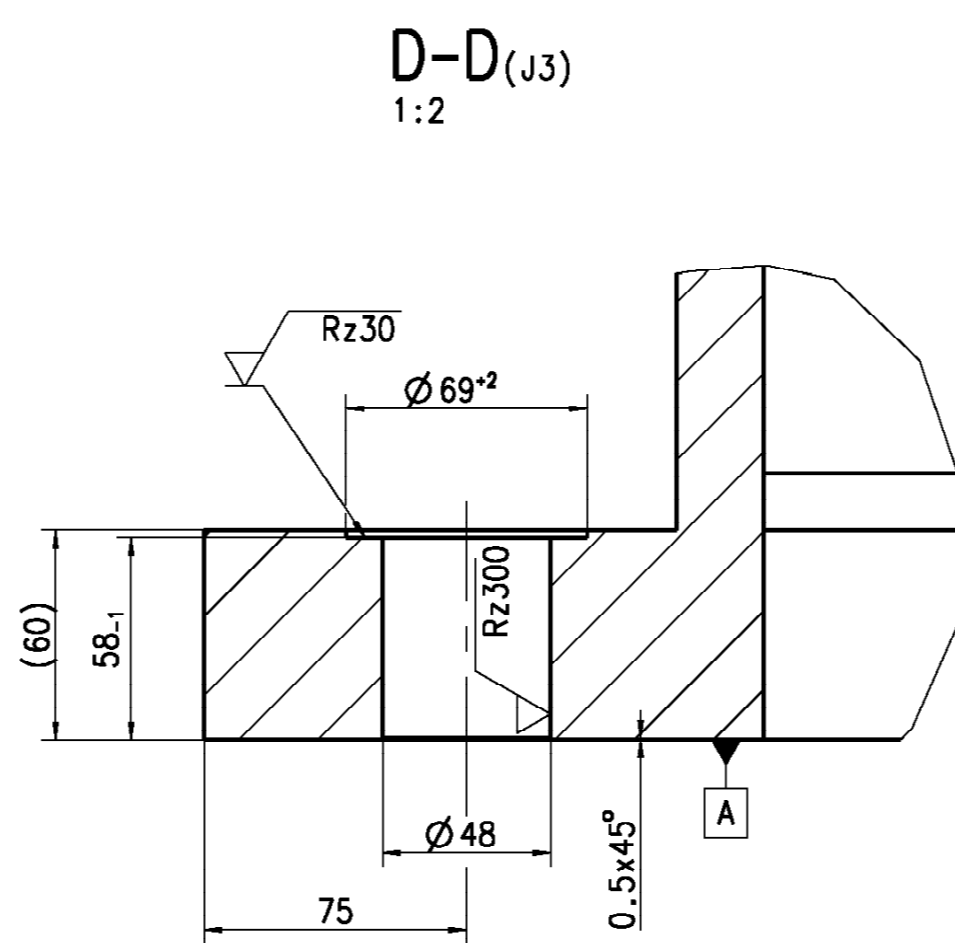
01074050100	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
-------------	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----



SECTION H-H(P7) 1:5



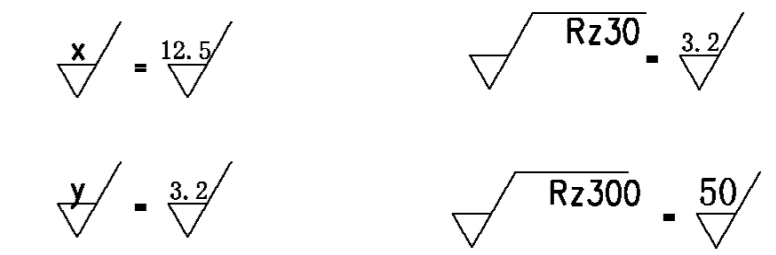
To be sent in assembled condition



CENTER OF GRAVITY

\* ATTENTION: TO MOVE THE WHOLE CASING UPPER PART USE THE LIFTING EYES IN THE REINFORCED AREA

MBF - DIMENSION REFERENCE PLANE



- Technical Requirements:
1. Identification according to HWD400397.
  2. To move the whole casing upper part use the lifting eyes in reinforced area.

NOTE: 5% VARIATION IN TOTAL FABRICATED/ ASSEMBLY WEIGHT MAY BE POSSIBLE DUE TO VARIATION IN THICKNESS OF PLATE AS PER EN10028/16:1982.

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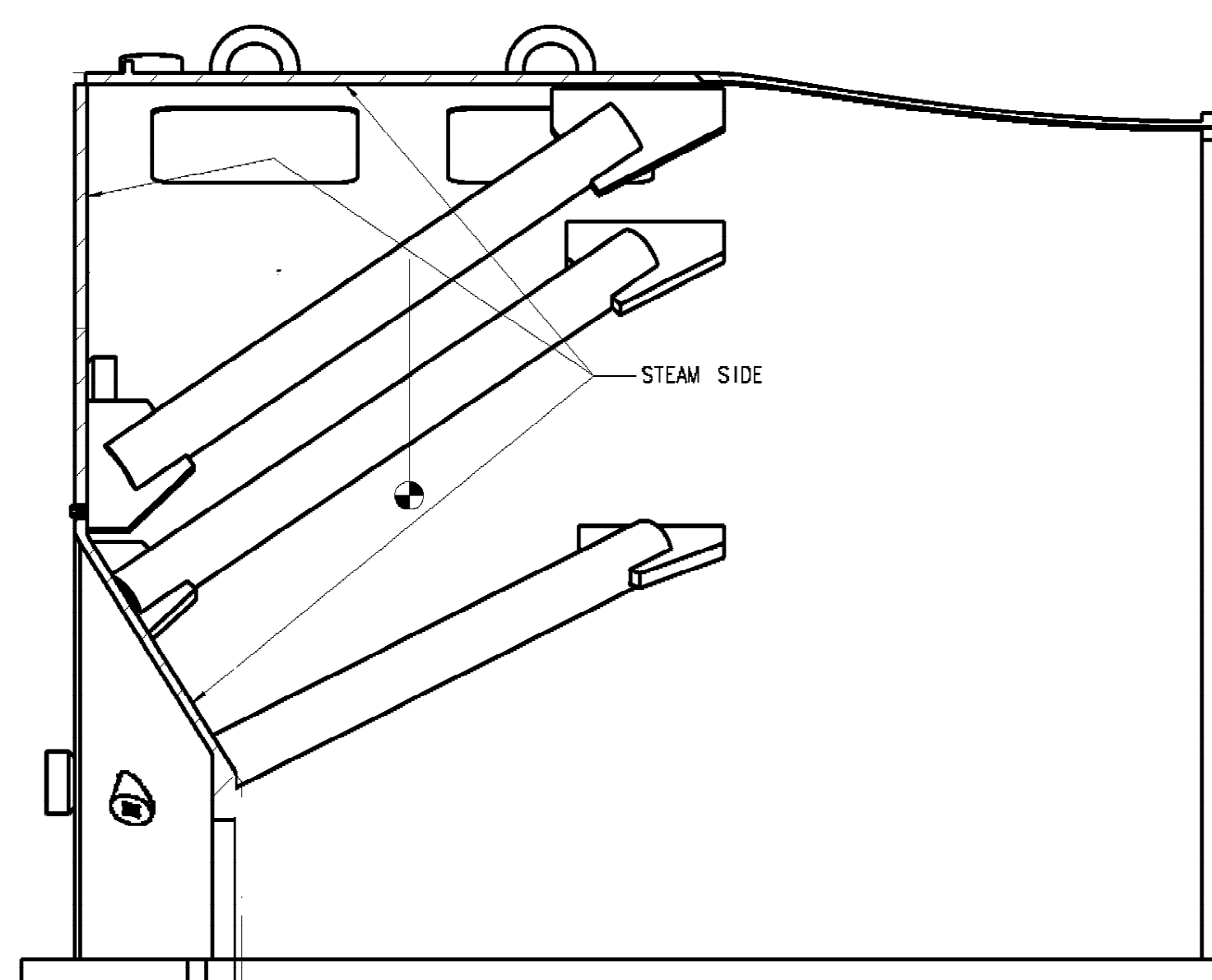
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08	28.01.2021	CHECKED	DINESH SD.	05	16.06.20	CHECKED	RITESH SD.	04	03.03.18	CHECKED	DINESH SD.	03	09.11.2016	CHECKED	RITESH SD.	02	11.09.18	CHECKED	RITESH SD.
NO CHANGE TABLE ARE REMOVED AND WEIGHT ADDED IN TITLE BOX AS PER CIA NO. STE-20-F0176 AS PER CIA NO. STE-21-F0208 NO CHANGE AS PER CIA NO. STE-18-F0208 1. DISTANCE OF HOLE FROM MBF IS SHOWN. 2. TOLERANCE ON JOINT PLANE SHOWN. AS PER CIA NO. STE-18-F0311 SH1. ADDED. NOTE ADDED. AS PER CIA NO. STE-18-F0244. AS PER CIA NO. STE-18-F0152																			

GMS NEW C.B.O.M 01074050000		STATUS OF PART		TYPE OF PRODUCT		STEAM TURBINE	
GRADE OF UNTOL DIM		WTX SKT SD.		NAME OF CUSTOMER/PROJECT		BHARAT HEAVY ELECTRICALS LTD.	
WELDING-MBF/CD / AA0221104		TTX SSO SD.		RANIPUR, HARDWAR		RANIPUR, HARDWAR	
GAS CUTTING-T3/AA0221101		DATE		DEPT		STE	
SH1. ADDED.		27.09.18		4011		SCALE	
NOTE ADDED.		01.09/18		12085		WEIGHT (KG)	
AS PER CIA NO. STE-18-F0152		01.09/18		REF. TO ASSY. DRG		CARD	
				01074050000		DRAWING NO.	
				LP CASING UPPER PART -TS		01074050100	
				(Machining Drg.)		22.23.24	
				SHEET No. 01		No. OF SHEETS 03	

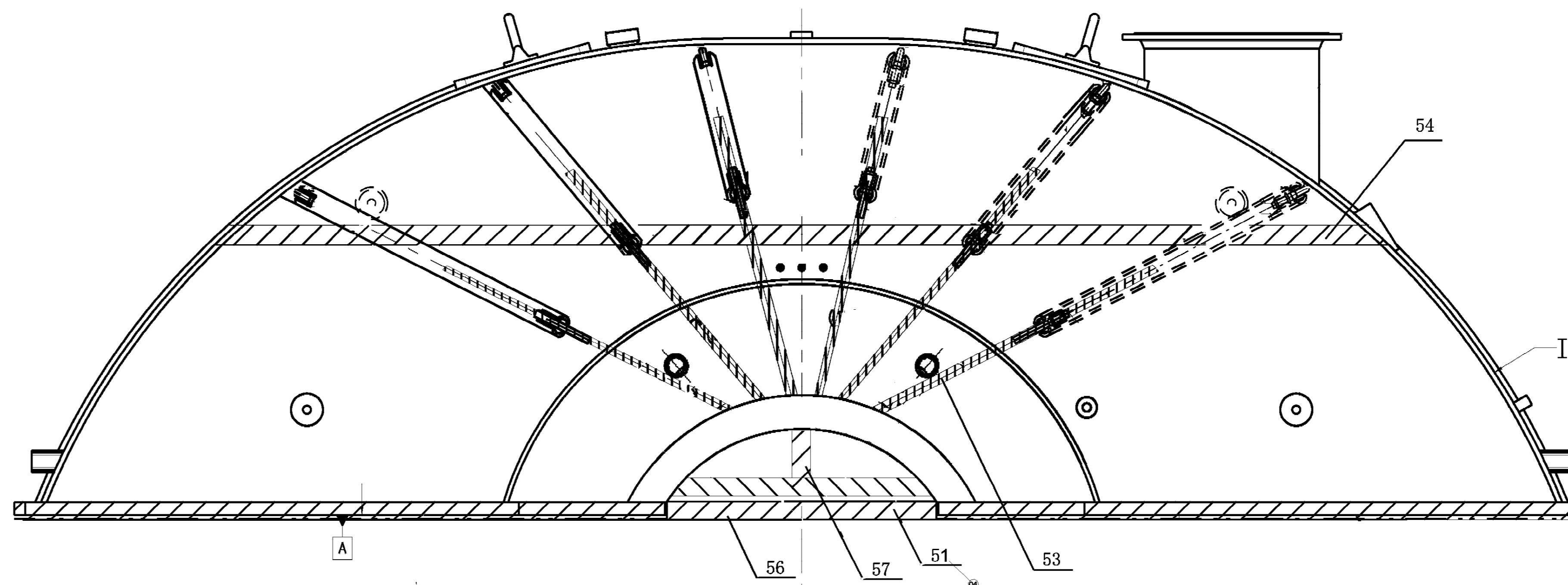


0010907L010

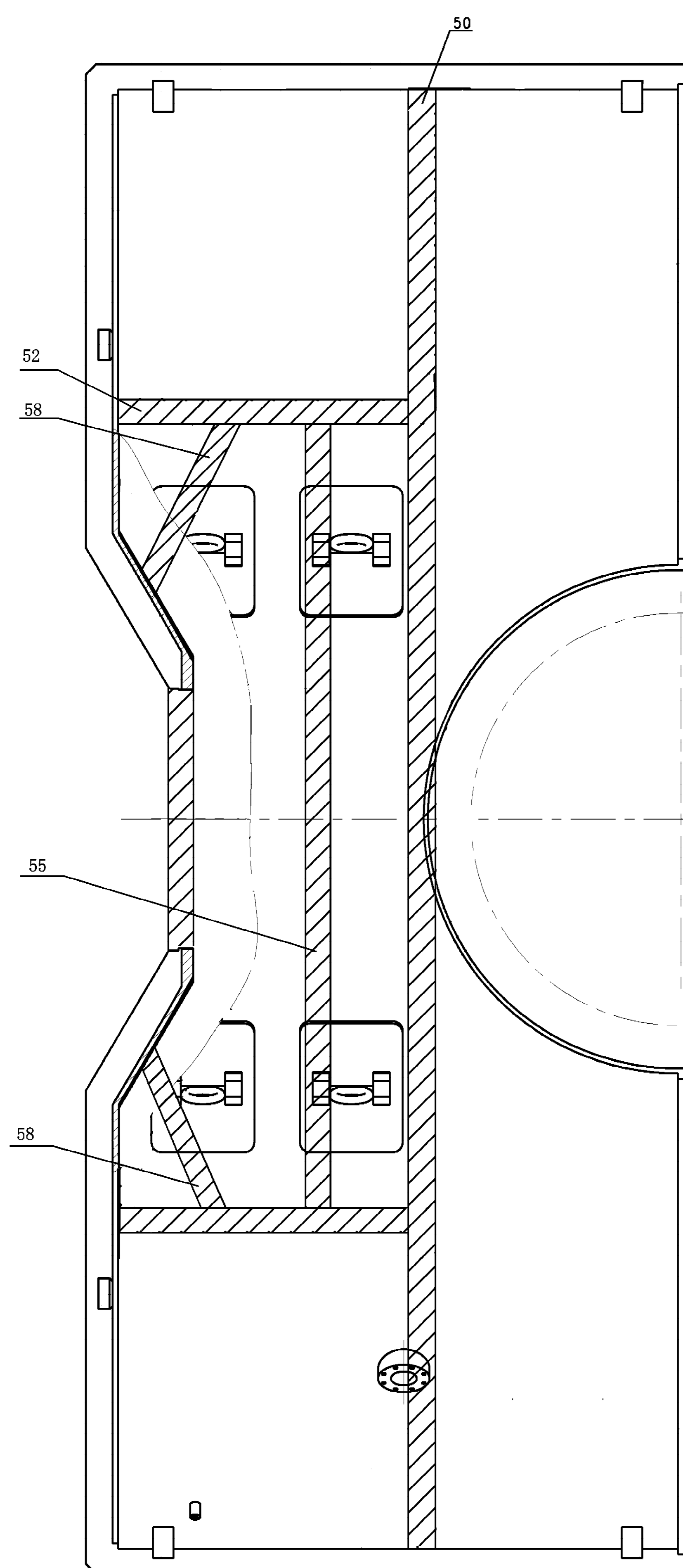
A-A(L8)



E (C2)



B(A4)



### Technical Requirements:

- a. Technological supports I Beam, item no 56 & 57 to be assembled and welded keeping 30mm down from the machining face of circular flange.
- b. It is to be ensured that technological pipe supports welding do not overlap on the welded seam of assembly components.
- c. Technological supports to be used 30mm-40mm apart from the surface where machining allowances are given.

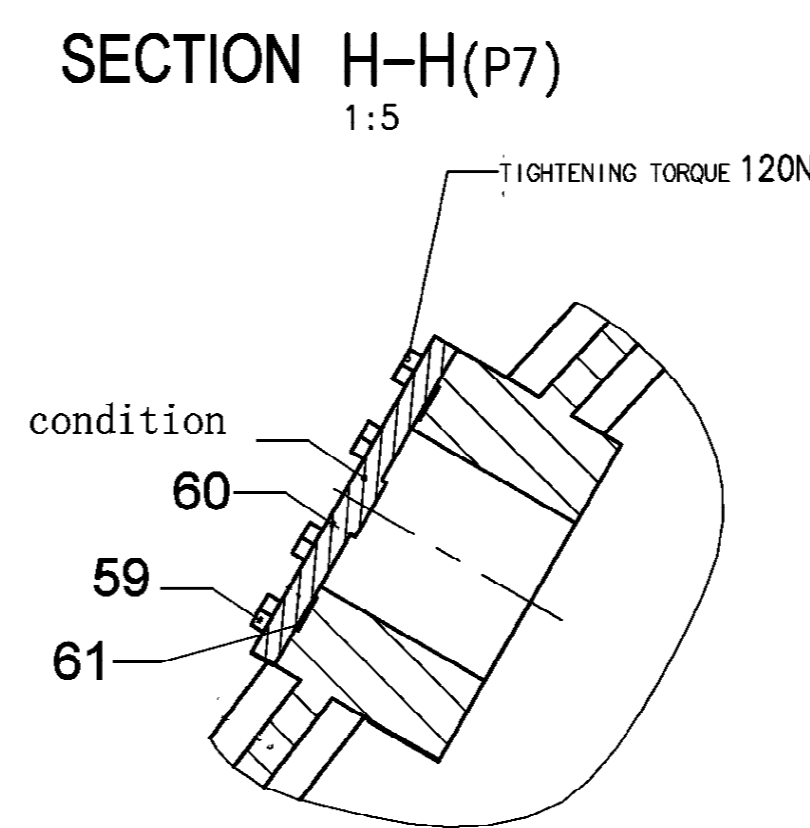
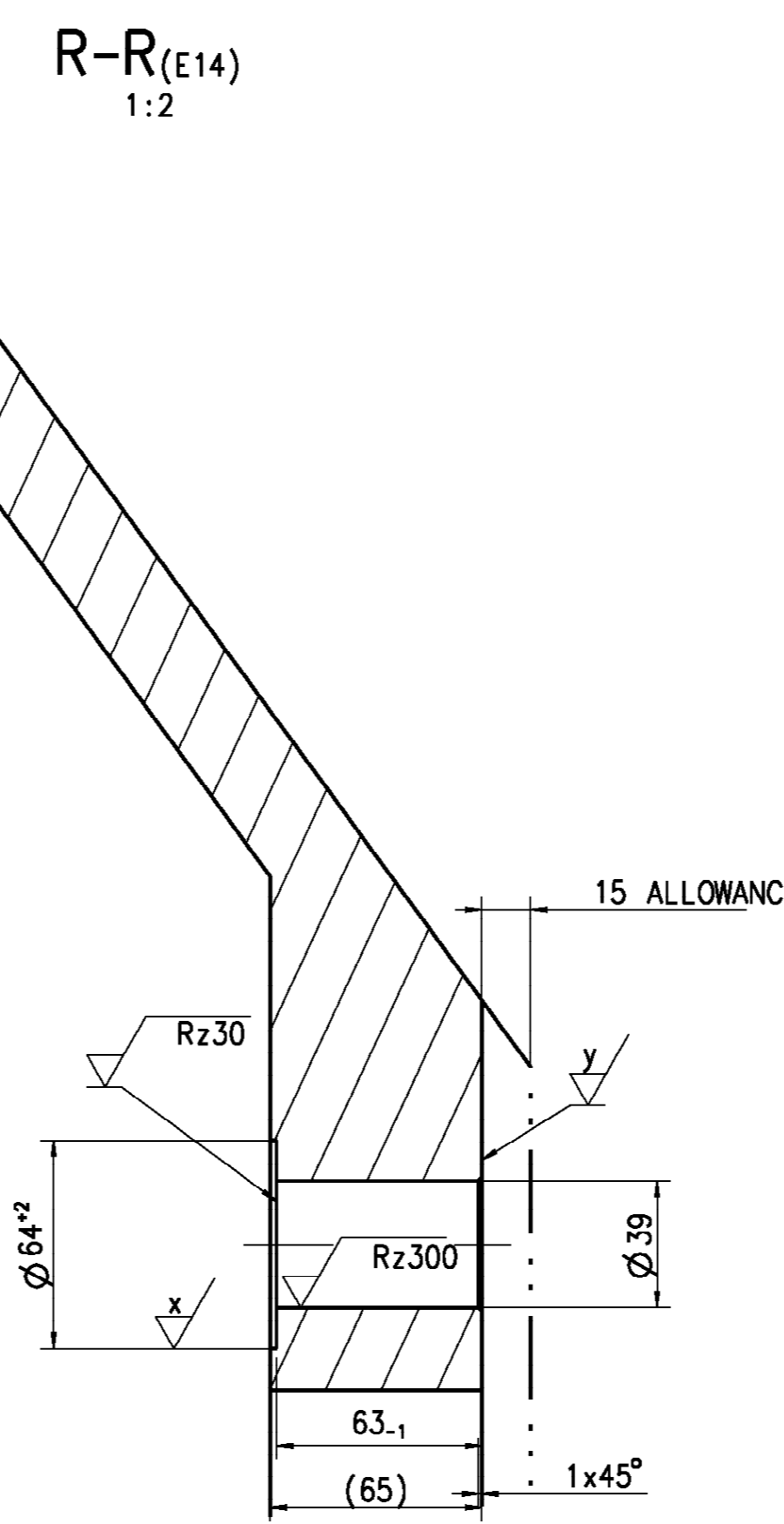
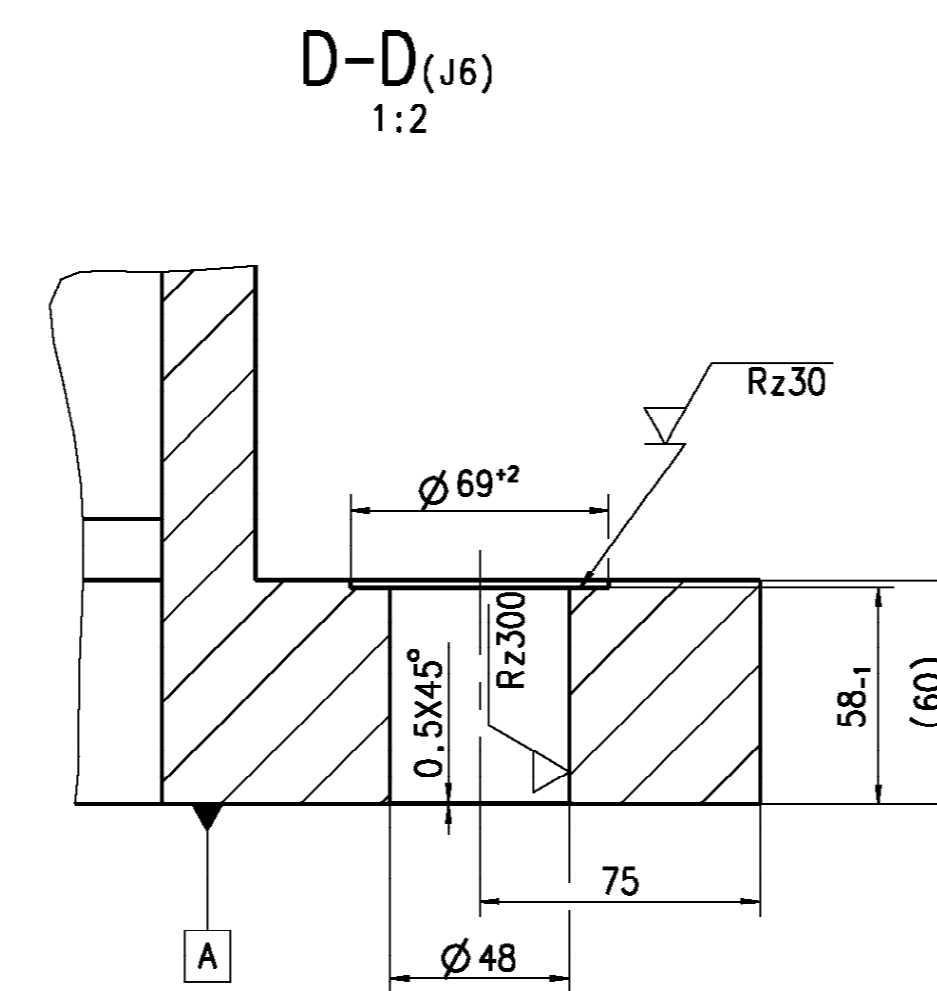
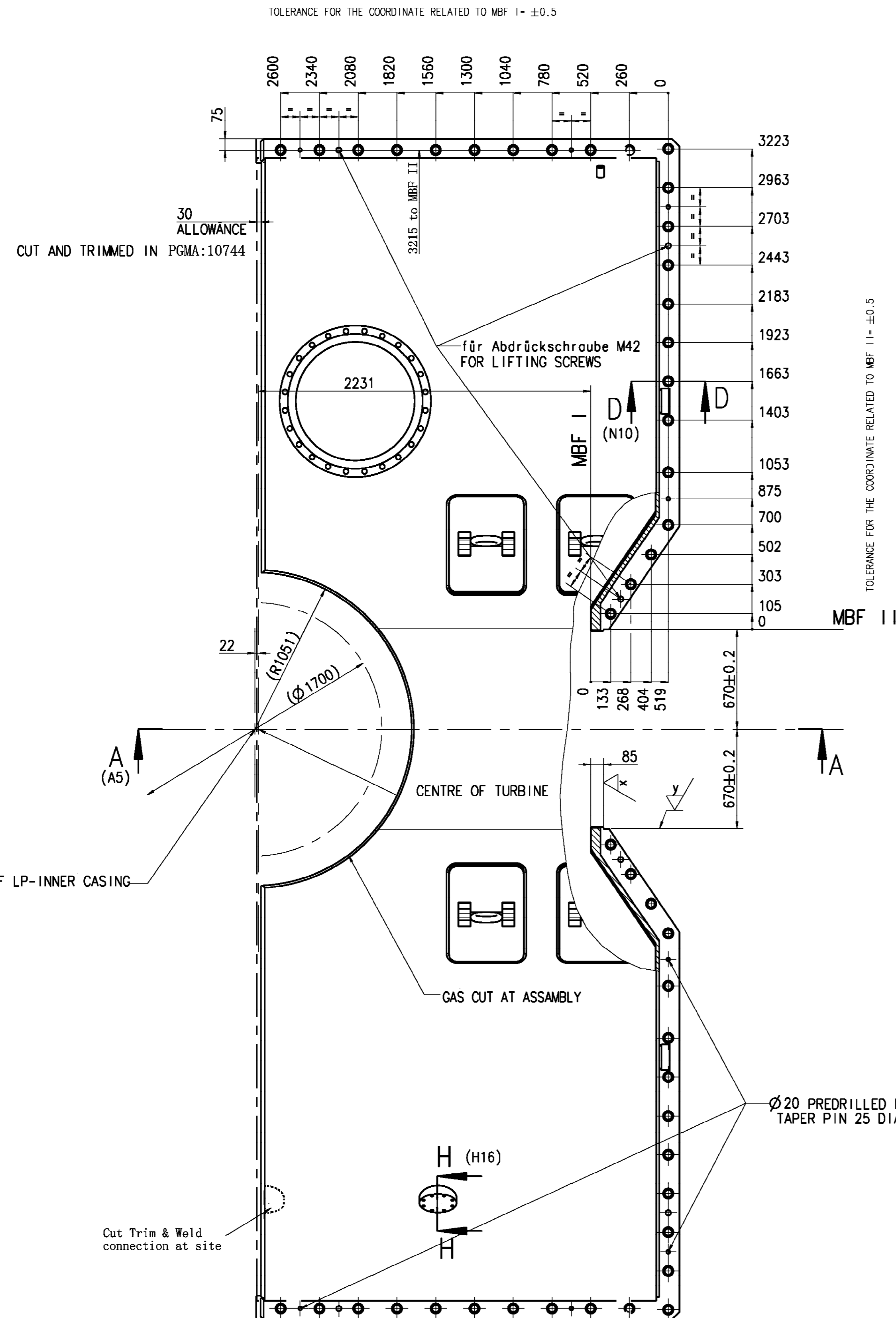
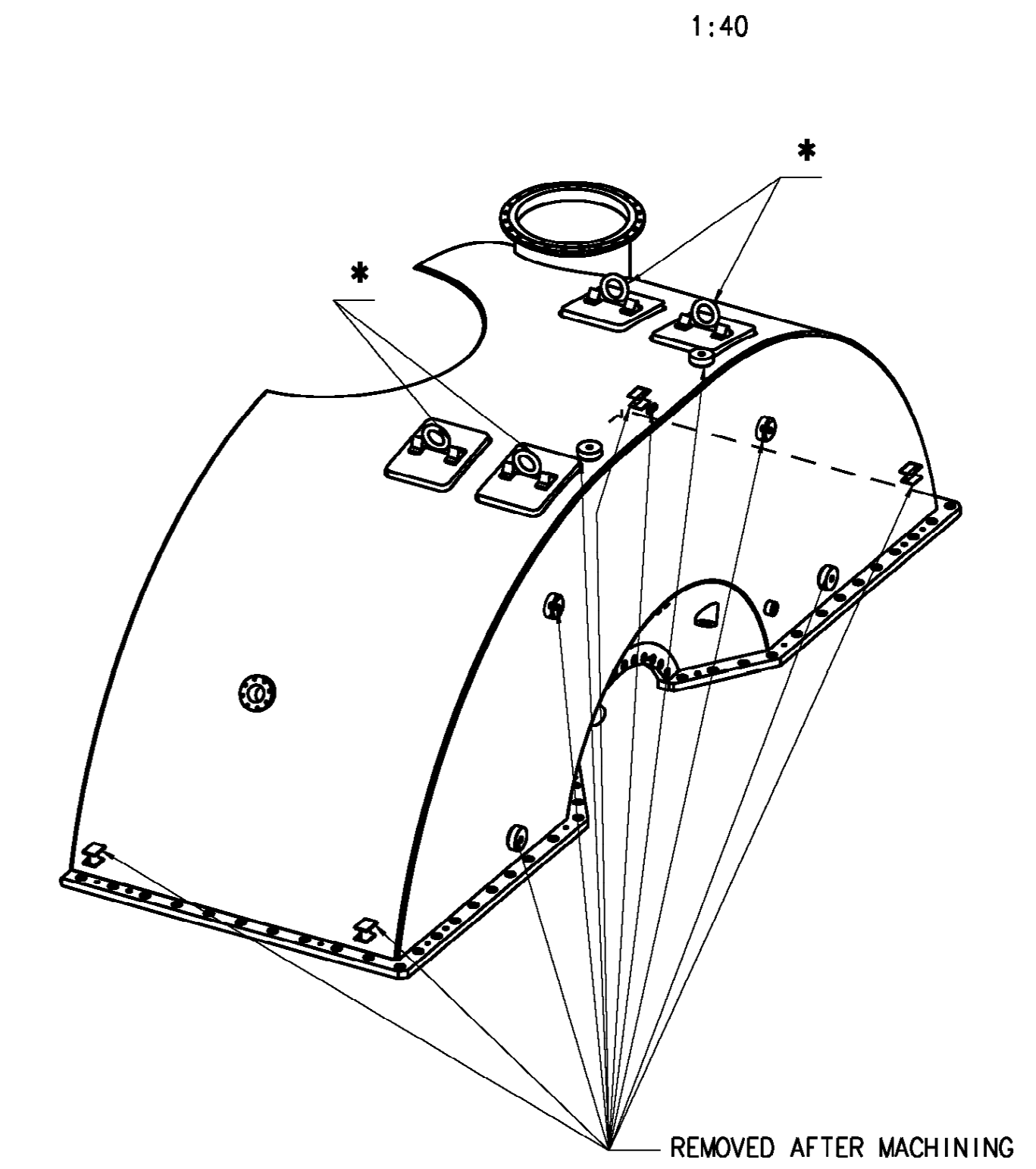
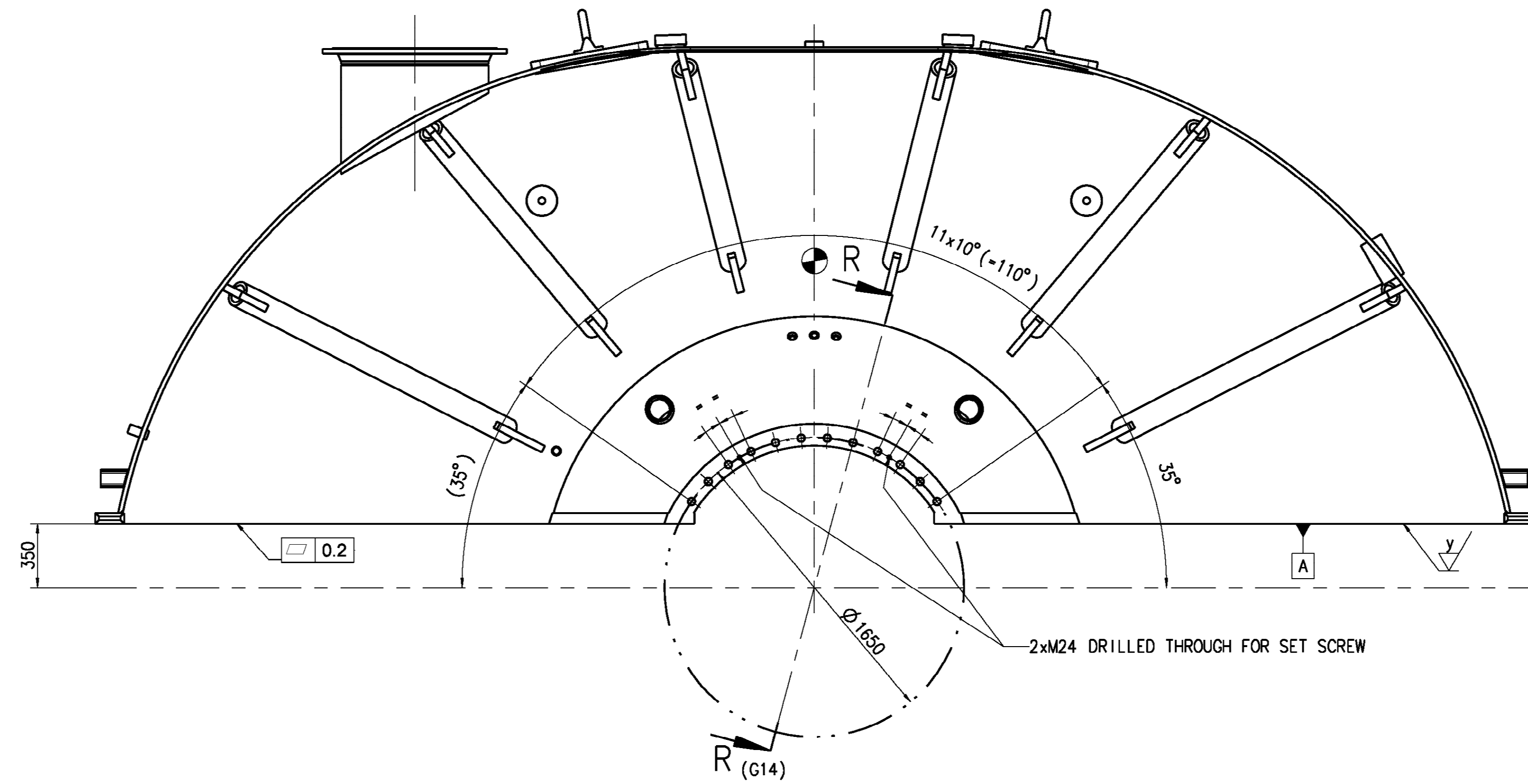
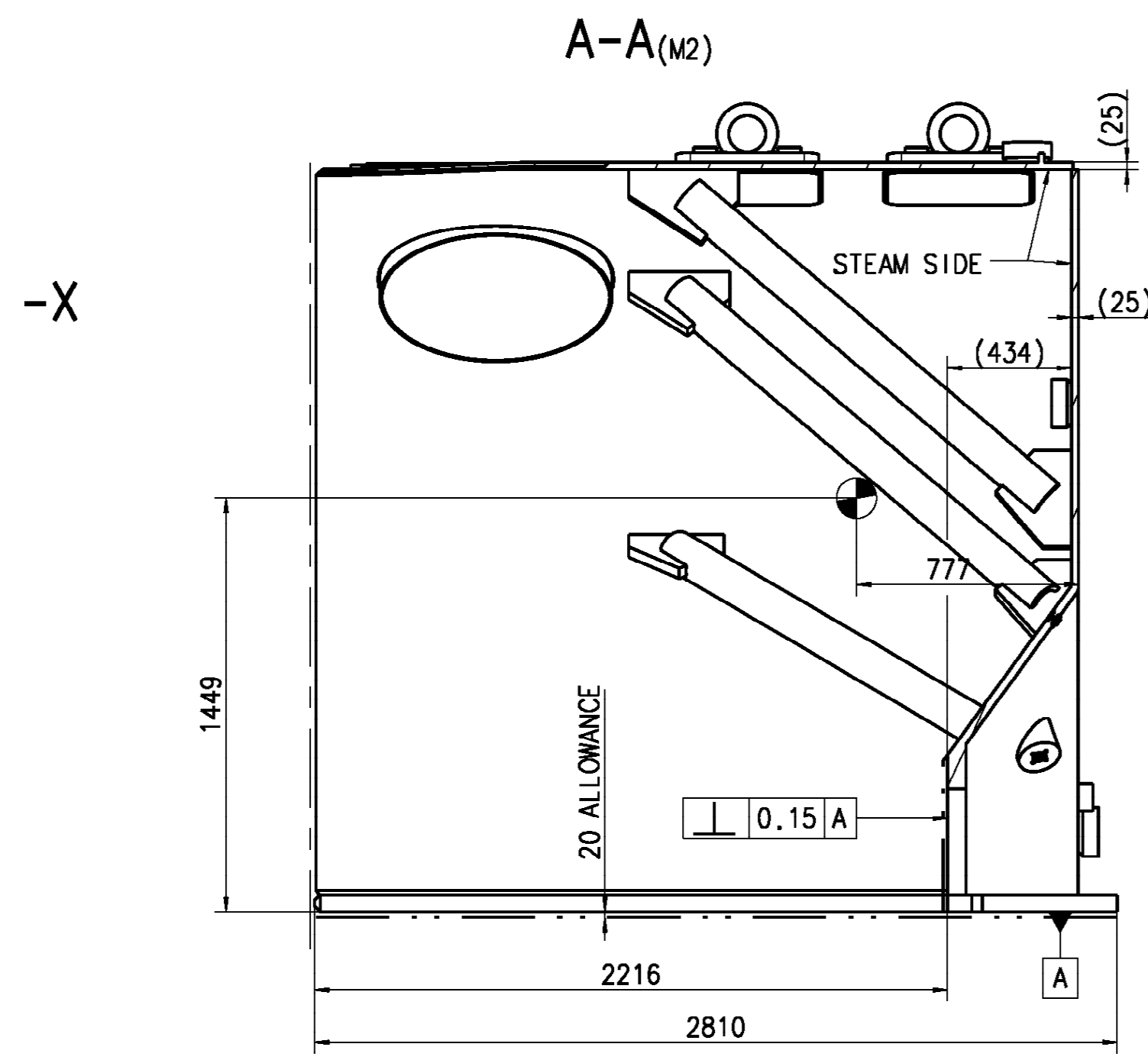
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DRAWING NO. DHPFC-70181717  
SIGN & DATE

REV	DATE	ALTERED	MONIKA SD:	REV	DATE	ALTERED	MONIKA SD:	REV	DATE	ALTERED	MANOJ SD:	REV	DATE	ALTERED	MONIKA SD:	REV	DATE	ALTERED	MONIKA SD:
06	20.01.2021	CHECKED	DINESH GOND SD:	05	18.08.20	CHECKED	RITESH SD:	04	13.01.18	CHECKED	DINESH SD:	03	09.11.2018	CHECKED	RITESH SD:	02	11.09.18	CHECKED	RITESH SD:
NO CHANGE.				NO CHANGE.				ITEM NO 61 ADDED & SECTION RE UPDATED				NO CHANGE				SH1. ADDED.			
AS PER CIA NO. STE-21-F0028.				AS PER CIA NO. STE-20-F0178.				AS PER CIA NO. STE-18-F0096.				AS PER CIA NO. STE-18-F0311.				AS PER CIA NO. STE-18-F0244.			

GRADE OF UNTOLD DIM		WTX		SKT		SD:		21.03.18		M/C/G-C/M/F AA0230208		TTX		SSO		SD:		23.03.18	
WELDING-A/B/C/D / AA0621104		GAS CUTTING-T3/AA0621101		SH1. ADDED.		NO CHANGE		NO CHANGE		NO CHANGE		NO CHANGE		NO CHANGE		NO CHANGE		NO CHANGE	
DEPT STE		SCALE		WEIGHT (KG)		REF. TO ASSY. DRG.		ITEM NO.		NO. OF ITER		DRAWING NO.		CARD CODE		SHEET No. 03		No. OF SHEETS 03	
4011		-		-		01074050000		22		23		01074050100		7		03		03	
BHARAT HEAVY ELECTRICALS LTD.		RANIPUR, HARDWAR		BHARAT HEAVY ELECTRICALS LTD.		RANIPUR, HARDWAR		BHARAT HEAVY ELECTRICALS LTD.		RANIPUR, HARDWAR		BHARAT HEAVY ELECTRICALS LTD.		RANIPUR, HARDWAR		BHARAT HEAVY ELECTRICALS LTD.		RANIPUR, HARDWAR	

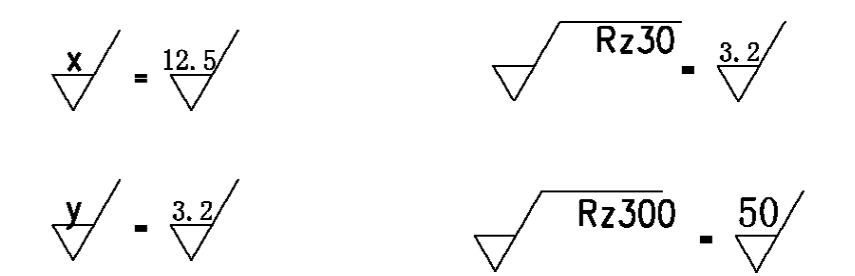
00205-01740-0



CENTER OF GRAVITY

\* ATTENTION: TO MOVE THE WHOLE CASING UPPER PART USE THE LIFTING EYES IN THE REINFORCED AREA

MBF = DIMENSION REFERENCE PLANE



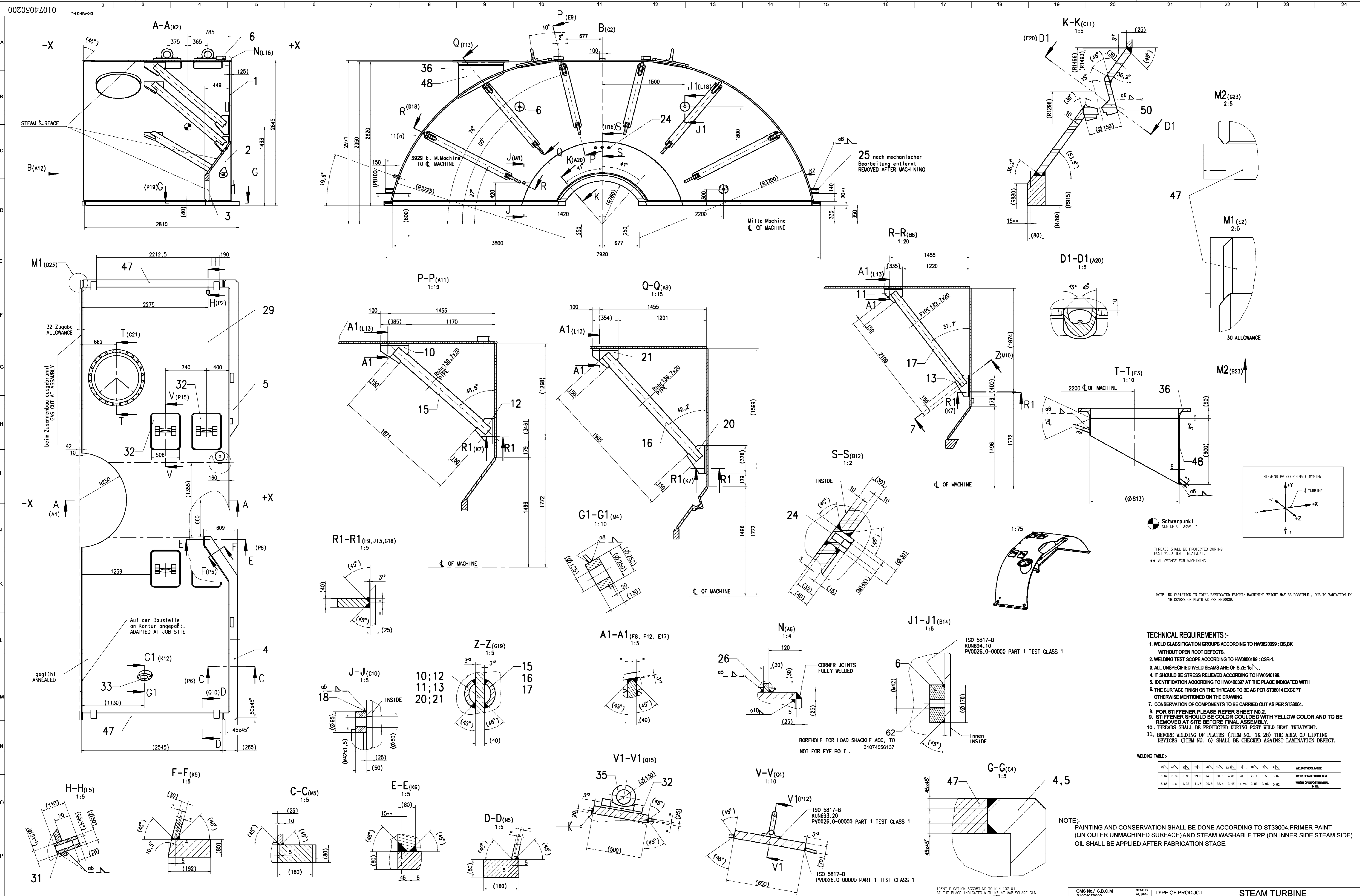
Technical Requirements:

1. Identification according to HWM400397.
2. To move the whole casing upper part use the lifting eyes in reinforced area.

NOTE- 5% VARIATION IN TOTAL FABRICATED/ ASSEMBLY WEIGHT MAY BE POSSIBLE DUE TO VARIATION IN THICKNESS OF PLATE AS PER EN10029WS:1862.

GMS No./ C.B.O.M 01074050000		STATUS 01074050000		TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		STEAM TURBINE	
GRADE OF UNTOLD DIM	WTX	SKT	SDL	01/09/18	BHARAT HEAVY ELECTRICALS LTD.		
MCCG-C/M/F A0230208	TTX	SSO	SDL	01/09/18	RANIPUR, HARDWAR		
WELDING-A/B/C/D / A0621104				GAS CUTTING-T3A0621101			
REV	DATE	ALTERED	MONIKA SD/-	REV	DATE	ALTERED	MONIKA SD/-
06	13.07.20	CHECKED	RITESH SD/-	06	17.06.20	CHECKED	RITESH SD/-
WEIGHT CORRECTED. AS PER CIA NO. STE-20-F0211.				WEIGHT ADDED. AS PER CIA NO. STE-20-F0176.			
NO CHANGE AS PER CIA NO. STE-18-F0066.				SH1 ADDED. NOTE ADDED.			
AS PER CIA NO. STE-18-F0311.				AS PER CIA NO. STE-18-F0244.			
AS PER CIA NO. STE-18-F0162.				AS PER CIA NO. STE-18-F0162.			
DEPT STE		SCALE		WEIGHT (KG)		REF TO ASSY. DRG.	
CODE 4011		1:1878		11978		01074050000	
TITLE		CARD CODE		DRAWING NO.		ITEM NO. OF SHEETS	
LP CASING UPPER PART-GS (Machining Drg.)		0-10740-50200		01074050000		22 OF 24	
SHEET No. 01		No. OF SHEETS 03		AS SIZE			

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- TECHNICAL REQUIREMENTS :-**
- WELD CLASSIFICATION GROUPS ACCORDING TO HW060099 : BS,BK WITHOUT OPEN ROOT DEFECTS.
  - WELDING TEST SCOPE ACCORDING TO HW060199 : CSR-1.
  - ALL UNSPECIFIED WELD SEAMS ARE OF SIZE 16.
  - IT SHOULD BE STRESS RELIEVED ACCORDING TO HW060199.
  - IDENTIFICATION ACCORDING TO HW060397 AT THE PLACE INDICATED WITH THE SURFACE FINISH ON THE THREADS TO BE AS PER ST38014 EXCEPT OTHERWISE MENTIONED ON THE DRAWING.
  - CONSERVATION OF COMPONENTS TO BE CARRIED OUT AS PER ST33004.
  - FOR STIFFENER PLEASE REFER SHEET NO.2
  - STIFFENER SHOULD BE COLOR COULDED WITH YELLOW COLOR AND TO BE REMOVED AT SITE BEFORE FINAL ASSEMBLY.
  - BEFORE WELDING OF PLATES (ITEM NO. 1 & 28) THE AREA OF LIFTING DEVICES (ITEM NO. 6) SHALL BE CHECKED AGAINST LAMINATION DEFECT.

**WELDING TABLE :-**

WELD SYMBOL & SIZE	WELD BEAN LENGTH IN MM	WEIGHT OF CONSUMED METAL IN KG
0.02	0.30	0.20
0.30	28.8	14
3.0	4.01	20
3.0	33.1	3.67
5.46	3.3	1.22
11.5	29.8	28.4
2.45	11.26	6.83
2.06	0.92	

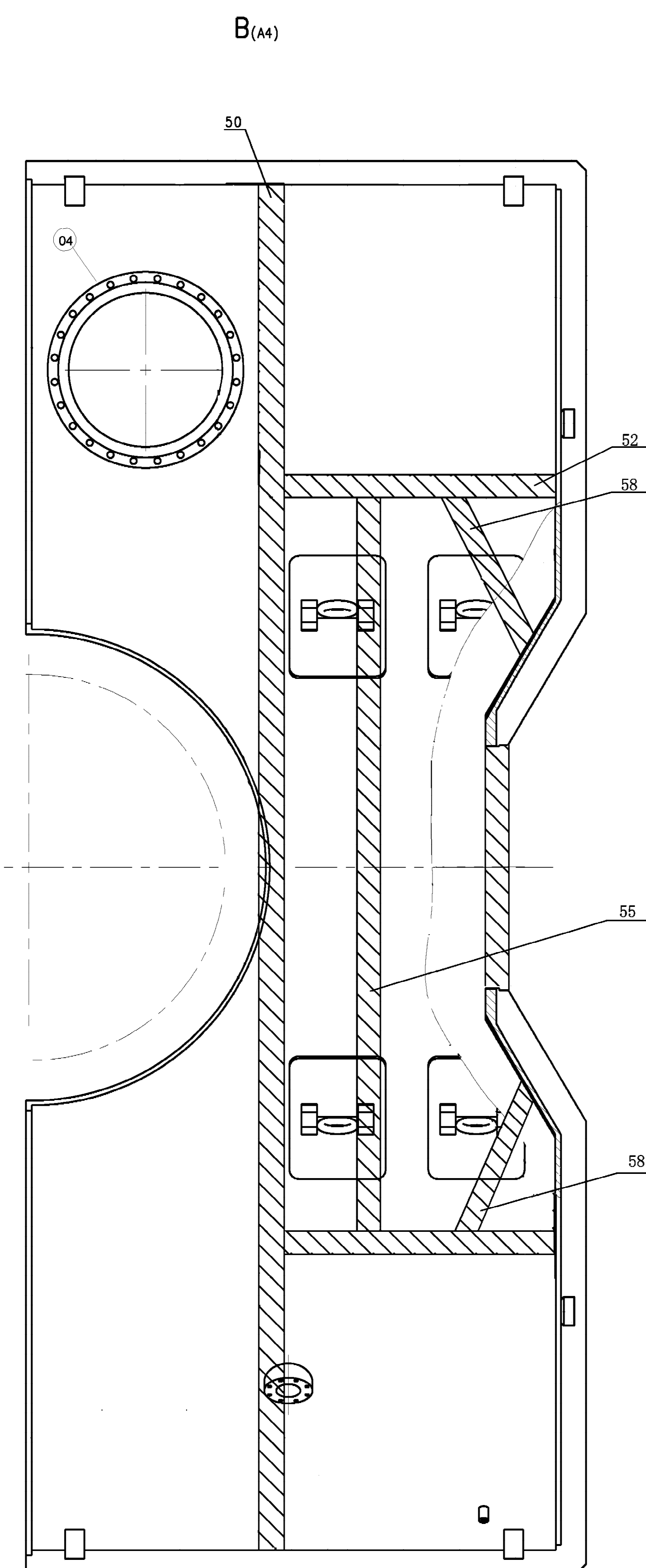
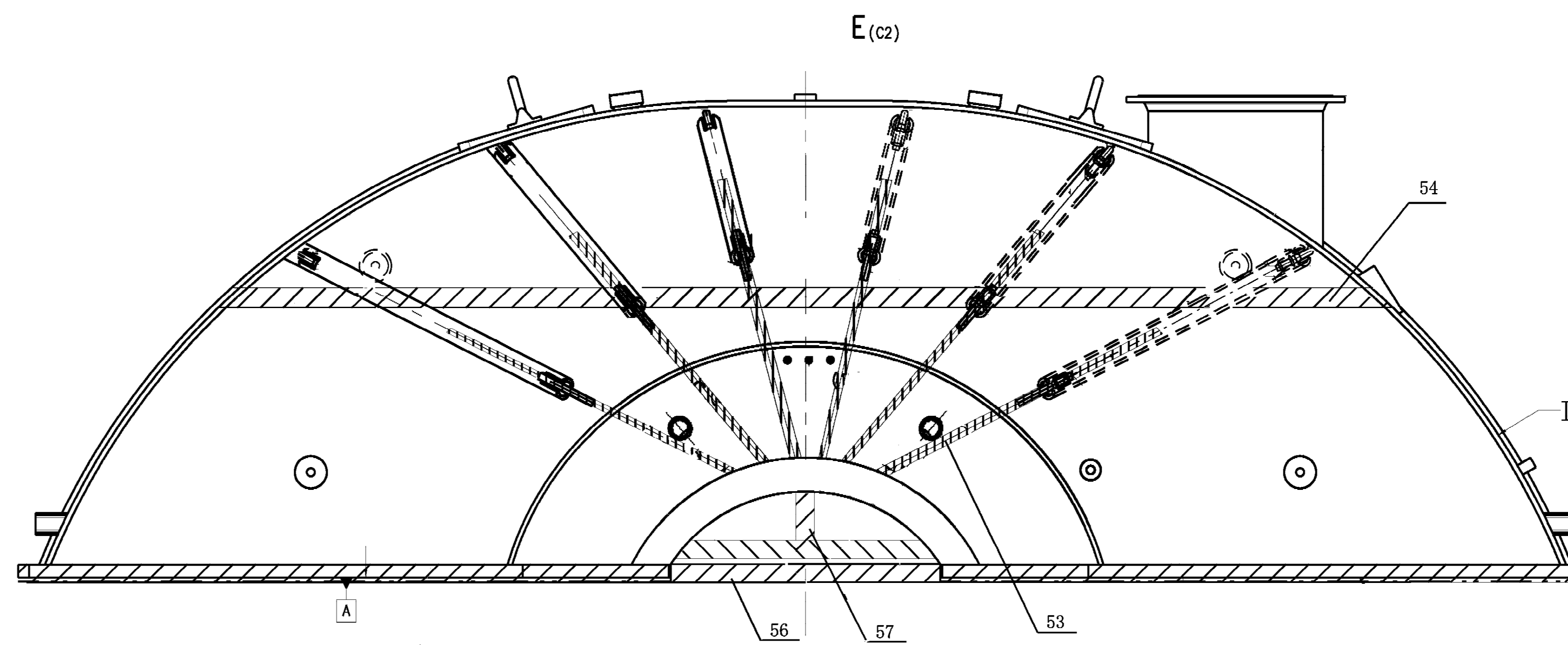
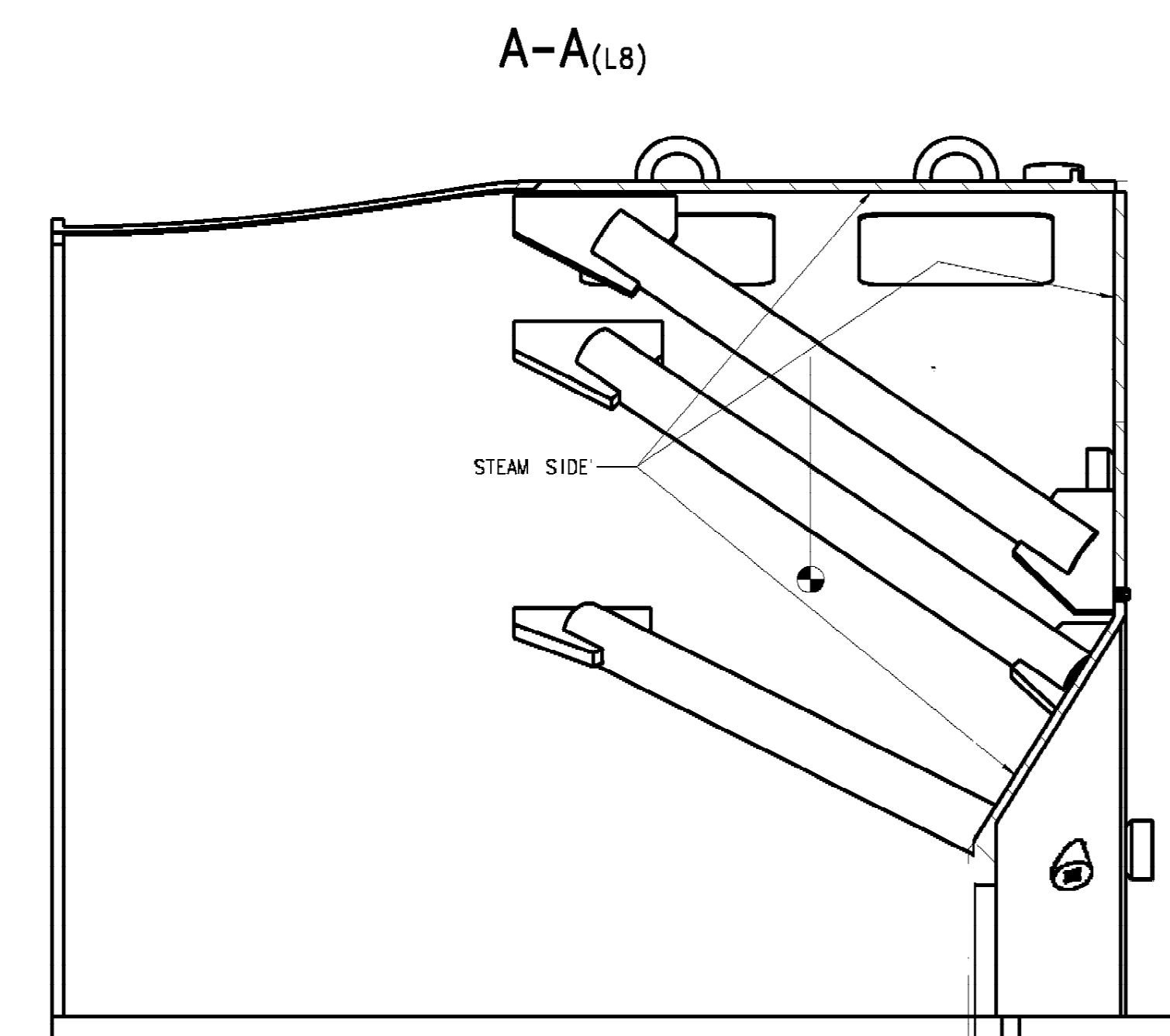
**NOTE:-** PAINTING AND CONSERVATION SHALL BE DONE ACCORDING TO ST33004. PRIMER PAINT (ON OUTER UNMACHINED SURFACE) AND STEAM WASHABLE TRP (ON INNER SIDE STEAM SIDE) OIL SHALL BE APPLIED AFTER FABRICATION STAGE.

GMS No/7 C.B.O.M		STATUS of page		TYPE OF PRODUCT		STEAM TURBINE	
NO.	DATE	APPROVED	DATE	NAME	OR	NAME OF CUSTOMER/PROJECT	
01	21.03.18	WTX	SKT	SDI	SDI		
02	24.09.18	TTX	SSO	SDI	SDI		
GRADE OF UNTOLDIM				M/C/G -C/M/F AA0230208			
WELDING-A/B/C/D / AA0621104				GAS CUTTING-T3/AA0621101			
ITEM NO. 33 & 34 (G1) ARE:				NOTE ADDED.			
NOTES FOR WEIGHT ADDED:				NOTE ADDED.			
AS PER CIA NO. STE-18-F0244.				AS PER CIA NO. STE-18-F0182			
DEPT STE		SCALE		WEIGHT (KG)		REF. TO ASSY. DRG.	
CODE 4011		12321		12321		01074050000	
TITLE: LP CASING UPPER PART FABRICATION DRAWING (GS)				DRAWING NO. 01074050200			
SHEET No. 02				No. OF SHEETS 03			

REV	DATE	ALTERED	MONIKA SDI	REV	DATE	ALTERED	MONIKA SDI	REV	DATE	ALTERED	MANOJ SDI	REV	DATE	ALTERED	MANOJ SDI	REV	DATE	ALTERED	MANOJ SDI
06	13.07.20	CHECKED	RITESH SDI	05	17.06.20	CHECKED	RITESH SDI	04	13.03.18	CHECKED	DINESH SDI	03	09.11.2016	CHECKED	DINESH SDI	02	24.09.18	CHECKED	DINESH SDI
WEIGHT CORRECTED. AS PER CIA NO. STE-20-F0211.																			
WEIGHT ADDED. AS PER CIA NO. STE-20-F0176.																			
NO CHANGE. AS PER CIA NO. STE-18-F0906.																			
NO CHANGE. AS PER CIA NO. STE-18-F0311.																			

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01074050200



## Technical Requirements:

- Technological supports I Beam, item no 56 & 57 to be assembled and welded keeping 30mm down from the machining face of circular flange.
- It is to be ensured that technological pipe supports welding do not overlap on the welded seam of assembly components.
- Technological supports to be used 30mm-40mm apart from the surface where machining allowances are given.

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DRAWING No. 01074050200  
SHEET No. 03

REV	DATE	ALTERED MONIKA SDC	REV	DATE	ALTERED MONIKA SDC	REV	DATE	ALTERED MANOJ SDC	REV	DATE	ALTERED MONIKA SDC	REV	DATE	ALTERED MONIKA SDC
06	13.07.20	CHECKED RITESH SDC	05	17.06.20	CHECKED RITESH SDC	04	13.03.19	CHECKED DINESH SDC	03	09.11.2018	CHECKED RITESH SDC	02	24.09.18	ALTERED MONIKA SDC
NO CHANGE.		NO CHANGE.		NO CHANGE.		NO CHANGE.		NO CHANGE.		NO CHANGE.		NO CHANGE.		
AS PER CIA NO. STE-20-F0211.		AS PER CIA NO. STE-20-F0176.		AS PER CIA NO. STE-18-F006.		AS PER CIA NO. STE-18-F0311.		AS PER CIA NO. STE-18-F0244.		AS PER CIA NO. STE-18-F0152.				

GRADE OF UNTOLD DIM		WITX		SKT		SDI		21.03.18		STATUS of prg		TYPE OF PRODUCT		STEAM TURBINE	
M/CG-C/M/F AA0230208		TTX		SSO		SDI		23.03.18		NAME		NAME OF CUSTOMER/PROJECT			
WELDING-A/B/C/D / AA0621104										DRN		BHARAT HEAVY ELECTRICALS LTD.		RANIPUR, HARDWAR	
GAS CUTTING-T3'AA0621101										CHKD		RITESH		18-01-2018	
										APPRO		DK RAY		18-01-2018	
REV 01		DATE 27.06.18		ALTERED MANOJ SDC		CHECKED		DINESH SDC		DEPT		STE		SCALE	
CODE 4011										WEIGHT (KG)				REF. TO ASSY. DRG.	
TITLE		LP CASING UPPER PART		FABRICATION DRAWING (GS)		CARD CODE		01074050200		DRAWING NO.		01074050200		22.53.24	
SHEET No. 03		No. OF SHEETS 03		AG SIZE											



## 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, 4<sup>th</sup> 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](http://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.

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



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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, L2 .....Status 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](http://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%.



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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.	<b>No Loading</b>
Against Delivery at BHEL-Stores Haridwar.	<b>45</b>
Against documents through bank (CAD):	<b>45</b>
Letter of Credit (LC)	<b>120</b>
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](http://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.

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



## BHARAT HEAVY ELECTRICALS LIMITED

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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.

## Approved Vendor list

### For Items

HW1011819953	AA10119	PL 30 mm
AA1011819155	AA10119	PL 25 mm
AA1011819139	AA10119	PL 20 mm

### Vendor List

#### SL024 PLATE-MS/BQ

02851 SHAH BROTHERS ISPAT PVT. LTD. I0007021  
06244 ARCELORMITTAL NIPPON STEEL I0002265  
08166 STEEL AUTHORITY OF INDIA LTD I0000443  
41307 JINDAL STEEL & POWER LTD. I0002230  
41575 WELSPUN CORP LTD I0000006  
70089 SUNLION PIPING ENGINEERING CO. F001742  
72167 SALZGITTER MANNESMANN INTERNAT F001559  
77007 DILLINGER INTERNATIONAL F000390  
78004 STEEL FORCE ASIA NV-BEIGIUM F002684  
78021 NLMK PLATES SALES SA F001330  
90016 BURWILL RESOURCES LTD. F001060  
91021 DAEWOO INTERNATIONAL CORPORATI F000355  
96026 SIJ ACRONI D.O.O. F001657

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### For Item

AA1011819058	AA10119	PL 8 mm
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### Vendor List

#### SL024 PLATE-MS/BQ

02851 SHAH BROTHERS ISPAT PVT. LTD. I0007021  
06244 ARCELORMITTAL NIPPON STEEL I0002265  
08166 STEEL AUTHORITY OF INDIA LTD I0000443  
41307 JINDAL STEEL & POWER LTD. I0002230  
70089 SUNLION PIPING ENGINEERING CO. F001742  
72167 SALZGITTER MANNESMANN INTERNAT F001559  
77007 DILLINGER INTERNATIONAL F000390  
78004 STEEL FORCE ASIA NV-BEIGIUM F002684  
78021 NLMK PLATES SALES SA F001330  
90016 BURWILL RESOURCES LTD. F001060  
91021 DAEWOO INTERNATIONAL CORPORATI F000355  
96026 SIJ ACRONI D.O.O. F001657

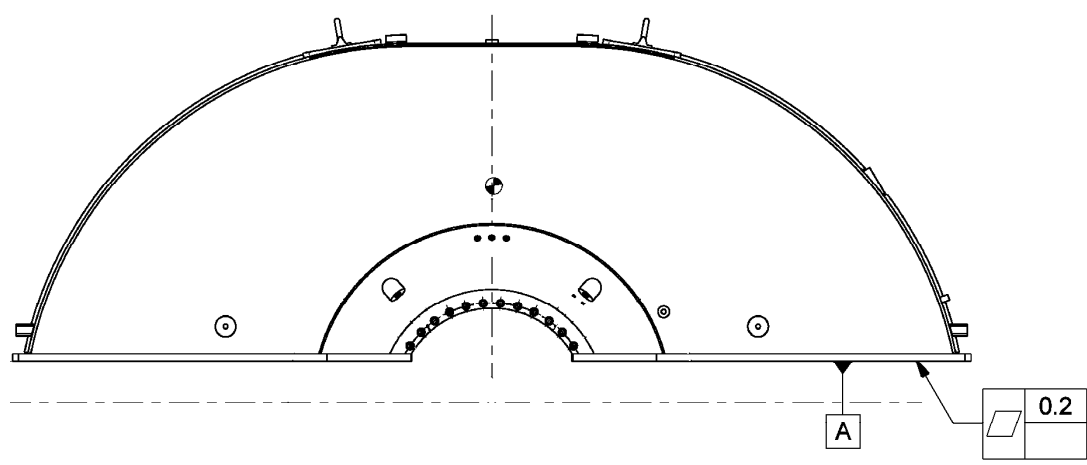
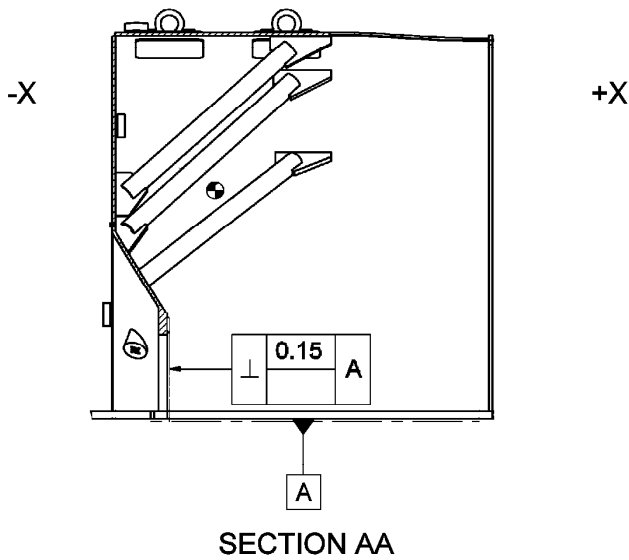
FIRST ANGLE PROJECTION

FORM

SIGN & DATE	 QC-148	(LOG SHEET MANUFACTURING) HEEP-HARDWAR	0-10740-50100LS VAR SL NO.
	SHEET NO. 01 NO. OF SHEET 03	WORK ORDER NO. TYPE OF PRODUCT STEAM TURBINE	RVN. No.
ISSUING DEPTT.	DEPTT. CODE	CASING UPPER PART (TS) (MACHINING)	
QAX	4700		
ID NO.		QP NO.	CLAUSE NO.

SUPERSEDES INVENTORY NO.

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SIGN & DATE

INVENTORY NO.

ISSUING DEPTT.	NAME	SIGN.	DATE	AGREED DEPTT.	NAME	SIGN.	DATE	QCX	NAME	SIGN.	DATE	SUPERSEDES THE OLD LOGSHEET UNDER THE SAME NUMBER			CH. ADV. NO. QAX-18-F0080	
DRN	SKR	Sd/-	25.10.18	STE	RITESH	Sd/-	25.10.18	FILLED IN BY				01	16.11.18		NAME	SIGN.
												RVN NO.	DATE	CHECKED	SKR	sd/-
CHD	PS	Sd/-	25.10.18	QCX	RSD	Sd/-	30.10.18	CHD							DS	sd/-
															CH. ADV. NO.	
APPD	IBK	Sd/-	01.11.18					APPD							NAME	SIGN.
												RVN NO.	DATE	CHECKED		

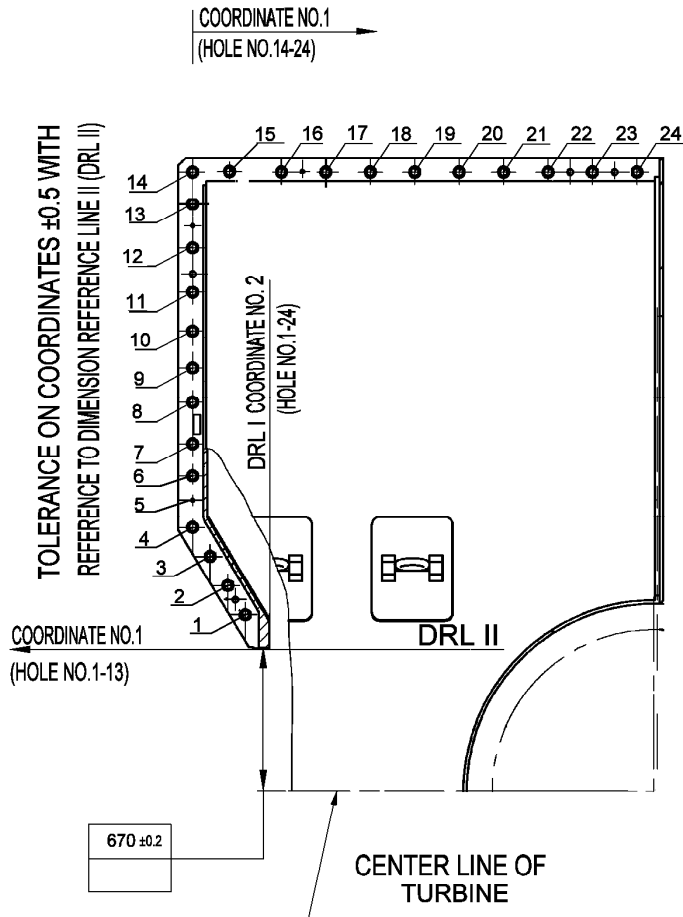
FIRST ANGLE PROJECTION

FORM

SIGN & DATE	SUPERSEDES INVENTORY NO.		QC-148	(LOG SHEET MANUFACTURING) HEEP-HARDWAR	0-10740-50100LS	VAR
		ISSUING DEPTT.	DEPTT. CODE	CASING UPPER PART (TS) (MACHINING)	SHEET NO. 02	NO. OF SHEET
		QAX	4700		WORK ORDER NO.	
					TYPE OF PRODUCT	
					STEAM TURBINE	
					RVN. No.	

TURBINE SIDE (LEFT)

TOLERANCE ON COORDINATES ±0.5 WITH REFERENCE TO DIMENSION REFERENCE LINE I (DRL I)




HOLE NO.	COORDINATE-1		COORDINATE-2	
	AS PER DRG.	AS OBSERVED	AS PER DRG.	AS OBSERVED
HOLE NO. 1-13				
1	133		105	
2	268		303	
3	404		502	
4	519		700	
5	519		875	
6	519		1053	
7	519		1403	
8	519		1663	
9	519		1923	
10	519		2183	
11	519		2443	
12	519		2703	
13	519		2963	
HOLE NO. 14-24				
14	0		3223	
15	260		3215	
16	520		3215	
17	780		3215	
18	1040		3215	
19	1300		3215	
20	1560		3215	
21	1820		3215	
22	2080		3215	
23	2340		3215	
24	2600		3215	

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SIGN & DATE	SUPERSEDES INVENTORY NO.	REF. NO.	ISSUING DEPTT.	NAME	SIGN.	DATE	AGREED DEPTT.	NAME	SIGN.	DATE	QCX	NAME	SIGN.	DATE	SUPERSEDES THE OLD LOGSHEET UNDER THE SAME NUMBER	CH. ADV. NO. QAX-18-F0080			
			DRN	SKR	Sd/-	25.10.18	STE	RITESH	Sd/-	25.10.18	FILLED IN BY				01	16.11.18	ALTERED	NAME	SIGN.
			CHD	PS	Sd/-	25.10.18	QCX	RSD	Sd/-	30.10.18	CHD				RVN NO.	DATE	CHECKED	SKR	sd/-
			APPD	IBK	Sd/-	01.11.18					APPD						ALTERED	DS	sd/-
															RVN NO.	DATE	CHECKED		

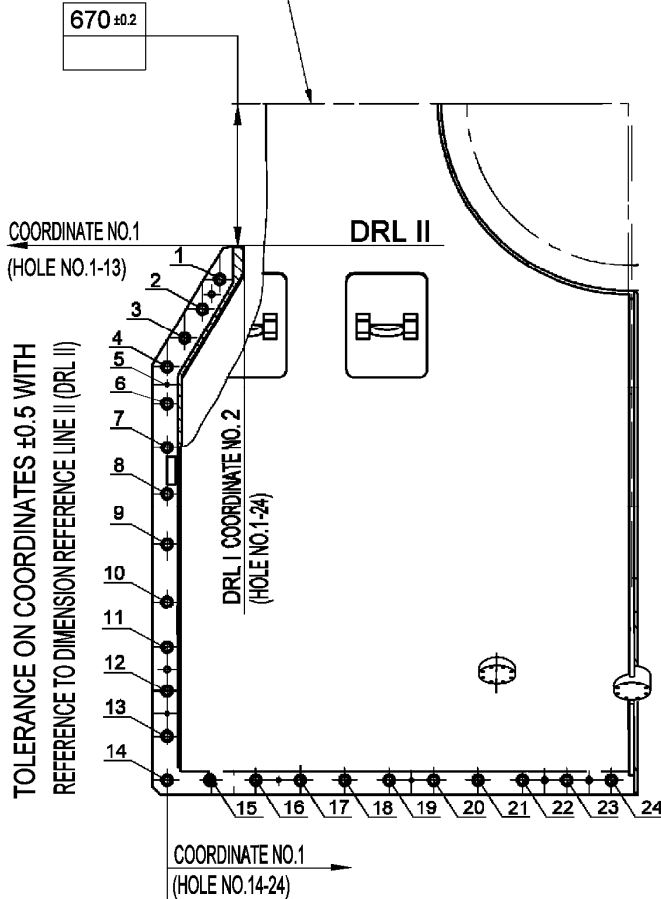
FIRST ANGLE PROJECTION

FORM

SIGN & DATE	SUPERSEDES INVENTORY NO.		QC-148	(LOG SHEET MANUFACTURING) HEEP-HARDWAR	0-10740-50100LS	VAR
		ISSUING DEPTT.	DEPTT. CODE	CASING UPPER PART (TS) (MACHINING)	SHEET NO. 03	NO. OF SHEET 03
		QAX	4700		WORK ORDER NO.	
					TYPE OF PRODUCT	
					STEAM TURBINE	
					RVN. No.	

TURBINE SIDE (RIGHT)

CENTER LINE OF LP INNER CASING



HOLE NO.	COORDINATE-1		COORDINATE-2	
	AS PER DRG.	AS OBSERVED	AS PER DRG.	AS OBSERVED
HOLE NO. 1-13				
1	133		105	
2	268		303	
3	404		502	
4	519		700	
5	519		875	
6	519		1053	
7	519		1403	
8	519		1663	
9	519		1923	
10	519		2183	
11	519		2443	
12	519		2703	
13	519		2963	
HOLE NO. 14-24				
14	0		3223	
15	260		3215	
16	520		3215	
17	780		3215	
18	1040		3215	
19	1300		3215	
20	1560		3215	
21	1820		3215	
22	2080		3215	
23	2340		3215	
24	2600		3215	

TOLERANCE ON COORDINATES ±0.5 WITH REFERENCE TO DIMENSION REFERENCE LINE I (DRL I)

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SIGN & DATE													SUPERSEDES THE OLD LOGSHEET UNDER THE SAME NUMBER	CH. ADV. NO. QAX-18-F0080		
ISSUING DEPTT.	NAME	SIGN.	DATE	AGREED DEPTT.	NAME	SIGN.	DATE	QCX	NAME	SIGN.	DATE	RVN NO.	DATE	CHECKED	NAME	SIGN.
DRN	SKR	Sd/-	25.10.18	STE	RITESH	Sd/-	25.10.18	FILLED IN BY				01	16.11.18	ALTERED	SKR	sd/-
CHD	PS	Sd/-	25.10.18	QCX	RSD	Sd/-	30.10.18	CHD				RVN NO.	DATE	CHECKED	DS	sd/-
APPD	IBK	Sd/-	01.11.18					APPD				RVN NO.	DATE	CHECKED	NAME	SIGN.

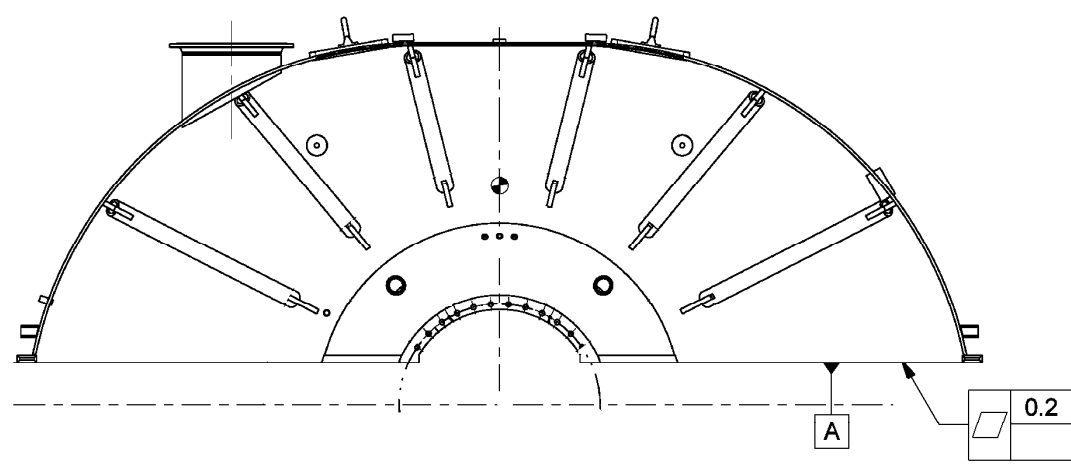
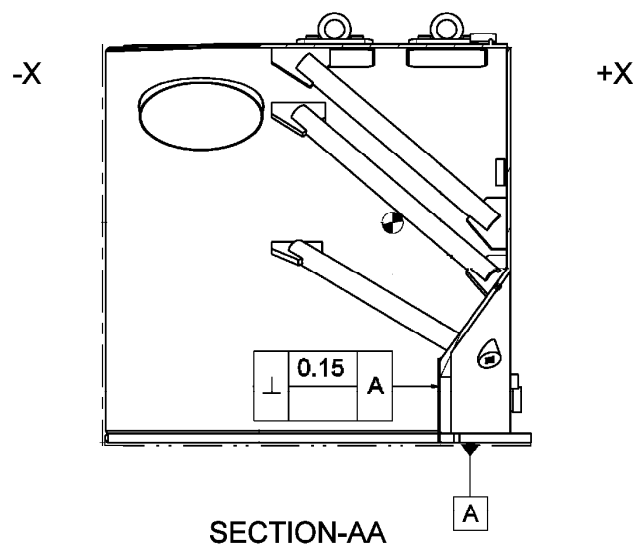
FIRST ANGLE PROJECTION

FORM

SIGN & DATE		QC-148	(LOG SHEET MANUFACTURING) HEEP-HARDWAR	0-10740-50200LS	VAR	
	ISSUING DEPTT.	DEPTT. CODE	CASING UPPER PART (GS) (MACHINING)	SHEET NO. 01	NO. OF SHEET 03	SL NO.
QAX	4700	WORK ORDER NO.		TYPE OF PRODUCT		RVN. No.
			STEAM TURBINE			
ID NO.		QP NO.		CLAUSE NO.		

SUPERSEDES INVENTORY NO.

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SIGN & DATE	
INVENTORY NO.	
REF. NO.	

ISSUING DEPTT.	NAME	SIGN.	DATE	AGREED DEPTT.	NAME	SIGN.	DATE	QCX	NAME	SIGN.	DATE	SUPERSEDES THE OLD LOGSHEET UNDER THE SAME NUMBER			CH. ADV. NO. QAX-18-F0081	
DRN	SKR	Sd/-	25.10.18	STE	RITESH	Sd/-	25.10.18	FILLED IN BY				01	16.11.18		NAME	SIGN.
CHD	PS	Sd/-	25.10.18	QCX	RSD	Sd/-	25.10.18	CHD				RVN NO.	DATE	CHECKED	SKR	sd/-
APPD	IBK	Sd/-	26.10.18					APPD							DS	sd/-
															CH. ADV. NO.	
															NAME	SIGN.
															ALTERED	
												RVN NO.	DATE	CHECKED		

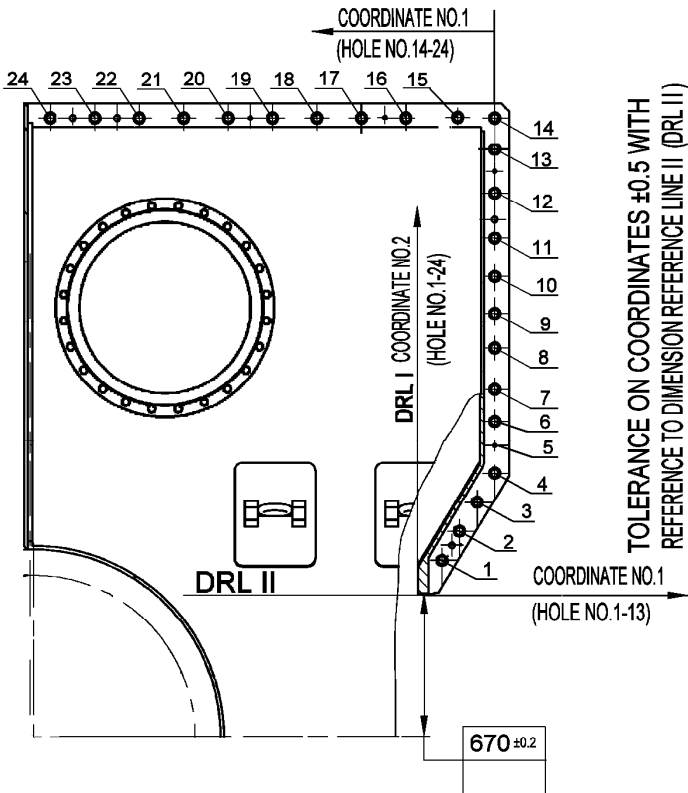
FIRST ANGLE PROJECTION

FORM

SIGN & DATE	SUPERSEDES INVENTORY NO.		QC-148	(LOG SHEET MANUFACTURING) HEEP-HARDWAR	0-10740-50200LS	VAR
		ISSUING DEPTT. <b>QAX</b>	DEPTT. CODE <b>4700</b>	CASING UPPER PART (GS) (MACHINING)	SHEET NO. 02	NO. OF SHEET 03
				WORK ORDER NO.		
				TYPE OF PRODUCT	RVN. No.	
				STEAM TURBINE		

GENERATOR SIDE (LEFT)

TOLERANCE ON COORDINATES ±0.5 WITH REFERENCE TO DIMENSION REFERENCE LINE I (DRL I)




HOLE NO.	COORDINATE-1		COORDINATE-2	
	AS PER DRG.	AS OBSERVED	AS PER DRG.	AS OBSERVED
HOLE NO. 1-13				
1	133		105	
2	268		303	
3	404		502	
4	519		700	
5	519		875	
6	519		1053	
7	519		1403	
8	519		1663	
9	519		1923	
10	519		2183	
11	519		2443	
12	519		2703	
13	519		2963	
HOLE NO. 14-24				
14	0		3223	
15	260		3215	
16	520		3215	
17	780		3215	
18	1040		3215	
19	1300		3215	
20	1560		3215	
21	1820		3215	
22	2080		3215	
23	2340		3215	
24	2600		3215	

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SIGN & DATE																		
INVENTORY NO.	ISSUING DEPTT.	NAME	SIGN.	DATE	AGREED DEPTT.	NAME	SIGN.	DATE	QCX	NAME	SIGN.	DATE	SUPERSEDES THE OLD LOGSHEET UNDER THE SAME NUMBER	CH. ADV. NO. QAX-18-F0081				
REF. NO.	DRN	SKR	Sd/-	25.10.18	STE	RITESH	Sd/-	25.10.18	FILLED IN BY				01	16.11.18	ALTERED	NAME	SIGN.	
	CHD	PS	Sd/-	25.10.18	QCX	RSD	Sd/-	25.10.18	CHD				RVN NO.	DATE	CHECKED	SKR	sd/-	
	APPD	IBK	Sd/-	26.10.18					APPD							DS	sd/-	
													RVN NO.	DATE	CHECKED	ALTERED	CH. ADV. NO.	
																	NAME	SIGN.

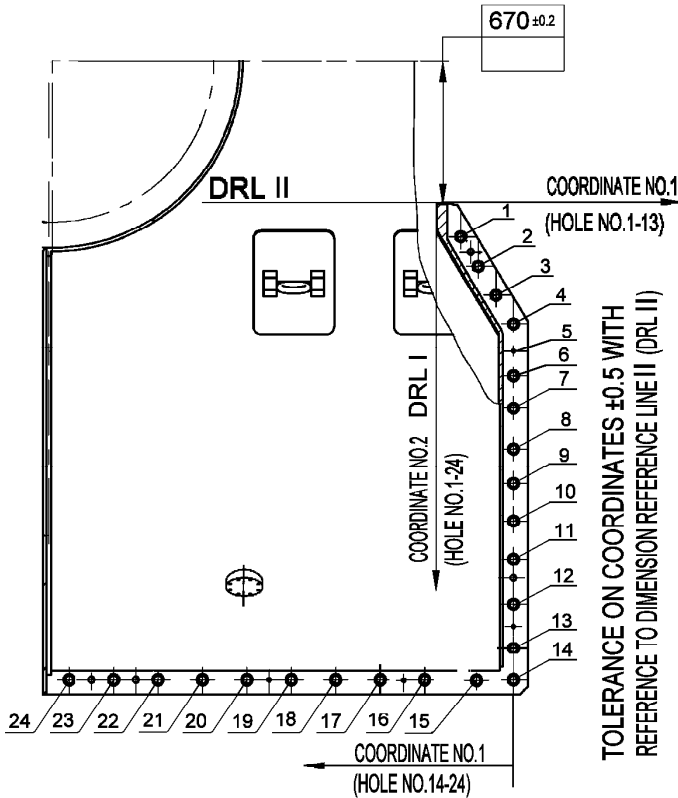
FIRST ANGLE PROJECTION

FORM

SIGN & DATE		QC-148	(LOG SHEET MANUFACTURING) HEEP-HARDWAR	0-10740-50200LS	VAR	
	ISSUING DEPTT.	DEPTT. CODE	CASING UPPER PART (GS) (MACHINING)	SHEET NO. 03	NO. OF SHEET 03	SL NO.
SUPERSEDES INVENTORY NO.	QAX	4700		WORK ORDER NO.		
				TYPE OF PRODUCT		RVN. No.
				STEAM TURBINE		

GENERATOR SIDE (RIGHT)

TOLERANCE ON COORDINATES ±0.5 WITH REFERENCE TO DIMENSION REFERENCE LINE I (DRL I)



HOLE NO.	COORDINATE-1		COORDINATE-2	
	AS PER DRG.	AS OBSERVED	AS PER DRG.	AS OBSERVED
HOLE NO. 1-13				
1	133		105	
2	268		303	
3	404		502	
4	519		700	
5	519		875	
6	519		1053	
7	519		1403	
8	519		1663	
9	519		1923	
10	519		2183	
11	519		2443	
12	519		2703	
13	519		2963	
HOLE NO. 14-24				
14	0		3223	
15	260		3215	
16	520		3215	
17	780		3215	
18	1040		3215	
19	1300		3215	
20	1560		3215	
21	1820		3215	
22	2080		3215	
23	2340		3215	
24	2600		3215	

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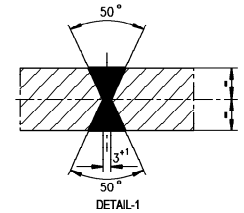
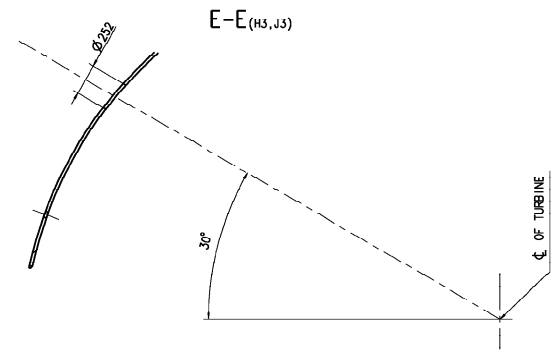
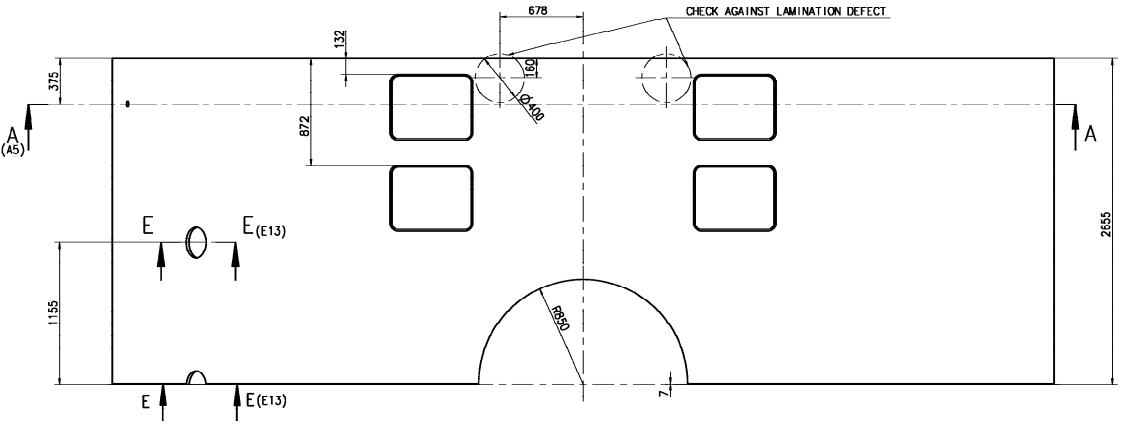
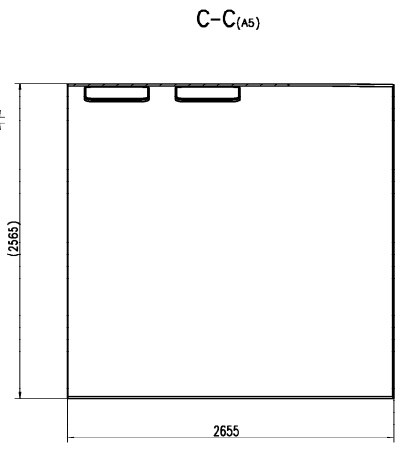
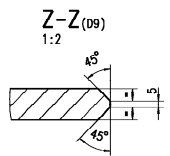
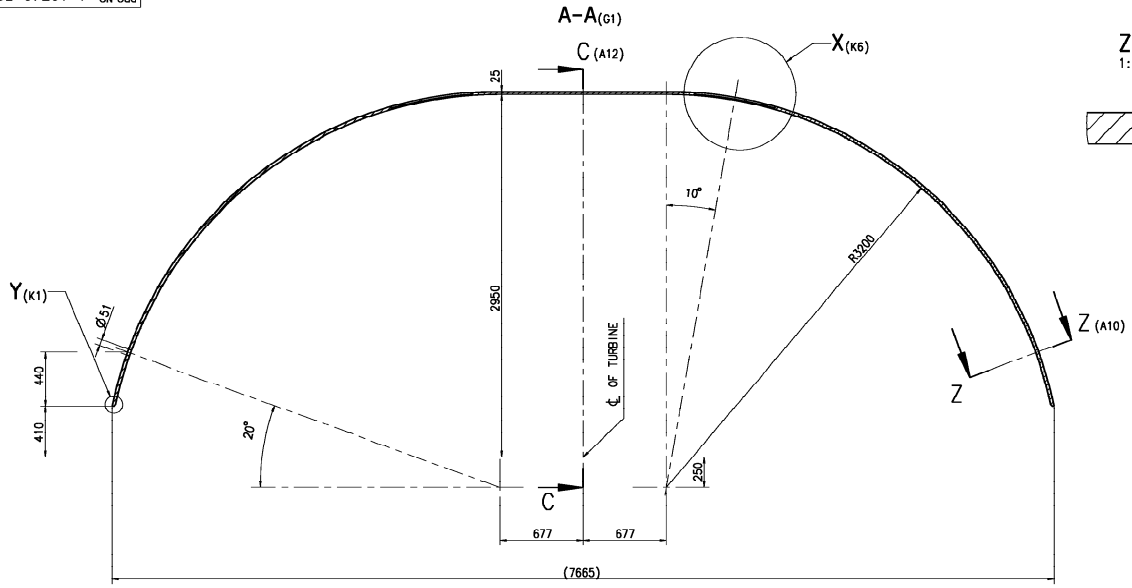
SIGN & DATE													SUPERSEDES THE OLD LOGSHEET UNDER THE SAME NUMBER			CH. ADV. NO. QAX-18-F0081	
INVENTORY NO.	ISSUING DEPTT.	NAME	SIGN.	DATE	AGREED DEPTT.	NAME	SIGN.	DATE	QCX	NAME	SIGN.	DATE	01	16.11.18	ALTERED	NAME	SIGN.
	DRN	SKR	Sd/-	25.10.18	STE	RITESH	Sd/-	25.10.18	FILLED IN BY				RVN NO.	DATE	CHECKED	SKR	sd/-
	CHD	PS	Sd/-	25.10.18	QCX	RSD	Sd/-	25.10.18	CHD							DS	sd/-
REF. NO.	APPD	IBK	Sd/-	26.10.18					APPD				RVN NO.	DATE	CHECKED	CH. ADV. NO.	
																NAME	SIGN.

FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm)

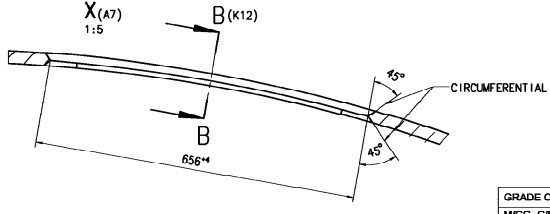
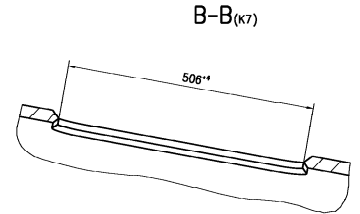
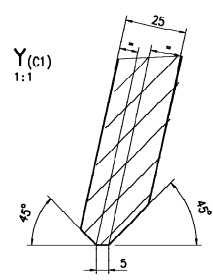
82105-0701-1 ON DRG 1-10740-50128

50/ ALL OVER EXCEPTED OTHERWISE STATED



TECHNICAL REQUIREMENTS:-

1. IF REQUIRED PLATE IS ALLOWED TO BE MADE IN PARTS WITH LONGITUDINAL JOINT SHOWN IN DETAIL 1, PERFORMANCE OF WELD SEAM ONLY AS FULL PENETRATION WELD. OVERLAPPING AND INTERSECTION OF WELD SEAM SHALL BE AVOIDED. DEPENDINGS ON SEMI-FINISHED PART THE NUMBER OF WELD SEAM SHALL BE MINIMIZED.
2. WELD CLASSIFICATION GROUP ACCORDING TO HW620099BS
3. WELDING TEST SCOPE ACCORDING TO HW085099.CSR1
4. IDENTIFICATION ACCORDING TO HW0400997
5. DEVELOPED LENGTH = 10115 mm.



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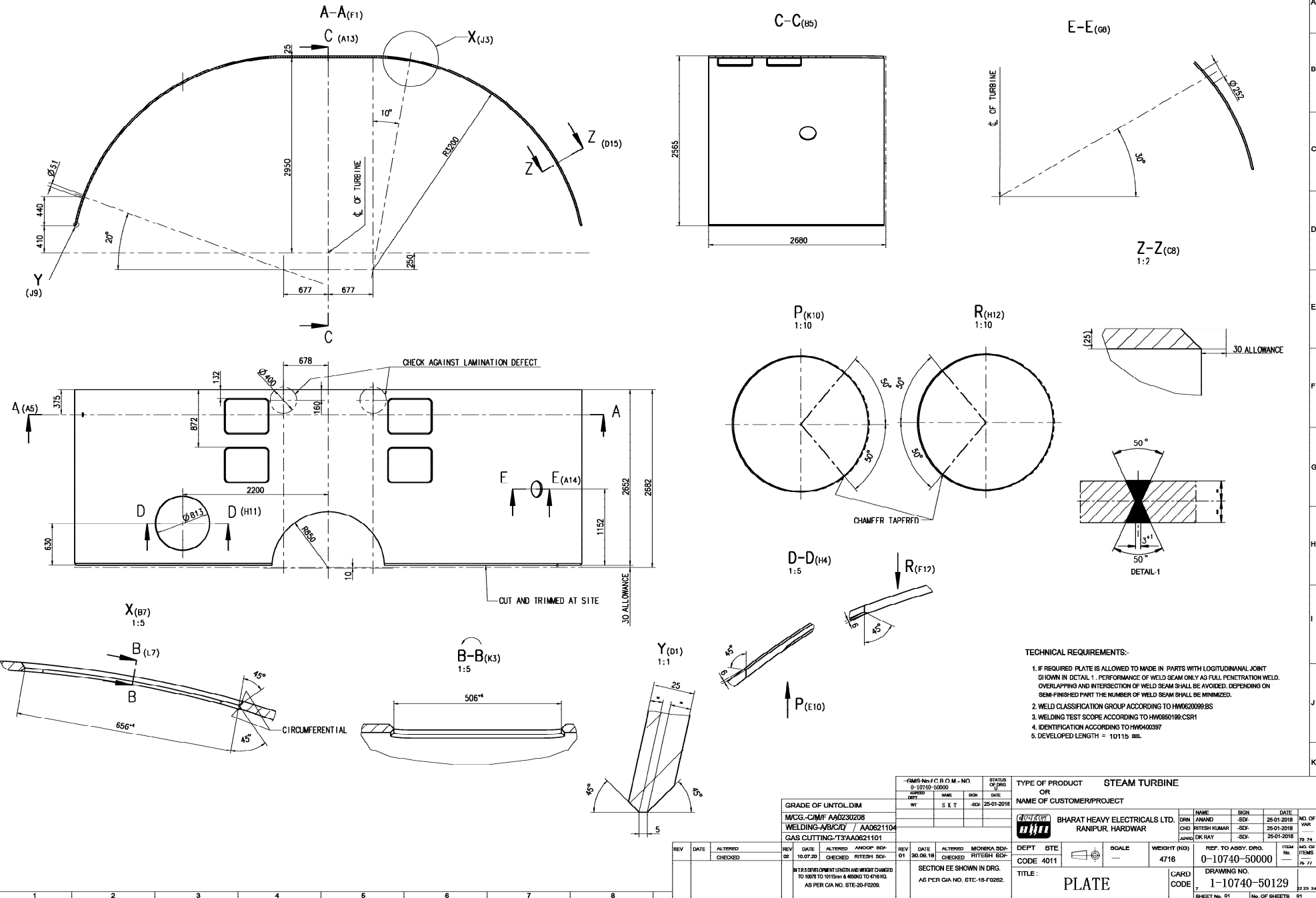
-GMS No./C.R.O.M. - NO 0-10740-50000		STATUS OF DRG APPROVED		TYPE OF PRODUCT STEAM TURBINE	
NAME ANAND		SIGN SDK		DATE 25-01-2018	
NO. OF DRN		NO. OF CHD		NO. OF ITEMS	
NAME OF CUSTOMER/PROJECT BHARAT HEAVY ELECTRICALS LTD. RANIPUR, HARDWAR		DEPT 4011		SCALE 1:1	
WT S K T		SDK		WEIGHT (KG) 4770	
GRADE OF INTOL.DIM M/C/G-C/M/F AA0230208 WELDING-A/B/C/D / AA0621104 GAS CUTTING-T3/AA0621101		MONIKA SDK		REF. TO ASSY. DRG. 0-10740-50000	
DATE 10.07.20		CHECKED RITESH SDK		SECTION EE SHOWN IN DRG. AS PER CIA NO. STE-19-F0209.	
DATE 10.07.20		CHECKED RITESH SDK		DRAWING NO. 1-10740-50128	
IN T.R.S DEVELOPMENT LENGTH CHANGED TO 1003 TO 10115mm AS PER CIA NO. STE-20-F0209.		SHEET NO. 01		NO. OF SHEETS 01	

PLATE

AI SIZE

62105-0740-1 ON 590

50/ ALL OVER EXCEPTED OTHERWISE STATED



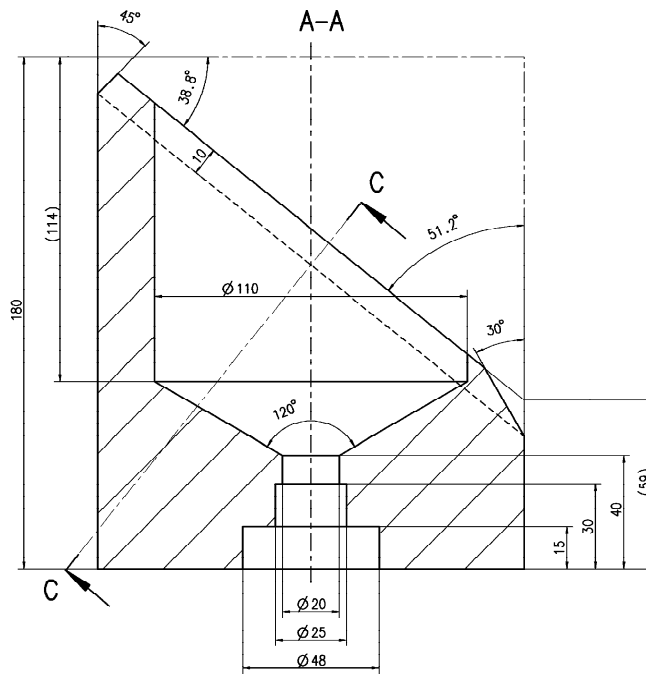
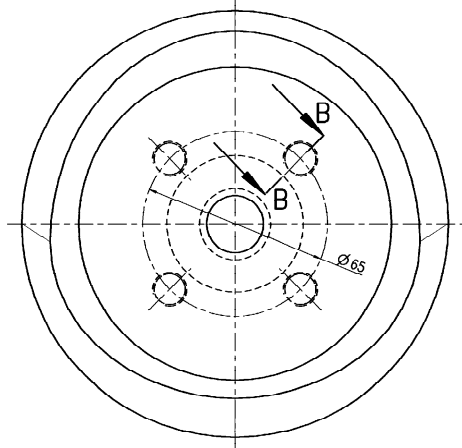
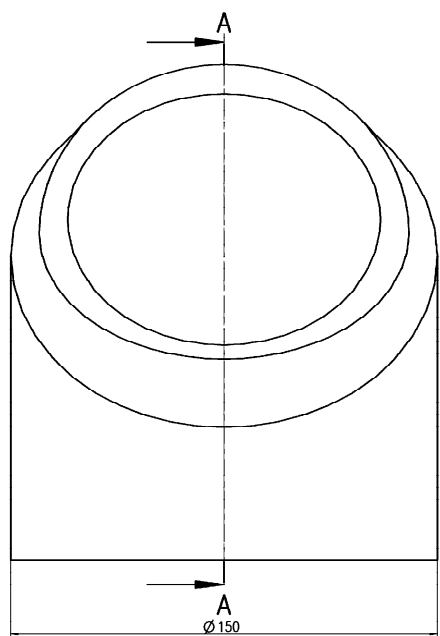
- TECHNICAL REQUIREMENTS:-
1. IF REQUIRED PLATE IS ALLOWED TO BE MADE IN PARTS WITH LOGITUDINAL JOINT SHOWN IN DETAIL-1, PERFORMANCE OF WELD SEAM ONLY AS FULL PENETRATION WELD. OVERLAPPING AND INTERSECTION OF WELD SEAM SHALL BE AVOIDED. DEPENDING ON SEAM-FINISHED PART THE NUMBER OF WELD SEAM SHALL BE MINIMIZED.
  2. WELD CLASSIFICATION GROUP ACCORDING TO HM620099BS
  3. WELDING TEST SCOPE ACCORDING TO HM680199:CSR1
  4. IDENTIFICATION ACCORDING TO HM6400387
  5. DEVELOPED LENGTH = 10115 mm.

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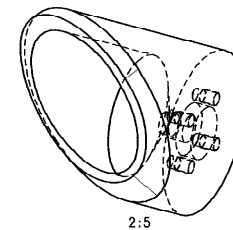
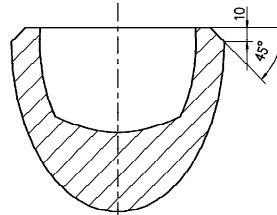
-GMS No./C.R.O.M.-NO 0-10740-50000		STATUS OF DRG DESIGNED: [ ] DRAWN: [ ] CHECKED: [ ] DATE: 25-01-2018		TYPE OF PRODUCT STEAM TURBINE	
NAME: ANAND SIGN: [ ] DATE: 25-01-2018 NO. OF SHEETS: 01		NAME OF CUSTOMER/PROJECT BHARAT HEAVY ELECTRICALS LTD. RANIPUR, HARDWAR		NAME: RITESH KUMAR SIGN: [ ] DATE: 25-01-2018 NO. OF SHEETS: 01	
NAME: DK RAY SIGN: [ ] DATE: 25-01-2018 NO. OF SHEETS: 01		DEPT: 4011 SITE: [ ] SCALE: [ ] WEIGHT (KG): 4716		REF. TO ASSY. DRG. 0-10740-50000	
TITLE: PLATE		DRAWING NO. 1-10740-50129		SHEET No. 01 No. OF SHEETS: 01	

INVENTORY NO. [ ]  
BENI AND DATE: [ ]

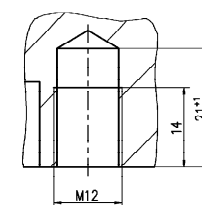
12.5/ ALL OVER EXCEPT OTHERWISE STATED



C-C



B-B



**TECHNICAL REQUIREMENTS:-**  
1-IDENTIFICATION ACCORDING TO HW0400397-

DPPC-025239  
Rev Drawing No

REV	DATE	ALTERED	REV	DATE	ALTERED	REV	DATE	ALTERED	REV	DATE	ALTERED
		CHFKFTD			CHFKFTD			CHFKFTD			CHFKFTD
8			7			6			5		

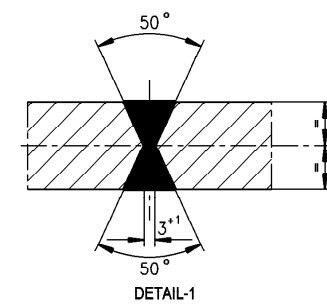
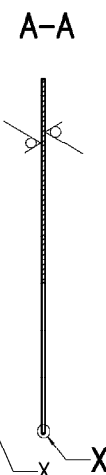
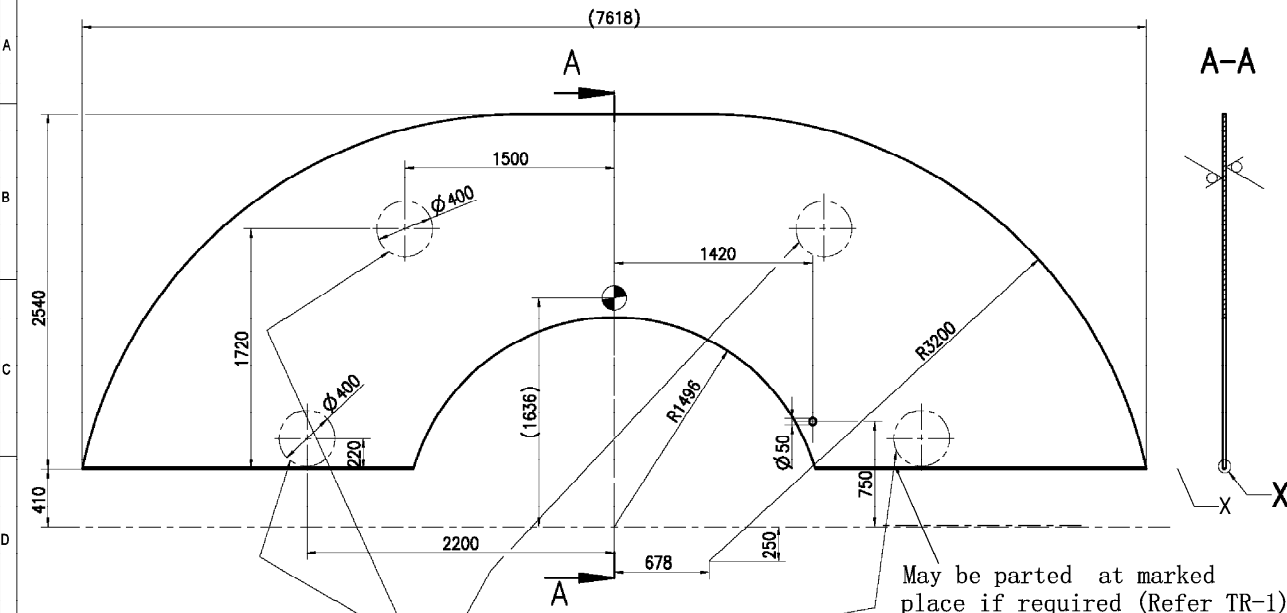
GRADE OF UNTOL.DIM		GMS No./ CBDM No.		STATUS OF DRG	
M/CG-E/M/F/AA0230208		0 10738 50000		U	
WELDING-A/B/E/DA0621104		WTX S.K.T SD/-		09.03.18	
GAS CUTTING-T3'AA0621101		TTX S.S.O. SD/-		12.03.18	
REV 02	DATE 02.09.20	ALTERED CHECKED	ANOPP DINESH	REV 01	DATE 23.05.18
REMOVING ALL SURFACE FINISH SIGN. AS ONLY ONE COMMON T.R. IS APPLICABLE. AS PER C/A NO. STE-20-F0225.			MACHINING OF CHAMFER SHOWN IN SECTION AA (30 & 45°) CHANGED TO GAS CUT. AS PER C/A NO. STE-18-F0128.		

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		STEAM TURBINE			
DEPT STE		SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.	ITEM No.
CODE 4011		1:25	11.2	0 10738 50100	108
TITLE		CARD CODE	DRAWING NO.		
WELD-IN LUG		-	2-10738-50108		
			SHEET No. 01	No. OF SHEETS 01	

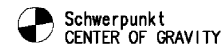
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DRAWING No. 2-10740-50101

50 / ALL OVER EXCEPTED  
OTHERWISE STATED

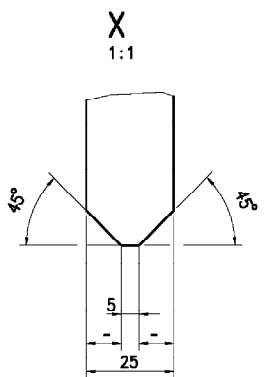


DESIGNATION	WEIGHT (kg)	
PLATE	THEORETICAL	MAXIMUM
	2560	2820



May be parted at marked place if required (Refer TR-1)

CHECK AGAINST LAMINATION DEFECT



TECHNICAL REQUIREMENTS:-

- IF REQUIRED PLATE IS ALLOWED TO MADE IN PARTS WITH LOGITUDINANAL JOINT SHOWN IN DETAIL 1. PERFORMANCE OF WELD SEAM ONLY AS FULL PENETRATION WELD. OVERLAPPING AND INTERSECTION OF WELD SEAM SHALL BE AVOIDED. DEPENDING ON SEMI-FINISHED PART THE NUMBER OF WELD SEAM SHALL BE MINIMIZED.
- WELD CLASSIFICATION GROUP ACCORDING TO HW0620099:BS
- WELDING TEST SCOPE ACCORDING TO HW0850199:CSR1
- IDENTIFICATION ACCORDING TO HW0400397

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DIPPG-70057942 Ref.Drawing No.

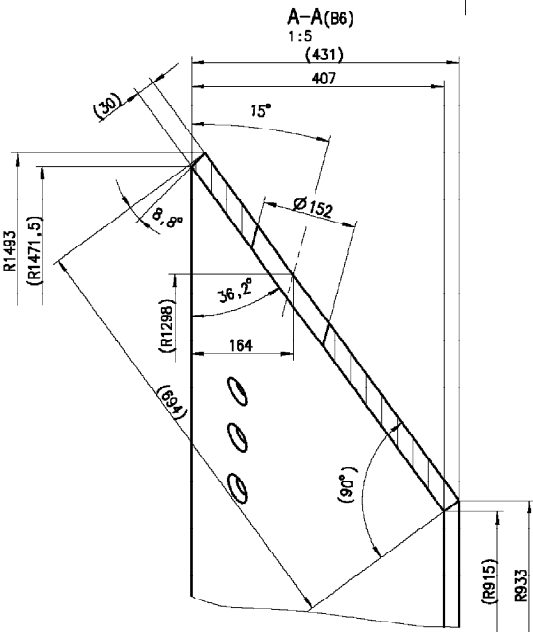
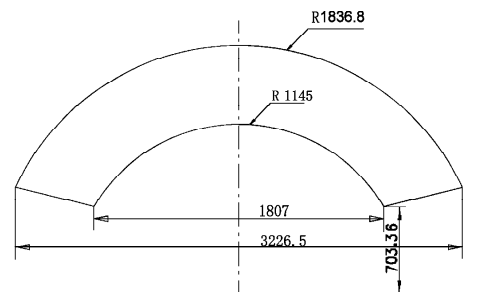
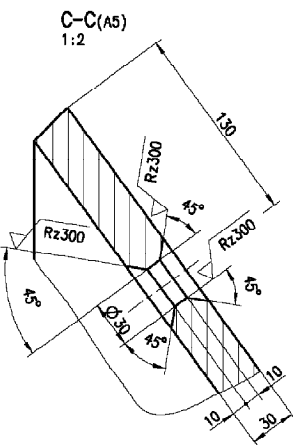
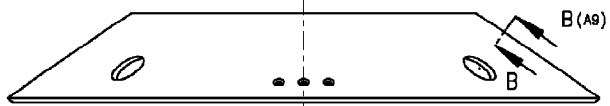
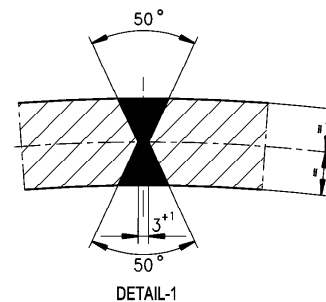
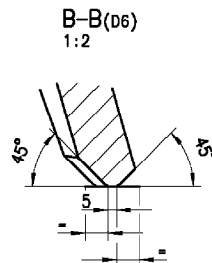
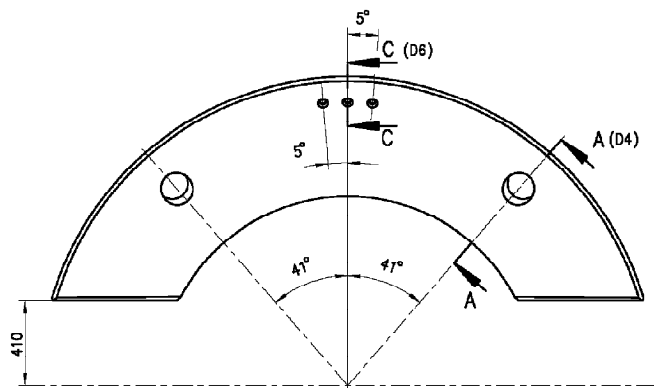
Sign & Date Inventory No.

GRADE OF UNTOL.DIM	QMS No. / CBOM No.	STATUS OF DRG
MICG-C/M/F AA0238208	01074050000	AGREED
WELDING-A/B/C/D	NAME	SIGN
GAS CUTTING-T3/AA0621101	WTX	SD/-
	TTX	SSO
		SD/-
		DATE
		21.03.18
		23.03.18

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		STEAM TURBINE			
BHARAT HEAVY ELECTRICALS LTD.		DRN	NAME	SIGN	DATE
RANIPUR, HARDWAR		CHD	ANAND	-SD/-	25-01-2018
		APPD	RITESH	-SD/-	25-01-2018
			D.K.RAY	-SD/-	25-01-2018
DEPT	STE	SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.	ITEM NO.
CODE 4011			2560	01074050000	73 74
TITLE: PLATE		CARD CODE	DRAWING NO.	NO. OF SHEETS	
		7	2-10740-50101	1 22 23 24	
			SHEET No. 1	No. OF SHEETS 1	

REV	DATE	ALTERED CHECKED	REV	DATE	ALTERED CHECKED	REV	DATE	ALTERED CHECKED	REV	DATE	ALTERED CHECKED	REV	DATE	ALTERED CHECKED
1			2			3			4			5		
6			7			8								

DRAWING No. 2-10740-50102



TECHNICAL REQUIREMENTS:-

1. IF REQUIRED PLATE IS ALLOWED TO MADE IN PARTS WITH LOGITUDINANAL JOINT SHOWN IN DETAIL 1 . PERFORMANCE OF WELD SEAM ONLY AS FULL PENETRATION WELD. OVERLAPPING AND INTERSECTION OF WELD SEAM SHALL BE AVOIDED. DEPENDING ON SEMI-FINISHED PART THE NUMBER OF WELD SEAM SHALL BE MINIMIZED.
2. WELD CLASSIFICATION GROUP ACCORDING TO HW0620099:BS
3. WELDING TEST SCOPE ACCORDING TO HW0850199:CSR1
4. IDENTIFICATION ACCORDING TO HW0400397

DPPC-700-03012  
Ref Drawing No-

Inventory No. Sign & Date

GRADE OF UNTOLDIM	
MICG-C/M/F AA0230208	
WELDING-A/B/C/D // AA0621104	
GAS CUTTING-T3'AA0621101	

GMS No./CBOM No. 01074050000		STATUS Of DRG	
DESIGNED	NAME	SIGN	DATE
WTX	SKT	SD/-	21.03.18
TTX	SSO	SD/-	23.03.18

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		STEAM TURBINE			
---	--	---------------	--	--	--

	BHARAT HEAVY ELECTRICALS LTD.		DRN	NAME	SIGN	DATE	NO. OF VAR.
	RANIPUR, HARDWAR		CHD	ANAND	-SD/-	25-01-2018	
			APPD	RITESH	-SD/-	25-01-2018	

REV	DATE	ALTERED CHECKED	REV	DATE	ALTERED CHECKED	REV	DATE	ALTERED CHECKED	REV	DATE	ALTERED CHECKED	REV	DATE	ALTERED CHECKED	REV	DATE	ALTERED CHECKED

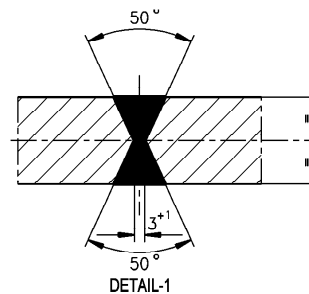
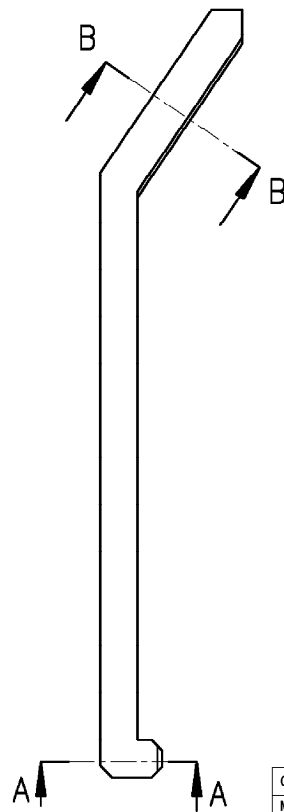
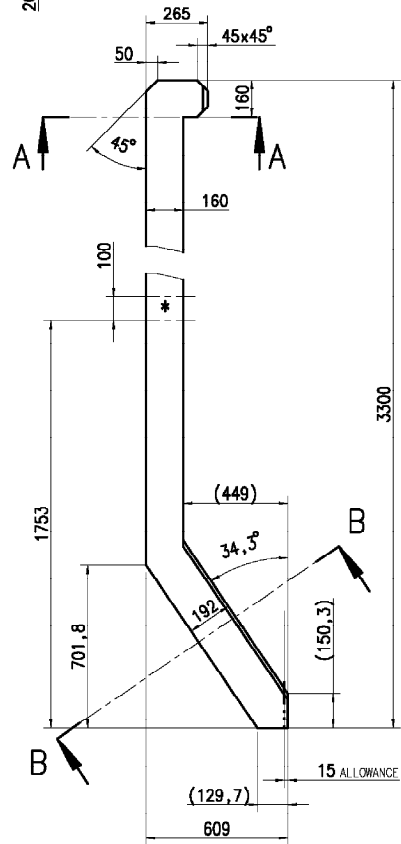
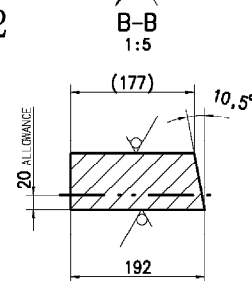
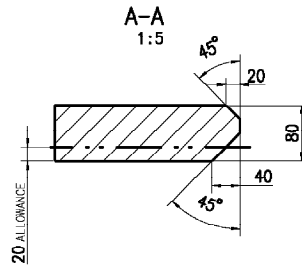
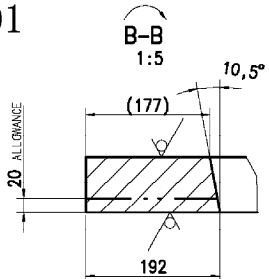
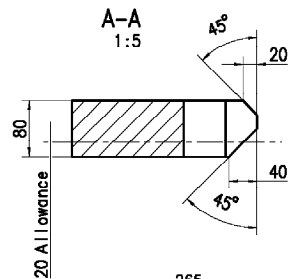
DEPT	STE	SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.	ITEM No.	NO. OF ITEMS
4011				0-10740-50000		75 77
TITLE:			CARD CODE	DRAWING NO.	NO. OF SHEETS	
CONE HALF			7	2-10740-50102	01	22 23 24

DRAWING No. 2-10740-50104

Var:01

Var:02

50/ ALL OVER EXCEPTED OTHERWISE STATED



TECHNICAL REQUIREMENTS:-

1. IF NEEDED PLATE IS ALLOWED TO MADE IN PARTS AT MARKED AREA (\*) WITH LOGITUDINANAL JOINT SHOWN IN DETAIL 1 PERFORMANCE OF WELD SEAM ONLY AS FULL PENETRATION WELD. OVERLAPPING AND INTERSECTION OF WELD SEAM SHALL BE AVOIDED. DEPENDING ON SEMI-FINISHED PART THE NUMBER OF WELD SEAM SHALL BE MINIMIZED.
2. WELD CLASSIFICATION GROUP ACCORDING TO HW0620099:BS
3. LOGITUDINANAL JOINT REFER DETAIL 1
4. WELDING TEST SCOPE ACCORDING TO HW0850199:CSR1
5. IDENTIFICATION ACCORDING TO HW0400397 AT THE PLACE MARKED WITH IN

IPPPIC-70059433 Ref Drawing No>

Sign & Date Inventory No.

GRADE OF UNTOLD DIM		GMS No./CBOM No. 0-10740-50000		STATUS OF DRG	
WTX	SD/-	21.03.18	APPROVED	NAME	SIGN
TTX	SSO	SD/-	23.03.18	DEPT	DATE
WELDING-A/B/C/D // AA0621104		GAS CUTTING-T3AA0621101			

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		STEAM TURBINE			
DEPT	STE	SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.	ITEM NO.
4011			370	01074050000	75 77
TITLE: FLANGE		CARD CODE	DRAWING NO. 2-10740-50104		
		SHEET No. 01		No. Of SHEETS 01	

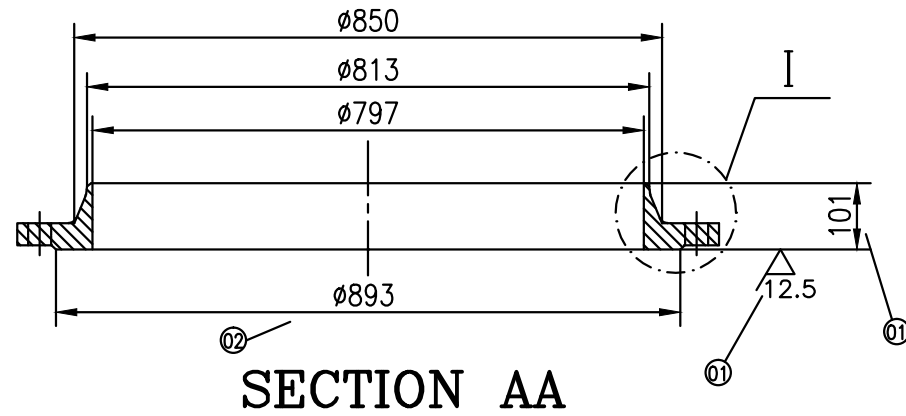
REV	DATE	ALTERED CHECKED	REV	DATE	ALTERED CHECKED	REV	DATE	ALTERED CHECKED	REV	DATE	ALTERED CHECKED	REV	DATE	ALTERED CHECKED	REV	DATE	ALTERED CHECKED
1			2			3			4			5			6		

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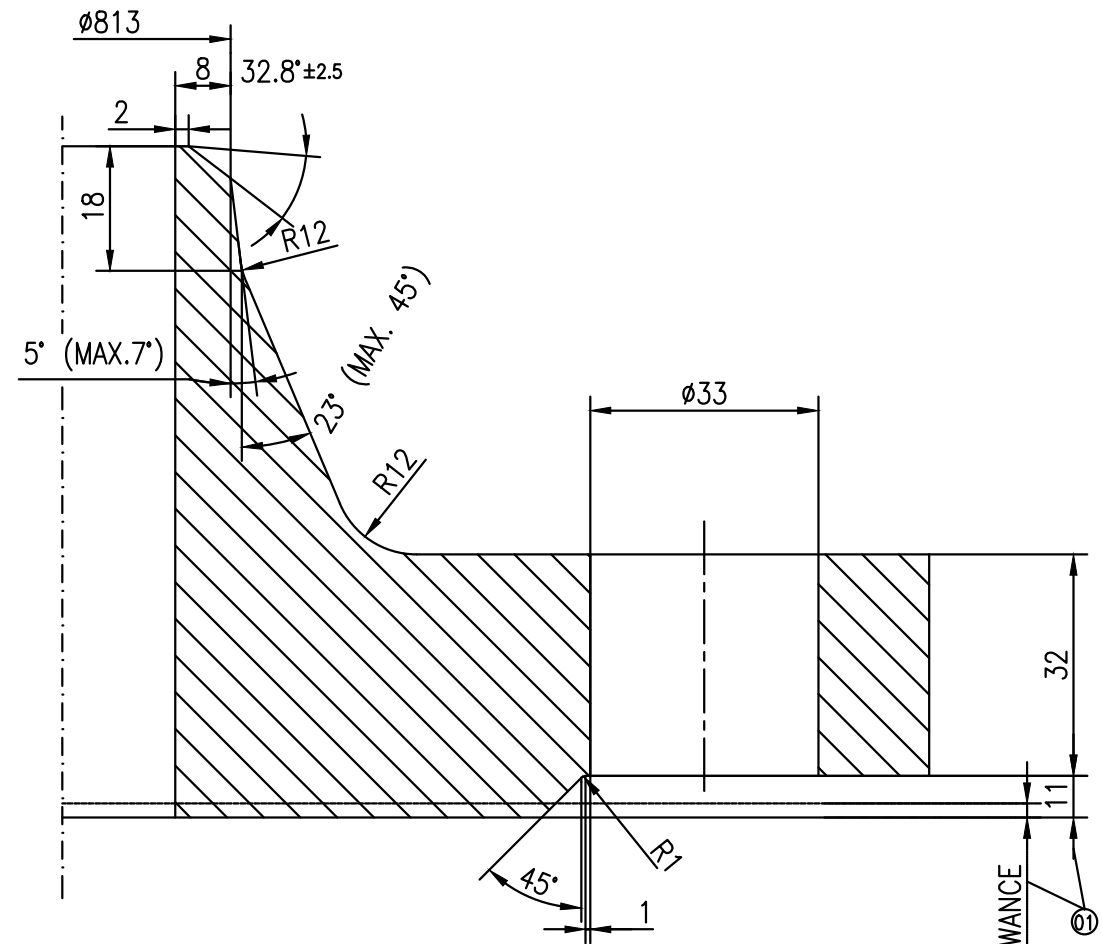
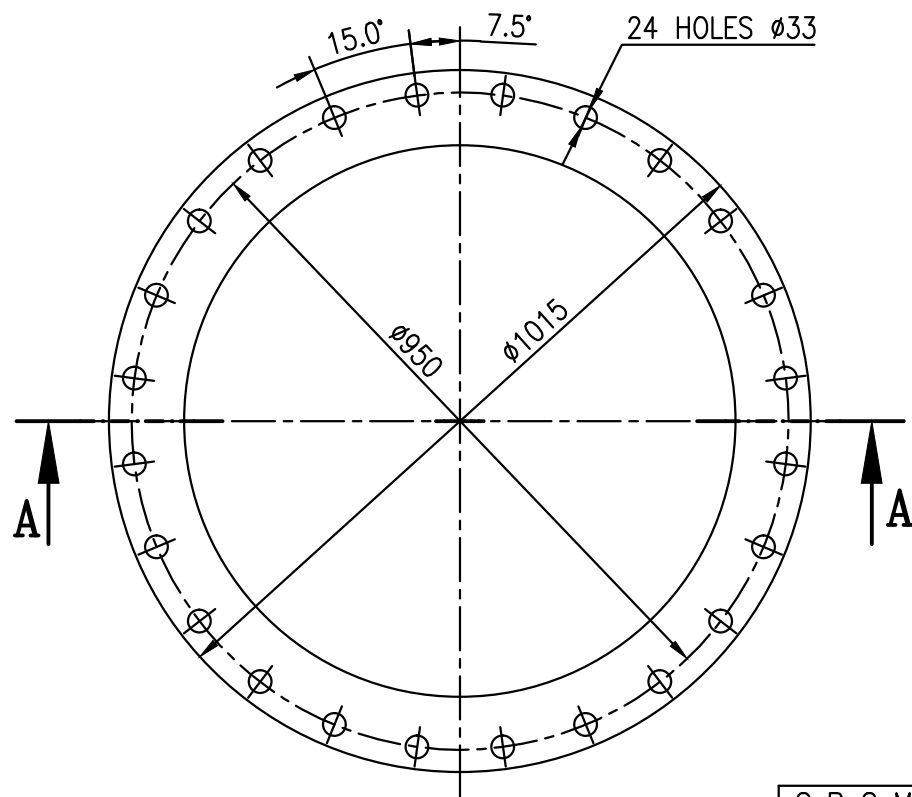


DRAWING No. 3-10714-56001

12.5 / ALL OVER EXCEPT OTHERWISE STATED



SECTION AA



DETAIL-I  
(SCALE 1:1)

T.R.: - IDENTIFICATION ACCORDING TO HW0400397.

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EN1092-1:2001  
Ref. Drawing No >

Sign & Date

Inventory No

C B O M No. 01071456000  
STATUS OF DRG

AGREED DEPT	NAME	SIGN	DATE
WT	V KUMAR	-sd-	19/05/10

TYPE OF PRODUCT STEAM TURBINE  
OR  
NAME OF CUSTOMER/PROJECT



BHARAT HEAVY ELECTRICALS LTD.  
RANIPUR, HARDWAR

DRN	NAME	SIGN	DATE	NO. OF VAR
	MONIKA	sd/-	16.04.10	
	A.SHUKLA	sd/-	16.04.10	
APPD	D.K. RAY	sd/-	20.05.10	73 74

GRADE OF UNTOL. DIM  
M/CG.- AA0230208 m  
WELDING-CLASS 'B' OF ISO13920:1996  
GAS CUTTING-TABLE 3 OF AA0621101

REV	DATE	ALTERED	MONIKA	REV	DATE	ALTERED	MONIKA
02	26.08.13	CHECKED	DINESH	01	26.07.13	CHECKED	DINESH

DEPT	STE	SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.	ITEM No.	NO. OF ITEMS
4011		1:10	96.00	01071456000	01	32 75 77

ø903 SHOULD BE ø893.  
5mm. MACHINING ALLOWANCE ADDED.  
C/A NO. STE-13-F0295.  
C/A NO. STE-13-F0261.

TITLE	CARD CODE	DRAWING NO.
FLANGE	7	3-10714-56001

SHEET No. 1 No. OF SHEETS 1

SIZE A3

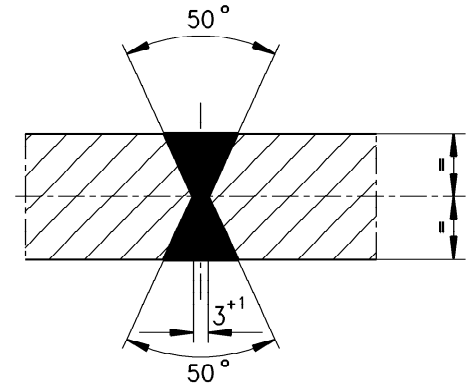
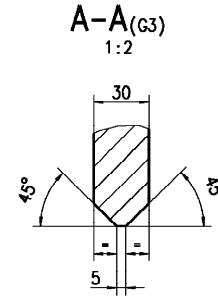
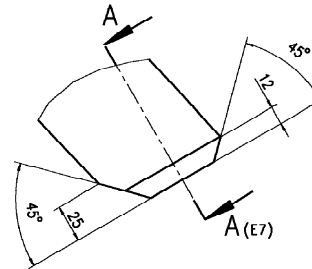
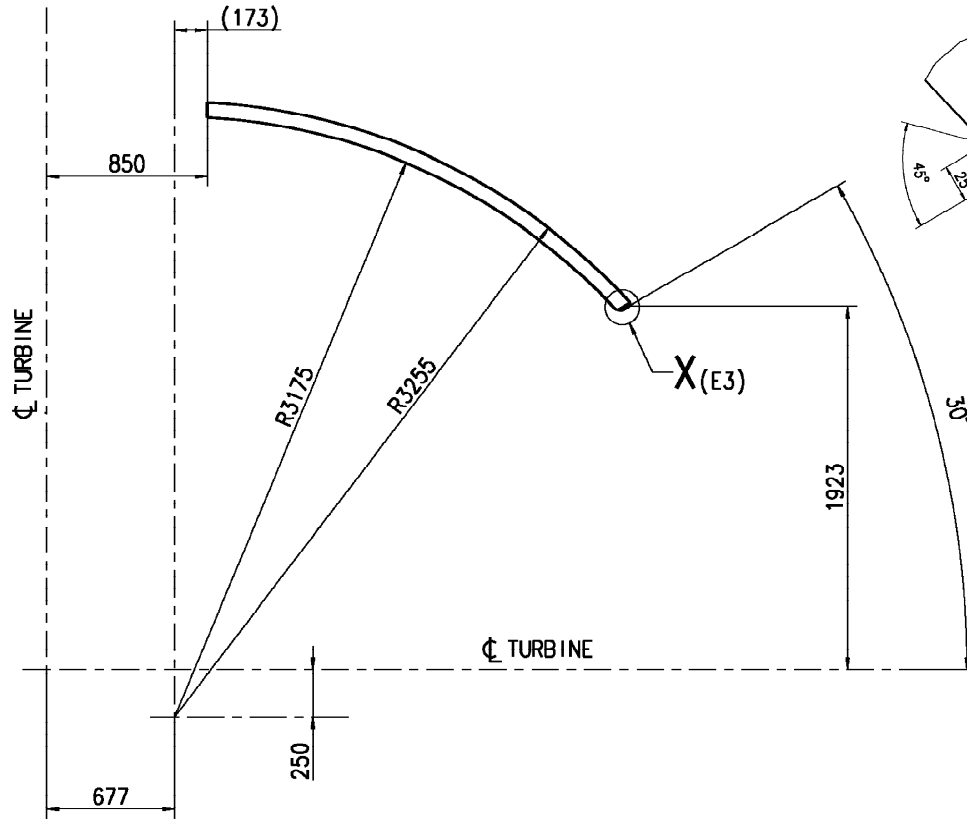
3-10740-50047

DRAWING No.

X(C6)  
1:2

50° ALL OVER EXCEPTED  
OTHERWISE STATED

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**TECHNICAL REQUIREMENTS:-**

1. IF REQUIRED PLATE IS ALLOWED TO MADE IN PARTS WITH LOGITUDINANAL JOINT SHOWN IN DETAIL 1. PERFORMANCE OF WELD SEAM ONLY AS FULL PENETRATION WELD. OVERLAPPING AND INTERSECTION OF WELD SEAM SHALL BE AVOIDED. DEPENDING ON SEMI-FINISHED PART THE NUMBER OF WELD SEAM SHALL BE MINIMIZED.
2. WELD CLASSIFICATION GROUP ACCORDING TO HW0620099:BS
3. WELDING TEST SCOPE ACCORDING TO HW0850199:CSR1
4. IDENTIFICATION ACCORDING TO HW0400397


Ref. Drawing No.  
 DPPP-70154420

Sign & Date

Inventory No.

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

GMS No./ C B O M		STATUS OF DRG	
0-10740-50000			
AGREED DEPT	NAME	SIGN	DATE
WT	S K T	-SD/-	

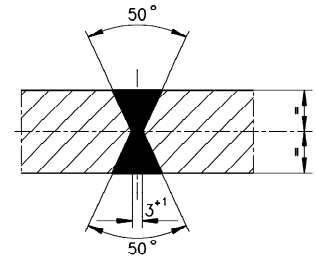
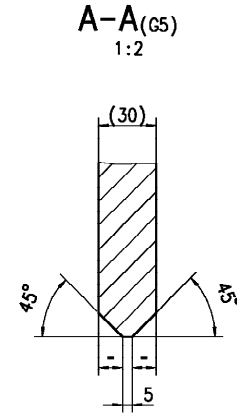
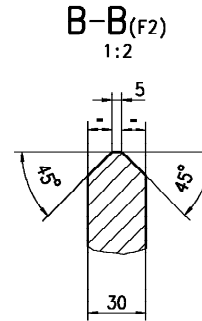
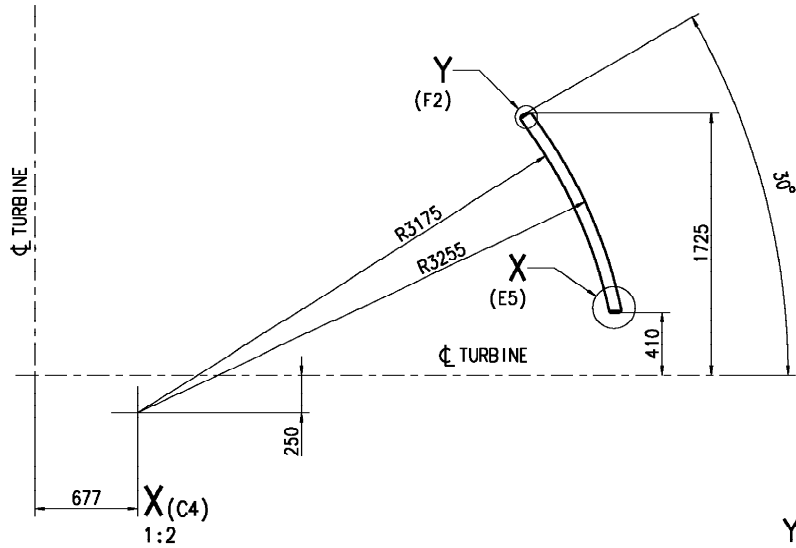
TYPE OF PRODUCT		<b>STEAM TURBINE</b>			
OR		NAME OF CUSTOMER/PROJECT			
 BHARAT HEAVY ELECTRICALS LTD. RANIPUR, HARDWAR		NAME MONIKA RITESH K. D.K.RAY	SIGN -SD/- -SD/- -SD/-	DATE 10/09/18 10/09/18 10/09/18	NO. OF VAR 73 74 75 77
DEPT	STE	SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.	
CODE	4011	1:25	47	0-10740-50100	
TITLE:			CARD CODE	DRAWING NO.	
PLATE			7	3-10740-50047	
			SHEET No.	01	No. OF SHEETS 01

REV	DATE	ALTERED	REV	DATE	ALTERED	REV	DATE	ALTERED
		CHECKED			CHECKED			CHECKED

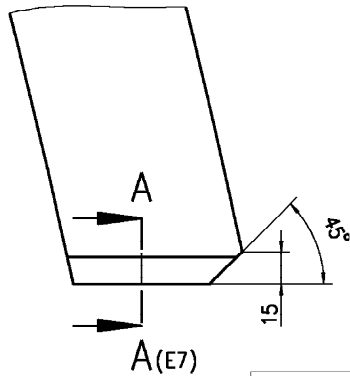
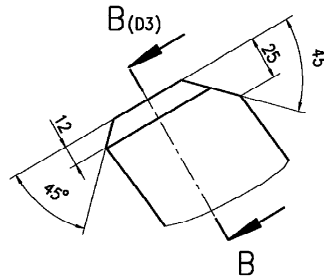
3-10740-50048

DRAWING No.

50 / ALL OVER EXCEPTED  
OTHERWISE STATED



Y(B4)  
1:2



TECHNICAL REQUIREMENTS:-

1. IF REQUIRED PLATE IS ALLOWED TO MADE IN PARTS WITH LOGITUDINANAL JOINT SHOWN IN DETAIL 1 . PERFORMANCE OF WELD SEAM ONLY AS FULL PENETRATION WELD. OVERLAPPING AND INTERSECTION OF WELD SEAM SHALL BE AVOIDED. DEPENDING ON SEMI-FINISHED PART THE NUMBER OF WELD SEAM SHALL BE MINIMIZED.
2. WELD CLASSIFICATION GROUP ACCORDING TO HW0620099:BS
3. WELDING TEST SCOPE ACCORDING TO HW0850199:CSR1
- 4.IDENTIFICATION ACCORDING TO HW0400397

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

GMS No./ C B O M				STATUS OF DRG
0-10740-50000				
AGREED DEPT	NAME	SIGN	DATE	
WT	S K T	-SD/-		

TYPE OF PRODUCT **STEAM TURBINE**  
OR  
NAME OF CUSTOMER/PROJECT

 **BHARAT HEAVY ELECTRICALS LTD.**  
**RANIPUR, HARDWAR**

DRN	NAME	SIGN	DATE	NO. OF VAR
CHD	MONIKA	-SD/-	10/09/18	
APPD	RITESH K.	-SD/-	10/09/18	
	D.K.RAY	-SD/-	10/09/18	73 74

DEPT	STE	SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.	ITEM No.	NO. OF ITEMS
CODE	4011	1:25	27	<b>0-10740-50100</b>	48	75 77

TITLE:	CARD CODE	DRAWING NO.	22 23 24
<b>PLATE</b>	7	<b>3-10740-50048</b>	
SHEET No. 01		No. OF SHEETS 01	

REV	DATE	ALTERED	REV	DATE	ALTERED	REV	DATE	ALTERED
		CHECKED			CHECKED			CHECKED

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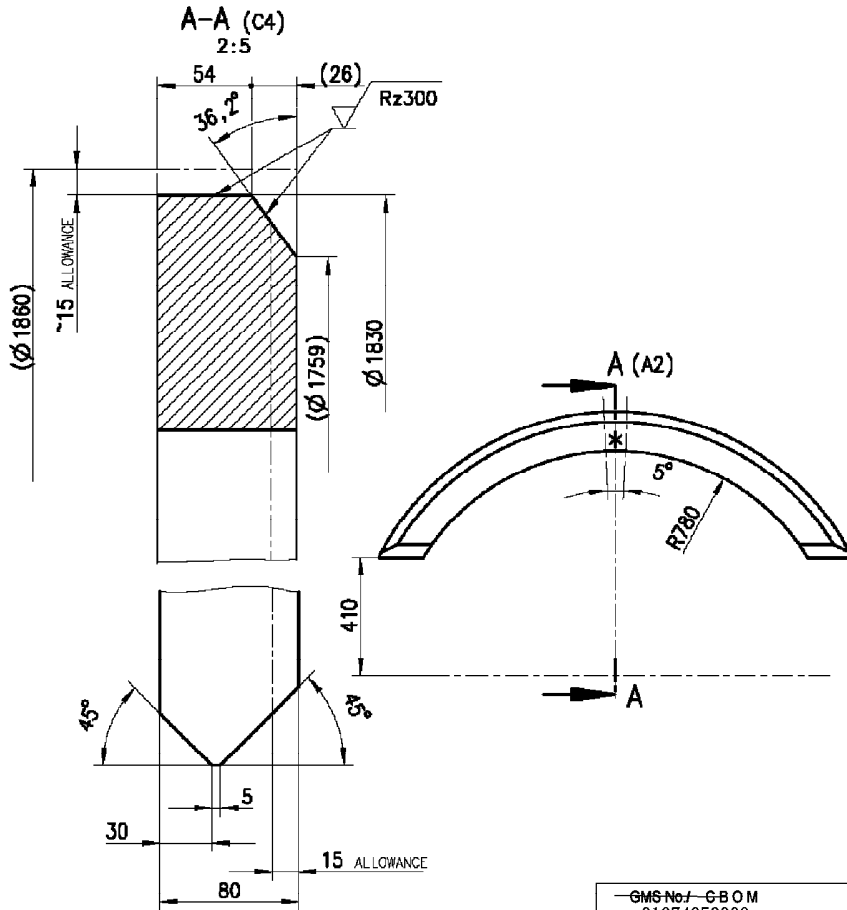
Ref. Drawing No.  
DPPPG-70154420

Sign & Date

Inventory No.

3-10740-50103  
DRAWING No.

50 / ALL OVER EXCEPTED  
OTHERWISE STATED



TECHNICAL REQUIREMENTS:-

1. IF NEEDED PLATE IS ALLOWED TO MADE IN PARTS AT MARKED AREA (\*) WITH LOGITUDINANAL JOINT SHOWN IN DETAIL 1 PERFORMANCE OF WELD SEAM ONLY AS FULL PENETRATION WELD. OVERLAPPING AND INTERSECTION OF WELD SEAM SHALL BE AVOIDED. DEPENDING ON SEMI-FINISHED PART THE NUMBER OF WELD SEAM SHALL BE MINIMIZED.
2. WELD CLASSIFICATION GROUP ACCORDING TO HW0620099:BS
3. LOGITUDINANAL JOINT REFER DETAIL 1
4. WELDING TEST SCOPE ACCORDING TO HW0850199:CSR1
5. IDENTIFICATION ACCORDING TO HW0400397 AT THE PLACE MARKED WITH IN

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Redrawing No-  
DPPPG-70043041

Sign & Date

Inventory No.

GMS No / G B O M 01074050000		STATUS OF DRG	
AGREED DEPT	NAME	SIGN	DATE
WTX	SKT	SD/-	21.03.18
TTX	SSO	SD/-	23.03.18

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

TYPE OF PRODUCT **STEAM TURBINE**  
OR  
NAME OF CUSTOMER/PROJECT



**BHARAT HEAVY ELECTRICALS LTD.**  
RANIPUR, HARDWAR

	NAME	SIGN	DATE	NO. OF VAR
DRN	ANAND KUMAR	-SD/-	25-01-2018	—
CHD	RITESH KUMAR	-SD/-	25-01-2018	—
APPD	DK RAY	-SD/-	25-01-2018	73 74

REV	DATE	ALTERED	REV	DATE	ALTERED	REV	DATE	ALTERED
		CHECKED			CHECKED			CHECKED

DEPT	STE	SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.	ITEM No.	NO. OF ITEMS
CODE	4011	---	140	0-10740-50000	—	75 77
TITLE :			CARD CODE	DRAWING NO.	NO. OF SHEETS	
RING			7	3-10740-50103	01	01

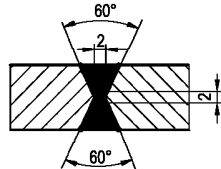
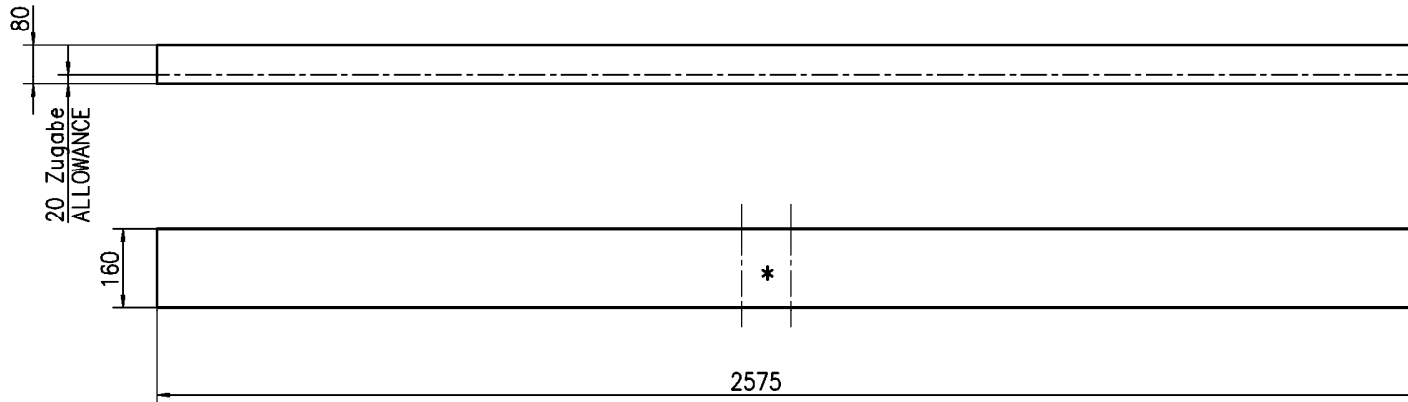
FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm)

FORM DG 38(B)

3-10740-50107 DRAWING No.

✓ ALL OVER EXCEPTED OTHERWISE STATED



DETAIL-1

TECHNICAL REQUIREMENTS:-

1. IF NEEDED PLATE IS ALLOWED TO MADE IN PARTS AT MARKED AREA (\*) WITH LOGITUDINANAL JOINT SHOWN IN DETAIL 1 PERFORMANCE OF WELD SEAM ONLY AS FULL PENETRATION WELD. OVERLAPPING AND INTERSECTION OF WELD SEAM SHALL BE AVOIDED. DEPENDING ON SEMI-FINISHED PART THE NUMBER OF WELD SEAM SHALL BE MINIMIZED.
2. WELD CLASSIFICATION GROUP ACCORDING TO HW0620099:BS
3. LOGITUDINANAL JOINT REFER DETAIL 1
4. WELDING TEST SCOPE ACCORDING TO HW0850199:CSR1
5. IDENTIFICATION ACCORDING TO HW0400397

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Ref Drawing No-  
DSPPG-0053675

Sign & Date

Inventory No.

GMS No./ C B O M 01074050000		STATUS OF DRG U		TYPE OF PRODUCT STEAM TURBINE	
AGREED DEPT		NAME	SIGN	DATE	OR
WTX	SKT	SD/-		21.03.18	NAME OF CUSTOMER/PROJECT
TTX	SSO	SD/-		23.03.18	
GRADE OF UNTOL.DIM		BHARAT HEAVY ELECTRICALS LTD.		NAME	
M/CG.-C/M/7 AA0230208		RANIPUR, HARDWAR		DRN	ANAND KUMAR
WELDING-A/B/C/D / / AA0621104				CHD	RITESH KUMAR
GAS CUTTING-T3'AA0621101				APPD	DK RAY
REV	DATE	ALTERED	REV	DATE	ALTERED
		CHECKED			CHECKED
DEPT STE		SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.	
CODE 4011			259	0-10740-50000	
TITLE : FLANGE		CARD CODE	DRAWING NO. 3-10740-50107		ITEM No.
		7			NO. OF ITEMS
		SHEET No. 01	No. OF SHEETS 01		73 74
				75 77	

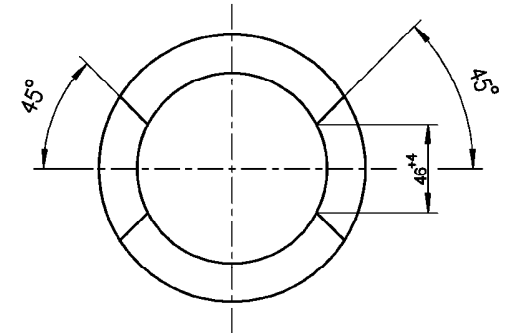
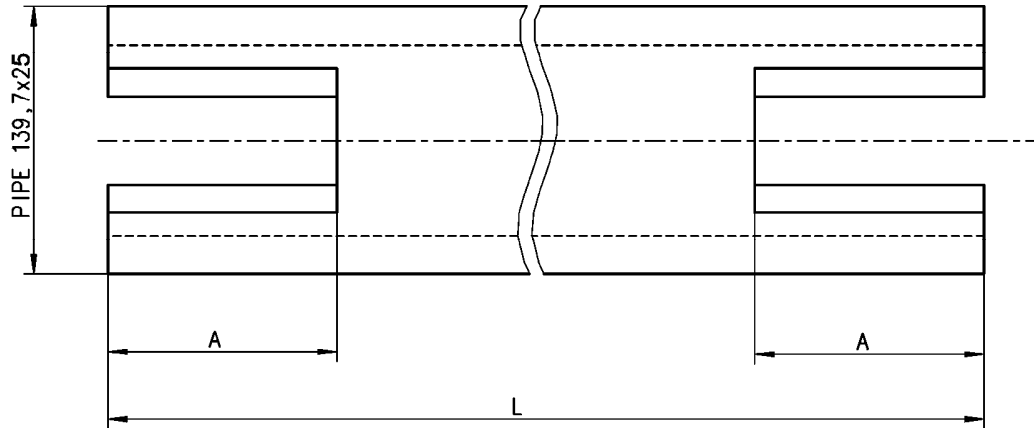
FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm)

FORM DG 38(B)

3-10740-50115 DRAWING No.

50 / ALL OVER EXCEPTED OTHERWISE STATED



VARIANT	L	A	WEIGHT IN KG
00	1671	150	112
01	1905	150	127
02	2109	150	140

IDENTIFICATION ACCORDING TO HW0400397

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Ref/Drawing No- A0180A5278

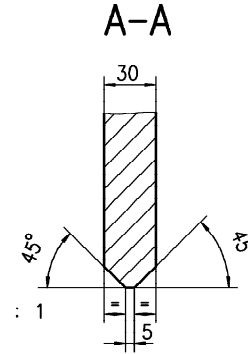
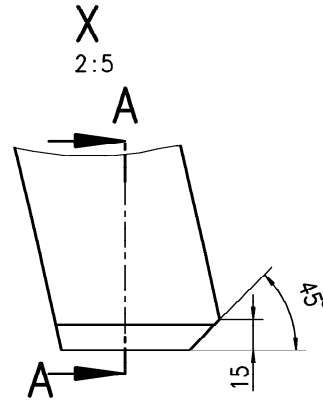
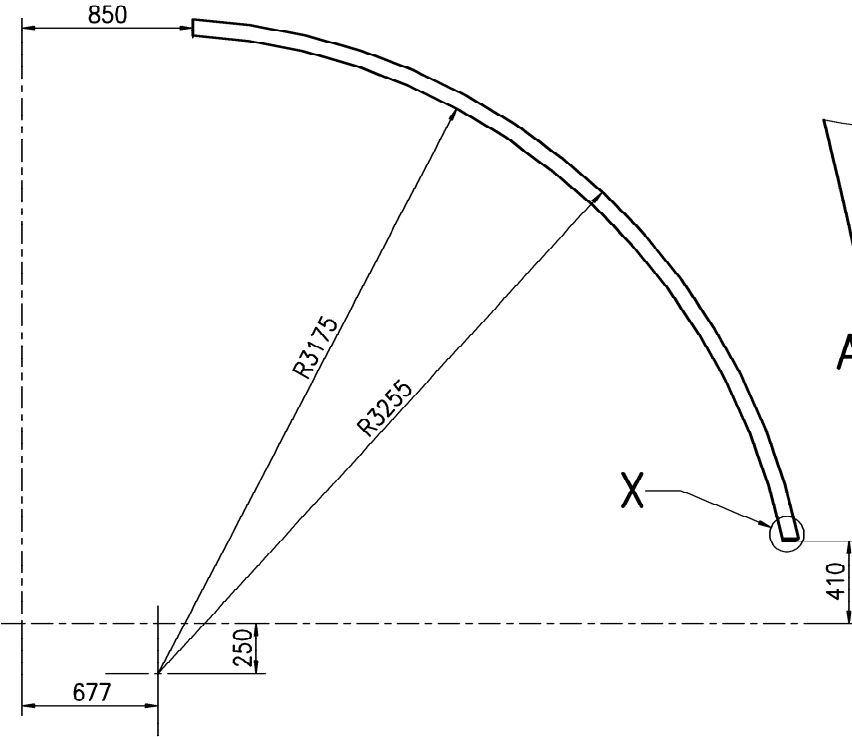
Sign & Date

Inventory No.

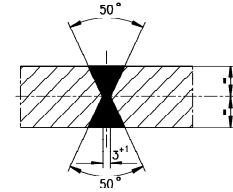
GMS No./ C B O M 01074050000		STATUS OF DRG U		TYPE OF PRODUCT <b>STEAM TURBINE</b>	
AGREED DEPT		NAME	SIGN	DATE	OR
WTX	SKT	SD/-		21.03.18	NAME OF CUSTOMER/PROJECT
TTX	SSO	SD/-		23.03.18	
GRADE OF UNTOL.DIM		BHARAT HEAVY ELECTRICALS LTD.		RANIPUR, HARDWAR	
M/CG.-C/M/7 AA0230208		DRN ANAND KUMAR		SIGN -SD/-	DATE 25-01-2018
WELDING-A/B/C/D / / AA0621104		CHD RITESH KUMAR		SIGN -SD/-	DATE 25-01-2018
GAS CUTTING-T3'AA0621101		APPD DK RAY		SIGN -SD/-	DATE 25-01-2018
REV	DATE	ALTERED	REV	DATE	ALTERED
		CHECKED			CHECKED
DEPT STE		SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.	
CODE 4011			-	0-10740-50000	
TITLE : <b>PIPE</b>			CARD CODE	DRAWING NO.	
			7	3-10740-50115	
SHEET No. 01		No. OF SHEETS 01			

SIZE A3

3-10740-50146  
DRAWING No.



50/ ALL OVER EXCEPTED OTHERWISE STATED



Detail-1

TECHNICAL REQUIREMENTS:-

1. IF REQUIRED PLATE IS ALLOWED TO MADE IN PARTS WITH LOGITUDINANAL JOINT SHOWN IN DETAIL 1 . PERFORMANCE OF WELD SEAM ONLY AS FULL PENETRATION WELD. OVERLAPPING AND INTERSECTION OF WELD SEAM SHALL BE AVOIDED. DEPENDING ON SEMI-FINISHED PART THE NUMBER OF WELD SEAM SHALL BE MINIMIZED.
2. WELD CLASSIFICATION GROUP ACCORDING TO HW0620099:BS
3. WELDING TEST SCOPE ACCORDING TO HW0850199:CSR1
- 4.IDENTIFICATION ACCORDING TO HW0400397

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Ref. Drawing No-  
DSPPG-0053756

Sign & Date  
Inventory No.

GRADE OF UNTOL.DIM	WTX	SKT	SD/-	21.03.18
M/CG.-C/M/F AA0230208	TTX	SSO	SD/-	23.03.18
WELDING-A/B/C/D / / AA0621104				
GAS CUTTING-T3'AA0621101				

GMS No./ C B O M <b>0-10740-50000</b>				STATUS OF DRG 0
AGREED DEPT	NAME	SIGN	DATE	

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		<b>STEAM TURBINE</b>		
BHARAT HEAVY ELECTRICALS LTD. RANIPUR, HARDWAR	DRN	NAME	SIGN	DATE
	CHD	MONIKA	-SD/-	25-01-2018
	APPD	RITESH K.	-SD/-	25-01-2018
DEPT	STE	SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.
CODE	4011		79.2	0-10740-50000
TITLE: <b>PLATE</b>		CARD CODE	DRAWING NO. <b>3-10740-50146</b>	
		SHEET No. 01		No. OF SHEETS 01

REV	DATE	ALTERED	REV	DATE	ALTERED	REV	DATE	ALTERED
		CHECKED			CHECKED			CHECKED

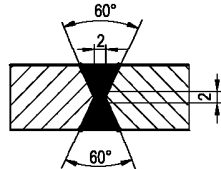
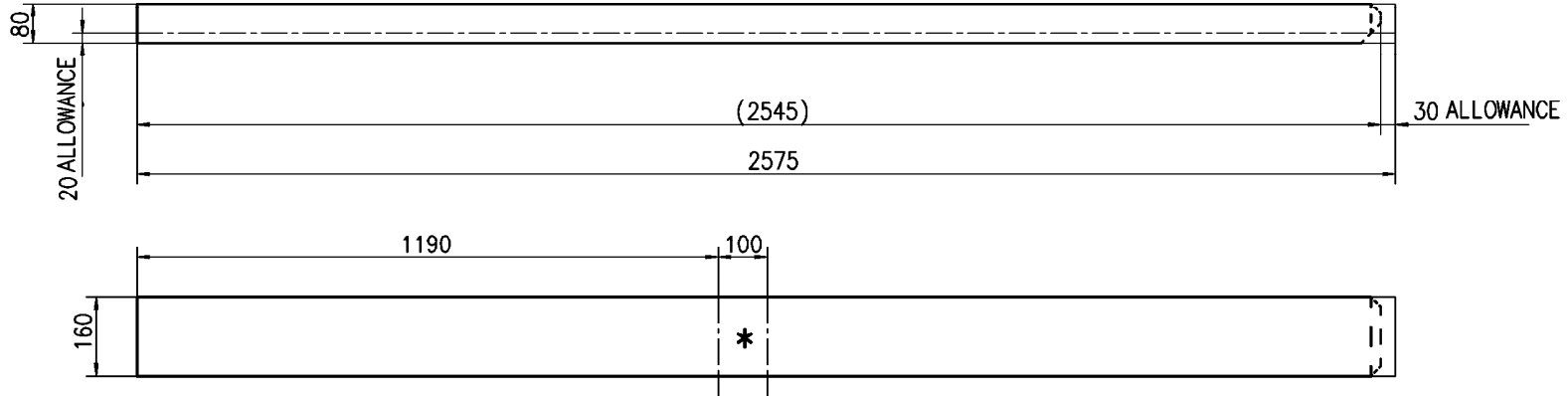
FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm)

FORM DG 38(B)

3-10740-50147 DRAWING No.

50/ ALL OVER EXCEPTED OTHERWISE STATED



DETAIL-1

TECHNICAL REQUIREMENTS:-

- IF NEEDED PLATE IS ALLOWED TO MADE IN PARTS AT MARKED AREA (\*) WITH LOGITUDINANAL JOINT SHOWN IN DETAIL 1 PERFORMANCE OF WELD SEAM ONLY AS FULL PENETRATION WELD. OVERLAPPING AND INTERSECTION OF WELD SEAM SHALL BE AVOIDED. DEPENDING ON SEMI-FINISHED PART THE NUMBER OF WELD SEAM SHALL BE MINIMIZED.
- WELD CLASSIFICATION GROUP ACCORDING TO HW0620099:BS
- LOGITUDINANAL JOINT REFER DETAIL 1
- WELDING TEST SCOPE ACCORDING TO HW0850199:CSR1
- IDENTIFICATION ACCORDING TO HW0400397

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Ref Drawing No- DSPPG-0053762

Sign & Date

Inventory No.

GRADE OF UNTOL.DIM
M/CG.-C/M/7 AA0230208
WELDING-A/B/C/D / / AA0621104
GAS CUTTING-T3'AA0621101

GMS No./ C B O M 01074050000		STATUS OF DRG	
AGREED DEPT	NAME	SIGN	DATE
WTX	SKT	SD/-	21.03.18
TTX	SSO	SD/-	23.03.18
REV	DATE	ALTERED	ANOOP SD/-
01	10.07.20	CHECKED	RITESH SD/-
WEIGHT CHANGED. AS PER C/A NO. STE-20-F0209.			

TYPE OF PRODUCT OR		STEAM TURBINE	
NAME OF CUSTOMER/PROJECT			
BHARAT HEAVY ELECTRICALS LTD. RANIPUR, HARDWAR		NAME	SIGN
DRN	ANAND KUMAR	-SD/-	25-01-2018
CHD	RITESH KUMAR	-SD/-	25-01-2018
APPD	DK RAY	-SD/-	25-01-2018
DEPT	STE	SCALE	WEIGHT (KG)
CODE	4011	—	259
TITLE : FLANGE		REF. TO ASSY. DRG.	ITEM No.
		0-10740-50000	—
DRAWING NO. 3-10740-50147		NO. OF ITEMS	
		75 77	
SHEET No. 01		No. OF SHEETS 01	

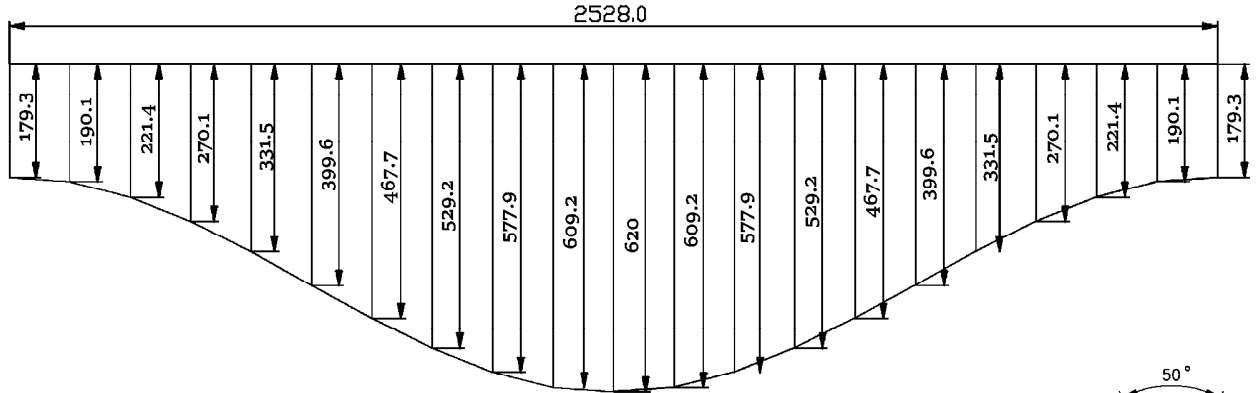
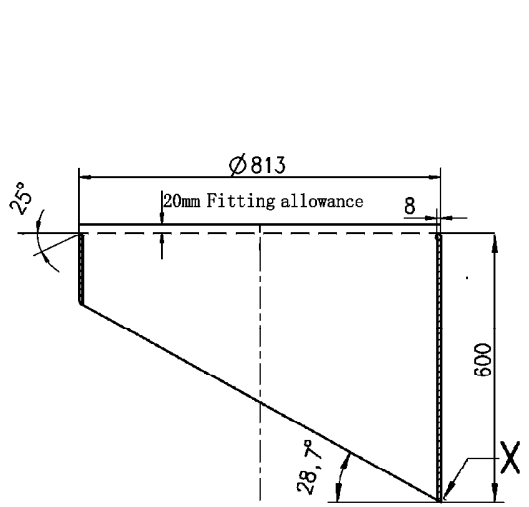
SIZE A3

3-10740-50148

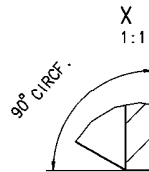
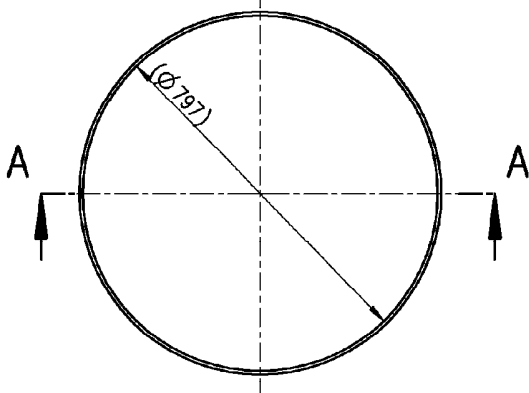
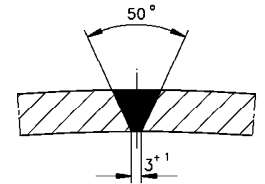
DRAWING No.

A-A

50 / ALL OVER EXCEPTED OTHERWISE STATED



Mean Dia (Dm) = (813+797) / 2 = 805 mm  
 Periphery = 3.14 Dm = 2527.7 = 2528 mm




TECHNICAL REQUIREMENTS:-

- IF REQUIRED PLATE IS ALLOWED TO MADE IN PARTS WITH LOGITUDINANAL JOINT SHOWN IN DETAIL 1 . PERFORMANCE OF WELD SEAM ONLY AS FULL PENETRATION WELD. OVERLAPPING AND INTERSECTION OF WELD SEAM SHALL BE AVOIDED. DEPENDING ON SEMI-FINISHED PART THE NUMBER OF WELD SEAM SHALL BE MINIMIZED.
- WELD CLASSIFICATION GROUP ACCORDING TO HW0620099:BS
- WELDING TEST SCOPE ACCORDING TO HW0850199:CSR1
- IDENTIFICATION ACCORDING TO HW0400397

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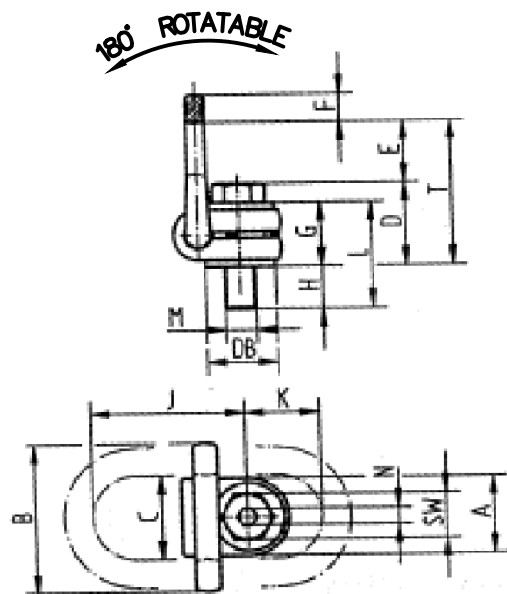
Ref Drawing No- DSPFC-0053769  
 Sign & Date  
 Inventory No.

GMS No./ C B O M 0-10740-50000		STATUS OF DRG		TYPE OF PRODUCT STEAM TURBINE																	
AGREED DEPT		NAME SIGN DATE		OR																	
WTX SKT SD/- 21.03.18		TTX SSO SD/- 23.03.18		NAME OF CUSTOMER/PROJECT																	
GRADE OF UNTOL.DIM		WELDING-A/B/C/D / / AA0621104		 BHARAT HEAVY ELECTRICALS LTD. RANIPUR, HARDWAR																	
M/CG.-C/M/7 AA0230208		GAS CUTTING-T3'AA0621101		<table border="1"> <tr> <th>NAME</th> <th>SIGN</th> <th>DATE</th> <th>NO. OF VAR</th> </tr> <tr> <td>DRN ANAND KUMAR</td> <td>-SD/-</td> <td>25-01-2018</td> <td>—</td> </tr> <tr> <td>CHD RITESH KUMAR</td> <td>-SD/-</td> <td>25-01-2018</td> <td>—</td> </tr> <tr> <td>APPD DK RAY</td> <td>-SD/-</td> <td>25-01-2018</td> <td>73 74</td> </tr> </table>		NAME	SIGN	DATE	NO. OF VAR	DRN ANAND KUMAR	-SD/-	25-01-2018	—	CHD RITESH KUMAR	-SD/-	25-01-2018	—	APPD DK RAY	-SD/-	25-01-2018	73 74
NAME	SIGN	DATE	NO. OF VAR																		
DRN ANAND KUMAR	-SD/-	25-01-2018	—																		
CHD RITESH KUMAR	-SD/-	25-01-2018	—																		
APPD DK RAY	-SD/-	25-01-2018	73 74																		
REV	DATE	ALTERED	REV	DATE	ALTERED																
		CHECKED			CHECKED																
DEPT STE		SCALE		WEIGHT (KG)																	
CODE 4011		--		59.60																	
TITLE :		CARD CODE		REF. TO ASSY. DRG.																	
PIPE		7		0-10740-50000																	
				DRAWING NO.																	
				3-10740-50148																	
				SHEET No. 01																	
				No. OF SHEETS 01																	

3-10740-56137  
DRAWING No.

Type	WLL t	A	B	C	D	E	F	G	H	J	K	L	M	N	A/F	R	T	DB	Weight Kg	Torque	Ref.No.	VARIANT	MAT.CODE
VLBG 1t M12	1	32	54	34	37	38	10	29	21	75	45	50	12	8	19	32	75	26	0.33	100 Nm	8500795	00	W97310740122
VLBG 1.5t M16	1.5	33	56	36	46	39	13.5	36	24	87	47	60	16	10	24	38	85	30	0.55	150 Nm	8500806	01	W97310740130
VLBG 2.5t M20	2.5	50	82	54	55	55	16.5	43	32	113	64	75	20	12	30	48	110	45	1.3	250 Nm	8500802	02	W97310740149
VLBG 4t M24	4	50	82	54	58	66	18	43	37	130	78	80	24	14	36	48	125	45	1.5	400 Nm	8500804	03	W97310740157
VLBG 5t M30	5	60	103	65	80	67	22.5	61	49	151	80	110	30	17	46	67	147	60	3.3	500 Nm	8500813	04	W97310740165
VLBG 8t M36	8	77	122	82	100	97	26.5	77	63	205	110	140	36	22	55	87	197	70	6.2	800 Nm	7983553	05	W97310740173
VLBG 10t M42	10	77	122	82	103	94	26.5	77	73	205	110	150	42	24	65	87	197	70	6.7	1000 Nm	7983554	06	W97310740181
VLBG 20t M48	20	95	156	100	117	105	36	87	73	230	130	160	48	27	75	100	222	95	11.6	2000 Nm	7982967	07	W97310740190
VLBG 0.3t M8	0.3	30	54	34	35	40	10	29	11	75	45	40	8	5	13	32	75	24	0.3	30 Nm	8500791	08	W97312087019
VLBG 0.63t M10	0.63	30	54	34	36	39	10	29	16	75	45	45	10	6	17	32	75	24	0.32	60 Nm	8500793	09	W97312087027
VLBG 4t M27	4	60	103	65	78	69	22.5	61	39	151	80	100	27	-	41	67	147	60	3.1	400 Nm	7983658	10	
VLBG 7t M36	7	60	103	65	72	74	22.5	55	52	151	80	107	36	-	55	67	146	60	3.4	700 Nm	8500817	11	
VLBG 15t M42	15	95	156	100	113	109	36	87	63	230	130	150	42	24	65	100	222	85	11.2	1500 Nm	7982966	12	W97310724011

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SUPPLIER : M/S RUD-KETTENFABRIK,  
GERMANY  
OR  
EQUIVALENT

TECHNICAL REQUIREMENTS:-

- ITEM SHOULD SUCCESSFULLY WITHSTAND TESTING LOAD OF 1.5 TIMES WILL OR MORE.
- CERTIFICATE OF COMPLIANCE TO BE PROVIDED.

KUN 693.10  
Ref.Drawing No>

Sign & Date

Inventory No

C B O M No.  
01074056000

STATUS OF DRG

TYPE OF PRODUCT STEAM TURBINE

OR  
NAME OF CUSTOMER/PROJECT

GRADE OF UNTOL. DIM  
M/CG.- AA0230208 m  
WELDING-CLASS 'B' OF ISO13920:1996  
GAS CUTTING-TABLE 3 OF AA0621101

AGREED DEPT	NAME	SIGN	DATE
TTX	S.K.GOND	-sd-	

**BHARAT HEAVY ELECTRICALS LTD.**  
RANIPUR, HARDWAR

DRN	NAME	SIGN	DATE	NO. OF VAR
	RITESH K	sd/-	02.06.10	--
CHD	RITESH K	sd/-	05.06.10	--
APPD	A SHAH	sd/-	08.06.10	73 74

REV	DATE	ALTERED	MANOJ	REV	DATE	ALTERED	MANOJ	REV	DATE	ALTERED	MANOJ
03	06.02.17	CHECKED	RITESH SD/-	02	14.01.12	CHECKED	PRADEEP	01	19.11.11	CHECKED	PRADEEP

DEPT STE	SCALE 1:10	WEIGHT (KG) SEE TABLE	REF. TO ASSY. DRG. 0-10740-56100	ITEM No. 06	NO. OF ITEMS 75 77
CODE 4011					

T.R. TO BEADED.  
C/A NO.STE-17-F0042.

IN TABLE W CODE W97310724011 ADDED.  
C/A NO. STE-12-F0004.

TABLE MODIFIED.  
C/A NO. STE-11-F0321.

TITLE :  
**LOAD SHACKLES**

CARD CODE 7

DRAWING NO.  
**3-10740-56137**

SHEET No. 1 No. OF SHEETS 1

FIRST ANGLE PROJECTION

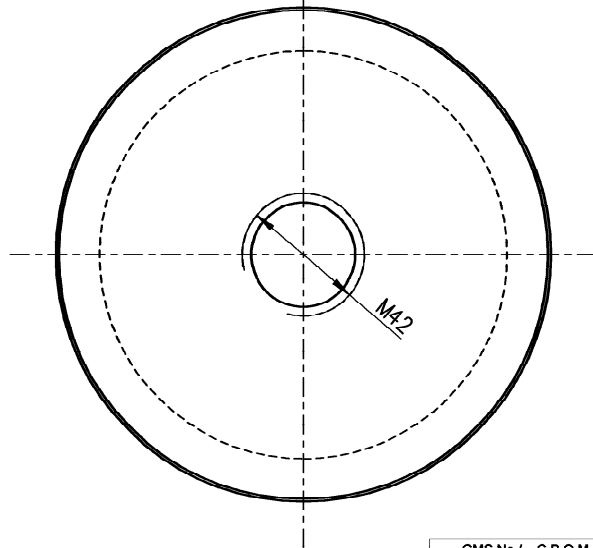
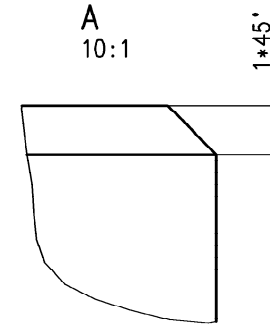
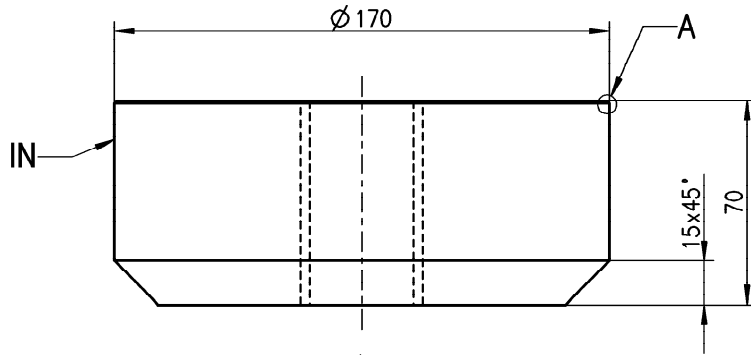
(ALL DIMENSIONS ARE IN mm)

FORM DG 38(B)

3-10740-58106

DRAWING No.

12.5/ ALL OVER EXCEPTED  
OTHERWISE STATED



1.IDENTIFICATION ACCORDING TO HW0400397 AT THE PLACE MARKED WITH IN

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Ref/Drawing No-  
HW0400397  
HW0400397  
MA2/1500

Sign & Date

Inventory No

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

GMS No./-C B O M		STATUS OF DRG	
0-10740-58000		U	
AGREED DEPT	NAME	SIGN	DATE
WT	V KUMAR	-SD/-	04.02.12

TYPE OF PRODUCT **STEAM TURBINE**  
OR  
NAME OF CUSTOMER/PROJECT

 **BHARAT HEAVY ELECTRICALS LTD.**  
RANIPUR, HARDWAR

DRN	NAME	SIGN	DATE	NO. OF VAR
CHD	AFZAL	-SD/-	21.12.2011	
	RITESH K.	-SD/-	22.12.2011	
APPD	D.K.RAY	-SD/-	25.12.2011	73 74

DEPT	STE	SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.	ITEM No.	NO. OF ITEMS
CODE	4011	1:1	11	0-10740-58100	06	75 77

TITLE:	CARD CODE	DRAWING NO.	NO. OF SHEETS
<b>WELDING BOSS</b>	7	3-10740-58106	01
			22 23 24

REV	DATE	ALTERED	REV	DATE	ALTERED	REV	DATE	ALTERED
		CHECKED			CHECKED			CHECKED

SIZE A3

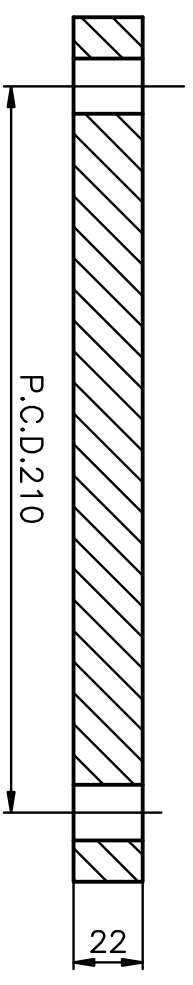
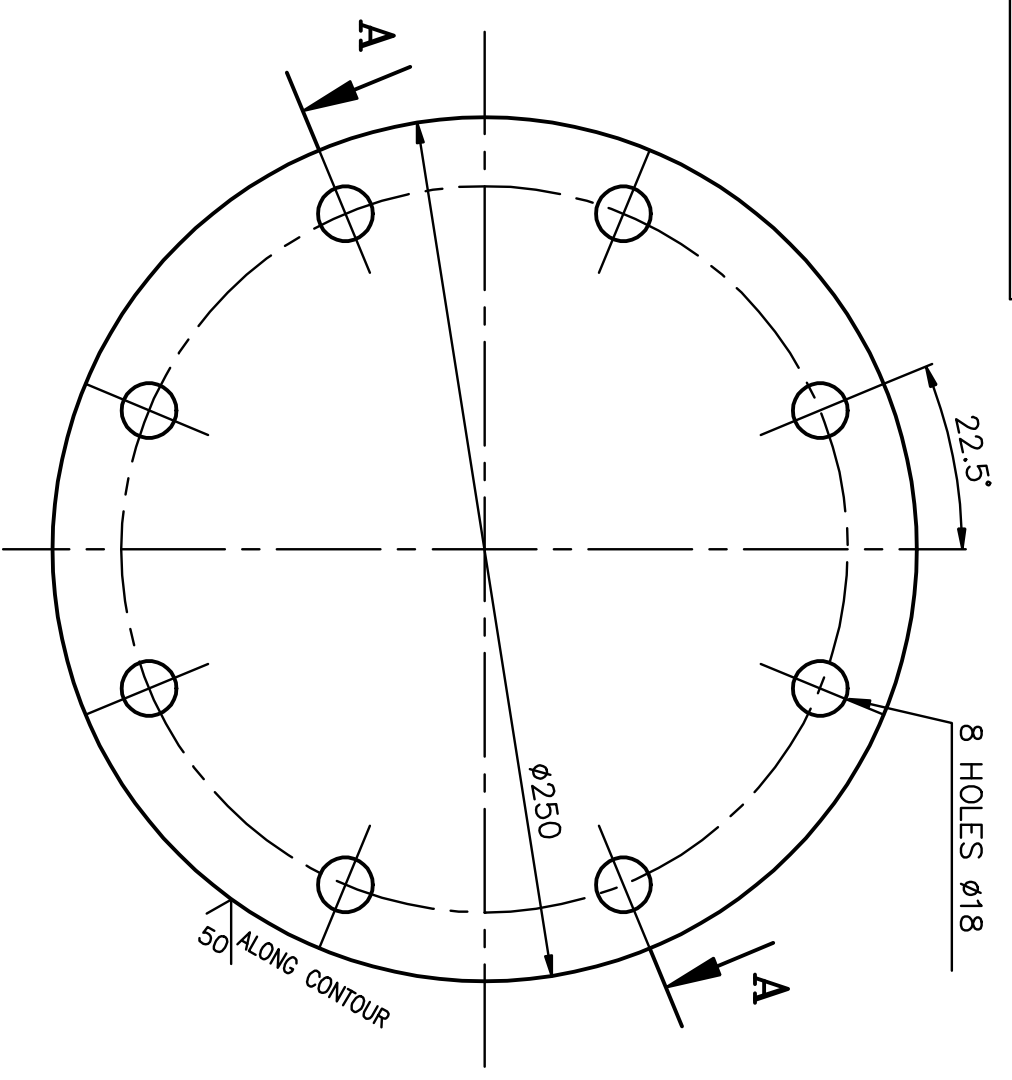
10095-44201-3  
DRAWING No.

FIRST ANGLE PROJECTION

( ALL DIMENSIONS ARE IN mm )

FORM DG 38(B)

1:2.5/ ALL OVER EXCEPT OTHERWISE STATED



SECTION AA

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Inventory No.	Sign & Date	Ref. Drawing No.
---------------	-------------	------------------

REV	DATE	ALTERED	CHECKED

REV	DATE	ALTERED	CHECKED

REV	DATE	ALTERED	CHECKED

GRADE OF UNTOL. DIM	C B O M No.	STATUS OF DRG
M/CG:- AA0230208 m	01074456000	
WELDING-CLASS 'B' OF ISO13920:1996	AGREED DEPT	NAME
GAS CUTTING-TABLE 3 OF AA0621101	WTX	V.K.
		sd/-
		26.05.11

TECHNICAL REQUIREMENTS:  
1. IDENTIFICATION AS PER HW0400397.

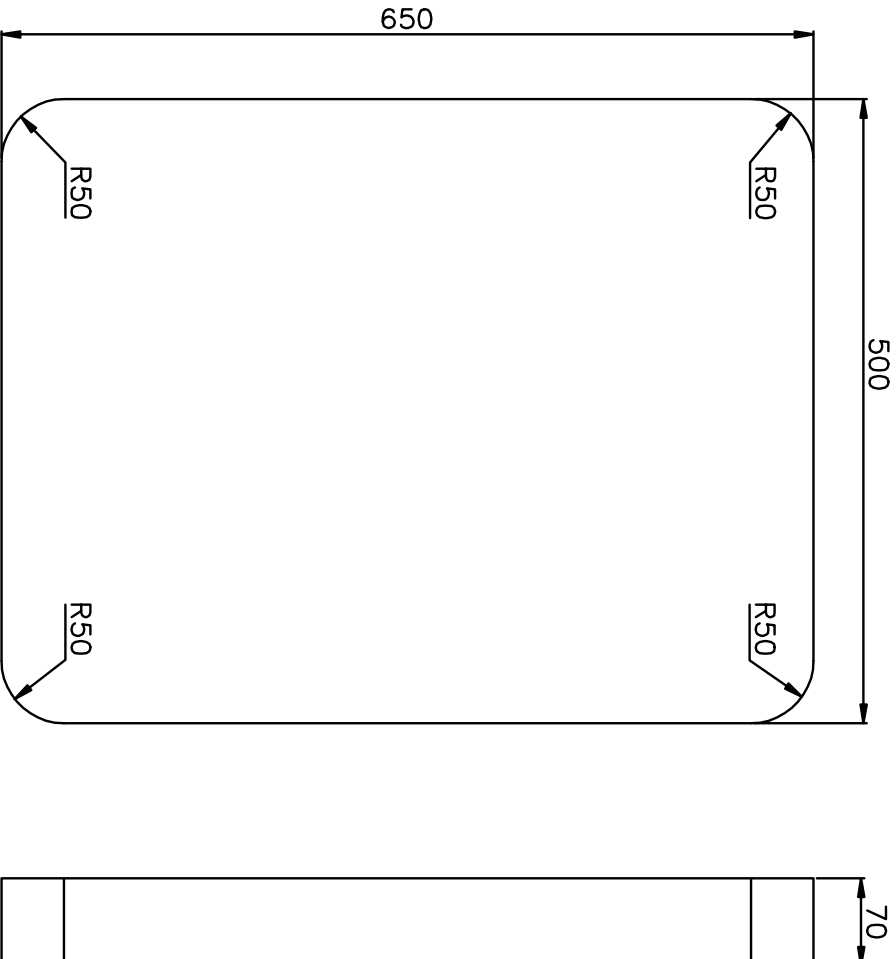
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		STEAM TURBINE	
BHARAT HEAVY ELECTRICALS LTD. RANIPUR, HARDWAR			
DEPT SITE	SCALE	WEIGHT (KG)	CARD CODE
4011	1:2	8.42	FLANGE
TITLE :		REF. TO ASSY. DRG.	DRAWING NO.
		01074456000	3-10744-56001
DRN	NAME	SIGN	DATE
MONIKA		SD/-	06.05.2011
A.K.SINGH		SD/-	08.05.2011
A.SHAH		SD/-	27.05.2011
NO. OF VAR	NO. OF ITEMS	NO. OF SHEETS	NO. OF SHEETS
73 74	75 77	1	1

SIZE A3

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

REV	DATE	ALTERED CHECKED	REV	DATE	ALTERED CHECKED	GMS No- / C.B.O.M. - NO	STATUS OF DRG
ZONE			ZONE				U
GRADE OF UNTOLDIM		M/CG. - AA0230208 m	WELDING-CLASS 'B' OF AA0621104		GAS CUTTING-TABLE 3 OF AA0621101		
AGREED		NAME	SIGN	DATE			
DEPT		S K GOND	sd/-	25.08.10			
TTX							

50/ ALL OVER EXCEPT OTHERWISE STATED




TECH. REQUIREMENTS:-

1. IDENTIFICATION ACCORDING TO HW 0400397.

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DSPPG-0048446  
 11660-221261/032  
 Ref.Drawing No>

Inventory No.		Sign & Date			
DEPT SITE		SCALE		WEIGHT (KG)	
CODE 4011		SCALE		178 Kg	
TITLE :		CARD CODE		DRAWING NO.	
PLATE				4-10740-56128	
BHARAT HEAVY ELECTRICALS LTD.		NAME		SIGN	
RANIPUR, HARDWAR		MONIKA		SD/-	
REF. TO ASSY. DRG.		DATE		NO. OF	
0-10740-56100		02.06.10		VAR	
APPD		D K RAY		SD/-	
		08.06.10		ITEM No.	
				NO. OF ITEMS	
SHEET No. 01		No. OF SHEETS		01	

A4 SIZE

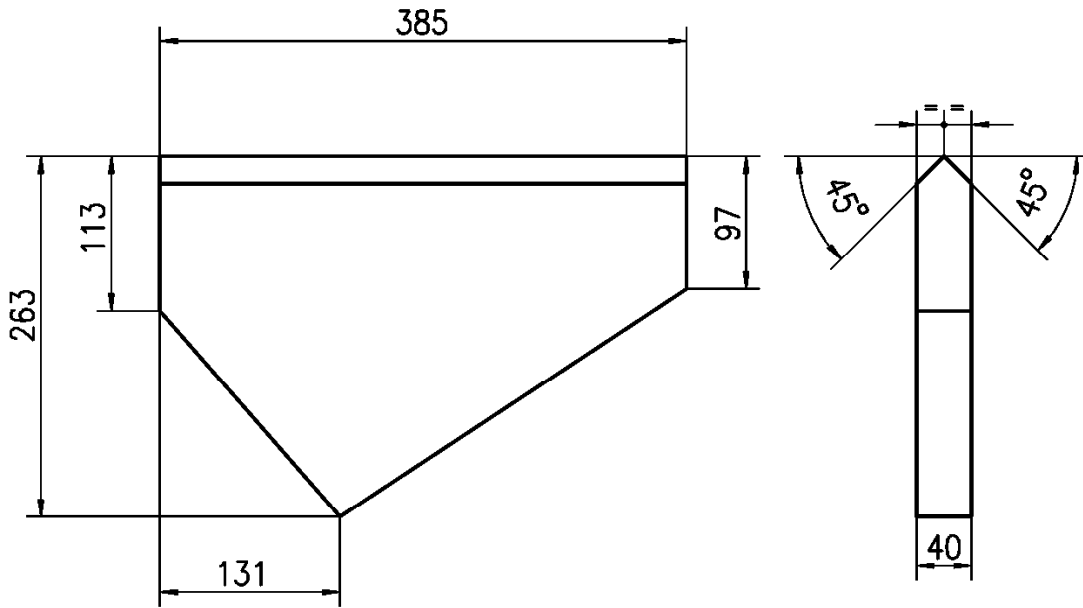
FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm) FORM DG 39(B)

REV	DATE	ALTERED	REV	DATE	ALTERED	GMS No./G.B.O.M.- NO.		STATUS OF DRG U	
		CHECKED			CHECKED	0-10740-50000			
ZONE			ZONE			AGREED DEPT	NAME	SIGN	DATE
						WTX	SKT	SD/-	21.03.18
						TTX	SSO	SD/-	23.03.18

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

50 / ALL OVER EXCEPTED OTHERWISE STATED




IDENTIFICATION ACCORDING TO HW0400397

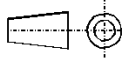
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Ref. Drawing No.  
DSPPG-0053687

Sign & Date

 <b>BHARAT HEAVY ELECTRICALS LTD.</b> RANIPUR, HARDWAR	NAME	SIGN	DATE	NO. OF VAR
	DRN ANAND KUMAR	-SD/-	25-01-2018	
	CHD RITESH KUMAR	-SD/-	25-01-2018	
APPD DK RAY	-SD/-	25-01-2018		

Inventory No.

DEPT STE		SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.	ITEM No.	NO. OF ITEMS
CODE 4011		—	20.9	0-10740-50000	—	—
TITLE : <b>PLATE</b>			CARD CODE	DRAWING NO.		
			—	7 4-10740-50110	22 23 24	
				SHEET No. 01	No. OF SHEETS 01	

A4 SIZE

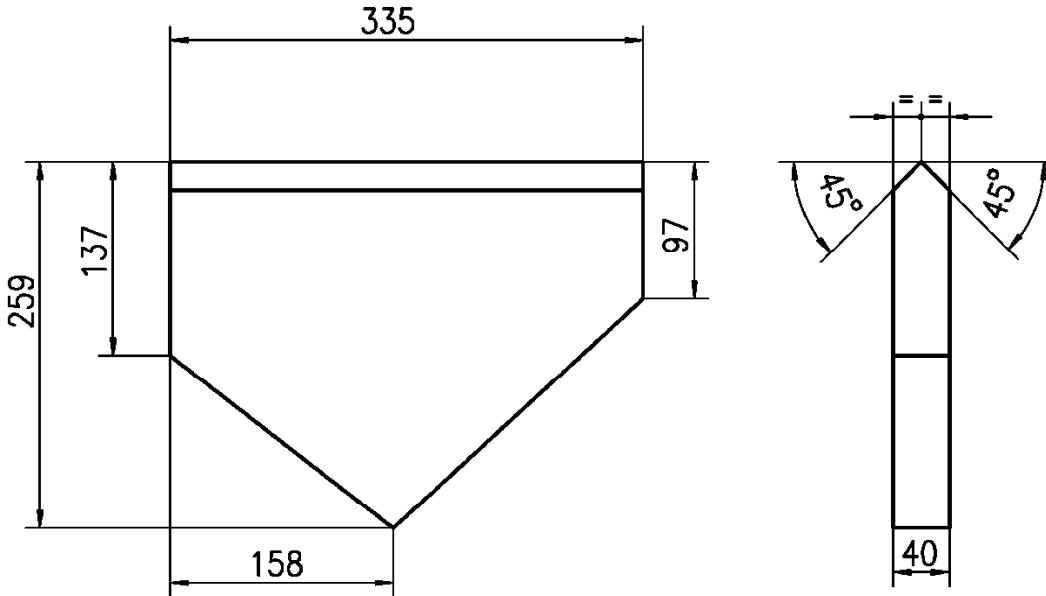
FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm) FORM DG 39(B)

REV	DATE	ALTERED	REV	DATE	ALTERED	GMS No./G.B.O.M.- NO. <b>0-10740-50000</b>	STATUS OF DRG U		
		CHECKED			CHECKED				
ZONE			ZONE			AGREED DEPT	NAME	SIGN	DATE
						WTX	SKT	SD/-	21.03.18
						TTX	SSO	SD/-	23.03.18

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

50/ ALL OVER EXCEPTED OTHERWISE STATED



IDENTIFICATION ACCORDING TO HW0400397

Ref. Drawing No.  
DSPPC-0053695

Sign & Date



**BHARAT HEAVY ELECTRICALS LTD.**  
RANIPUR, HARDWAR

	NAME	SIGN	DATE	NO. OF VAR
DRN	ANAND KUMAR	-SD/-	25-01-2018	
CHD	RITESH KUMAR	-SD/-	25-01-2018	
APPD	DK RAY	-SD/-	25-01-2018	

Inventory No.

DEPT	STE		SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.	ITEM No.	NO. OF ITEMS
CODE	4011		—	18.70	0-10740-50000	—	—
TITLE :				CARD CODE	DRAWING NO.	NO. OF SHEETS	
PLATE				—	4-10740-50111	22 23 24	
					SHEET No. 01	No. OF SHEETS 01	

A4 SIZE

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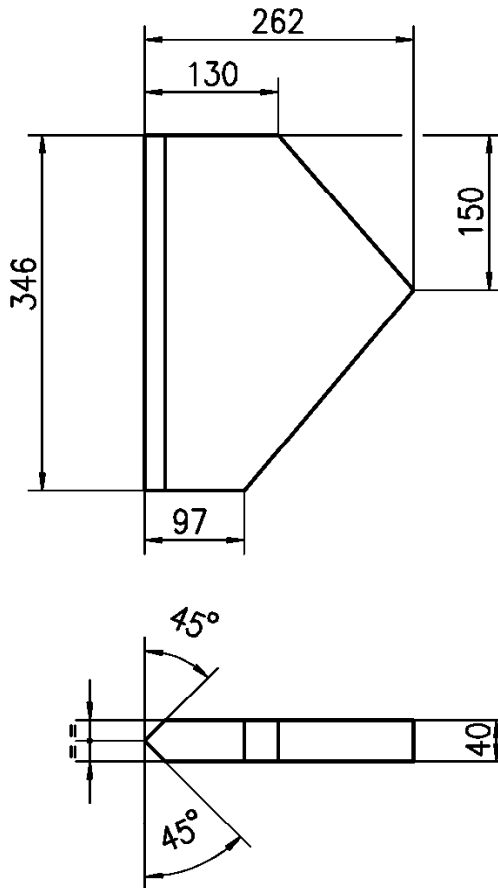
FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm) FORM DG 39(B)

REV	DATE	ALTERED	REV	DATE	ALTERED	GMS No./G.B.O.M.- NO.		STATUS OF DRG U	
		CHECKED			CHECKED	0-10740-50000			
ZONE			ZONE			AGREED DEPT	NAME	SIGN	DATE
						WTX	SKT	SD/-	21.03.18
						TTX	SSO	SD/-	23.03.18

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

50/ ALL OVER EXCEPTED OTHERWISE STATED



IDENTIFICATION ACCORDING TO HW0400397

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Ref. Drawing No.  
DSPPG-0053698

Sign & Date



**BHARAT HEAVY ELECTRICALS LTD.**  
RANIPUR, HARDWAR

	NAME	SIGN	DATE	NO. OF VAR	
DRN	ANAND KUMAR	-SD/-	25-01-2018		—
CHD	RITESH KUMAR	-SD/-	25-01-2018		
APPD	DK RAY	-SD/-	25-01-2018		—

Inventory No.

DEPT	STE		SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.	ITEM No.	NO. OF ITEMS
CODE	4011		—	19.2	0-10740-50000	—	—
TITLE :				CARD CODE	DRAWING NO.	22 23 24	
PLATE				—	4-10740-50112	—	
					SHEET No. 01	No. OF SHEETS	01

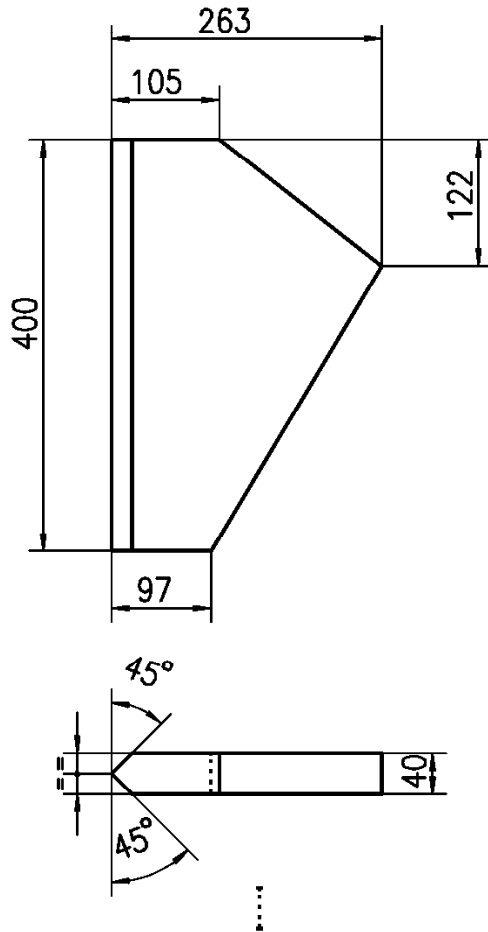
A4 SIZE

FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm) FORM DG 39(B)

REV	DATE	ALTERED	REV	DATE	ALTERED	GMS No./G.B.O.M.- NO.		STATUS OF DRG U	
		CHECKED			CHECKED	0-10740-50000			
ZONE			ZONE			AGREED DEPT	NAME	SIGN	DATE
						WTX	SKT	SD/-	21.03.18
						TTX	SSO	SD/-	23.03.18

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



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Ref. Drawing No.  
DSPPG-0053700

Sign & Date



**BHARAT HEAVY ELECTRICALS LTD.**  
RANIPUR, HARDWAR

	NAME	SIGN	DATE	NO. OF VAR
DRN	ANAND KUMAR	-SD/-	25-01-2018	
CHD	RITESH KUMAR	-SD/-	25-01-2018	
APPD	DK RAY	-SD/-	25-01-2018	

Inventory No.

DEPT	STE		SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.	ITEM No.	NO. OF ITEMS
CODE	4011		—	21.5	0-10740-50000	—	—
TITLE :				CARD CODE	DRAWING NO.		
PLATE				—	4-10740-50113		
					7	22 23 24	
					SHEET No. 01	No. OF SHEETS 01	

A4 SIZE

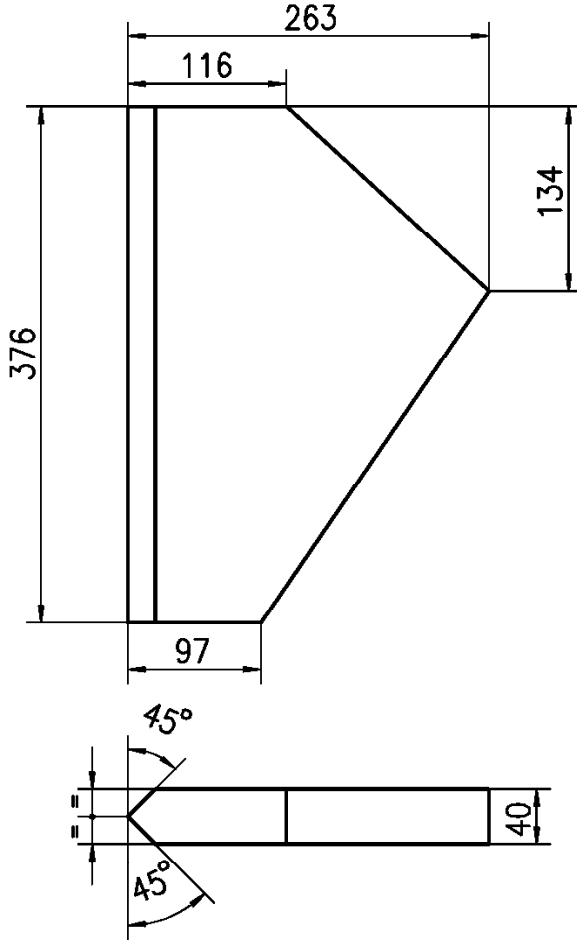
FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm) FORM DG 39(B)

REV	DATE	ALTERED	REV	DATE	ALTERED	GMS No./G.B.O.M.- NO.		STATUS OF DRG U	
		CHECKED			CHECKED	0-10740-50000			
ZONE			ZONE			AGREED DEPT	NAME	SIGN	DATE
						WTX	SKT	SD/-	21.03.18
						TTX	SSO	SD/-	23.03.18

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

50 / ALL OVER EXCEPTED OTHERWISE STATED



IDENTIFICATION ACCORDING TO HW0400397

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Ref. Drawing No.  
DSPPG-0053702

Sign & Date

	BHARAT HEAVY ELECTRICALS LTD.			NO. OF VAR
	RANIPUR, HARDWAR			
	DRN	ANAND KUMAR	-SD/-	
	CHD	RITESH KUMAR	-SD/-	25-01-2018
	APPD	DK RAY	-SD/-	25-01-2018

Inventory No.	DEPT	STE		SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.	ITEM No.	NO. OF ITEMS
	CODE	4011			20.50	0-10740-50000		
	TITLE : <b>PLATE</b>					CARD CODE	DRAWING NO.	
						4-10740-50120	22 23 24	
						SHEET No. 01	No. OF SHEETS 01	

A4 SIZE

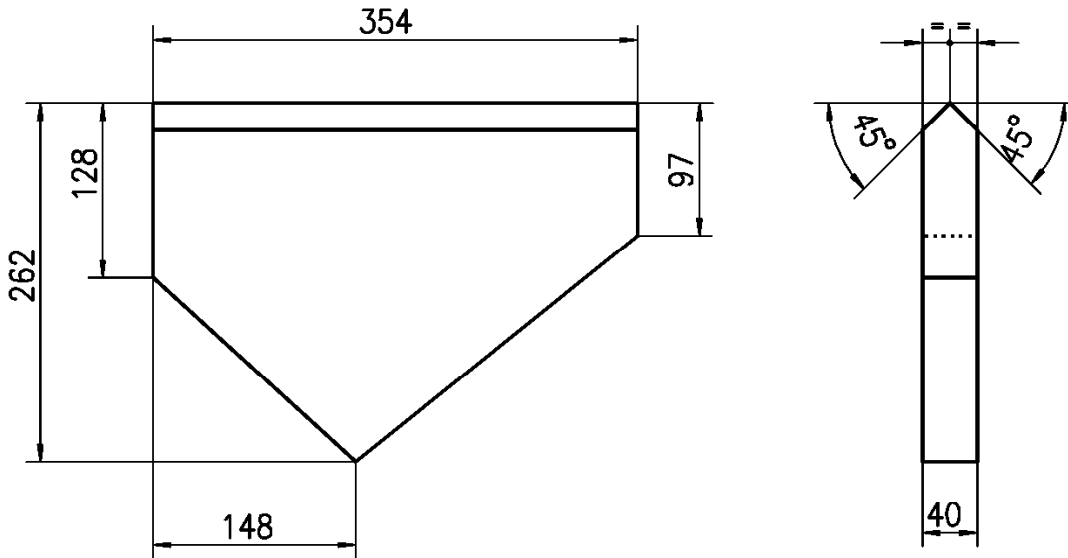
FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm) FORM DG 39(B)

REV	DATE	ALTERED	REV	DATE	ALTERED	GMS No./G.B.O.M.- NO.		STATUS OF DRG U	
		CHECKED			CHECKED	0-10740-50000			
ZONE			ZONE			AGREED DEPT	NAME	SIGN	DATE
						WTX	SKT	SD/-	21.03.18
						TTX	SSO	SD/-	23.03.18

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

50 / ALL OVER EXCEPTED OTHERWISE STATED



IDENTIFICATION ACCORDING TO HW0400397

Ref. Drawing No.  
DSPPG-0053706

Sign & Date



**BHARAT HEAVY ELECTRICALS LTD.**  
RANIPUR, HARDWAR

	NAME	SIGN	DATE	NO. OF VAR
DRN	ANAND KUMAR	-SD/-	25-01-2018	
CHD	RITESH KUMAR	-SD/-	25-01-2018	
APPD	DK RAY	-SD/-	25-01-2018	

Inventory No.	DEPT	STE	SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.	ITEM No.	NO. OF ITEMS	
	CODE	4011						19.5
	TITLE : <b>PLATE</b>				CARD CODE	DRAWING NO. 4-10740-50121		22 23 24
					SHEET No.	01	No. OF SHEETS	01

A4 SIZE

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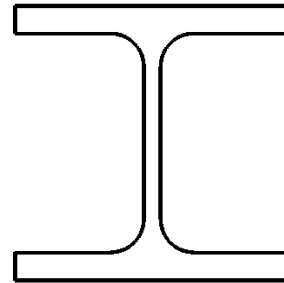
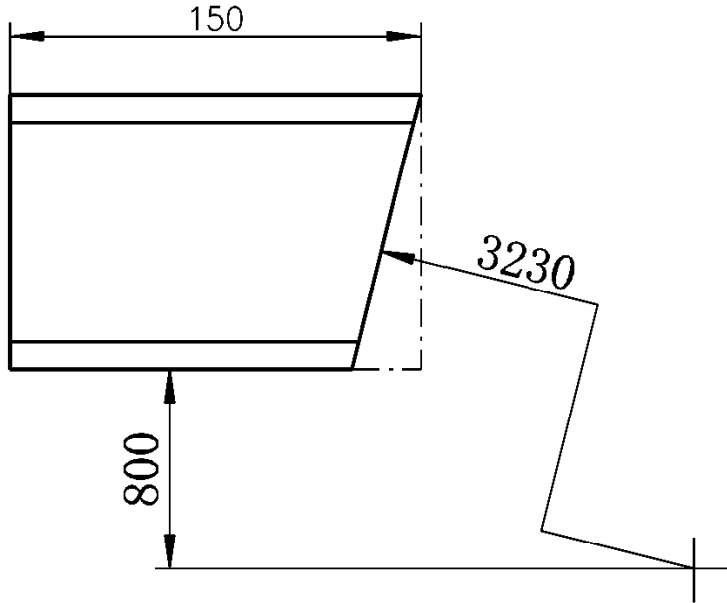
FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm ) FORM DG 39(B)

REV	DATE	ALTERED	REV	DATE	ALTERED	GMS No./C.B.O.M.- NO.		STATUS OF DRG U	
		CHECKED			CHECKED	0-10740-50000			
ZONE			ZONE			AGREED DEPT	NAME	SIGN	DATE
						WTX	SKT	SD/-	21.03.18
						TTX	SSO	SD/-	23.03.18

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

50/ ALL OVER EXCEPTED OTHERWISE STATED



IPB100 DIN1025

IDENTIFICATION ACCORDING TO HW0400397

Ref. Drawing No.  
A0140A9689

Sign & Date



**BHARAT HEAVY ELECTRICALS LTD.**  
RANIPUR, HARDWAR

	NAME	SIGN	DATE	NO. OF VAR
DRN	ANAND KUMAR	-SD/-	25-01-2018	
CHD	RITESH KUMAR	-SD/-	25-01-2018	
APPD	DK RAY	-SD/-	25-01-2018	

Inventory No.

DEPT	STE		SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.	ITEM No.	NO. OF ITEMS
CODE	4011		---	2.8	0-10740-50000	---	---
TITLE :				CARD CODE	DRAWING NO.		
I-Profile				7	4-10740-50125	22 23 24	
			SHEET No.	01	No. OF SHEETS	01	

A4 SIZE

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

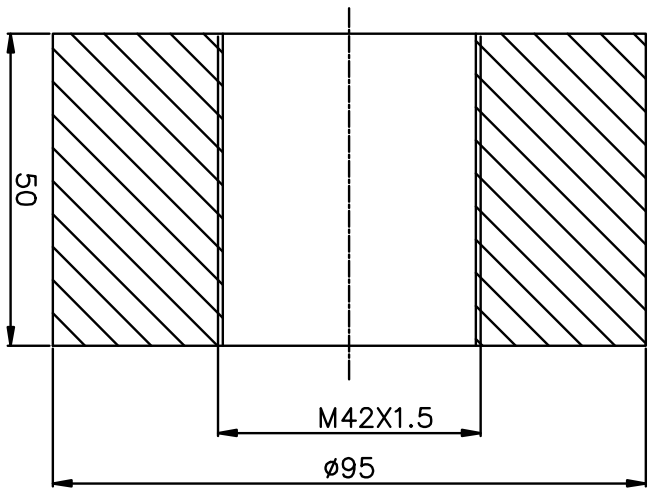
REV	DATE	ALTERED CHECKED	REV	DATE	ALTERED CHECKED	GMS No- / C.B.O.M. - NO	STATUS OF DRG U
ZONE			ZONE			AGREED DEPT	DATE
						NAME	
						S K GOND	SD / -
						TTX	25.08.10

GRADE OF UNTOLDIM M/CG. - AA0230208 m WELDING-CLASS 'B' OF AA0621104 GAS CUTTING-TABLE 3 OF AA0621101

12.5/ ALL OVER EXCEPT OTHERWISE STATED

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IDENTIFICATION ACCORDING TO HW0400397.

A0159A0916  
7629-32126/018  
Ref.Drawing No>

Inventory No.		Sign & Date		A0159A0916 7629-32126/018 Ref.Drawing No>	
DEPT STE		SCALE		WEIGHT (KG)	
CODE 4011		2.3		2.3	
TITLE :		CARD CODE		DRAWING NO.	
ROUND		7		4-10740-56117	
		SHEET No. 01		No. OF SHEETS 01	
BHARAT HEAVY ELECTRICALS LTD. RANIPUR, HARDWAR		NAME		SIGN	
		DRN		DATE	
		MONIKA		SD / -	
		CHD		NO. OF VAR	
		RITESH K		SD / -	
		D K RAY		SD / -	
		APPD		08.06.10	
		REF. TO ASSY. DRG.		ITEM No. 18	
		01074056100		NO. OF ITEMS	

A4 SIZE

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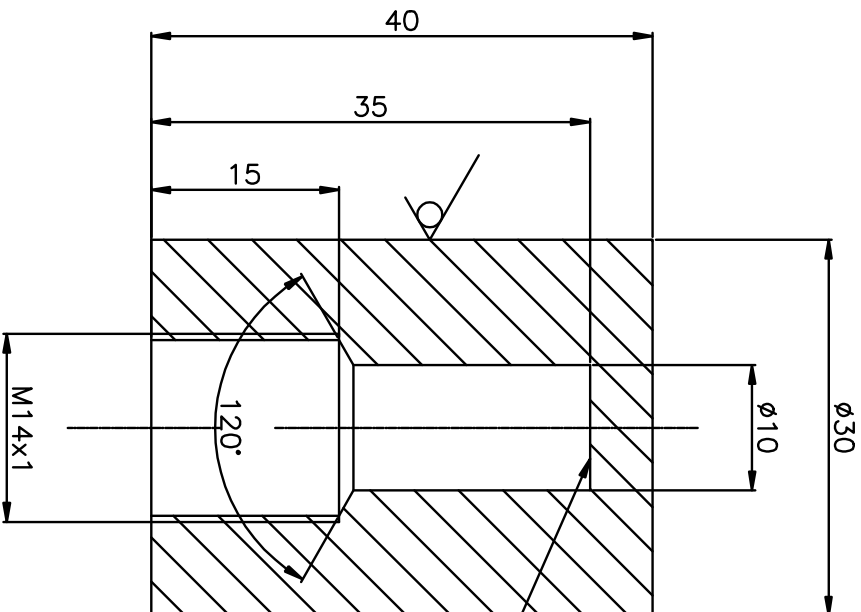
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FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm ) FORM Dg 39(B)

REV	DATE	ALTERED CHECKED	REV	DATE	ALTERED CHECKED	GMS No./ C.B.O.M.-	NO.	STATUS OF DRG
ZONE			ZONE					U
GRADE OF UNTOL.DIM		M/Cg. -	AA0230208	m	WELDING-CLASS 'B' OF	AA0621104	GAS CUTTING-TABLE 3 OF	AA0621101
AGREED DEPT	NAME	SIGN	DATE					
TXX	S K GOND	SD/-	25.08.10					

12.5/ ALL OVER EXCEPT  
OTHERWISE STATED



IDENTIFICATION ACCORDING TO HWO400397.

Inventory No.	Sign & Date	Ref.Drawing No>																								
<p><b>BHARAT HEAVY ELECTRICALS LTD.</b> <b>RANIPUR, HARDWAR</b></p>																										
DEPT SITE CODE 4011	SCALE 2:1	WEIGHT (KG)																								
TITLE : <b>BOSS</b>	CARD CODE	REF. TO ASSY. DRG. 01074056100																								
<table border="1"> <tr> <th>DRN</th> <th>NAME</th> <th>SIGN</th> <th>DATE</th> <th>NO. OF VAR</th> </tr> <tr> <td>MONIKA</td> <td>SD/-</td> <td></td> <td>02.06.10</td> <td></td> </tr> <tr> <td>RITESH K</td> <td>SD/-</td> <td></td> <td>05.06.10</td> <td></td> </tr> <tr> <td>D.K.RAY</td> <td>SD/-</td> <td></td> <td>08.06.10</td> <td></td> </tr> </table>		DRN	NAME	SIGN	DATE	NO. OF VAR	MONIKA	SD/-		02.06.10		RITESH K	SD/-		05.06.10		D.K.RAY	SD/-		08.06.10		<table border="1"> <tr> <th>ITEM No.</th> <th>NO. OF ITEMS</th> </tr> <tr> <td>24</td> <td></td> </tr> </table>	ITEM No.	NO. OF ITEMS	24	
DRN	NAME	SIGN	DATE	NO. OF VAR																						
MONIKA	SD/-		02.06.10																							
RITESH K	SD/-		05.06.10																							
D.K.RAY	SD/-		08.06.10																							
ITEM No.	NO. OF ITEMS																									
24																										
DRAWING NO. <b>7 4-10740-56121</b>		ITEM No. 24																								
SHEET No. 01		No. OF SHEETS 01																								

A4 SIZE

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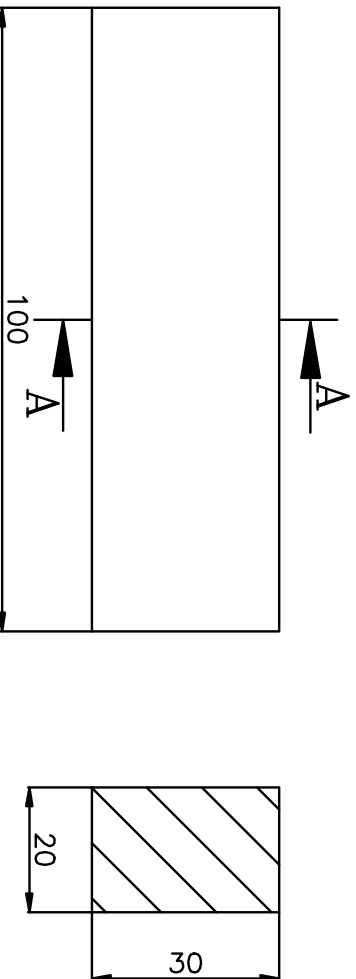
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FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm) FORM DG 39(B)

REV	DATE	ALTERED CHECKED	REV	DATE	ALTERED CHECKED	GMS No. / C.B.O.M. - NO.	STATUS OF DRG U
ZONE			ZONE			AGREED DEPT	DATE
						TTX	25.08.10
GRADE OF UNTOLDIM		M/CG.	Q/W/H	-AA0230208	WELDING	Y/B/Q	AA0621104
					GAS CUTTING-T3		AA0621101

50/ ALL OVER EXCEPT  
OTHERWISE STATED



IDENTIFICATION ACCORDING TO HW0400397.

Inventory No.		Sign & Date		DSPPG-0048411 11660-221261/010 Ref.Drawing No>	
DEPT SITE CODE 4011		Bharat Heavy Electricals Ltd. RANIPUR, HARDWAR		DRN NAME SIGN DATE MONIKA -sd- 02.06.10	
SCALE		WEIGHT (KG) 0.5		CHD RITESH K -sd- 05.06.10	
TITLE : FLAT		CARD CODE		APPD D.K.RAY -sd- 08.06.10	
		REF. TO ASSY. DRG. 01074056100		ITEM NO. NO. OF VAR	
		DRAWING NO. 4-10740-56123		NO. OF ITEMS	
		SHEET No. 01		22 23 24	
		No. OF SHEETS 01			

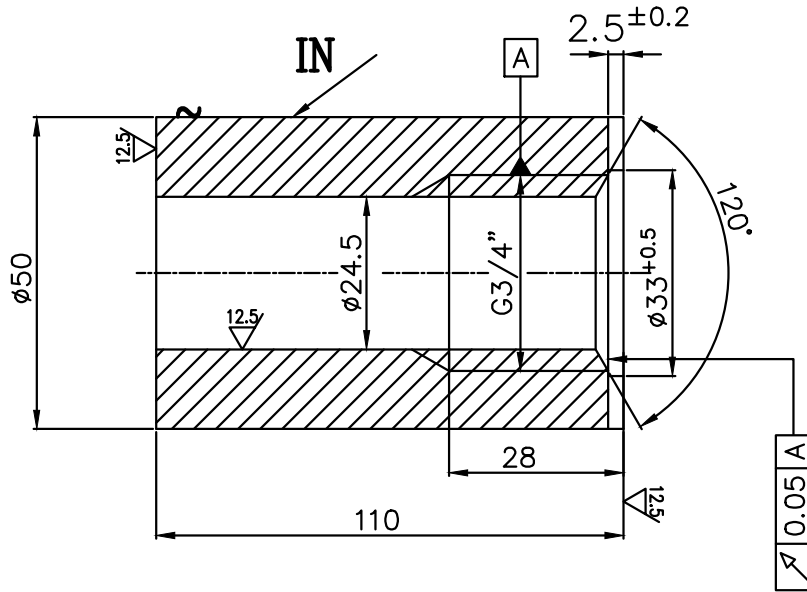
A4 SIZE

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

REV	DATE	ALTERED	REV	DATE	ALTERED	MONIKA SD/-	GMS No./	C.B.O.M. - NO.	STATUS OF DRG U		
		CHECKED	01	20.02.17	CHECKED	PRADEEP SD/-					
ZONE			ZONE	WIGHT TO BE CORRECTED . AS PER C/A NO. STE-17-F0059.				AGREED DEPT	NAME	SIGN	DATE
							TTX	S K GOND	sd/-		25.08.10
GRADE OF UNTOL.DIM		M/CG. - AA0230208 m		WELDING-CLASS 'B' OF AA0621104			GAS CUTTING-TABLE 3 OF AA0621101				

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50/ ALL OVER EXCEPT OTHERWISE STATED



IDENTIFICATION ACCORDING TO HW 0400397.

MUN619:9/1  
A0103A5398  
Ref.Drawing No>

Sign & Date

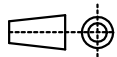


**BHARAT HEAVY ELECTRICALS LTD.**  
RANIPUR, HARDWAR

NAME	SIGN	DATE	NO. OF VAR	
DRN RENU	-sd-	02.06.10		
CHD RITESH K	-sd-	05.06.10		
APPD D K RAY	-sd-	08.06.10		

Inventory No.

DEPT STE  
CODE 4011



SCALE  
1:1

WEIGHT (KG)  
1.3

REF. TO ASSY. DRG.  
01074056100

ITEM No.  
—

NO. OF ITEMS  
—

TITLE :

**CONNECTION**

CARD CODE

DRAWING NO.  
7 41074056127 22 23 24

SHEET No. 01 | No. OF SHEETS 01

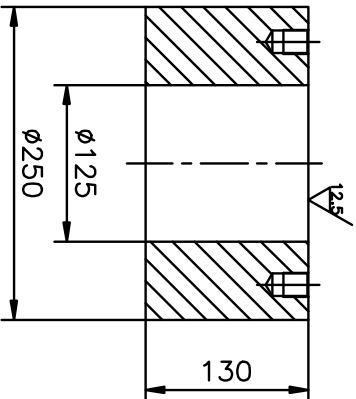
A4 SIZE

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

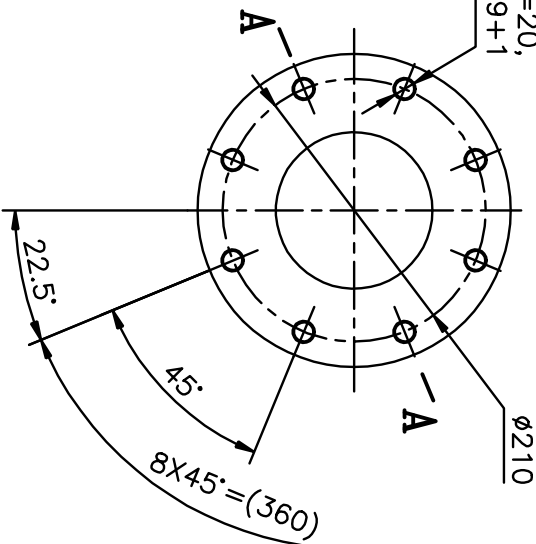
REV	DATE	ALTERED	REV	DATE	ALTERED	ASHOK	GMS No./	C.B.O.M.-	NO.	STATUS
		CHECKED	01	22.06.12	CHECKED	RITESH				OF DRG
ZONE			ZONE	PCD $\phi$ 210 SHOWN.			AS PER	C/A	NO.STE-12-F0216.	U
				AS PER						DATE
										25.08.10
GRADE OF UNTOL.DIM		M/CG. - AA0230208	m	WELDING-CLASS 'B' OF AA0621104	GAS CUTTING-TABLE 3 OF AA0621101					

12.5 ALL OVER EXCEPT OTHERWISE STATED



SECTION-AA

8HOLES OF M16,  
THREAD DEPTH=20,  
DRILL DEPTH=29+1



IDENTIFICATION ACCORDING TO HW0400397.

A0188A3146  
10965-321261/049  
Ref.Drawing No>



BHARAT HEAVY ELECTRICALS LTD.  
RANIPUR, HARDWAR

Sign & Date		SCALE		WEIGHT (KG)		REF. TO ASSY. DRG.		ITEM		NO. OF	
		1:10		37.3		01074056100		No. 33		ITEMS	
DEPT STE		CODE 4011									
Inventory No.		TITLE :		CARD		DRAWING NO.		SHEET No.		No. OF SHEETS	
		CONNECTION		CODE		4-10740-56129		01		01	

A4 SIZE