

INDEX

| CUSTOMER : --- | | HGS | QTY |
|------------------------------|--------------------------|----------------------|---------|
| COMPONENT : --- | | Casing Ring.EDN350E0 | 06 NOS |
| ---: COMPONENT DETAILS : --- | | | |
| PROJECT | PO.NO & SR.NO | DRAWING.NO | QTY |
| 2451440-019 | EO2025010017-1 | PMR24-0001 | 04 NOS |
| 2451440-020 | EO2025010017-2 | PMR24-0001 | 02 NOS |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| SR.NO | DISCRIPTION | DOCUMENT NO. | PAGE.NO |
| 1 | DRAWING.NO | PMR24-0001 | 1 |
| 2 | TC. REPORT | 1621 | 2 |
| 3 | HT. REPORT | TSA2024-25/233 | 3 |
| 4 | HEAT TREATMENT GRAPH | - | 4 |
| 5 | DIMENSION REPORT | - | 5 |
| 6 | VISUAL INSPECTION REPORT | - | 6 |



AN ISO 9001:2015 UNIT

M/s. Tej Steel & Alloys

Plot No.27/28 Dr.Patangrao Industrial Estate,Palus - 416310.

Ph.No.(02346) 226606,Cell No.9890469686/9226873964

E-Mail : teisteelalloys@yahoo.com

TEST CERTIFICATE FOR CASTING

3.1 AS PER EN 10204

Customer Name : - Brothers Industries

T.C.No. 1621

Date 26.02.2025

Invoice No.

Date

Grade Name :- ASTM-A-890/A890M CE3MN TYPE 5A

P.O.No & Date : -

Heat Treatment:- 1.SOLUTION ANNEALING AT 1150° C AND SOAKING FOR 3 HRS. & WATER QUENCH

Melting Process : Induction (Electric) Furnace Melting

Chemical Analysis

| HEAT NO | C % | Si % | Mn % | S % | P % | Ni % | Cr % | Mo % | Nb % | | | |
|---------|-------|-------|-------|-------|-------|-------|--------|-------|-------|--|--|--|
| MIN | - | - | - | - | - | 6.000 | 24.000 | 4.000 | 0.100 | | | |
| Max. | 0.030 | 1.000 | 1.500 | 0.040 | 0.040 | 8.000 | 26.000 | 5.000 | 0.300 | | | |
| L1790 | 0.028 | 0.540 | 1.010 | 0.005 | 0.036 | 6.280 | 24.310 | 4.120 | 0.190 | | | |

Mechanical Analysis

| HEAT NO | Y.S.(0.2 % Offset) | T.S.Mpa | % Elong G.L=5 | % Red In | Hardness HRC | Bend Test D=3i | Charpy 'V' Notch Impact Test at deg -46C Jou | | | % Share | |
|---------|--------------------|---------|---------------|----------|--------------|----------------|--|--|--|---------|------|
| | Mpa | | 0mm | Area | HRC | D=3i | Spec.Size 10 x 10 x 55 mm (Min.J IND.) | | | AVG | Area |
| | | | | | | | | | | J | |
| MIN | 515 | 690 | 18 | | | | | | | | |
| Max. | | | | | | | | | | | |
| L1790 | 572.26 | 782.42 | 25 | | | | | | | | |

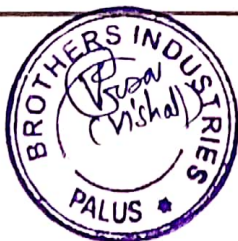
| Sr.No | Particulars | Qty | Heat No |
|-------|------------------------|-----|---------|
| I | CASING RING PMR24-0001 | 6 | L1790 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

WE HEREBY CERTIFY THAT THE MATERIAL WAS MANUFACTURED SAMPLED,ITSTED & INSPECTED IN ACCORDANCE WITH THE MATERIAL SPECIFICATION FOUND TO BE MEET THE REQUIRMENT OF -ASTM-A-890/A890M CE3MN TYPE 5A

1.Visual Inspection As Per MSS SP-55,Found Satisfactory

Chandrakant pawar
Checked By

Anil Bagali
Q.C.Dept.



TSA/QA/F/11



Tej Steel & Alloys
Plot No.28,Dr.Patangrao Kadam Ind.Estate,Palus

Heat Treatment Register

Batch No.TSA2024-25/233

Date -02.02.2025

Furnace On Time - 19:16

Furnace Off Time - 09.20

Soaking Time - 3 Hrs

Grade - As Under

Process Solution Annealing at 1150° C

Soaking 3 Hrs & Water Quench

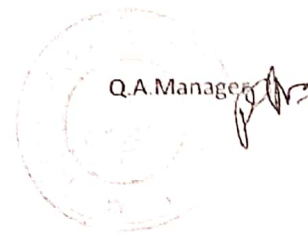
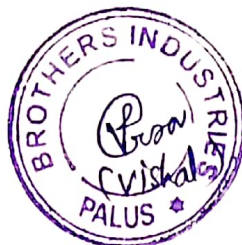
Temperature 1150° C

| S.No | Customers | Descriptions | Qty | Weight | Heat No. | Grade |
|------|--------------------------------|-----------------------------|-----|--------|----------|-------|
| 1 | Sintech Precision Products Ltd | GLAND PLATE SAPP 150/320L | 2 | 36.00 | L1785 | 4A |
| 2 | Sintech Precision Products Ltd | IMPELLER SAPP 150/320L | 2 | 32.60 | 1785 | 4A |
| 3 | Sintech Precision Products Ltd | GLAND HSG BUSH SVT 450/50GS | 3 | 18.60 | L1785 | 4A |
| 4 | Sintech Precision Products Ltd | WEAR RING SVT 450-50GS | 1 | 22.80 | L1785 | 4A |
| 5 | OM Engineering | NECK RING | 4 | 102.20 | L1789 | 1B |
| 6 | OM Engineering | WEAR RING | 4 | 80.00 | L1789 | 1B |
| 7 | OM Engineering | STUFFING BOX | 2 | 104.00 | L1789 | 1B |
| 8 | OM Engineering | GLAND | 12 | 36.00 | L1789 | 1B |
| 9 | Brothers Industries | CASING RING PMR24-0001 | 6 | 75.60 | L1790 | 5A |
| | | | | | | |
| | | Test Block L1785 | 2 | 10.00 | | 4A |
| | | Test Block L1789 | 2 | 10.00 | | 1B |
| | | Test Block L1790 | 2 | 10.00 | | 5A |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | TOTAL | 42 | 537.8 | | |
| | | | | | | |
| | | | | | | |

TSA/PROD/R/01

Production Incharge

Q.A.Manager

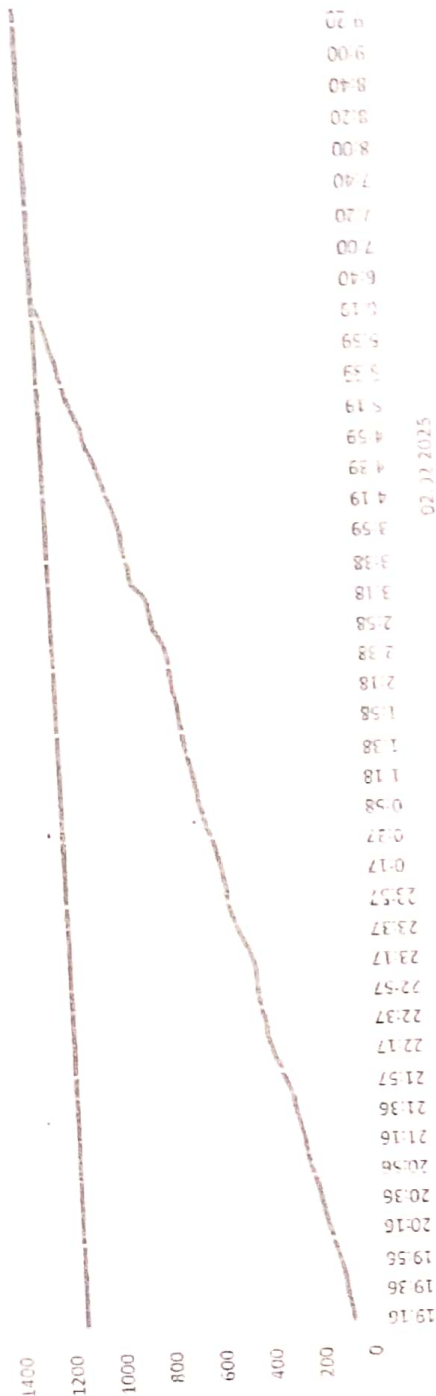


TEJ STEEL & ALLOYS ELECTRICAL HEAT TREATMENT

Note :- Certificate the graph confirm the Specification

Batch No. T'SA2024-25/233

Date -02.02.2025



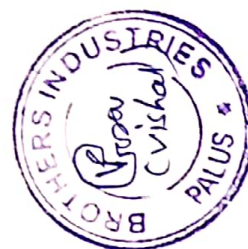
02.02.2025

Act Tem 1 Set Time

01.2.2025

Approved by

Prepared by



FINAL INSPECTION REPORT

DEPT. HEAD

REVIEWED BY WITNESSED BY
2025.02.02
Sangram Alsandkar
HIYOSUNG

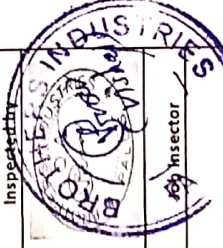
Scanned with OKEN Scanner



BROTHERS INDUSTRIES

Maharashtra, India Mob. -7588777800, 9764705724 E-mail - brothersindustries07@gmail.com

VISUAL INSPECTION REPORT

| Customer name : HYOSUNG GOODS SPRINGS | | | | | | | | | | REPORT DATE :- | 06/03/2025 | | |
|--|--------------|-------------|---------------------------------|------------|---------|-----|---------------------------|-----------|---------------|------------------------------|------------|---------|------------|
| SR.NO | P.O.No | PROJECT NO | Description | Grade | Heat no | Qty | PARAMETERS TO CHECK | | | | | Remarks | |
| | | | | | | | deburring | dent | Surfacefinish | cracks | Pin Holes | | Others |
| 1 | EO2025010017 | 2451440-019 | Casing Ring.EDN350EO PMR24-0001 | A890 Gr.5A | L1790 | 4 | DONE | NOT FOUND | FOUND OK | NOT FOUND | NOT FOUND | DONE | ACCEPTABLE |
| 2 | EO2025010017 | 2451440-020 | Casing Ring.EDN350EO PMR24-0001 | A890 Gr.5A | L1790 | 2 | DONE | NOT FOUND | FOUND OK | NOT FOUND | NOT FOUND | DONE | ACCEPTABLE |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| TOTAL CASTING INSPECTED :- 06 NOS | | | | | | | NO.OF CASTING ACCEPTED :- | | | | | 06 NOS | |
| TOTAL CASTING ON DEVIATION : NIL | | | | | | | | | | NO.OF CASTING REJECTED : NIL | | | |
| Inspected by | | | | | | | | | | Verified By | | | |
|  | | | | | | | | | | | | | |
| <p>REVIEWED & WITNESSED BY 2025.03.06. Sangram Alsandkar HYOSUNG CHUNG SPRINGS</p> | | | | | | | | | | | | | |
| BI/QA/ | | | | | | | | | | Authorized Signatory | | | |