



**JINDAL STEEL & POWER LIMITED**  
 Works:Chhendipada Road,SH- 63, At:Po : Jindal Nagar, Dist : Angul (ODISHA)-759111 INDIA  
 Email:qclab.pm@angul.jspl.com  
 Registered Office:Post box No. 6 ,O P Jindal Marg ,Hisar (Haryana)  
 Corporate Office :Jindal Center,12 Bhikaji Cama Palace, New Delhi -110066 INDIA  
 Phone No.:-06761) 254191-95; Fax :-06761 -254141-44

M/V DAIWAN BALANCE

1003-12



0045

13

0045 - CPR - 1835

Date : 12.06.2018

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**INSPECTION CERTIFICATE**

Test Certificate No. 0000004199

To, M/s NETWORK STEEL S.L. SPAIN  
 CARDENAL MARCELO SPINOLA 2-5 PLTA.28016 MADRID SPAIN CIF 883,SPAIN,PIN-00000

Supply Condition:AS  
 ROLLED(TMCP)

Deoxidation :Fully Killed

**TEST RESULTS**

Process of Manufacture : EAF->LRF->VD->CCM->RHF->Hot rolling  
 (EAF - Electric Arc Furnace / LRF: Ladle Refining Furnace / VD : Vaccum Degassing / CCM : Continuous Casting Machine/ RHF : Re-Heating Furnace)

| Material Grade : EN10025-2 S275JR+AR Plate Dimension -Thickness x Width x Length : 100.0MMX2500MMX10000MM |            |     |          |                   |      |      |       |       |      |       |       |       |       |       |        |       |        |       |     |      |                       |     |           |           |                    |     |     |         |       |   |
|---|------------|-----|----------|-------------------|------|------|-------|-------|------|-------|-------|-------|-------|-------|--------|-------|--------|-------|-----|------|-----------------------|-----|-----------|-----------|--------------------|-----|-----|---------|-------|---|
| Heat No   | Plate ID   | Pcs | Wt<br>MT | Chemical Analysis |      |      |       |       |      |       |       |       |       |       |        |       |        |       |     |      | Mechanical Properties |     |           |           |                    |     |     |         |       |   |
|   |            |     |          | L/P               | %C   | %Mn  | %S    | %P    | %Si  | %Al   | %Cu   | %V    | %Nb   | %Ti   | %Mo    | %Ni   | %B     | %Cr   | N2  | CE   | YS                    | UTS | %EL*      | Bend Test | Impact Value at(J) |     |     |         |       |   |
|   |            |     |          |                   |      |      |       |       |      |       |       |       |       |       |        |       |        |       | ppm | Mpa  | Mpa                   |     | Mand Dia. | I         | II                 | III | Avg | Temp °C | Orien |   |
| A80768  | A8076806A0 | 1   | 19.625   | L                 | 0.17 | 1.12 | 0.003 | 0.016 | 0.21 | 0.023 | 0.006 | 0.002 | 0.001 | 0.015 | 0.0010 | 0.005 | 0.0004 | 0.015 | 53  | 0.36 | 286                   | 421 | 27        |           | 184                | 162 | 193 | 179.67  | 20    | L |
| A80768  | A8076807A0 | 1   | 19.625   | L                 | 0.17 | 1.12 | 0.003 | 0.016 | 0.21 | 0.023 | 0.006 | 0.002 | 0.001 | 0.015 | 0.0010 | 0.005 | 0.0004 | 0.015 | 53  | 0.36 | 286                   | 421 | 27        |           | 184                | 162 | 193 | 179.66  | 20    | L |
| A80768  | A8076808A0 | 1   | 19.625   | L                 | 0.17 | 1.12 | 0.003 | 0.016 | 0.21 | 0.023 | 0.006 | 0.002 | 0.001 | 0.015 | 0.0010 | 0.005 | 0.0004 | 0.015 | 53  | 0.36 | 286                   | 421 | 27        |           | 184                | 162 | 193 | 179.67  | 20    | L |
| A80768  | A8076809A0 | 1   | 19.625   | L                 | 0.17 | 1.12 | 0.003 | 0.016 | 0.21 | 0.023 | 0.006 | 0.002 | 0.001 | 0.015 | 0.0010 | 0.005 | 0.0004 | 0.015 | 53  | 0.36 | 286                   | 421 | 27        |           | 184                | 162 | 193 | 179.67  | 20    | L |
| A80768  | A8076810A0 | 1   | 19.625   | L                 | 0.17 | 1.12 | 0.003 | 0.016 | 0.21 | 0.023 | 0.006 | 0.002 | 0.001 | 0.015 | 0.0010 | 0.005 | 0.0004 | 0.015 | 53  | 0.36 | 286                   | 421 | 27        |           | 184                | 162 | 193 | 179.66  | 20    | L |
| A80769  | A8076910A0 | 1   | 19.625   | L                 | 0.16 | 1.01 | 0.003 | 0.015 | 0.23 | 0.028 | 0.006 | 0.001 | 0.002 | 0.016 |        | 0.006 | 0.0004 | 0.013 | 55  | 0.33 | 286                   | 448 | 29        |           | 142                | 148 | 166 | 152.00  | 20    | L |
| <b>Sub Total</b>  |            | 26  | 510.250  |                   |      |      |       |       |      |       |       |       |       |       |        |       |        |       |     |      |                       |     |           |           |                    |     |     |         |       |   |

We hereby certify that Material described herein has manufactured and tested with satisfactory results in accordance with the requirements of the above said material specification.  
 The above material supplied conforms to the specified dimensions and tolerances as per specifications and as per mutually agreed Technical Delivery Conditions  
 UltraSonic Examination : All the above plates are ultrasonically tested as per EN10160 S1E1 and found ok

Purchase Reference & Date: PROV/EXP/PLT/8002/ 19.04.2018  
 Despatch Advice No:  
 Vehicle No.  
 \* DOP can be viewed at www.jindalsteelpower.com"  
 \* Gauge Length: 5.65(SO)1/2

Prepared by SRIDHAR.BEHERA  
 Preparation Date :12.06.2018 09:06:58  
 Printing Date 12.06.2018 & Time 15:39:23

Authorised Signatory  
 QA/QC PlateMill  
 For, JINDAL STEEL & POWER LIMITED

JSPL/ANG/PM-QA&QC/F-25J

**ONIRAM,LDA**  
 DEP.QUALIDADE  
 RECEPÇÃO

2018/06/15 DATA  
 RUBRICA



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**INSPECTION CERTIFICATE**



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Test Certificate No. 0000004199

To, **MS NETVORX STEEL S.L. SPAIN**  
**CARDENAL MARCELO SPINOLA 2-5 PLTA.28016 MADRID SPAIN CIF 883.SPAIN,PTN-00000**

**TEST RESULTS**

**Process of Manufacture : EAF->LRF->VD->CCM->RHF->Hot rolling**  
(EAF - Electric Arc Furnace / LRF: Ladle Refining Furnace / VD : Vacuum Degassing / CCM : Continuous Casting Machine/ RHF : Re-Heating Furnace)

Supply Condition: AS  
ROLLED(TMCP)  
Deoxidation : Fully Killed

- Material also conforms to TDC Doc. No. : JSPL/ANGUL/TDC/M01333 Rev.00 Dt.:28.02.2018.
- Dimensional Tolerance: Thickness tolerance found satisfactory as per EN 10029:2011 of Class A
- Surface Inspection: As per EN 10163:2005 class A Subclass 3
- Flatness: As per EN 10029:2011 table 4 class N (L Type)
- Test Piece: Chemical as per EN ISO 14284:2003, Tensile as per DIN EN ISO 6892-1:2009 & Impact as per DIN EN ISO 148-1:2011
- CE (IIW) : C+Mn/6+(C+Mo+V)/5+(Ni+Cu)/15
- Marking details: Mfg. Name, & logo, plate identification, specification & grade, size, customer name & UT Spec.
- Orientation of Sample: Tensile is Transverse & Impact is Longitudinal to rolling direction
- In Chemical Analysis column, L stands for Ladle Analysis & In Mechanical Properties Column, L stands for Longitudinal Direction

We hereby certify that Material described herein has manufactured and tested with satisfactory results in accordance with the requirements of the above said material specification.  
The above material supplied conforms to the specified dimensions and tolerances as per specifications and as per mutually agreed Technical Delivery Conditions  
Ultrasonic Examination : All the above plates are ultrasonically tested as per EN10160 SIE1 and found ok

Purchase Reference & Date: PROV/EXP/PLT/8002/19.04.2018  
Despatch Advice No:  
Vehicle No.  
\* DOP can be viewed at www.jindalsteelpower.com  
\* Gauge Length: 5.65(SO)12

Prepared by: SRIDHAR BEHERA  
Preparation Date : 12.06.2018 09:06:58  
Printing Date 12.06.2018 & Time 15:39:23

Authorised Signatory  
QA/QC Plate Mill  
For, JINDAL STEEL & POWER LIMITED

JSPL/ANG/PM-QA&QC/F-251

M/V DAVIDN ELEGANCE 709312