






| INSPECTION CERTIFICATE 3.1 To: EN 10204 |  COLUMBUS STAINLESS [Pty] Ltd Columbus Stainless [Pty] Ltd P O Box 133 Middelburg 1050 South Africa Switchboard: +27 13 247 9111 Fax: +27 13 246 1681 Website: http://www.columbus.co.za A Subsidiary of ACERINOX, S.A. |  Authorised Representative EC REP Acerinox Europa, S.A.U. C/ Santiago de Compostela no 100, 28035 Madrid Spain Tel: 91 398 51 00 / 91 398 51 02 ZA 0045 13 0045-CPR-1805 Corrosion Resistant Steel for building construction or civil engineering. Regulated substances: No performance determined | No. 2764984 - 1 1 / 1 Date 2014/10/14 MANUFACTURER'S MARK  MELTING PROCESS E/AOD | | | | | | | | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------------------------------|--------------------------------------|--------------------|--------------------------|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|----------------------|-------------------------------|--|
| CUSTOMER BE GROUP OY LOTILA KIRKKAAT/OVET 5-7/ VANHANRADANKATU 42 15522 LAHTI Finland | O/A No. DW00243 CUSTOMER ORDER No. P025258 REQUIREMENTS AD 2000 W2 AD 2000 W10 Certified by TUV Rheinland to European Directive 97/23/EC for Pressure Equipment. Certificate no: 01 202 ZA/O-00 0001 | ITEM No. 006 INSPECTOR'S STAMP  | PRODUCT No:1 1D: Hot rolled, heat treated, pickled | | | | | | | | | | | | |
| SPECIFICATIONS MATERIAL CODE | | CASE | | | | | | | | | | | | | |
| EN 10088-2 2005 HOT ROLLED PLATE 1.4307 1.4301 EN 10028-7 2007 HOT ROLLED PLATE 1.4307 1.4301 ASME 2013 SECTION II PART A SA240 304L 304 ASTM240/A240M-14 304L 304 EN 10088-4 2009 HOT ROLLED PLATE 1.4307 1.4301 | | IGSH31747 IGSH31748 IGSH31749 IGSH31751 IGSH31753 IGSH31754 IGSH31758 IGSH31759 IGSH31760 IGSH31761 IGSH31762 IGSH31763 IGSH31764 | | | | | | | | | | | | | |
| TOLERANCE ISO18286-08-ASTMA480/480M-ASMESA480/480M-EN10029-B H/R PLATE | | Delivery Note Number: 70591 | | | | | | | | | | | | | |
| DIMENSIONS 10.000 mm x 1500 mm x 3000 mm | | TYPE X5CRNI 18-10 X2CRNI 18 9 | | | | | | | | | | | | | |
| | | QUANTITY 39 | MASS 14086 kg | | | | | | | | | | | | |
| CHEMICAL ANALYSIS | | | MECHANICAL PROPERTIES | | | | | | | | | | | | |
| % | REQUIREMENT | | LADLE | Test Direction Transverse | Test Pos | Rp0.2 0.2% Proof Stress (MPa) | Rp1.0 1% Proof Stress (MPa) | Rm UTS (MPa) | A 5 (% Elongation) | A 50 (% Elongation) | Hardness HRB | Bend Test | Impact Test ISO V | Z (% Reduction of Area) | |
| | MIN | MAX | | | | | | | | | | | | | |
| C | | 0.030 | 0.025 | Ambient Temperature | Head | 277 | 336 | 639 | 54 | 58 | 87 | | | | |
| S | | 0.015 | 0.003 | | Tail | 271 | 328 | 637 | 53 | 57 | | | | | |
| P | | 0.045 | 0.027 | Req @ °C | | | | | | | | | | | |
| Mn | | 2.00 | 1.18 | | | | | | | | | | | | |
| Si | | 1.00 | 0.40 | Req @ °C | | | | | | | | | | | |
| Ni | 8.0 | 10.5 | 8.0 | | | | | | | | | | | | |
| Cr | 17.5 | 19.5 | 18.1 | | | | | | | | | | | | |
| Mo | | | | ADDITIONAL TEST | | | | | | | | INTERGRANULAR CORROSION | | | |
| Ti | | | | | | | | | | | | | | | |
| N | | 0.11 | 0.06 | TEST NAME | | RESULT | | TEST NAME | | RESULT | | SPECIFICATION | | RESULT | |
| V | | | | | | | | | | | | ASTM A262-13.E | | Pass | |
| Co | | | | | | | | | | | | ISO 3651-2 METHOD A | | Pass | |
| Cu | | | | | | | | | | | | | | | |
| Nb | | | | | | | | | | | | | | | |
| Sn | | | | | | | | | | | | | | | |
| Al | | | | This material is free from mercury contamination. The radiation level exhibited by this material is not greater than the normal background level. This document is issued without alteration or erasure and may only be reproduced in full. Visual and dimensional control: no exceptions. The delivery is in accordance with the order. Made and melted in South Africa. This material meets the Hardness requirement of Nace MR-0175/ISO 15156-3:2009 & MR-0103-2012 Columbus Stainless (Pty) Ltd. certifies that the analysis and material on this certification is correct and meets the specifications stated. Columbus Stainless is ISO 9001:2008 & ISO 14001:2004 Certified. | | | | | | | | | | | |
| B | | | | HEAT TREATMENT (Solution Annealed) Annual °C 1050 - 1100 Quench AIR/SPRAY | | | | | | | | | | | |
| Permeability 1.1 Max | | | | | | | | | | | COLUMBUS STAINLESS [Pty] Ltd Hendrina Road, Middelburg Mpumalanga, South Africa  P.H. de Vos WORKS EXPERT | | | | |