

Larrondo I.O.U. (VIZCAYA) España
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Management Systems
 Certified by
 IRQA
 ISO 9001 / SGI 6090360
 ISO 14001 / SGI 1870678

ACEROS INOXIDABLES

OLARRA

CANADIAN SPECIALTY METALS
 81 STEINWAY BLVD.
 ETOBICOKE-ONTARIO M9W 6H6 - CANADA

Trade Mark - Zeichen des Lieferwerkes
 Anagrama del suministrador



Works Inspector Stamp - Werksachverständiger
 Sello del Inspector

3

| | | | | | | | | | | | |
|---|-------------------------------|--------------------|-------|---|-------|--|-------|--|---|---|--|
| Certificate type - APZ Nach Certificado tipo | | EN 10204/3.1 | | Certificate n° - Prüf-Nr Certificado n° | | 376594 | | Date - Datum - Fecha | | 28 - 01 - 2019 | |
| Our order N° Werks - Nr N° de Referencia | | 679958 | | Heat Schmelze Colada | | 471151 | | Your order N° Bestell - Nr Pedido N° | | P044800-ES | |
| Steel Grade Werkstoff Calidad | | AISI-316-L MECAMAX | | According to Entsprechend Corresponde | | ASTM A 479 / A 479M-17. | | | | | |
| Shape and Size - Gegenstand Perfil y dimensión | | ROUND 3"3/4 | | Tolerance - Toleranz Tolerancia | | ASTM A 484 / TB.7 | | Bundles Bunde Bultos | | 2 Stabe Barras | |
| | | | | | | | | Weight Gewicht Peso | | 2407 Lbs | |
| Requirements - Anforderungen - Exigencias | | | | | | | | | | | |
| ASME SA 479 / SA 479M-15 | | | | EN 10.088-3.2014. | | | | | | | |
| ASTM A 276/A 276M-17. | | | | EN 10.272-2016. | | | | | | | |
| ASTM A 182/A 182M-16. | | | | Type 316/316L - 1.4401/1.4404. | | | | | | | |
| ASME SA 182 / SA 182M-15 | | | | PED 2014/68/EU, Annex I, Parag. 4.3/DGR 2014/68/EU | | | | | | | |
| ASTM A 193/A 193M-16 B8M CLASS.1. | | | | Anhang I Absatz 4.3 Certificate/Zertifikat Nr. 348/2008/MUC | | | | | | | |
| ASME SA 193/SA 193M-15 B8M CLASS.1. | | | | | | | | | | | |
| SAE AMS 5648L-11. | | | | | | | | | | | |
| SAE AMS 5653H-12. | | | | | | | | | | | |
| NACE MR-0175/ISO 15156-3 2015. | | | | | | | | | | | |
| AMS QQS 763D-15 COND.A. | | | | | | | | | | | |
| Melting process / Erschmelzungsart / Proceso de Fusión | | | | | | Heat treatment / Wärmebehandlung / Tratamiento térmico | | | | | |
| E.A.F. / A.O.D. | | | | | | 1060C 4H/Std WATER/WASSER/AGUA | | | | | |
| Solution annealed/Abgeschreckt/Hipertemple-Turned/Drehen/Torneado-Polished/Poliert/Pulido- | | | | | | | | | | | |
| Test results - Ergebnis der Prüfungen - Resultados de los ensayos | | | | | | | | | | | |
| Dimension of Specimen Abmessungen des Probestabes Medida de las probetas | | Rp0.2% | Rp 1% | Rm | A | A | Z | Hardness | Impact test / Kerschbschiag / Resiliencia | | |
| | | KSI | KSI | KSI | %L 5D | %L 4D | % | Harte | ISO V ft. lb | | |
| | | | | | | | | HBw | | | |
| RD. 12,50 mm. | | Min. | 25 | 70 | | 40 | 50 | | | | |
| | | Max | | | | | | | | | |
| Temperature C 20 | Spec N° Probe Nr Pro N° | 1 | 38 | 42 | 83 | | 54 | 72 | 149 | | |
| C | Si | Mn | P | S | Cr | Mo | Ni | Cu | N | Co | |
| Min. | | | | | 16.00 | 2.00 | 10.00 | | | | |
| Max. | 0.030 | 1.00 | 2.00 | 0.045 | 0.030 | 18.00 | 3.00 | 14.00 | 0.1000 | | |
| | 0.023 | 0.45 | 1.57 | 0.031 | 0.028 | 16.59 | 2.02 | 10.08 | 0.0345 | 0.16 | |
| Visual and dimensional inspection Besichtigung und Ausmessung Control visual y dimensional | | O.K. | | Radioactivity inspection Radioaktivitätskontrolle Control de Radioactividad | | O.K. | | Antimixing test Spektrisk Verwechslungspr Antimezcla | | O.K. | |
| | | | | | | | | Grain Size Korngröße Tamaño de grano | | | |
| Remarks - Bemerkungen - Observaciones | | | | | | | | | | | |
| Free From Mercury contamination/Quecksilberfreiheit. No weld repair. 100% US test/US prüfung. OK Chemical composition according to MIL-S-7720A | | | | | | | | | | EDV / EDP Acc. EN 10.204 Marian Tejedo Quality Mng. | |
| | | | | | | | | | | Works Inspector Der Werksachverständiger Inspector de fabrica | |

We hereby certify that material described herein complies with the requirements agreed on the order

Firmado digitalmente por: Signed digitally by
 ACEROS INOXIDABLES OLARRA SA CIF A48663546
 Fecha / Date 11-04-2019 09:44

ANS