

SN 6343 - 3 FWO65 160



COGNE ACCIAI SPECIALI S.p.a.

ITALY - 11100 AOSTA - VIA PARAVERA, 16
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 CAP. SOC. 100.000.000 EUR INT. VERS.
 C.F. 02187360967
 VAT: IT00571320076 - R.E.A. n. AG 50474

Company with management systems ISO
 approved and certified according to ISO 9001,
 ISO/TS 16949 e ISO 14001.

INSPECTION CERTIFICATE 3.1 (EN 10204:2004)
 (A03) DOCUMENT NUMBER 2016005406
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(A06) CUSTOMER : COGNE U.K. LIMITED
 (A07) CUSTOMER'S ORDER : P1-32692
 (A01) MANUFACTURER'S WORKS : AOSTA, VIA PARAVERA 16 - ITALY
 (A05) PRODUCER OF THE DOC: QUALITY DEPARTMENT
 (A08) MANUFACTURER'S WORKS ORDER NO: 25204438 /20 (A04) MARK OF THE MANUFACTURER : COGNE
 THE CERTIFIED PRODUCTS ARE COMPLYING TO THE PURCHASE ORDER

| INTERNAL SPEC. : | STOCKBARREW2 | TECHNICAL RULE : | AD2000 |
|-----------------------------------|-----------------------------|-------------------------------|------------------|
| (B01) PRODUCT : | SPE ROUGHPEELED | ROUND BARS TOLERANCE : | + 1,500 - 0,0000 |
| (B03) SURFACE FINISH : | 1X Hot Finished | | |
| (B04) PRODUCT DELIVERY CONDITION: | RS SOLUTION ANNEALED | | |
| (B09) PRODUCT DIMENSIONS (mm): | 133,350 | (B10) LENGTH (mm) | 04000 /06000 |
| (B02) GRADE : | AISI 316/316L EN1.4401/4404 | INTERNAL GRADE : | F316L IMCO |
| (B07) IDENTIFICATION HEAT NO: | 502219 | (B07) IDENTIFICATION LOT NO.: | 275950 |
| (B06) MARKING OF THE PRODUCT .. | 1.4404 | TEST PIECE N. : | 595 |

THE PRODUCT IS CONFORMING TO THE CONTRACT AGREEMENT AND TO THE RULE AD2000-MERKBLATT W0/W2.
 REFERENCE NORMS: EN 10088-3(05), EN 10272(07), ASTM A276(08)/ASME SA276(10), ASTM A479(11)/ASME SAA479(10), ASTM A193(08) B8M CLASSE 1D, ISO15156-3/NACE MR0175(09), NACE MR0103(07).

REFERENCE NORMS FOR CHEMICAL COMPOSITION AND MECHANICAL PROPERTIES: ASTM A182(10)/ASME SA182(10)
 REFERENCE NORMS FOR CHEMICAL COMPOSITION ONLY: EN 10222-5(07), ASTM A484(08), ASTM A403(10), ASTM A314(08), AMS-QQ-S-763B
 ASTM A484 DOES NOT APPLY FOR SIZE AND LENGTH TOLERANCES.

MATERIAL IN COMPLIANCE WITH THE NORSOK M-630 MDS S01

STEELMAKING EAF + AOD

HOT ROLLED

REDUCTION RATIO 3,5

(C71) CHEM. COMP. - LADLE ANALYSIS ACCORDING ASTM E1019-A751-E1086-E415-A580

| Control lot No. - Weight | :020000612675 - 82.512 KG | | | | | | | | | |
|--------------------------|---------------------------|------|------|-------|-------|-------|-------|------|-------|------|
| ELEMENTS OBTAINED | C | Si | Mn | P | S | N | Cr | Mo | Ni | Cu |
| ELEMENTS OBTAINED | 0,027 | 0,37 | 1,80 | 0,030 | 0,026 | 0,079 | 16,88 | 2,07 | 10,09 | 0,41 |
| ELEMENTS OBTAINED | Co | | | | | | | | | |
| | 0,16 | | | | | | | | | |

HARDNESS TEST IN AS DELIVERED CONDITION

Control lot No. - Weight :020000612725 - 3.180 KG
 SPECIFICATION ENISO6506 HARDNESS TEST HB TESTING METHOD : 10/3000
 OBTAINED 182

| | |
|-------------|--------------------|
| COGNE GROUP | |
| CHECKED BY | <i>[Signature]</i> |
| 16 FEB 2016 | |
| BATCH No. | <i>[Signature]</i> |

IMPACT TEST IN AS DELIVERY CONDITION

Control lot No. - Weight :020000612725 - 3.180 KG
 SPECIFICATION EN ISO 148-1-KV2 (C02) DIRECTION OF THE TEST PIECE: L
 (C40) TYPE OF TEST PIECE KV
 (C03) TEST TEMPERATURE °C 20
 MEASUREMENT UNIT J
 OBTAINED 242 244 242 239 246 231 249 249 249 248
 248 233



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TENSILE TEST IN AS DELIVERY CONDITION

Control lot No. - Weight :020000612725 - 3.180 KG
SPECIFICATION EN-ISO6892-1

(C02) DIRECTION OF THE TEST PIECE: L

| MEASUREMENT UNIT | RM MPA | RP02 MPA | A5 % | Z % | RP1 MPA |
|------------------|-----------|-------------|---------|--------|------------|
| OBTAINED | 614 | 271 | 5,0 D | 81,2 | 317 |
| | 631 | 283 | 71,0 | 78,1 | 330 |
| | 596 | 282 | 72,0 | 80,4 | 328 |
| | 615 | 278 | 71,4 | 82,9 | 319 |

GRAIN SIZE

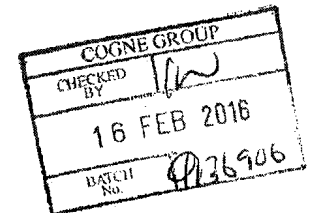
Control lot No. - Weight :020000612725 - 3.180 KG
SPECIFICATION ASTME112 --
OBTAINED 3 5

TENSILE TEST

Control lot No. - Weight :020000612725 - 3.180 KG
SPECIFICATION ASTMA370-E8-0.5"SPEC

(C02) DIRECTION OF THE TEST PIECE: L

| MEASUREMENT UNIT | TS KSI | YS KSI | RA % | EL % |
|------------------|-----------|-----------|---------|---------|
| OBTAINED | 91 | 41 | 81,2 | 4,0 D |
| | 91 | 40 | 81,6 | 73,5 |
| | 92 | 41 | 82,7 | 75,6 |
| | 91 | 40 | 80,3 | 75,1 |
| | | | | 74,9 |



CORROSION TEST ACCORDING TO ASTM A262/02A Practice.E EN ISO 3651-2: SATISFACTORY.
 VISUAL INSPECTION OF SURFACE AND DIMENSIONAL CONTROL ACCORDING TO EN 10221 CLASS 4 AND EN 10060: SATISFACTORY.
 ULTRASONIC TEST ACCORDING TO EN 10308 Class 3, equivalent to ASTM A388 FBH 8 (DIAM <=400) or to EN10228-4 Class 3 equivalent to ASTM A388 FBH11 (DIAM >400): SATISFACTORY.
 ANTIMIX TEST WITH PORTABLE SPECTROMETER: SATISFACTORY.
 NO WELDING REPAIR ON THE MATERIAL.
 FREE FROM RADIOACTIVE CONTAMINATION.
 THE PRODUCT SATISFIES CE DIRECTIVES: 2011/65 - 2000/53 2002/95(ROHS) 2003/11 - 2005/618 AND PED 97/23/EC.
 THE MATERIAL IS FREE OF ANY MERCURY, MERCURY COMPOUNDS AND OR RADIUM CONTAMINATION AT TIME OF SHIPMENT AND WAS PRODUCED WITHOUT USING OZONE DEPLETING SUBSTANCES OF CLASS I AND II.
 MARKING: SYMBOL OF THE MANUF. WORK, MATERIAL N., CAST N., LOT N., RECEIVING AGENT STAMP
 DOCUMENT ISSUED IN AGREEMENT WITH TUEV BAYERN(11.1972) WAIVING OF COUNTERSIGNING (SEE TUEV BAYERN LETTER DATED 17.01.80).
 QUALITY SYSTEM CERTIFIED BY I.G.Q ACCORDING TO UNI EN ISO 9001:2008 - ISO/TS 16949:2009 (THE LAST ONE ONLY FOR HOT ROLLED-PEELED-GROUND, STAINLESS STEEL BARS AND ATOMIZED METALLIC POWDERS).
 ALL THE NORMS MENTIONED ARE INTENDED IN THEIR LATEST REVISION AT THE DATE OF ISSUE OF THIS DOCUMENT.
 THE PRODUCT IS CONFORMING TO THE REQUIREMENTS AND COMPLIES WITH GRADE F316L ACCORDING TO ASTM A182 REGARDING CHEMICAL COMPOSITION AND MECHANICAL PROPERTIES.
 (Z02) INSPECTOR'S STAMP 00

(Z01) DATE 20.01.2016

POLLASTRELLI ANDREA FC (WORKS INSPECTOR) - ELECTRONICALLY GENERATED CERTIFICATE