



COGNE ACCIAI SPECIALI S.p.a.

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 C.A.P. SOC. 100.000.000 EUR INT. VERS.
 C.F. 02187390967
 VAT: IT00571320076 - R.E.A. n. AO-50474

HT# 770056

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

INSPECTION CERTIFICATE 3.1 (EN 10204:2004)
 DOCUMENT NUMBER 2017044208
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CUSTOMER:
 CUSTOMER'S ORDER:
 MANUFACTURER'S WORKS:
 PRODUCER OF THE DOC:
 MANUFACTURER'S WORKS ORDER NO: 25223727 /10
 DISPATCH NOTE:
 THE CERTIFIED PRODUCTS ARE COMPLYING TO THE PURCHASE ORDER
 INTERNAL SPEC:
 PRODUCT:
 SURFACE FINISH:
 PRODUCT DELIVERY CONDITION:
 PRODUCT DIMENSIONS (Inch):
 GRADE:
 IDENTIFICATION HEAT NO:
 MARKING OF THE PRODUCT:

COGNE SPECIALTY STEEL USA, INC
 P040936
 ACOSTA, VIA PAPAVERA 16 - ITALY
 QUALITY DEPARTMENT
 MARK OF THE MANUFACTURER: COGNE
 81149816 /10 WEIGHT: 4,343.03
 AMSQST763 API6A
 51114 PEL PEELD ROUND BARS TOLERANCE: + 0,002758 - 0,002758
 2B Cold Finished
 RS SOLUTION ANNEALED
 4.000
 LENGTH (inch) 00240 /00264
 AISI316/316L UNSS31600/S31603 INTERNAL GRADE: F316L IMCO
 770056 IDENTIFICATION LOT NO: 275880
 TEST PIECE N: 588

REFERENCE NORMS: ASTM A276/276M(16), ASTM A479/A479M(16), ASTM A484/A484M(16), ASTM A193/A193M(16), B8MCL1, ASME SA276(16), ASME SA479(16), ASME SA484(16), ASME SA193(16), ASME SA193M(16), AMS5653H, AMS5648L, AMS-QQS-763D2015, NACE MR0175/ISO15156-3(15), NACE MR0103 2015, NORSOK M630 MDS S01 Rev5, EN 10272(07).
 REFERENCE NORMS FOR CHEMICAL COMPOSITION AND MECHANICAL PROPERTIES: ASTM A182/A182M(15)/ASME SA182(15), ASTM A314/A314M(15)/ASME SA320(15), ASTM A320/A320M(15A)/ASME SA320(15), B8MCL1, EN 10222-5(2000).
 AISI 316/316L UNS S31600/S31603, EN 1.4401/1.4404.
 SOLUTION TREATED AT 1050°C / 1 min x mm / WATER.
 STEELMAKING EAF + AOD + CONTINUOUS CASTING
 OTC ON PROLONGATION OF BARS TESTS AT MID RADIUS (CENTER POS. FOR SIZES <2 INCHES).
 HOT ROLLED
 REDUCTION RATIO 6.9
 INITIAL STATUS 0.0

CHEM. COMP. (%W/W) - LADLE ANALYSIS ACCORDING TO ASTM E1019-A751-E1086-E415-A580
 Control lot No. - Weight :020000682140 -
 ELEMENTS 83,528 KG
 OBTAINED C 0.024 0.34 1.84 0.025 0.024 0.081 16.95 2.05 10.19 0.36
 ELEMENTS Si Mn P S N Cr Mo Ni Cu
 OBTAINED Co 0.19

HARDNESS TEST IN AS DELIVERY CONDITION
 Control lot No. - Weight :020000687849 -
 SPECIFICATION 187
 OBTAINED ASTM A370-E10 2,530 KG
 HARDNESS TEST HB TESTING METHOD: 10/3000

IMPACT TEST IN AS DELIVERY CONDITION
 Control lot No. - Weight :020000687849 -
 SPECIFICATION EN ISO 148-1-KV2 2,530 KG
 TYPE OF TEST PIECE KV 20
 TEST TEMPERATURE °C J 281
 MEASUREMENT UNIT J 285
 OBTAINED 281 281
 DIRECTION OF THE TEST PIECE: L



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Company with management systems ISO
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C 196269

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TENSILE TEST IN AS DELIVERY CONDITION

Control lot No. - Weight :020000687849 - 2,530 KG
SPECIFICATION EN-ISO6892-1

DIRECTION OF THE TEST PIECE: L

MEASUREMENT UNIT	Rm MPA	Rp02% MPA	A %	Z %	Rp1% MPA
OBTAINED	618	282	5.0 D 59.4	81.9	324

GRAIN SIZE

Control lot No. - Weight :020000687849 - 2,530 KG
SPECIFICATION ASTME112 --
OBTAINED 4 6

EDDY CURRENT INSPECTION OF SURFACE ACCORDING TO EN 10277-1 Class.4: SATISFACTORY.

CORROSION TEST ACCORDING TO ASTM A262 Practice E EN ISO 3651-2: SATISFACTORY.

TENSILE TEST

Control lot No. - Weight :020000687849 - 2,530 KG
SPECIFICATION ASTMA370-E8-0.5"SPEC

DIRECTION OF THE TEST PIECE: L

MEASUREMENT UNIT	Rm B KSI	Rp02_B KSI	Z B %	A12 B %
OBTAINED	90	40	82.0	4,0 D 64.4

DIMENSIONAL CONTROL ACCORDING TO EN 10278 AND ASTM A484: SATISFACTORY.

NO WELDING REPAIR ON THE MATERIAL.

ULTRASONIC TEST ACCORDING TO EN 10308 CLASS 3, EQUIVALENT TO SEP 1920 GROUP 3 CLASS C (CLASS B FOR SIZES > 75 MM) AND ASTM A388 FBH 5 (ONLY FOR SIZES > 100 MM): SATISFACTORY

100% ANTIMIX TEST CARRIED OUT.

HEAT TREATMENT PERFORMED IN CALIBRATED FURNACES ACCORDING TO INTERNAL PROCEDURE PR-GDQ. ITT COMPLYING WITH API6A Annex M.

QTC OBTAINED ON PROLONGATION OF BARS ACCORDING TO THE RULES OF EN10088-3 AND API6A.

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.

THE PRODUCT SATISFIES CE DIRECTIVES: 2011/65 (ROHS2) - 2000/53 - 2002/95 (RoHS) - 2003/11 - 2005/618 AND PED 2014/68/EU.

MARKING: PRODUCER LOGO, MATERIAL NO, HEAT NO, LOT NR.

COUNTRY OF ORIGIN: ITALY, THE MATERIAL COMPLIES WITH FAR DFARS

252.225-7009 ALT 1.

THE ABOVE ARE TRUE AND CORRECT RESULTS OF TESTS ON SAMPLES OF THE MATERIAL. RESULTS ARE CONFORM TO THE SPECIFICATION(S) APPLICABLE AND ARE RECORDED.

THE RECORDING OF FALSE, FICTIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER U.S. FEDERAL STATUTES.

ALL THE NORMS MENTIONED ARE INTENDED IN THEIR LAST REVISION AT THE DATE OF ISSUE OF THIS DOCUMENT.

DATE 08.09.2017

MORABITO ROSA CF (QUALITY CERTIFICATOR) - ELECTRONICALLY GENERATED CERTIFICATE

-Cogne