



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. AO-50474

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

C780181

INSPECTION CERTIFICATE 3.1 (EN 10204:2004)
DOCUMENT NUMBER 2017028389
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CUSTOMER: COGNE SPECIALTY STEEL USA, INC
CUSTOMER'S ORDER: P040272
MANUFACTURER'S WORKS: AOSTA, VIA PARAVERA 16 - ITALY
PRODUCER OF THE DOC: QUALITY DEPARTMENT
MANUFACTURER'S WORKS ORDER NO: 25219852 / 150 MARK OF THE MANUFACTURER: COGNE

DISPATCH NOTE: B1125467 / 10 WEIGHT: 13,866.84
THE CERTIFIED PRODUCTS ARE COMPLYING TO THE PURCHASE ORDER
INTERNAL SPEC: AMSQSQ763_API6A
PRODUCT: 51123 SPE ROUGHPEELED ROUND BARS TOLERANCE: + 0,0985 - 0
SURFACE FINISH: 1X Hot Finished
PRODUCT DELIVERY CONDITION: RS SOLUTION ANNEALED
PRODUCT DIMENSIONS (Inch): 11.000 LENGTH (inch) 00240 / 00288
GRADE: AISI 316/316L - UNS31600/31603 INTERNAL GRADE: F316L IMCO
IDENTIFICATION HEAT NO: 700613 IDENTIFICATION LOT NO: 081390
MARKING OF THE PRODUCT: 316L TEST PIECE N: 139

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) B8MCL1, 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
MACROSTRUCTURE CONFORMING TO THE SPEC. ASTM E340.
HOT FORGED
REDUCTION RATIO 5.4
INITIAL STATUS 0.0

CHEM. COMP. (%W/W) - LADLE ANALYSIS ACCORDING TO ASTM E1019-A751-E1086-E415-A580

Control lot No. - Weight	:020000680412 - 81,701 KG										
ELEMENTS OBTAINED	C	Si	Mn	P	S	N	Cr	Mo	Ni	Cu	
ELEMENTS OBTAINED	0.018	0.44	1.84	0.027	0.026	0.080	16.90	2.15	10.01	0.39	
ELEMENTS OBTAINED	Co	0.13									

HARDNESS TEST IN AS DELIVERY CONDITION

Control lot No. - Weight :020000680583 - 7,250 KG
SPECIFICATION ASTM A370-E10 HARDNESS TEST HB TESTING METHOD: 10/3000
OBTAINED 164

IMPACT TEST IN AS DELIVERY CONDITION

Control lot No. - Weight :020000680583 - 7,250 KG
SPECIFICATION EN ISO 148-1-KV2 DIRECTION OF THE TEST PIECE: T
TYPE OF TEST PIECE KV
TEST TEMPERATURE °C 196-
MEASUREMENT UNIT J
OBTAINED 95 106 110

INS

C186181



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TENSILE TEST IN AS DELIVERY CONDITION

Control lot No. - Weight :020000680583 - 7,250 KG
 SPECIFICATION EN-ISO6892-1

DIRECTION OF THE TEST PIECE: L

MEASUREMENT UNIT	Rm MPA	Rp02% MPA	A %	Z %	Rp1% MPA
OBTAINED	543	282	5.0 D 58.4	62.7	322

GRAIN SIZE

Control lot No. - Weight :020000680583 - 7,250 KG
 SPECIFICATION ASTME112 --
 OBTAINED 0 1

QTC ON PROLONGATION OF BARS TESTS AT MID RADIUS (CENTER POS. FOR SIZES <2 INCHES).
 HEAT TREATMENT PERFORMED IN CALIBRATED FURNACES ACCORDING TO INTERNAL PROCEDURE PR-GDQ.ITT COMPLYING WITH API6A Annex M.

TENSILE TEST

Control lot No. - Weight :020000680583 - 7,250 KG
 SPECIFICATION ASTM A370-E8-0.5" SPEC

DIRECTION OF THE TEST PIECE: T

MEASUREMENT UNIT	UTS KSI	YS KSI	RA %	EL %
OBTAINED	80	41	61.1	4,0 D 56.2

CORROSION TEST ACCORDING TO ASTM A262 Practice E EN ISO 3651-2 (NO SIGNS OF FISSURES OR CRACKS AT 20X MAGNIFICATION): SATISFACTORY.
 SURFACE CONTROL BY VISUAL INSPECTION: CONFORMING.

DIMENSIONAL CONTROL ACCORDING TO ASTM A484: CONFORMING.

ULTRASONIC TEST ACCORDING TO EN 10308 Class.3, equivalent to

ASTM A388 FBH5 (for sizez <=250 mm) and FBH8 (sizes >250 mm): SATISFACTORY.

ANTIMIX TEST: SATISFACTORY.

NO WELDING REPAIR ON THE MATERIAL

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

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

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 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 LATEST REVISION AT THE DATE OF ISSUE OF THIS DOCUMENT.

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

252.225-7009 ALT 1.

DATE 30.05.2017

MORABITO ROSA CF(QUALITY CERTIFICATOR) - ELECTRONICALLY GENERATED CERTIFICATE

-Cogne