

C212419 1/2

HT# 701825



COGNE ACCIAI SPECIALI S.p.a.
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CAP. SOC. 100.000.000 EUR INT. VERS.
C.F. 02187369867
VAT: IT00571320076 - R.E.A. n. AO-50474

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

INSPECTION CERTIFICATE 3.1 (EN 10204:2004)
DOCUMENT NUMBER 2018021540
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CUSTOMER: COGNE SPECIALTY STEEL USA, INC
CUSTOMER'S ORDER: P040272
MANUFACTURER'S WORKS: ACOSTA, VIA PARAVERA 16 - ITALY
PRODUCER OF THE DOC: QUALITY DEPARTMENT
MANUFACTURER'S WORKS ORDER NO: 25219852 / 140 MARK OF THE MANUFACTURER: COGNE
DISPATCH NOTE: 81195573 / 10 WEIGHT: 11078 LB
THE CERTIFIED PRODUCTS ARE COMPLYING TO THE PURCHASE ORDER
INTERNAL SPEC: AMSQ05763
PRODUCT: 58944 SPE ROUGHPEELED ROUND BARS TOLERANCE: + 0,0985 - 0
SURFACE FINISH: 1X Hot Finished
PRODUCT DELIVERY CONDITION: RS SOLUTION ANNEALED
PRODUCT DIMENSIONS (inch): AISI 316/316L - UNS31600/31603 LENGTH (inch) 00217 / 00288
GRADE: 701825 INTERNAL GRADE: F316L IMCO
MARKING OF THE PRODUCT: 316L IDENTIFICATION LOT NO: 935980
TEST PIECE N: 598

REFERENCE NORMS: ASTM A276/276M(16), ASTM A479/A479M(16), ASTM A484/A484M(16), ASTM A193/A193M(16), ASTM A193/A193M(16), ASTM SA276(16), ASME SA479(15), ASME SA484(15), ASME SA193(15) 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), ASTM A182/A182M(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.
OTC ON PROLONGATION OF BARS TESTS AT MID RADIUS (CENTER POS. FOR SIZES <2 INCHES).
HOT FORGED
REDUCTION RATIO 5.0
INITIAL STATUS 0.0

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

Control lot No. - Weight	:020000705218	-	82,344	KG						
ELEMENTS OBTAINED	C	Si	Mn	P	S	N	Cr	Mo	Ni	Cu
ELEMENTS OBTAINED	0.027	0.28	1.89	0.028	0.021	0.080	16.68	2.07	10.12	0.53
	Co	Co								
	0.17									

HARDNESS TEST IN AS DELIVERY CONDITION
Control lot No. - Weight :020000705550 - ASTMA370-E10 5,910 KG
SPECIFICATION 174 HARDNESS TEST HB TESTING METHOD: 10/3000
OBTAINED

IMPACT TEST IN AS DELIVERY CONDITION
Control lot No. - Weight :020000705550 - EN ISO 148-1-KV2 5,910 KG
SPECIFICATION J EN ISO 148-1-KV2 196-
TYPE OF TEST PIECE J 101 106
TEST TEMPERATURE °C 118 101 106
MEASUREMENT UNIT OBTAINED

DIRECTION OF THE TEST PIECE: T

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TENSILE TEST IN AS DELIVERY CONDITION
Control lot No. - Weight :020000705550 - EN-ISO6892-1 5,910 KG
SPECIFICATION

MEASUREMENT UNIT	DIRECTION OF THE TEST PIECE: L			
	Rm MPA	Rp02% MPA	A %	Z %
OBTAINED	589	315	50 D 54.8	62.0
				Rp1% MPA
				356

GRAIN SIZE
Control lot No. - Weight :020000705550 - 5,910 KG
SPECIFICATION 4 6 ASTME112 --
OBTAINED

HEAT TREATMENT PERFORMED IN CALIBRATED FURNACES ACCORDING TO INTERNAL PROCEDURE PR-GDQ. ITT COMPLYING WITH APIGA Annex M.
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 sizes <=250 mm) and FBH8 (sizes >250 mm): SATISFACTORY.
ANIMIX TEST: SATISFACTORY.
TENSILE TEST

Control lot No. - Weight :020000705550 - 5,910 KG
SPECIFICATION ASTMA370-E8-0.5"SPEC DIRECTION OF THE TEST PIECE: T

MEASUREMENT UNIT	UTS KSI	YS KSI	RA %	DIRECTION OF THE TEST PIECE: T	
				EL %	4,0 D 58.2
OBTAINED	84	45	64.8		

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 LAST 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 19.04.2018

BARBARA VIETTI MV (QUALITY CERTIFICATOR) - ELECTRONICALLY GENERATED CERTIFICATE

-Cogne