C152066

North American Stainless Canada Inc.
740 Imperial Road North
Guelph, ON N1K1Z3
Canada

METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 170405 1
Customer: 007226 001

Mail To:
ASA ALLOYS
20 CHALLENGER CRES.
SHERWOOD PARK, AB T8H2R1

Ship To:
ASA ALLOYS
20 CHALLENGER CRES.
SHERWOOD PARK, AB T8H2R1

Date: 4/26/2016 Page: 1
Steel: 316/316L
Finish: RT
Corrosion: ASTM A262 Prac E OK
Red Ratio: 4.7 :1

Your Order: P038226
NAS Order: DS 0009617 01

PRODUCT DESCRIPTION:

Round Bar, Hot Rolled, Annealed, Rough Turned
UNS 31600/31603 EN 10204 3.1, ASTM A484/13a
ASTM A276/15, ASTM A479/15, ASTM A182/13 CHEM ONLY,
ASME SA479/13, ASME SA182/10 CHEM ONLY, ASTM F899/11
AMS 5648L/AMS 5653H, AMS QQS-763D, QQS 763F
NACE MR0175/MR0103(MID RADIUS ONLY),
SOLUTION ANNEAL TEMP 1900F MIN, ASTM A320/08 CL 1 GR B8M
ASTM A193/10A-ASME SA193/10 CL 1 GR B8M(EXC PAR 7.2)

REMARKS:

COMPLIES W/REQUIREMENTS OF DFAR 252.225-7009 EU DIRECTIVE
2011/65/EU.RoHS. EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG
IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Product Id	Skid #	Diameter	Size	Weight	-------Length------	Mark	Pieces	Commodity Code
IA3088 5		4.0000		1,585	144.00	1	1	

CHEMICAL ANALYSIS

Lab Accreditation Bureau, ISO/IEC 17025, Certificate# L2323
CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan)
Chemical Analysis per ASTM A751/14a

HEAT	CM	C %	CO %	CR %	CU %	MN %	MO %	N %	NI %	P %
X8E5	US	.0189	.3415	16.5565	.3285	1.2650	2.0005	.0408	10.5950	.0265

S %	SI %
.0295	.4105

MECHANICAL PROPERTIES

Product Id	Ind Cor	HB No.	.2YS KSI	UTS KSI	RA %	Elng % 4D
IA3088 5	R L	159.0	41.00	84.00	69.00	52.00

11442443

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical Dept. Mgr. KRIS LARK 4/26/2016