



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

**HTA A77P**  
**METALLURGICAL TEST REPORT**

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

C230440

Certificate: 480180 1    Mail To:    Ship To:    Date: 2/01/2019    Page: 1  
Customer: 007225 001    ASA ALLOYS    ASA ALLOYS    Steel: 304/304L  
81 STEINWAY BLVD.    81 STEINWAY BLVD.    Finish: ST  
ETOBICOKE, ON M9W 6H6    ETOBICOKE, ON M9W 6H6    Corrosion: EN ISO 3651-2 ASTM 262-E  
Your Order: P057863    NAS Order: PN 0102155 05    Heat Treat Code: 51,105    Red Ratio: 3.0 :1

**PRODUCT DESCRIPTION:**

EN 10272-08, EN 10204 3.1, EN 10088.3, 1.4301/1.4307  
SOLUTION ANNEAL TEMP 1900F MIN, ASTM A320/08 CL 1 GR B8  
ASTM A276/17, ASTM A479/18, ASTM A182/18 CHEM ONLY,  
ASME SA479/17, ASME SA182/18 CHEM ONLY, ASTM F899/12B  
AMS 5639/J, AMS 5647/K, AMS-QQS-763/D, QQS:763/F  
NACE MR0175/15 (MID RADIUS ONLY), MR0103/15 (MID RADIUS ONLY)  
ASTM A193/17, ASME SA193/10 CL 1 GR B8 (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
BK0940 6		5.0000		1,598	144.00	3	1	

ANAB, ISO/IEC 17025, Certificate# L2323

**CHEMICAL ANALYSIS**    CM(Country of Melt)    ES(Spain)    US(United States)    ZA(South Africa)    JP(Japan)

Chemical Analysis per ASTM A751/14a

NAS Heat	CM	C %	CR %	CU %	MN %	MO %	N %	NI %	P %	S %
A77P	US	.024	18.15	.48	1.37	.319	.063	8.68	.034	.0152
		SI %								
		.21								

**MECHANICAL PROPERTIES**

Product Id	1 d o i c r	HB-PED No.	TS-PED KSI	YS-P KSI	1YSPED KSI	E1-PED % 5D	RA-PED %	HB No.	.2YS KSI	UTS KSI
BK0940 6	R L	156	81.28	33.33	38.27	62.68	74.23	160.0	46.00	86.00

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

2/01/2019

LOZ



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Ship To: ASA ALLOYS  
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Date: 2/01/2019 Page: 2  
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Chemical Analysis per ASTM A751/14a


NAS Heat	CM
A77P	US

## MECHANICAL PROPERTIES

Product Id	l o c a l	d i a m e t e r	RA %	Elong % 4D
BK0940 6	R	L	57.00	47.00

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