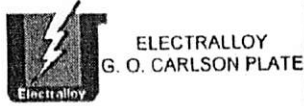


C069444

**MATERIAL CERTIFICATION REPORT and
CERTIFICATION OF QUALITY CONFORMANCE**



175 Main Street
OH City PA 16301
1 (800) 458-7273

Customer Address
ASA ALLOYS INC
81 STEINWAY BLVD
ETOBICOKE ON M9W6H6
CANADA

Shipping Address
ASA ALLOYS INC
20 CHALLENGER CRESCENT
SHERWOOD PARK AB T8H2R1
CANADA

Print Date Time	29-Nov-2012 16:58
Ship Note	121032
Certification ID	141648-1
Customer Order	P028741
Sales Order	115767

Grade: 316L
Specification: Type 316/316L(UNS S31600/S31603) - ASTM A262 practice E, ASTM A182/A182M-11a, AMS 5648L, AMS 5653G, ASTM A193/A193M-12,(316), ASTM A320/A320M-11a (316), ASTM A479/A479M-11, ASTM A314-08, ASTM A473-01(2009), ASTM A 276- 10,NACE Std-MR0175-03, QQ-S-763F, ASTM A336/A336M-10a, ASME SA-182/SA-182M, ASME SA-336/SA-336M, ASME SA - 320/SA-320 M, (316)ASME SA-479/SA-479M,ASTM A4 84/A484M-11, SA-193/A193M 2010 Edition and any additional specifications which may be listed below.
Condition: HOT ROLLED / HOT FORGED, ANNEALED
Finish: ROUGH TURNED

52358-3A1



Sales Order	Quantity	Heat	Lot ID	Weight	Size	Customer Mark
115767-1	1	52358	52358-3A1	1,919 LB	Diam: 13.1540 in; Length: 49.1200 in	

Lot	Test	Result	Low Limit	High Limit
SPECIFICATION RESULTS				
FINAL LADLE CHEMISTRY FOR AIRMELT				
52358	C	0.022	0.000	0.030
52358	Mn	1.80	1.25	2.00
52358	P	0.032	0.000	0.040
52358	S	0.021	0.020	0.025
52358	Si	0.54	0.00	1.00
52358	Cr	16.31	16.00	18.00
52358	Ni	11.53	10.00	14.00
52358	Mo	2.10	2.00	3.00
52358	Cu	0.37	0.00	0.75
52358	N	0.071	0.000	0.100
52358	Co	0.18	0.00	0.20
PASS / FAIL TESTS				
52358-3A1	Carb Net	PASS		
52358-3A1	Macro Etch	PASS		
REDUCTION AREA				
52358-3A1	LT (%)	77.2	50	999
TENSILE				
52358-3A1	LT (PSI)	84000	75000	400000
.2% YIELD OFFSET				
52358-3A1	LT (PSI)	40000	30000	400000
ELONGATION 4D				
52358-3A1	LT (%)	62	45	999

BRINELL				
52358-3A1	(BHN)	139	0	200
GRAIN SIZE				
52358-3A1	Grain Size TT (GRS)	3.5	0	9999
ASTM PRACTICES - ASTM A262				
52358-3A1	Prac E LT	PASS		

The recording of false, fictitious, or fraudulent statements or entries on this document may be punishable as a felony under Federal Statute.
 The above are true and correct results of tests on samples of the material. Results conform to the specification(s) listed above and are on record.
 At time of shipment items and/or material produced under this order have not come into contact with Mercury or its compounds.

C069411A

MATERIAL CERTIFICATION REPORT and CERTIFICATION OF QUALITY CONFORMANCE		Customer Address	Shipping Address	Print Date Time	Ship Note
 ELECTRALLOY G. O. CARLSON PLATE	 175 Main Street Oil City PA 16301 1 (800) 458-7273	ASA ALLOYS INC 81 STEINWAY BLVD ETOBICOKE ON M9W6H6 CANADA	ASA ALLOYS INC 20 CHALLENGER CRESCENT SHERWOOD PARK AB T8H2R1 CANADA	29-Nov-2012 16:58	121032
				Certification ID 141648-1	Customer Order P028741

Quality Statements:
 ASTM E1019-08, ASTM E572-02a (2006)e2 and ASTM E1086-08 are methods used to determine the chemical analysis for Fe Base (High Alloy) alloys utilizing XRF, OES and Combustion and Fusion Methods.
 The mechanical tests have been performed at Modern Industries, Materials Research Division located at 613 West 11th Street Erie, PA 16512-0399
 At time of shipment, items and/or material produced under this order have not come in contact with Mercury or its compounds.
 Compliant with DFARS 252.225-7014 Alt. 1. Preference for Domestic Specialty Metals
 HWRR - 3.3-1
 Material Certification conforms to Certificate 3.1 as in EN10204:2010.
 Material represented was melted and manufactured in the USA
 Material represented was not weld repaired.
 Material represented was produced in accordance with the Electralloy Quality Control Program dated 06/07/2011, which meets the requirements of ISO9001(2008), MIL-I-45208A including Amendment 1 and ASME Code Section 3, Subsection NCA 3800.
 Material represented was solution annealed at 1900 degrees F +/- 25 degrees F, held 30 minutes per inch of thickness and water quenched.
 Material represented was ultrasonically inspected in accordance with ASTM A388 and found acceptable using a 1/8" flat bottom hole as the acceptance criteria.
 Material was not exposed to Radium or other radioactive materials while at our facility.
 Melting and Refining Source - Electralloy
 Method of manufacture, electric arc furnace melted, A.O.D. refined, SPEED-E-MAC.
 All items are in full compliance with all purchase order and specification requirements.

Meets EU Electrical "RoHS". Contains NO "WEEE" relevant substances. Complies with DFARS-225.1-Buy American Act-Supplies. HWRR = Minimum Hot Working Reduction Ratio.
 Electralloy only accepts residual and trace elements to the limits invoked by the specification and or customer. This document shall not be reproduced, except in full, without the written approval of Electralloy / GOC Plate. We hereby affirm that the reported results on this certification are correct and accurate. All tests and results and operations performed by (Electralloy/G.O. Carlson Plate) or its subcontractors are in compliance with the applicable material/customer specification(s).
 The parties agree that when title transfers for the products subject to this agreement, or when the products are delivered to purchaser, whichever occurs first, responsibility for the submission of any required export or re-export licenses or related export control approvals for these products also transfers to purchaser. Any export license requirement under any applicable export control statute, regulation, or practice, from any U.S. government agency, including but not limited to the Department of Commerce's Bureau of Industry and Security, the Department of Treasury, Office of Foreign Assets Control, the U.S. Department of State, Directorate of Defense Trade Controls, and the Nuclear Regulatory Commission, are solely the responsibility of the purchaser. Further, purchaser warrants that it will comply with all applicable export and re-export controls related to these products.

Name: Duane E. Kline
Title: QC Technician/UT Technician/Works Inspector
By: 