

# HUNTINGTON ALLOYS CORPORATION

A Special Metals Company

HUNTINGTON, WEST VIRGINIA 25705-1771

NOTE: THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL STATUTE.

SOUTHERN U.S.

CORROSION MATERIALS INC 2262 GROOM RD BAKER LA 70714	<b>CERTIFIED MATERIAL TEST REPORT</b>		<b>No. 08532</b>	
	HA ORDER NO./ITEM 100046493 1	DATE 12/03/10	PAGE 1	OF 2
CORROSION MATERIALS INC 2262 GROOM RD BAKER LA 70714	QUANTITY 3123 LBS	INSPECTED BY HA/SMC	THIS IS TO CERTIFY THAT ALL REQUIRED SAMPLINGS INSPECTIONS AND TESTS HAVE BEEN PERFORMED IN ACCORDANCE WITH THE ORDER AND SPECIFICATION REQUIREMENTS. THE TEST REPORT REPRESENTS THE ACTUAL ATTRIBUTES OF THE MATERIAL FURNISHED AND THE VALUES SHOWN ARE CORRECT AND TRUE. THE MATERIAL DESCRIBED BY THIS CERTIFICATE IS IN FULL COMPLIANCE WITH ALL ORDER AND INSPECTION REQUIREMENTS. WE HEREBY CERTIFY THAT THE BELOW FIGURES ARE IN ACCORDANCE WITH THE SPECIFIED CONTRACT REQUIREMENTS. REV. 8/08	
	CHARGE ORDER NO. 87072X	MARK ORDER NO. 87072X-1-051759000		
DESCRIPTION OF MATERIAL SHIPPED MONEL ALLOY 400 AIM HOT FIN RND ROUGH T STR REL 9.0000 IN 132-156 IN NOM				

\*\*\*\*\*THIS REPORT RELATES ONLY TO THE ITEM(S) TESTED AND MAY NOT BE REPRODUCED EXCEPT IN FULL.\*\*\*\*\*

SPECIFICATIONS: ASTM B 164-03 (2008) \ASME SB-164 2007 EDITION 09 ADDENDA \ UNS:N04400  
 ASTM B 564-06 \ASME SB-564 2007 EDITION 09 ADDENDA \  
 US FED QQ-N-281D AM 2 CL A FM 1 MARKING WAIVED.\  
 QUALITY SYSTEM CERTIFICATION: ISO 9001:2008 (ABS-QE CERT. 30125);  
 EN 10 204/DIN 50049 (TYPE 3.1)

CHEMICAL ANALYSIS (WT. %)

HEAT#	C	MN	FE	S	SI	CU	NI	AL	CO
	P	PB/PPM	SN/PPM	ZN/PPM	NI+CO				
M11P7BG	0.14	0.98	1.64	<0.001	0.26	31.96	64.92	0.07	0.02
	0.005	5.2	1.4	8.8	64.94				


COUNTRY OF ORIGIN: MELTED AND MANUFACTURED IN THE USA

TO CONVERT PPM TO WT.%, MOVE DECIMAL POINT FOUR PLACES TO THE LEFT.  
 MELT METHOD: AIM + ELECTROSLAG REHEATED

MECHANICAL PROPERTIES

HEAT/LOT	QUANTITY	HARD	GRAIN	YIELD	TENSILE	%ELG	R/A	DEG
		NESS	SIZE	.2XPSI	PSI	2"	%	F
			X 100	X 100	X 100			
M11P7BG 12	1 PC	80.9		0464	0859	42.1	71.3	
ROOM TEMP-HRB	-AS SHIPPED							

YIELD STRENGTH WAS DETERMINED USING A STRESS STRAIN CURVE

HEAT# M11P7BG12  
  
 TRACER# 205043

MATERIAL HEAT TREAT: HEATED AT 1100 DEG F FOR 1 HOUR. AIR COOLED.

NO WELDING OR WELD REPAIR WAS PERFORMED.

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SOUTHERN U. S.

CORROSION MATERIALS INC  
 2262 CROOM RD  
 BAKER LA 70714

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 2262 CROOM RD  
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**CERTIFIED MATERIAL TEST REPORT No.**

HA ORDER NO./ITEM	DATE	PAGE	OF
100046493 1	12/03/10	2	2
QUANTITY	INSPECTED BY		
3123 LBS	HA/SMC		
CHARGE ORDER NO.	MARK ORDER NO.		
87072X	87072X-1-051759000		
DESCRIPTION OF MATERIAL SHIPPED			
MONEL ALLOY 400 AIM HOT FIN RND ROUGH T STR REL			
9.0000 IN 132-156 IN NOM			

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REV. 808

VISUAL AND DIMENSIONAL EXAMINATION SATISFACTORY.

MATERIAL, WHEN SHIPPED, IS FREE FROM CONTAMINATION BY MERCURY, RADIUM, ALPHA SOURCE, & LOW MELTING ELEMENTS.

"CHEMICAL ANALYSIS AS REQUIRED FOR CARBON, SULFUR, NITROGEN OR OXYGEN IS PERFORMED BY COMBUSTION TECHNIQUES. ALL OTHER REPORTED ELEMENTS ARE ANALYZED BY X-RAY AND/OR EMISSION SPECTROSCOPY."

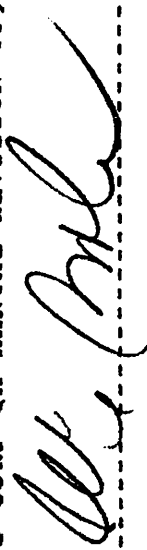
"QUALITY SYSTEM MEETS REQUIREMENTS OF DIRECTIVE 97/23/EC (PRESSURE EQUIPMENT DIRECTIVE), ANNEX 1, CHAPTER 4.3 PER ABS GROUP LTD CERTIFICATE 41734 (EXPIRES JULY 31, 2011)."

HUNTINGTON ALLOYS CORPORATION IS AN ACCREDITED INDEPENDENT NADCAP MATERIALS TESTING LABORATORY VIA CERTIFICATE NUMBER 127805 (EXPIRES APRIL 30, 2011) FOR ALL TESTING SPECIFIED IN THE SCOPE OF ACCREDITATION.

MATERIAL PRODUCED UNDER QA SYSTEM DOCUMENTED IN HUNTINGTON ALLOYS CORP QA MANUAL REVISION 40, DATED 9/4/2009

AUTHORIZED QUALITY CERTIFICATION REPRESENTATIVES:

W. E. BOLEN, P. D. CUSTER, M. A. MORRISON, P. WAUGH, D. K. MILLER



HEAT# M11P78G12  
  
 TRACER# 205043