

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.

HUNTINGTON ALLOYS
A Special Metals Company
HUNTINGTON, WEST VIRGINIA 25720

HT# M5614BG

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CORROSION MATERIALS
5092 STEADHONT
HOUSTON TX 77040

ATTN: MARGARET WRIGHT
CORROSION MATERIALS INC
2262 GROOM RD
BAKER LA 70714

CERTIFIED MATERIAL TEST REPORT No. **55584**

HA ORDER NO./ITEM 100034573 1	DATE 01/23/08	PAGE 1	OF 2
QUANTITY 2177 LBS	INSPECTED BY HA/SMC		
CHARGE ORDER NO. 73193	MARK ORDER NO. 73193 5-051755500		
DESCRIPTION OF MATERIAL SHIPPED MONEL ALLOY 400 HOT FIN RND ROUGH T STR REL	5.5000 IN 120-168 IN NOM		

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.

[Signature]
QUALITY CERTIFICATION REPRESENTATIVE

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

SPECIFICATIONS: ASTM B 164-03 \ASME SB-164 2007 EDITION NO ADDENDA \ UNS:N04400
ASTM B 564-06A \ASME SB-564 2007 EDITION NO ADDENDA \
US FED QQ-N-281D AM 2 CL A FM 1 MARKING WAIVED.\
QUALITY SYSTEM CERTIFICATION: ISO 9001:2000 (ABS-QE CERT. 30125);
EN 10 204/DIN 50049 (TYPE 3.1)

CHEMICAL ANALYSIS (WT. %)

HEAT#	C P	MN SN/PPM	FE NI+CO	S PB/PPM	SI ZN/PPM	CU	NI	AL	CO
M5614BG	0.15 0.008	1.00 1.2	2.12 65.50	<0.001 3.1	0.30 4.7	30.82	65.48	0.10	0.02

TO CONVERT PPM TO WT.%, MOVE DECIMAL POINT FOUR PLACES TO THE LEFT.
MELT METHOD: EF/AOD + ELECTROSLAG REMELTED

MECHANICAL PROPERTIES

HEAT/LOT	QUANTITY	HARD NESS	GRAIN SIZE	YIELD .2XPSI X 100	TENSILE PSI X 100	%ELG 2"	R/A %	DEG F
M5614BG 11 ROOM TEMP-HRB PC# 11,12	2 PCS -AS SHIPPED	85.3		0569	0924	41.0	66.9	



TRACER# 058445

YIELD STRENGTH WAS DETERMINED USING A STRESS STRAIN CURVE

NO WELDING OR WELD REPAIR WAS PERFORMED.

MATERIAL HEAT TREAT: STRESS RELIEVED @ 1100 DEG. F. FOR 1 HOUR THEN AIR COOLED.

HT # MS61486

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HUNTINGTON, WEST VIRGINIA 25720

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ALL OTHER INSPECTION REQUIREMENTS IN FULL COMPLIANCE WITH THE
BELOW ORDER AND INSPECTION REQUIREMENTS. WE HEREBY CERTIFY THAT THE
FURNISHED MATERIAL IS IN ACCORDANCE WITH THE SPECIFIED CONTRACT REQUIRE-
MENTS.

[Signature]
QUALITY CERTIFICATION REPRESENTATIVE

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5092 STEADMONT
HOUSTON TX 77040

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BAKER LA 70714

COUNTRY OF ORIGIN: MELTED AND MANUFACTURED IN THE USA

USUAL 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 008 (EXPIRES AUGUST 2008) AND
UV CERTIFICATE 20674928 (EXPIRES MAY 2008)"

AUTHORIZED QUALITY CERTIFICATION REPRESENTATIVES :
F. BOLEN, P.D. CUSTER, M.A. MORRISON, P. WAUGH



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