

M5988BG

OTHER DIRECT-NOT ASSIGNABLE TO DI P  
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.

TA CHEN INTERNATIONAL 9525 WALLISVILLE ROAD HOUSTON, TX 77013		No. 30437	
TA CHEN INTERNATIONAL INC 5855 OBISPO AVE LONG BEACH, CA 90805		HA ORDER NO./ITEM 100044091 1	PAGE OF 1 2
		DATE 03/29/12	
		INSPECTED BY HA/SMC	
		MARK ORDER NO. 1.00072240400HR	
		QUANTITY 5830 LBS	
		CHARGE ORDER NO. L28250	
		DESCRIPTION OF MATERIAL SHIPPED MONEL ALLOY 400 HR PLATE DESCALED ANN 1.0000 IN 72.0000 IN 240.000 IN SHR	

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

SPECIFICATIONS: SAE AMS 4544F\US FED QQ-N-281D AM 2 IC 1 CL A MARKING WAIVED\ UNS: NO4400  
 ASTM B 127-05\ASME SB-127 2007 EDITION 08 ADDENDA\  
 NACE MR0175-ISO 15156-3 (2009)  
 QUALITY SYSTEM CERTIFICATION: ISO 9001:2000 (ABS-QE CERT. 30125); CPA-018  
 EN 10 204/DIN 50049 (TYPE 3.1)

HEAT#	CHEMICAL ANALYSIS (WT. %)					
	C	MN	FE	S	SI	CU
M5988BG	0.13	0.99	1.36	0.001	0.29	32.76
	4.7	3.4	6.7			64.11
						0.10
						0.006

COUNTRY OF ORIGIN: MELTED AND MANUFACTURED IN THE USA  
 TO CONVERT PPM TO WT.%, MOVE DECIMAL POINT FOUR PLACES TO THE LEFT.  
 MELT METHOD: EF/AOD + ELECTROSLAG REMELTED

HEAT/LOT	MECHANICAL PROPERTIES			
	QUANTITY	HARDNESS	TENSILE	DEGREE
M5988BG 12	1 PC	77.2	0358 0846	46.5 74.2
PLATE # P10170				
ROOM TEMP-HRB	-AS SHIPPED			

YIELD STRENGTH WAS DETERMINED USING A STRESS STRAIN CURVE

NO WELDING OR WELD REPAIR WAS PERFORMED ON THIS MATERIAL.

SUPEREDING OUR REPORT DATE 3/26/10 CMTR 95S73 TO UPDATE SPECIFICATION

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TA CHEN INTERNATIONAL 9525 WALLISVILLE ROAD HOUSTON, TX 77013		<b>CERTIFIED MATERIAL TEST REPORT</b>		No. 30437
TA CHEN INTERNATIONAL INC 5855 OBISPO AVE LONG BEACH, CA 90805		HA ORDER NO./ITEM 100044091 1	DATE 03/29/12	PAGE OF 2 2
		QUANTITY 5830 LBS	INSPECTED BY HA/SMC	
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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. B08

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 48, DATED 9/4/2009

AUTHORIZED QUALITY CERTIFICATION REPRESENTATIVES:

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

