



Material Test Report

Heat Code: CCG

An Ameri-Forge Group Company
13770 Industrial Rd., Houston, TX 77015

ISO 9001:2000 Certified Sales: (713) 868-4421 Fax: (713) 455-8366

PLESA ANAHUAC Y CIAS	PO: 5393	Sales Order: 67243	Line: 7
SA DE CV AV. VALLE DE LAS	Item Code: 0152916100-0020F	Qty Shipped: 17	
ALAMEDAS 66-0	Item Desc: FIG 16.00 0150 SO RF	A105 NHT COFFR	
54940 TUITITILAN, EDO MEX	Supplier: MACSTEEL	Supplier Heat: 3M65753	
Spec: ASTM A 105/A 105M-(05)/ASME SA 105/SA 105M-(08a) Section II Part A			

Element	(%wt)	Ladle	Product	EPCRA CAS#	Element	(%wt)	Ladle	Product	EPCRA CAS#
C	Carbon	0.21			Cr	Chromium	0.13		7440-47-3
Mn	Manganese	1.06		7439-96-5	Mo	Molybdenum	0.020		
P	Phosphorous	0.013			V	Vanadium	0.003		
S	Sulphur	0.012			Cb	Columbium	0.001		
Si	Silicon	0.18			C.E.		0.440		
Cu	Copper	0.24		7440-50-8	CuNiCrMo		0.49		
Ni	Nickel	0.10		7440-02-0	CrMo		0.15		

Mechanical		Other	
Test Lab	AFG	Country of Origin	USA (US)
Test Bar Size	SACRIFICIAL PIECE		Y
HRW	170-170		
ELg (%)	31.0		
RA (%)	68.0		
Tensile Specimen Size (in)	0.493		
Tensile (ksi)	82.2		
Yield (ksi)	48.8		
Gauge length	2.00		

Product compliant with NACE MR0175 / ISO 15156, latest edition and dimensions to ANSI B16.5
Product compliant with and meets all requirements of ASTM A105/ASME SA105, latest edition.

No weld repair performed. Chemical Analysis results shown are actual. Forgings are capable of passing hydrostatic test compatible with the appropriate rating. Elongation taken from a round specimen. All material supplied under this order is certified to be free of mercury contamination and no mercury bearing equipment was used in manufacturing, fabrication or testing. Yield strength was determined using the 0.2% offset method.

EPCRA Supplier Notification: This product may contain one or more toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act (Title III of the Superfund Amendments and Reauthorization Act of 1986) and 40 C.F.R. Part 372. Potentially reportable chemicals are indicated with a checkmark in the "EPCRA" column and a Chemical Abstract Services (CAS) registry number is provided for each such chemical in addition to the percent by weight of the chemical present in this product. It is your responsibility alone to determine whether your facility is required to submit a Toxic Release Inventory Report under EPCRA Section 313.

Certification No.: 153959

Certification Date: 11/12/2008

This report is issued in compliance with the requirements of EN10204 3.1 / ISO 10474 3.1.b

Nicholas Tepovich - Metallurgic Lab Manager