



Material Test Report

Heat Code: HHB

An Ameri-Forge Group Company

13770 Industrial Rd. Houston, TX 77015

ISO 9001:2000 Certified

Sales: (713) 868-4421 Fax: (713) 455-8366

PLEASA ANAHUAC Y CIAS SA DE CV AV. VALLE DE LAS ALAMEDAS 66-0 54940 TULTITLAN, EDO, MEX	PO: 7456	Sales Order: 72546	Line: 1
	Item Code: 0151400101-0020F		Qty Shipped: 20
	Item Desc: FLG 04.00 0150 WN RF STD		
	Supplier: CMC	Supplier Heat: 3012990	

Spec: ASTM A105/A105M-(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	0.20				Cr	Chromium	0.10		✓	7440-47-3
Mn	Manganese	0.90		✓	7439-96-5	Mo	Molybdenum	0.02			
P	Phosphorous	0.008				V	Vanadium	0.002			
S	Sulphur	0.012				Cb	Columbium	0.001			
Si	silicon	0.22				C.E.		0.39			
Cu	Copper	0.19		✓	7440-50-8	CuNiCrMo		0.39			
Ni	Nickel	0.08		✓	7440-02-0	CrMo		0.12			

Mechanical Testing			Other		
Test Lab		AFG	MILL		CMC-TEXAS
Test Bar Size		Test Piece	MHC		3012990
HBW		156 - 156			
Elg (%)		33.0			
RA (%)		60.0			
Tensile Specimen Size (in)		.248			
Tensile (ksi)		83.3			
Yield (ksi)		49.8			
Gauge Length		1			

PLEASA ANAHUAC Y CIAS. S.A. DE C.V.

CONTROL DE CALIDAD

FECHA 29 Feb 2010

C0000251

FIRMA Enrique Ruiz

Product compliant with NACE MR0175, latest edition and dimensions to ASME 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 1988) 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.: 176988
 Certification Date: 1/22/2010

Nicholas Tepovich

 Nicholas Tepovich - Metallurgic Lab Manager