

ATTN: Sr. Benjamin Roman



Material Test Report

Heat Code: WYH

An Ameri-Forge Group Company
13770 Industrial Rd., Houston, TX 77011

ISO 9001:2000 Certified

Sales: (713) 868-4421 Fax: (713) 455-8361

PO: 2260	Sales Order: 57179	Line: 9
Item Code: 0601600102-0021F	Qty Shipped: 20	
Item Desc: FLG 06.00 0600 WN RF XH A105	NRM COFFR	
Supplier: SMI	Supplier Heat: 252243	
Spec: A105M A 105/A 105M-03/ASME SA 105/SA 105M-04 Normalized		

Element	(%wt)	Ladle	Product	EPCRA	CAS#	Element	(%wt)	Ladle	Product	EPCRA	CAS#
C	Cart	0.20				Ni	Nickel	0.07		✓	7440-02-0
Mn	Manganese	0.88		✓	7439-96-5	Cr	Chromium	0.03		✓	7440-47-3
P	Phosphorus	0.011				Mo	Molybdenum	0.020			
S	Sulfur	0.021				V	Vanadium	0.032			
Si	Silicon	0.18				Cb	Columbium	0.032			
Cu	Copper	0.26		✓	7440-50-8	C.E.		0.35			

Mechanical				Heat Treat	
Test Lot		AFG		Norm. Temp. (F)	1675
Test Bar Size		SACRIFICIAL PIECE		Norm. (Hrs)	4.0
BHN		163-163		Norm. Cooling Type	AIR
Elg (%)		36.0		Norm. Location	AFG
RA (%)		60.0			
Tensile Specimen Size (in)		0.503		Other	
Tensile (ksi)		75.3		Country of Origin	USA (US)
Yield (ksi)		45.7		EF	Y
Yield (offset)		2.00			

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 materials supplied under this order is certified to be free of mercury contamination and no mercury bearing equipment used in manufacturing, fabrication or testing. Yield strength was determined using the 0.2% offset method.

EPCRA Section 313 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.

Certificate No.: 105467
Certificate Date: 12/8/2006

S. Drozdowski
Stan Drozdowski - Lab Manager - AmeriForge

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