Material Test Report

COFFER*
an AFGMDal Company

Heat Code: wgr

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

ISO 9001:2008 Certified

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

Elem	ent (%wt)	Ladle	Product	EPCR	A CAS#	Eler	nent	(%wt)	Ladio	Product	EPCRA	CAS#
С	Carbon	0.19				Cr	Chromi	î um	0.10			440-47-3
Mn	Manganese	1.07		✓	7439-96-5	Мо	Molybo	denum	0.02		·	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
P	Phosphorous	0.008				٠	Vanadi		0.003			
5	Sulphur	0.005				Cb	Columb		0.01			
Si	Silicon	0.24				Ç.E		24 MM	0.41			
Çu	Copper	0.16		1	7440-50-8	i	iCrMo		0.394			
Ni	Nickel	0.11			7440-02-0	CrM			0.124			

Mechanical T	esting	Other					
Test Lab	AFG	MILL	ASW STEEL				
Test Bar Size	Sacrificial Piece	мнс	76297				
HBW	167 - 167	•					
Elg (%)	29						
RA (%)	59						
Tensile Specimen Size (in)	.496						
Tensile (ksi)	82.4	•					
Yield (ksi)	50.2						
Gauge Length	2						
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AmeriForge manufactures materials according to a certified Quality Management System conforming to ISO 9001:2008 and in compliance to PED 97/23/EC, Section 4.3

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. Yield strength was determined using the .2% offset method. 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. Made

No weld repair performed on this product.

Product compliant with NACE MR0175 / ISO 15156 latest edition and dimensions to ASME B16.5 - 2013

Tensile Testing Per ASTM E8; Brinell Hardness Per ASTM E10

EPCRA Supplier Notification: This product may contain one or more toxic chamicals 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 atone to determine whether your facility is required to submit a Toxic Release inventory Report under EPCRA Section 313.

Certification No.:

283005

Certification Date:

11/7/2013

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

Mandar Hingwe - Dir. of Quality and Metallurgy