



Material Test Report

Heat Code: UBU

ISO 9001:2008 Certified

An Ameri-Forge Group Company
 13770 Industrial Rd. Houston, TX 77015
 Sales: (713) 868-4421 Fax: (713) 455-8366

PLESA STEEL INC. 5100 WESTHEIMER ROAD SUITE 200 Houston, TX 77056	PO: 72	Sales Order: 120278	Line: 6
	Item Code: 0151912102-0020F	Qty Shipped: 20	
	Item Desc: FLG 12.00 0150 WN RF XH		
	Supplier: Warren Steel Holdings Supplier Heat: 13158		
Spec: ASTM A105/A105M-(12)/ASME SA 105/SA 105M-(08a) Section II Part A			

Element	(%wt)	Ladle	Product	EPCRA	CAS#	Element	(%wt)	Ladle	Product	EPCRA	CAS#
C	Carbon	0.19				Cr	Chromium	0.05		✓	7440-47-3
Mn	Manganese	1.06		✓	7439-96-5	Mo	Molybdenum	0.03			
P	Phosphorous	0.015				V	Vanadium	0.004			
S	Sulphur	0.006				Cb	Columbium	0.0017			
Si	Silicon	0.21				C.E.		0.40			
Cu	Copper	0.13		✓	7440-50-8	CuNiCrMo		0.270			
Ni	Nickel	0.06		✓	7440-02-0	CrMo		0.080			

Mechanical Testing				Other			
Test Lab	AFG	MILL	WARREN STEEL HOLDINGS				
Test Bar Size	SACRIFICIAL PIECE	MHC	13158				
HBW	156 - 156	Country of Origin	USA				
Elg (%)	37	VD	Y				
RA (%)	65	EF	Y				
Tensile Specimen Size (in)	.494						
Tensile (ksi)	78.4						
Yield (ksi)	45.3						
Gauge Length	2						

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 in USA.

No weld repair performed on this product.

Product compliant with NACE MR0175 / ISO 15156 latest edition and dimensions to ANSI B16.5 - 2009

Tensile Testing Per ASTM E8; Brinell Hardness Per ASTM E10

Forged in USA

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.: 261152
 Certification Date: 2/26/2013

M. Hingwe
 Mandar Hingwe - Dir. of Quality and Metallurgy