

## **Material Test Report**

**Heat Code: TEV** 

An Arneri-Forge Group Cornpany 13770 Industrial Rd. Houston, TX 77015

ISO 9001:2008 Certified

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

Supplier Heat: 12844

PLESA STEEL INC. PO: 42 Sales Order: 116720 Line: 7 5100 WESTHEIMER ROAD Item Code: 0302800100-0020f Qty Shipped: 10 SUITE 200 Item Desc: FLG 08.00 0300 SO RF Nouston, TX 77056

Spec: ASTM A105/A105M-(12)/ASME SA 105/SA 105M-(08a) Section II Part A

Supplier:

Eiem	nent <b>(%wt)</b>	Ladle	Product	EPCRA CAS	Elei	ment	(%wt)	Ladle	Product	EPCRA CAS#
С	Carbon	0.21			:Cr	Chrom	ium	0.14		√ 7440-47-3
Mn	Manganese	0.95		<b>✓</b> 7439-96	5 <b>Mo</b>	Molybo	denum	0.07		
P	Phosphorous	0.011			V	Vanad:	ium	0.008		
S	Sulphur	0.002			; Cb	Columb	oium	0,004		
Si	Silicon	0.16			C.E	Ξ.		0.43		
Cu	Copper	0.13		✓ 7440-50	8 CuN	NiCrMo		0.403		
Ni	Nickel	0.06		✓ 7440-02	0 :CrM	:CrMo		0.210		
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Mechanical <b>T</b> e	esting		Other		
Test Lab	AFG	: MHC		12844	
Test Bar Size	Sacrificial Piece	EF		Y	
HBW	167 <b>-</b> 167				
Elg (%)	32				
RA (%)	58				
Tensile Specimen Size (in)	.496				
Tensile (ksi)	83.0				
Yield (ksi)	50.7				
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

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

EPCRA Supplier Notification: This product may contain one or mora 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 Me 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.: 256657 Certification Date: 1/7/2013

This report in issued in compliance with the requirements of EN10204 3.1 1ISO 10474 3.1.b