

Material Test Report

Heat Code: VLB

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

ISO 9001:2008 Certified

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

PLESA STEEL INC.

Houston, TX 77056

5100 WESTHEIMER ROAD

SUITE 200

PO: 72 S Item Code: 0152300100-0020F

Sales Order: 120278 Line: 4

Qty Shipped: 100

Supplier: CMC

Supplier Heat: 3037150

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

Carbon	0.00			A CAS#	Elen	nent	(%wt)	Ladle	Product	EPCRA	CAS#
	0.20				Cr	Chrom	ium	0.07		√ 7.	140-47-3
Manganese	0.99		✓	7439-96-5	Мо	Molybo	denum	0.02			
Phosphorous	0.012				v	Vanad	ium	0.003			
Sulphur	0.022				Cb	Columb	oium	0.000			
Silicon	0.22				C.E			0.41			
Copper	0.25		✓	7440-50-8	CuN	iCrMo		0.438			
Nickel	0.08		✓	7440-02-0	: CrMc)		0.088			
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5	hosphorous ulphur ilicon opper	hosphorous 0.012 ulphur 0.022 ilicon 0.22 opper 0.25	hosphorous 0.012 ulphur 0.022 ilicon 0.22 opper 0.25	hosphorous 0.012 ulphur 0.022 ilicon 0.22 opper 0.25 ✓	thosphorous 0.012 ulphur 0.022 ilicon 0.22 opper 0.25 ✓ 7440-50-8	hosphorous 0.012 V ulphur 0.022 Cb ilicon 0.22	hosphorous 0.012 V Vanada ulphur 0.022 Cb Columb ilicon 0.22 C.E. opper 0.25 ✓ 7440-50-8 CuNiCrMo	hosphorous 0.012 V Vanadium ulphur 0.022 Cb Columbium ilicon 0.22 C.E. opper 0.25 ✓ 7440-50-8 CuNiCrMo	hosphorous 0.012 V Vanadium 0.003 ulphur 0.022 Cb Columbium 0.000 ilicon 0.22 C.E. 0.41 opper 0.25 ✓ 7440-50-8 CuNiCrMo 0.438	hosphorous 0.012 V Vanadium 0.003 ulphur 0.022 Cb Columbium 0.000 ilicon 0.22 C.E. 0.41 opper 0.25 ✓ 7440-50-8 CUNiCrMo 0.438	hosphorous 0.012 V Vanadium 0.003 ulphur 0.022 Cb Columbium 0.000 ilicon 0.22 C.E. 0.41 opper 0.25 ✓ 7440-50-8 CuNiCrMo 0.438

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Mechanical T	esting	Other			
Test Lab	AFG	WILL	CMC-TEXAS		
Test Bar Size	Sacrificial Piece	MHC	3037150		
HBW	163 - 163	Country of Origin	USA		
Elg (%)	31	EF	Y		
RA (%)	59				
Tensile Specimen Size (in)	.495				
Tensile (ksi)	80.4				
Yield (ksi)	46.9	•			
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.:

261151

Certification Date:

2/26/2013

Mandar Hingwe - Dir. of Quality and Metallurg

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