

Spec: ASTM A105/A105N-(12)/ASME

Material Test Report

Heat Code: VOF

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. Sales Order: 127804 Line: 9 5100 WESTHEIMER ROAD Item Code: 0601800102-0021F Qty Shipped: 20 SUITE 200 Item Desc: FLG 08.00 0600 WN RF XH Houston, TX 77056 Supplier: CMC Supplier Heat: 3036639

SA 105/SA 105N-(13) Section II Part A Normalized Element (%wt) Ladle Product EPCRA CAS# Element Ladle Product **EPCRA** CAS# Carbon 0.20 Ni Nickel 0.12 7440-02-0 Manganese 1.00 7439~96-5 CrChromium 0.08 7440-47-3 Phosphorous 0.011 0.044 Мо Molybdenum Sulphur 0.018 V

Mn ₽ s Vanadium 0.002 Silicon 0.24 Cb Columbium 0.001 Cu Copper 0.25 7440-50-8 C.E. 0.42

Mechanical Testing **Heat Treat** Test Lab AFG Norm. Temp. (F) 1675 Test Bar Size Sacrificial Piece Norm. (Hrs) HBW 159 - 159 Norm. Cooling Type AIR Elg (%) 32 Norm. Location AFG RA (%) 59 Tensile Specimen Size (in) . 493 Other Tensile (ksi) 79.5 MILL CMC Yield (ksi) 49.7 MHC 3036639 Gauge Length 2 Country of Origin USA (US) EF DESC: Tag: PO6501854-0-STAT DESC2; TTEM 2

Product compliant with NACE MR0175 / ISO 15156 and NACE MR0103 latest edition and dimensions to ASME B16.5 -

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 welding performed.

AmeriForge manufactures materials according to a certified Quality Management System conforming to ISO 9001:2008 and in complance to PED 97/23/EC, Section 4.3

Tensile Testing Per ASTM E8; Brinell Hardness Per ASTM E10

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.:

278358

Certification Date:

9/18/2013

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