

Material Test Report

Heat Code: CTS

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

ISO 9001:2000 Certified

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

PLESA ANAHUAC Y CIAS SA DE CV AV. VALLE DE LAS ALAMEDAS 66-0

Item Code: 0151600102-0020F Item Desc: FLG 06.00 0150 WN RF XH

Sales Order: 66536 Line: 12
OF Qty Shipped: 20

ALAMEDAS 66-0 Item Des

A105 NHT COFFR

54940 TULTITLAN, EDO MEX

Supplier: CMC Supplier Heat: 3004711 2

Spec: ASME SA-105/SA-105M 2004 Section II/ASTM A105/A105M-03

PO: 5101

| EMI | ent (%wt) | Ladle | Product | EPCR | A CAS# | Element | (%wt) | Ladle | Product | EPCRA | CAS# |
|-----|-------------|-------|---------|------|-----------|-----------|-------|-------|---------|-------|----------|
| С | Carbon | 0.20 | | | | Cr Chromi | tion | 0.10 | | / 7 | 440-47-3 |
| Mn | Manganese | 0.86 | | ✓ | 7439-96-5 | Mo Molybo | lenum | 0.032 | | | |
| P | Phosphorous | 0.008 | | | | V Vanadi | ium | 0.002 | | | |
| S | Sulphur | 0.014 | | | | Cb Columb | ium | 0.002 | | | |
| Si | Silicon | 0.22 | | | | C.E. | | 0.389 | | | |
| Cu | Соррег | 0.20 | | ✓ | 7440-50-8 | CuNiCrMo | | 0.42 | | | |
| Ni | Nickel | 0.09 | | ~ | 7440-02-0 | CrMo | | 0.13 | | | |
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| Mechanic | al | | - |
|---------------------------|-------------------|---|---|
| Test Lab | AFG | | |
| Test Bar Size | SACRIFICIAL PIECE | | |
| TBW | 156-156 | | |
| Elg (%) | 38.0 | | |
| A (%) | 59.0 | | |
| ensile Specimen Size (in) | 0,248 | | |
| ensile (ksi) | 76.1 | | |
| ield (ksi) | 42.0 | 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - | |
| Sauge Length | 1.00 | | |
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Product compliant with NACE MR0175 / ISO 15156, latest edition and dimensions to ANSI Bl6.5 Product compliant with and meets all requirements of ASTM A105/ASME SA105, latest edition.

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. 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. Yield strength was determined using the 0.2% offset method.

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 1988) 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.:

149802

Certification Date:

9/23/2008

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

Michaeles Lepanel

Nicholas Tepovich - Metallurgic Lab Manager