

E-0133-1

MATERIAL CERTIFICATION

001714 5 SS
Heat # E0133-1

Page 1 of 2



D076580
WO 5575
CPA 8-40 RTJ

| |
|----------------------|
| Material Cert Number |
| 733270 w5523R0 |
| Revision Date |
| 01/26/2012 |

| | | | |
|------------------|--|-----------------|--------|
| Item 1 of 1 | | | |
| Material | UNS S31254 to meet chemistry only of ASTM A182-11a Grade F44 | | |
| Heat Treat | per Specification to 297 Maximum Brinell per NAF MR 175-200 paragraph 4.2 of HRN, conversion per ASTM E.4 Table 1. | | |
| Destructive Test | None | | |
| Finish | Forge with allowance to finish | | |
| Size | OD 12-1/4 | Length 2-3/4 | Inches |
| Surface | Forged | Forged | |

OK
2/6/12

| | | |
|-------------|-------------|---------------------------|
| Heat Number | # of Pieces | (MILL - ELECTRALLOY CORP) |
| E0133-1 | 1 | MSDS Previously Sent |

Note: Additional prefix letter stamped on product with heat number is for our inventory purposes only and not relevant to heat number

| Chemical Composition (Wt. %) | | | | | | | | | | |
|------------------------------|-------|-------|---------|------|-------|-------|------|------|------|------|
| C | Mn | P | S | Si | Ni | Cr | Mo | Cu | Al | V |
| 0.011 | 0.53 | 0.019 | 0.001 | 0.53 | 18.20 | 20.23 | 6.35 | 0.75 | 0.07 | 0.05 |
| Fe | N | Cb | H | | | | | | | |
| 52.89 | 0.199 | 0.03 | <0.0001 | | | | | | | |

| | |
|---|--------------|
| Brinell Hardness Results: | |
| Pcs | 3000 Kg Load |
| 1 | 197 |
| Other Testing or Inspections: | |
| Solution anneal at 2100 degrees F for 5.5 hours | |

Compliance Statements:

Note: The recording of false, fictitious, or fraudulent statements or entries on this document may be punishable as a felony under Federal Statute.

5 ✓
JG

Jerry Glessinger
Corporate Quality Assurance Manager
This certification has been created and reviewed in compliance with the Scot Forge QMS

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Heat # E0133-1

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|----------------------|
| Material Cert Number |
| 733270 w5523R0 |

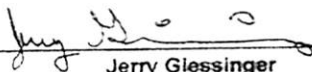
Compliance Statements:

We certify that the material listed was not processed with mercury bearing instruments and/or equipment which might cause contamination, nor was mercury handled in the immediate vicinity during the manufacturing process. We also certify that the material was not processed or cleaned with low melting point materials as alloying constituents, i.e. lead, zinc, cadmium, tin, antimony, bismuth, sulfur, or their compounds.

In accordance with the requirements of the Pressure Equipment Directive, all testing, inspection, and documentation is produced in accordance with EN 10204:2004 Type 3.1 and ISO 10474 Type 3.1.B

The products supplied are in compliance with the quantity and quality requirements of the purchase order and specifications noted. The test reports represent the actual attributes of the items furnished and the test results are in full compliance with all applicable specifications and order requirements.

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Jerry Glessinger
Corporate Quality Assurance Manager

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