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| AEROSPACE MATERIAL SPECIFICATION | AMS5662™ | REV. P |
| | Issued 1965-09 Reaffirmed 2009-06 Revised 2022-08 Superseding AMS5662N | |
| Nickel Alloy, Corrosion- and Heat-Resistant, Bars, Forgings, Rings, and Stock for Forgings and Rings 52.5Ni - 19Cr - 3.0Mo - 5.1Cb (Nb) - 0.90Ti - 0.50Al - 18Fe Consumable Electrode or Vacuum Induction Melted 1775 °F (968 °C) Solution Heat Treated, Precipitation-Hardened (Composition similar to UNS N07718) | | |

RATIONALE

AMS5662 is the result of a Five-Year Review and update of the specification. The revision updates the title to match the scope, clarifies sizes and size limits (1.1, 3.5.1.2, Tables 2 and 3), updates composition and reporting requirements (3.1, 3.1.1), updates cooling rate requirements (3.5.1.2), adds strain rate control (3.5.1.2.1.6), clarifies transverse testing requirement (3.5.1.2.1.4), updates allowable size range for testing (3.5.1.2.3.1), prohibits unauthorized exceptions (3.5.1.4 3.9, 4.4.1.1, 4.4.2, 5.2.1.1, 8.5), updates forging stock ordering options (4.4.3, 8.6), and allows prior revisions (8.4).

1. SCOPE

1.1 Form

This specification covers a corrosion- and heat-resistant nickel alloy in the form of bars, forgings, flash welded rings in the solution heat treated condition. Product covered by this specification is limited to 10.00 inches (254 mm) and under in nominal diameter or maximum cross-sectional dimension between parallel sides (thickness) and nominal cross sectional area of 78.54 in² (503 cm²) in cross-sectional area. Stock for forging, ring, or heading may be of any size.

1.2 Application

These products have been used typically for parts requiring high resistance to creep and stress-rupture up to 1300 °F (704 °C) and oxidation resistance up to 1800 °F (982 °C), particularly those parts which are formed or welded and then precipitation heat treated to develop required properties, but usage is not limited to such applications.

2. APPLICABLE DOCUMENTS

The issue of the following documents in effect on the date of the purchase order forms a part of this specification to the extent specified herein. The supplier may work to a subsequent revision of a document unless a specific document issue is specified. When the referenced document has been cancelled and no superseding document has been specified, the last published issue of that document shall apply.

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