



AEROSPACE MATERIAL SPECIFICATION

AMS5348™**REV. C**

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Stabilized	2017-04

Superseding AMS5348B

Steel Castings, Tubular, Centrifugal, Corrosion Resistant
15Cr - 4.6Ni - 0.22 (Cb+Ta) - 2.8Cu
Solution Heat Treated

RATIONALE

AMS5348C stabilizes this document because it contains mature technology that is not expected to change and thus no further revisions are anticipated.

STABILIZED NOTICE

AMS5348C has been declared "STABILIZED" by the SAE AMS F Corrosion Heat Resistant Alloys Committee. This document was stabilized because this document contains mature technology that is not expected to change and thus no further revisions are anticipated. Previously this document was non-current. The last technical update of this document occurred in January, 1985. Users of this document should refer to the cognizant engineering organization for disposition of any issues with reports/certifications to this specification; including exceptions listed on the certification.

NOTE: In many cases, the purchaser may represent a sub tier supplier and not the cognizant engineering organization.

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1. SCOPE:

1.1 Form:

This specification covers a corrosion-resistant steel in the form of tubular centrifugal castings.

1.2 Application:

Primarily for parts requiring good corrosion resistance and strength up to 600°F (315°C).

2. APPLICABLE DOCUMENTS:

The following publications form a part of this specification to the extent specified herein. The latest issue of Aerospace Materials Specifications shall apply. The applicable issue of other documents shall be as specified in AMS 2350.

2.1 SAE Publications:

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096.

2.1.1 Aerospace Material Specifications:

AMS 2350	Standards and Test Methods
AMS 2633	Ultrasonic Inspection, Centrifugally-Cast, Corrosion-Resistant Steel Tubular Cylinders
AMS 2635	Radiographic Inspection
AMS 2640	Magnetic Particle Inspection
AMS 2645	Fluorescent Penetrant Inspection
AMS 2694	Repair Welding of Aerospace Castings
AMS 2804	Identification, Castings

2.2 ASTM Publications:

Available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

ASTM A370	Mechanical Testing of Steel Products
ASTM E353	Chemical Analysis of Stainless, Heat-Resisting, Maraging, and Other Similar Chromium-Nickel-Iron Alloys
ASTM E446	Reference Radiographs for Steel Castings Up to 2 In. (51 mm) in Thickness

2.3 U.S. Government Publications:

Available from Commanding Officer, Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120.

2.3.1 Federal Standards:

Federal Test Methods Standard No. 151 Metals; Test Methods

2.3.2 Military Specifications:

MIL-C-6021 Castings, Classification and Inspection of
MIL-H-6875 Heat Treatment of Steel, Process for

2.3.3 Military Standards:

MIL-STD-794 Parts and Equipment, Procedures for Packaging and Packing of

3. TECHNICAL REQUIREMENTS:

3.1 Composition:

Shall conform to the following percentages by weight, determined by wet chemical methods in accordance with ASTM E353, by spectrographic methods in accordance with Federal Test Method Standard No. 151, Method 112, or by other analytical methods approved by purchaser:

	min		max
Carbon	--		0.05
Manganese	--		0.60
Silicon	0.50	-	1.00
Phosphorus	--		0.025
Sulfur	--		0.025
Chromium	14.00	-	15.50
Nickel	4.20	-	5.00
Columbium + Tantalum	0.15	-	0.30
Copper	2.50	-	3.20
Aluminum	--		0.05
Tin	--		0.02
Nitrogen	--		0.05

3.2 Condition:

Solution heat treated. Castings may be given two solution heat treatments, and shall be so treated when specified by purchaser.

3.3 Casting:

A melt shall be the metal poured from a single furnace charge into rotating molds.