AEROSPACE STANDARD

AS7467™ REV. C

Issued 1991-01
Reaffirmed 2006-05
Revised 2021-04

Superseding AS7497B

(R) Bolts and Screws, Nickel Alloy, UNS N07718 Tensile Strength 185 ksi Stress Rupture Rated Procurement Specification

FSC 5306

RATIONALE

AS6416 added, many paragraphs updated or deleted, specs updated, figures redrawn, notes updated, usage note added, table values rounded up or down.

1. SCOPE

1.1 Type

This procurement specification covers bolts and screws made from a corrosion and heat resistant, age hardenable nickel base alloy of the type identified under the Unified Numbering System as UNS N07718. The following specification designations and their properties are covered:

AS7467 185 ksi minimum ultimate tensile strength at room temperature
145 ksi minimum ultimate tensile strength at 1200 °F
100 ksi stress rupture strength at 1200 °F

AS7467-1 185 ksi minimum ultimate tensile strength at room temperature
111 ksi minimum ultimate shear strength at room temperature

1.2 Application

Primarily for aerospace propulsion systems bolt applications where a good combination of tensile strength, stress rupture strength, and resistance to relaxation is required for use up to approximately 1200 °F; also, where a good combination of tensile strength and shear strength is required.

1.3 Safety - Hazardous Materials

While the materials, methods, applications, and processes described or referenced in this specification may involve the use of hazardous materials, this specification does not address the hazards which may be involved in such use. It is the sole responsibility of the user to ensure familiarity with the safe and proper use of any hazardous materials and take necessary precautionary measures to ensure the health and safety of all personnel involved.

TO PLACE A DOCUMENT ORDER: **Tel: 877-606-7323 (inside USA and Canada)**
Tel: +1 724-776-4970 (outside USA)
Fax: 724-776-0790
Email: CustomerService@sae.org
SAE WEB ADDRESS: **http://www.sae.org**

For more information on this standard, visit
https://www.sae.org/standards/content/AS7467C/

2. REFERENCES

2.1 Applicable Documents

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

2.1.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

AMS2700	Passivation of Corrosion Resistant Steels
AMS2750	Pyrometry
AMS5662	Nickel Alloy, Corrosion and Heat-Resistant, Bars, 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-Hardenable
AS1132	Bolts, Screws, and Nuts - External Wrenching, UNJ Thread, Inch - Design Standard
AS3062	Bolts, Screws, and Studs, Screw Thread Requirements
AS3063	Bolts, Screws, and Studs, Geometric Control Requirements
AS6416	Bolts, Screws, Studs, and Nuts, Definitions for Design, Testing, and Procurement
AS8879	Screw Threads - UNJ Profile, Inch, Controlled Radius Root with Increased Minor Diameter

2.1.2 NAS Publications

Available from Aerospace Industries Association, 1000 Wilson Boulevard, Suite 1700, Arlington, VA 22209-3928, Tel: 703-358-1000, www.aia-aerospace.org.

NASM1312-6	Fastener Test Methods, Method 6, Hardness
NASM1312-8	Fastener Test Methods, Method 8, Tensile Strength
NASM1312-11	Fastener Test Methods, Method 10, Stress Rupture
NASM1312-13	Fastener Test Methods, Method 13, Double Shear Test
NASM1312-18	Fastener Test Methods, Method 18, Elevated Temperature Tensile Strength

2.1.3 ASTM Publications

Available from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959, Tel: 610-832-9585, www.astm.org.

ASTM A380	Practice for Cleaning and Descaling of Stainless Steel Parts
ASTM A967	Chemical Passivation Treatment for Stainless Steel
ASTM D3951	Standard Practice for Commercial Packaging

ASTM E8/E8M	Standard Test Methods for Tension Testing of Metallic Materials
ASTM E21	Elevated Temperature Tension Tests of Metallic Materials
ASTM E112	Determining Average Grain Size
ASTM E139	Conducting Creep, Creep-Rupture, and Stress-Rupture Tests of Metallic Materials
ASTM E140	Standard Hardness Conversion Tables for Metals, Relationship Among Brinell Hardness, Vickers Harness, Rockwell Hardness, Superficial Hardness, Knoop Hardness, and Scleroscope Hardness
ASTM E1417/E1417M	Standard Practice for Liquid Penetrant Testing

2.1.4 ASME Publications

Available from ASME, P.O. Box 2900, 22 Law Drive, Fairfield, NJ 07007-2900, Tel: 800-843-2763 (U.S./Canada), 001-800-843-2763 (Mexico), 973-882-1170 (outside North America), www.asme.org.

ASME B46.1	Surface Texture (Surface Roughness, Waviness, and Lay)

2.2 Definitions

Refer to AS6416.

2.3 Unit Symbols and Abbreviations

°C	Degree, Celsius
°F	Degree, Fahrenheit
HRC	Hardness Rockwell C scale
lbf	Pounds force
%	Percent (1% = 1/100)
sp gr	Specific gravity
ksi	Kips (1000 pounds) per square inch

3. TECHNICAL REQUIREMENTS

3.1 Material

Shall be AMS5662 heading stock.

3.2 Design

Finished (completely manufactured) parts shall conform to the following requirements:

3.2.1 Dimensions

The dimensions shall conform to the part drawing unless otherwise specified. Dimensions apply after plating but before coating lubrication.