



AEROSPACE STANDARD	AS7207™	REV. A
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Spring Pins, Tubular, Slotted Corrosion and Moderate Heat Resistant Steel Procurement Specification for FSC 5315		

RATIONALE

This document has been determined to contain basic and stable technology which is not dynamic in nature.

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1. SCOPE:

1.1 Type:

This procurement specification covers tubular-shaped, slotted spring pins made of a corrosion and moderate heat resistant, martensitic iron base alloy of the type identified under the Unified Numbering System as UNS S42000 and heat treated to permit flexure when inserted into a hole.

1.2 Application:

Primarily to provide a spring pin with sufficient flexure to remain tight against the surface of a recommended hole size into which the pin has been inserted.

1.3 Dimensions and Tolerances:

Unless otherwise specified herein, dimensions and tolerances are in inches.

2. REFERENCES:

2.1 Applicable Documents:

The following publications form a part of this specification to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other documents shall be the issue in effect on the date of the purchase order.

2.1.1 SAE Publications: Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

2.1.1.1 Aerospace Material Specifications:

- AMS 2371 Quality Assurance Sampling of Corrosion and Heat Resistant Steels and Alloys, Wrought Products and Forging Stock
- AMS 5506 Steel Sheet, Strip, and Plate, Corrosion and Moderate Heat Resistant, 13Cr (0.30 - 0.40C) (SAE 51420)

2.1.1.2 SAE Standard:

- J496 Spring Type Straight Pins

2.1.2 U.S. Government Publications: Available from Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

2.1.2.1 Federal Specification:

- QQ-P-35 Passivation Treatments for Corrosion Resisting Steel

2.1.2.2 Military Standards:

- MIL-STD-2073-1 DoD Materiel, Procedures for Development and Application of Packaging Requirements
- MS171401 thru MS171900 Pin - Spring, Corrosion Resistant Steel

2.1.3 ASTM Publications: Available from ASTM, 1916 Race Street, Philadelphia, PA 19103-1187.

- ASTM E 18 Rockwell Hardness and Rockwell Superficial Hardness of Metallic Materials

2.1.4 ANSI Publication: Available from American National Standards Institute, 11 West 42nd Street, 13th Floor, New York, NY 10036.

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

2.2 Definitions:

DEFECTIVE: A unit of product which contains one or more defects.

PRODUCTION INSPECTION LOT: Shall be all finished parts of the same part number, made from a single heat of alloy, heat treated at the same time to the same specified condition, produced as one continuous run, and submitted for vendor's inspection at the same time.

2.3 Unit Symbols:

- ° - degree, angular
- °F - degree, Fahrenheit
- % - percent (1% = 1/100)
- g - gram
- cm³ - cubic centimeter
- lbf - pound-force
- sp gr - specific gravity

3. TECHNICAL REQUIREMENTS:

3.1 Material:

3.1.1 Chemical Composition: Shall conform to AMS 5506 except the percentage by weight for carbon content may be as low as 0.22%.

3.1.2 Condition: Steel strip or flat wire, annealed.

3.2 Design:

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

3.2.1 Design and Dimensions: Unless otherwise specified on the part drawing, spring pins furnished to this specification shall conform to the design, shape, dimensions, and other requirements specified on MS171401 through MS171900.

3.2.2 Surface Roughness: Surface roughness of finished parts shall conform to the requirements as specified on the part drawing, determined in accordance with ANSI/ASME B46.1.

3.2.3 Chamfer: Pins shall be chamfered at both ends as specified on the part drawing.

3.2.4 Average Diameter: Shall be as shown on the drawing, determined by averaging three diametral measurements made at the angular locations, with respect to the slot, shown on the drawing. Measurements shall be made at mid-length of pins 1 inch or less in length and at least 0.500 inch from the end of pins over 1 inch in length.

3.2.5 Maximum Diameter: Shall be not greater than that shown on the drawing, determined by means of a GO ring gage having length of hole not greater than 0.125 inch and a maximum diameter as shown on the drawing within a tolerance of -0.0001 inch.