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Rivets, Solid, UNS N04400, Corrosion Resistant 67Ni - 31Cu Procurement Specification for		
FSC 5320		

RATIONALE

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

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Documents

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1. SCOPE:

1.1 Type:

This procurement specification covers aircraft-quality solid rivets made from a corrosion resistant nickel-copper alloy of the type identified under the Unified Numbering System as UNS N04400 and of 46 ksi minimum shear strength.

1.2 Application:

Primarily for use as a fastening device where corrosion resistance up to approximately 800 °F is required and where ease of forming full heads are essential during riveting operation. The riveting operation shall be done by squeezing, using steadily applied pneumatic or hydraulic pressure; hand peening is not permitted.

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.

AMS 2269 Chemical Check Analysis Limits, Wrought Nickel Alloys and Cobalt Alloys

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

MIL-STD-1312 Fasteners, Test Methods

MIL-STD-2073-1 DoD Materiel, Procedures for Development and Application of Packaging Requirements

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

ASTM E 76 Chemical Analysis of Nickel-Copper Alloys

2.2 Definitions:

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

PRODUCTION INSPECTION LOT: A 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, angle

°F degree, Fahrenheit

ksi kips (1000 pounds) per square inch

lb pound, weight (mass)

% percent (1% = 1/100)

3. TECHNICAL REQUIREMENTS:

3.1 Material:

The rivets shall be made from material conforming to the following:

3.1.1 Composition: Shall conform to the percentages by weight specified in Table 1, determined by wet chemical methods in accordance with ASTM E 76, spectrochemical methods, or by other analytical methods acceptable to the purchaser.

3.1.1.1 Check Analysis: Composition variations shall meet the requirements of AMS 2269.

3.1.2 Condition: Cold drawn wire for heading.

3.2 Design:

Rivet design shall be as specified on the applicable drawing.