



AEROSPACE STANDARD

AS1553™

REV. B

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Superseding AS1553A

Performance Standard for
Tube Support Loop-Cushioned Clamp

RATIONALE

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

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1. SCOPE:

This standard covers heat and corrosion resistant steel loop clamps with a woven steel wire cushion that is attached to the clamp by spot welding and is intended for use in applications up to 1200 °F (649 °C).

1.1 Purpose:

To establish the performance requirements for loop clamps with a woven steel wire cushion.

2. 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 SAE Publications:

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

AMS 5510	Sheet, Strip, and Plate - 18Cr, 10Ni, 0.40Ti
AMS 5697	Wire - 19Cr, 9Ni Braiding
AS3268	Sleeve Half-Reinforcing, Tube
AS3269	Sleeve Half-Reinforcing, Tube

2.2 U.S. Government Publications:

Available from DODSSP, Subscription Services Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

MIL-H-5606 Hydraulic Fluid, Petroleum Base, Aircraft, Missile and Ordnance

MIL-T-6845 Tubing, Steel, Corrosion-Resisting (304), Aerospace Vehicle Hydraulic System, 1/8 Hard Condition

MIL-STD-105 Sampling Procedures and Tables for Inspection by Attributes

MIL-STD-810 Environmental Test Methods

3. GENERAL REQUIREMENTS:

3.1 Materials:

3.1.1 Clamp Material: Bands for clamps shall be formed from corrosion and heat resistant steel conforming to AMS 5510.

3.1.2 Cushion Material: Cushions shall be braided or woven from 0.005 to 0.010 wire conforming to AMS 5697 to form a liner meeting the dimensions specified on the drawing.

3.2 Design and Construction:

3.2.1 Sizes and Dimensions: The sizes and dimensions shall be as specified on the applicable drawing. Clamps shall be formed through a minimum of 270° of the mandrel circumference. Normal spring back of the clamp from this formed condition will be acceptable.

3.2.2 Construction: Woven cushion shall be permanently attached to clamp by spot welding.

3.3 Finish:

All surfaces shall have a smooth finish, free from burrs and sharp edges. The insides of the clamp band shall be rolled or provided with a radius to eliminate sharp edges which would cut the cushion or mark tubing.

3.4 Identification of Products:

Each clamp shall be marked in accordance with the requirements of the drawing.

3.5 Performance:

The clamps shall meet the performance requirements specified in Section 4.