AEROSPACE STANDARD

AS3551™ **REV. A**

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Superseding AS3551

(R) O-Ring Molded from AMS7272 Butadiene-Acrylonitrile Rubber (NBR)

RATIONALE

This standard was transferred from E-25 to A-6 and has been revised to make its format consistent with other A-6 O-ring part standards.

1. SCOPE

This standard establishes the dimensional and visual quality requirements, lot requirements and packaging and labeling requirements for O-rings molded from AMS7272 NBR rubber. It shall be used for procurement purposes.

1.1 Application

These O-rings have been used typically as sealing rings in contact with diester synthetic lubricants in service up to 275 °F (135 °C), but usage is not limited to such applications. These O-rings may not be suitable for use in high temperature stabilized, “HTS” engine oils (those conforming to MIL-PRF-23699, Class HTS), MIL-PRF-7808, Grade 4 and AS5780, (Class HPC).

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 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.

AMS2817	Packaging and Identification of Molded Elastomeric Seals and Sealing Components
AMS7272	Rubber: Butadiene-Acrylonitrile (NBR) Synthetic Lubricant Resistant 65 – 75 Hardness For Seals in Synthetic Lubricant Systems
AS4716	Gland Design, O-ring and Other Seals
AS5316	Storage of Elastomer Seals and Seal Assemblies Which Include an Elastomer Element Prior to Hardware Assembly
AS5780	Specification for Aero and Aero-Derived Gas Turbine Engine Lubricants

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

For more information on this standard, visit
https://www.sae.org/standards/content/AS3551A/

AS5857 Gland Design, O-ring and Other Elastomeric Seals, Static Applications

2.2 U.S. Government Publications

Copies of these documents are available online at https://quicksearch.dla.mil.

MIL-PRF-7808 Performance Specification, Lubricating Oil, Aircraft Turbine Engine, Synthetic Base

MIL-PRF-23699 Performance Specification, Lubricating Oil, Aircraft Turbine Engine, Synthetic Base, Nato Code Numbers: O-152, O-154, O-156, And O-167

2.3 ASQ Publications

Available from American Society for Quality, 600 North Plankinton Avenue, Milwaukee, WI 53203, Tel: 800-248-1946 (United States or Canada), 001-800-514-1564 (Mexico), or +1-414-272-8575 (all other locations), www.asq.org.

ANSI/ASQ Z1.4 Sampling Procedures and Tables for Inspection by Attributes

2.4 ISO Publications

Copies of these documents are available online at http://webstore.ansi.org/.

ISO 3601-1 Fluid Power Systems - O-rings - Part 1: Inside Diameters, Cross-Sections, Tolerances and Designation Codes

ISO 3601-3 Fluid Power Systems - O-rings - Part 3: Quality Acceptance Criteria

2.5 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 Y14.5 Dimensioning and Tolerancing

3. REQUIREMENTS

3.1 Dimensional

See Figure 1 and Table 1 for dimensions of standard size O-rings and Table 2 for boss O-ring sizes for MS33649 ports. Table 3 lists the appropriate O-ring sizes for AS1300 ports.

NOTE: Dimensions and tolerancing per ASME Y14.5.

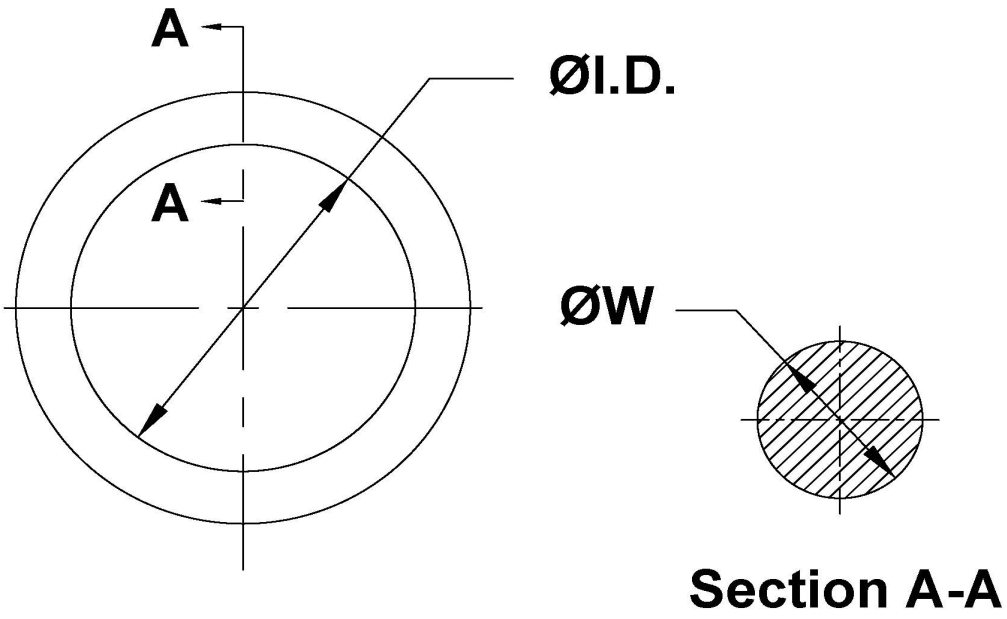

Figure 1 - O-Ring dimensions - width (ØW) and inside diameter (ØID)