



SURFACE VEHICLE STANDARD

J515™

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Superseding J515 NOV2015

Specification for O-Ring Materials Used with Hydraulic Connectors

RATIONALE

Document is up for Five-Year Review and several items were noted where “SAE” is needed for clarification of parts used and part numbers.

FOREWORD

SAE J515 has been revised to provide O-ring specifications for metric stud ends covered in ISO 6149 and four screw flange fittings covered in SAE J518 (ISO 6162-1 and ISO 6162-2). Ordering instructions and a part identification number (PIN) have also been added to the standard.

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1. SCOPE

SAE J515 covers the specification for hydraulic O-ring material and properties and sizes applicable to face seal fittings, metric and inch stud ends, and four-bolt flange fittings. The standard includes a size code to allow industry and government agencies to order O-rings with a coded part number.

2. REFERENCES

2.1 Applicable Documents

The following publications form a part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue of SAE publications shall apply.

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.

AS568	Aerospace Size Standard for O-Rings
SAE J200	Classification System for Rubber Materials
SAE J518	Hydraulic Flanged Tube, Pipe, and Hose Connections, Four-Bolt Split Flange Type
SAE J1453-2	Specification for O-Ring Face Seal Connectors: Part 2 - Requirements, Dimensions, and Tests for Steel Unions, Bulkheads, Swivels, Braze Sleeves, Braze-on Tube Ends, Caps, and Connectors with ISO 6149-2 Metric Stud Ends and ISO 6162 Four-Bolt Flange Heads
SAE J1453-3	Specification for O-Ring Face Seal Connectors: Part 3 - Requirements, Dimensions, and Tests for Steel Unions, Bulkheads, Swivels, Braze Sleeves, Connectors, Caps, and Connectors with SAE J1926-2 Inch Stud Ends
SAE J1926-2	Connections for General Use and Fluid Power - Ports and Stud Ends with ASME B1.1 Threads and O-Ring Sealing - Part 2: Heavy-Duty (S Series) Stud Ends
SAE J1926-3	Connections for General Use and Fluid Power - Ports and Stud Ends with ASME B1.1 Threads and O-Ring Sealing - Part 3: Light-Duty (L Series) Stud Ends

2.1.2 ISO Publications

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

ISO 3601-1	Fluid Systems - O-Rings - Part 1: Inside Diameters, Cross Sections, Tolerances, and Size Identification
ISO 3601-3	Fluid Systems - Sealing Devices - O-Rings - Part 3: Quality Acceptance Criteria
ISO 5598	Fluid Power Systems and Components - Vocabulary
ISO 6149-2	Connections for Fluid Power and General Use - Ports and Stud Ends with ISO 261 Metric Threads and O-Ring Sealing - Part 2: Heavy Duty (S Series) Stud Ends - Dimensions, Design, Test Methods and Requirements
ISO 6149-3	Connections for Fluid Power and General Use - Ports and Stud Ends with ISO 261 Threads and O-Ring Sealing - Part 3: Light Duty (L Series) Stud Ends - Dimensions, Design, Test Methods and Requirements
ISO 6162-1	Hydraulic Fluid Power - Flange Connectors with Split or One-Piece Flange Clamps and Metric or Inch Screws - Part 1: Flange Connectors for Use at Pressures of 3.5 MPa (35 bar) to 35 MPa (350 bar), DN 13 to DN 127