



SURFACE VEHICLE STANDARD

SAE J1453-3 JUN2012

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Superseding J1453-3 AUG2009

(R) Specification for O-Ring Face Seal Connectors: Part 3 - Requirements, Dimensions, and Tests for Steel Unions, Bulkheads, Swivels, Braze Sleeves, Caps, and Connectors with SAE J1926-2 Inch Stud Ends

RATIONALE

This revision of the standard adds size -32, corrects Table 2, adds the metric hex as the preferred option for new design, standardizes the nomenclature used in the tables and reorganizes tables from landscape to portrait mode.

In an effort to standardize within a global market and ensuring that companies can remain competitive in an international market, it is the intent to convert to metric hex sizes which will:

- lead to one global system
- guide users to preferred system
- reduce complexity
- eliminate duplications

The optional inch hexes now contain the note "NOT TO BE USED FOR NEW DESIGN" in accordance with the Metric Hex Resolution approved during the March 2008 FCCTC meeting.

INCH HEX DIMENSIONS OF PARTS WILL BE MOVED FROM THE MAIN DOCUMENT TO AN INFORMATIVE ANNEX AFTER 2013 AND ONLY METRIC HEX DIMENSIONS OF PARTS WILL BE INCLUDED IN THE MAIN DOCUMENT

FOREWORD

The JUN2002 edition of SAE J1453 was published as a single document covering the requirements for inch O-ring face seal connectors with SAE J1926-2 inch stud ends. In 1995 ISO 8434-3 was published covering the requirements for O-ring face seal connectors to ISO 6149-2 metric stud ends. The February 2007 revision of SAE J1453 adopted the parts covered within ISO 8434-3 and the rationalized dimensions from ISO 8434-3 for both the inch and metric stud end face seal connectors. SAE J1453, since February 2007, has been organized into three sections as follows:

1. SAE J1453-1 - Specifications for O-ring Face Seal Connectors: Part 1 - Tube Connection Details and Common Requirements for Performance and Test
2. SAE J1453-2 - Specifications for O-ring Face Seal Connectors: Part 2 - Requirements, Dimensions and Tests for Steel Unions, Bulkheads, Swivels, Braze Sleeves, Caps, and Connectors with ISO 6149-2 Metric Stud Ends
3. SAE J1453-3 - Specifications for O-ring Face Seal Connectors: Part 3 - Requirements, Dimensions and Tests for Steel Unions, Bulkheads, Swivels, Braze Sleeves, Caps, and Connectors with SAE J1926-2, Inch Stud Ends

SAE J1453-2 parts are technically equivalent to ISO 8434-3 parts; SAE J1453-3 parts are technically equivalent to SAE J1453 JUN2002 parts, with the exception that, starting with the February 2007 edition, it includes the half-dovetail as the standard groove design. Parts supplied to SAE J1453 JUN2002 shall now be supplied to SAE J1453-3.

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A typical O-ring face seal connection is shown in Figure 1, and typical tube and hose connections are shown in Figure 2.

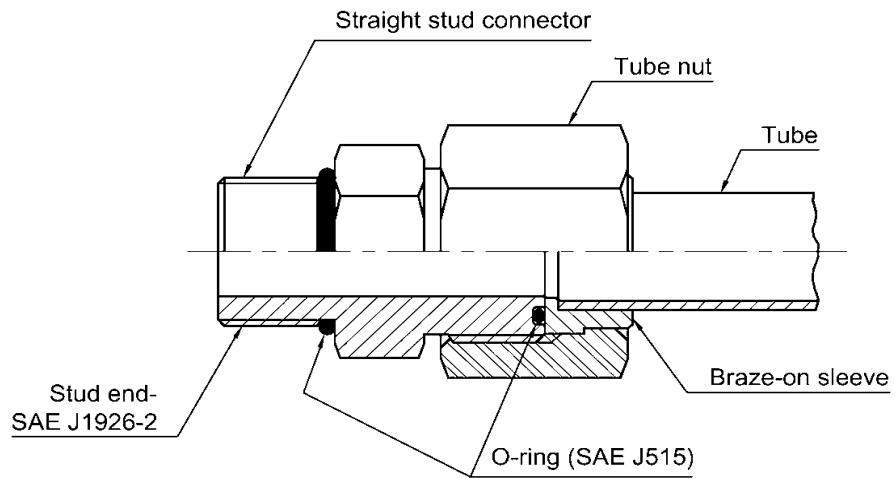


FIGURE 1 - TYPICAL REPRESENTATION OF O-RING FACE SEAL (ORFS) CONNECTION
(SEE SAE J1453-2 FOR ISO 6149-2 METRIC STUD ENDS)

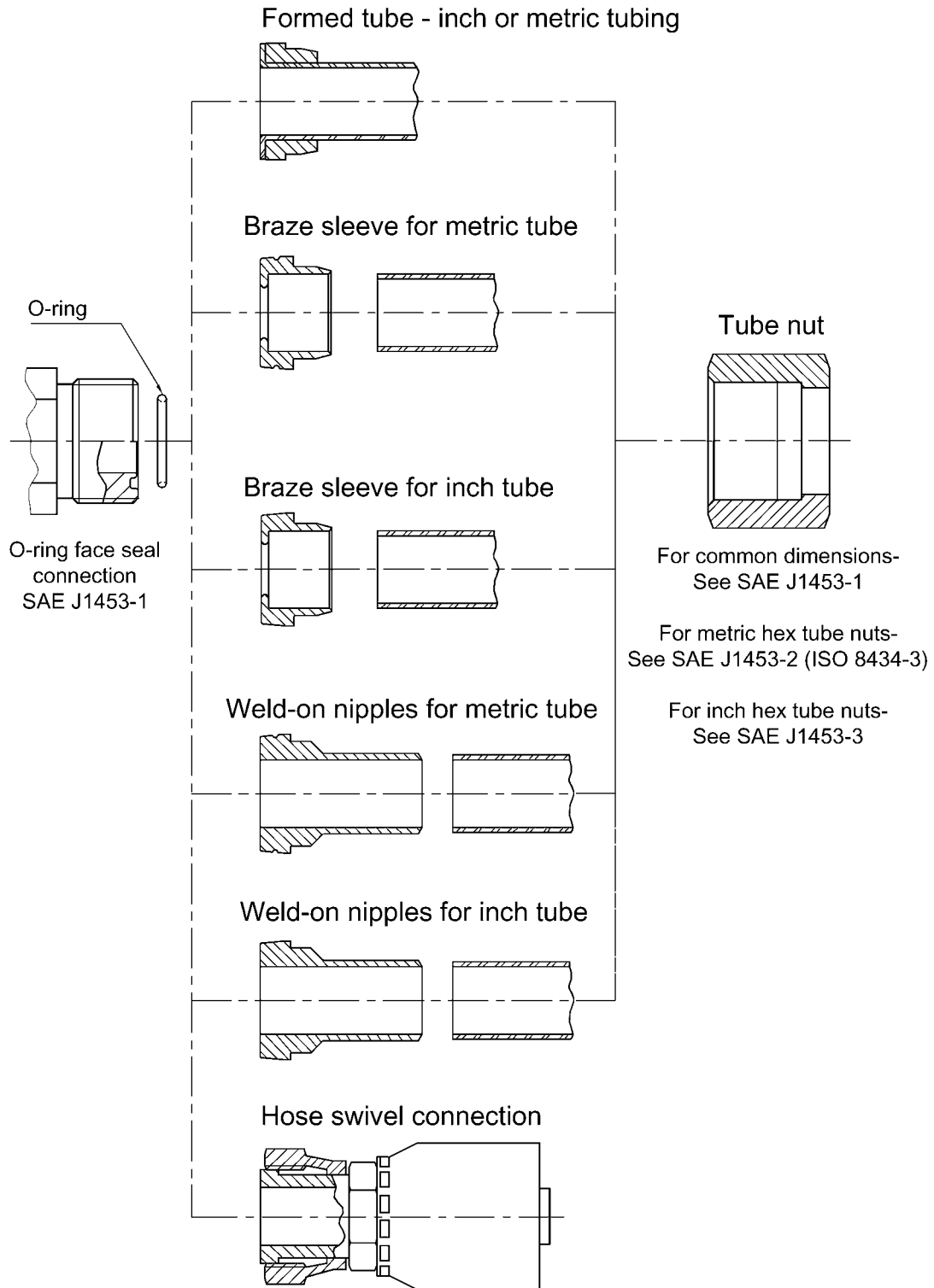


FIGURE 2 - TYPICAL O-RING FACE SEAL CONNECTION TO INCH OR METRIC TUBE OR HOSE