



# SURFACE VEHICLE STANDARD

J524™

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Superseding J524 JUL2016

Seamless Low-Carbon Steel Tubing Annealed for Bending and Flaring

## RATIONALE

The technical report covers technology, products, or processes which are mature and not likely to change in the foreseeable future.

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Documents

Standard, visit Sharing Hub

## 1. SCOPE

This SAE Standard covers cold drawn and annealed seamless low-carbon steel pressure tubing intended for use as hydraulic lines and in other applications requiring tubing of a quality suitable for flaring and bending.

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

- Lead to one global system
- Guide users to preferred system
- Reduce complexity
- Eliminate inventory duplications

## 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 version 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](http://www.sae.org).

SAE J409      Product Analysis - Permissible Variations from Specified Chemical Analysis of a Heat or Cast of Steel

SAE J1677      Tests and Procedures for Steel and Copper Nickel Tubing

### 2.2 Related Publications

The following publications are provided for information purposes only and are not a required part of this SAE Technical Report.

#### 2.2.1 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](http://www.sae.org).

SAE J514      Hydraulic Tube Fittings

SAE J533      Flares for Tubing

SAE J1065      Nominal Reference Working Pressures for Steel Hydraulic Tubing

SAE J1453-1      Specification for O-Ring Face Seal Connectors: Part 1 – Tube Connection Details and Common Requirements for Performance and Tests

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 4-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, Caps, and Connectors with SAE J1926-2 Inch Stud Ends

SAE J2551-1      Recommended Practices for Fluid Conductor Carbon, Alloy and High Strength Low Alloy Steel Tubing Applications-Part 1: Design and Fabrication

SAE J2551-2      Recommended Practices for Fluid Conductor Carbon, Alloy and High Strength Low Alloy Steel Tubing Applications-Part 2: General Specifications and Performance Requirements

SAE J2551-3      Recommended Practice for Fluid Conductor Carbon, Alloy and High Strength Low Alloy Steel Tubing Applications-Part 3: Procurement

SAE J2592      Carbon Steel Tubing for General Use - Understanding Nondestructive Testing for Carbon Steel Tubing