



SURFACE VEHICLE STANDARD

J773™

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Conical Spring Washers

RATIONALE

This SAE Standard covers products which are mature and not likely to change in the foreseeable future.

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1. Scope—This SAE Standard covers dimensional, material, and general specifications and methods of test for two types of general purpose conical spring washers, designated type L and type H, for use as loose washers over screws and bolts, and also for use as pre-assembled washers in screw and washer assemblies.

1.1 Both the type L and type H washers are available in three washer series (narrow, regular and wide), having varied proportions designed to fulfill specific application requirements for load distribution.

1.2 Where so specified by the user, washers shall be supplied with peripheral teeth.

1.3 All sizes and types of washers specified in this standard are not necessarily stock production items. Users should consult with manufacturers concerning availability.

2. References

2.1 Applicable Publication—The following publication forms a part of the specification to the extent specified herein. Unless otherwise indicated the latest revision of SAE publications shall apply.

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

SAEJ429—Mechanical and Material Requirements for Externally Threaded Fasteners

3. Designation—Washers shall be specified or designated as shown in the following example:

Washer, Conical, ½, SAE Type L, Wide

4. Use and Application—Type L washers are intended for use with screws and bolts equivalent to SAE Grade 1 and 2. Type H washers are intended for use with SAE Grade 5 or equivalent bolts or screws (SAE J429)

4.1 The desired installed position of this washer is as near flat as possible. The flattening will occur at a load equal to approximately 27 500 bolt psi for the Type L washer and 60 000 bolt psi for the Type H washer. The spring return will vary due to the compromises in washer diameter, thickness, and tolerances, which have been made to maintain this standard in a commercial category (see 8.1).