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AEROSPACE SERIES

Washers for unified hexagons for aircraft (primarily for packing purposes)

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Summary of pages

This document comprises a front cover, an inside front cover, pages i to ii, pages 1 to 4, an inside back cover and a back cover.

Foreword

Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 31 January 2016. It was prepared by Technical Committee ACE/12, *Aerospace fasteners and fastening*. A list of organizations represented on this committee can be obtained on request to its secretary.

Supersession

This British Standard supersedes BS SP 122 to 125:1958+A2:2011, which is withdrawn.

Information about this document

This is a full revision of the standard, and introduces the following principal change:

- a protective finish option has been added to aluminium washers SP124 and SP125.

Use of this document

It has been assumed in the preparation of this British Standard that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is "shall".

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

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1 Scope

This British Standard specifies the materials, dimensions and finish of mild steel, corrosion-resisting steel and aluminium alloy washers suitable for use with bolts with Unified hexagons for aircraft. The washers are intended primarily for use for packing purposes.

Provision has been made for oversize bore washers for use when used in conjunction with oversize plain shank bolts, with the oversize washer being fitted onto the bolt head side of the clamped joint.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS EN 2133, *Aerospace series – Cadmium plating of steels with specified tensile strength ≤ 1 450 MPa, copper, copper alloys and nickel alloy*

SAE AMS 03-19, *Electro-deposition of cadmium*

SAE AMS 03-25, *Sulfuric acid anodizing of aluminium and aluminium alloys*

3 Materials

The washers shall be manufactured from the appropriate material specified in Table 1.

4 Dimensions

The washers shall conform to the physical form shown in Figure 1 with dimension values as stated in Table 2.

NOTE The figures in British units are to be regarded as the standard.

5 Protective finish

SP122 washers shall be cadmium plated in accordance with SAE AMS 03-19 or BS EN 2133.

SP124 and SP125 washers have an option of sulfuric acid anodized finish in accordance with SAE AMS 03-25; to specify this option, code "A" shall be added to the part number, as shown in Clause **7**.

CAUTION. SP122 washers have cadmium as a plating material, which has been restricted and/or banned for use in many countries owing to environmental and health concerns; they should not be used in new product designs. Local officials should be consulted about any concerns on using cadmium plated parts.

6 Freedom from defects

a) The washers shall be free from surface defects, scale, pitting and burrs. They shall be flat, within a tolerance of .005 in., with parallel faces.

b) Washers may be rejected at any time for faults in, or revealed by, manufacture, although they have been made from material passed previously for chemical composition and mechanical properties.

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