D.T.D.5182

Ministry of Defence
Defence Procurement Agency, ADRP2
Abbey Wood
Bristol
BS34 8JH

OBSOLESCENCE NOTICE

All DTD specifications were declared obsolescent from 1st April 1999. All DTD 900 series approvals also lapsed at that time. The standards will no longer be updated but will be retained as obsolescent documents to provide for the servicing of existing equipment.

Further Guidance

The aim in declaring the specifications obsolescent is to recognise that the documents are not being updated and thus should be used with care by both purchaser and supplier. For example, a specification could contain valid technical information but may also contain type approval clauses that contradict procurement policy and/or use materials that do not comply with environmental legislation. The obsolescent specification can still be used as a basis for a purchase provided that the supplier and purchaser agree suitable changes to the specification within the purchase order/contract.

For the DTD 900 system, each specification has provided an MoD approved material and process. For these items, the declaration of obsolescence will constitute the termination of both the extant MoD approval and the continuing MoD assessment that had underpinned those approvals. Again, the technical content of the document remains valid and can be used by both purchaser and supplier as a basis for a contract but an acceptable (to the parties) approval/assessment procedure would be required.

Aircraft Material Specification

BOLT, DOUBLE HEXAGON, EXTERNAL WRENCHING-180,000 LBF/IN²

NOTE. This specification is one of a series issued by the Ministry of Aviation, either to meet a limited requirement not covered by any existing British Standard for aircraft material or to serve as a basis for inspection of materials the properties and uses of which are not sufficiently developed to warrant submission to the British Standards Institution for standardisation.

Foreword

There has been, for some time, a requirement for aircraft bolts of British manufacture, which would be completely interchangeable, both dimensionally and mechanically, with bolts of American manufacture conforming to the American Military Standard MS 21250, which invokes the American Military Specification MIL-B-883l(ASG) as a procurement specification.

Since MS 21250 and MIL-B-883l(ASG) require conformance to American materials specifications and American process and inspection procedures, it is difficult to use them in the United Kingdom without some further documentation permitting the alternative use of established British materials and procedures.

To permit the British practices to be used British Standard A.228* has been issued to provide dimensional control; it will invoke this D.T.D. specification as the procurement document.

This D.T.D. specification states in Clause C where British practices are permitted as alternatives to the requirement as laid down in American Military Specification MIL-B-8831(ASG). Copies of MIL-B-883l(ASG) may be obtained from the Trade Reference Library, Embassy of the United States of America, Grosvenor Square, London, W.1; the Bureau of Naval Weapons, Navy Department, Washington 25, D.C. (attention RAAE-3434), or the Naval Air Material Center, Philadelphia 12, Pennsylvania (attention XM-712).

Bolts manufactured in accordance with the requirements of MS 21250 or B.S. A.228 are dimensionally and functionally interchangeable.

A. Scope

This specification covers the material, method of manufacture, testing, approval and inspection of bolts conforming to British Standard A.228.

B. Requirements

The bolts shall satisfy the requirements of the American Military Specification MIL-R883l(ASG) dated 23rd November, 1960, except for the alternatives listed in Clause C.

C. Alternatives

NOTE: The paragraph numbers given below are those of Specification MIL-B-883l(ASG).

Para. 3.1 The requirement for the bolt to be listed on the American Qualified Products List is not applicable. The bolt manufacturer shall obtain approval from the Approval Authority, which in the case of bolts used on aircraft subject to British civil or military requirements shall be the Air Registration Board or the Ministry of Aviation, as appropriate.

Para. 3.3.1 British Standard A.228 falls within the dimensional requirements of MS 21250, and shall be used in its place wherever MS 21250 is referred to in MIL-B-8831(ASG).

Para. 3.6 Established heat treatment practices which are to the satisfaction of the Inspecting Authority are acceptable alternatives to those specified in Specification MIL-H-6875.

Para. 3.7 Cadmium plating and stress relieving in accordance with Specification D.T.D. 904 are acceptable alternatives to plating in accordance with type II class 3 of Specification QQ-P-416 and the stress relieving procedure specified.

Para. 3.10 The MS 21250 part number is not applicable. Each bolt shall be marked with the appropriate part number specified in B.S. A.228.

Para. 3.10.1 'D.T.D.' shall be read for 'MIL'.

Para. 4.1 'Inspecting Authority' shall be read for 'Government' or 'Government Inspector' wherever these terms appear in MIL-B-8831(ASG).

Para. 4.3.1 The final sentence shall read: 'Samples shall be identified as required and the Inspecting Authority notified before testing is commenced'.

Para. 4.3.2.1 Add the following sentence: 'The test report shall be certified by the manufacturer's Chief Inspector and countersigned by the Inspecting Authority'

Para. 4.4.1.1 'British Standard part number' shall be read instead of 'MS part number'.

Para. 4.5.1.1 Defence Specification DEF-131A is an acceptable alternative to Standard MIL-STD-105.

Para. 4.5.2.2.2.1 Magnetic particle inspection techniques in accordance with D.G.I. Technical Regulation T/EXT/7 in conjunction with the requirements of A.I.D. Inspection Instruction Av.P.4089 D/481 and Civil Aircraft Inspection Procedure BL/8-5 are acceptable alternatives to those specified in MIL-I-6868.

B.S A.228: STEEL DOUBLE HEXAGON HEAD BOLTS (180,000 ibf/in^2).

Para. 4.5.3.2.1.2 Tensile test methods specified in B.S. A.4 in accordance with A.I.D. Inspection Instruction Av. P.4089 D/441 and Civil Aircraft Inspection Procedure BL/10-3 may be used instead of those specified in Federal Test Method Standard No. 151.

Para.4.5.3.2.2 Graphite petrolatum anti-seize grease to D.T.D. 392 is an acceptable alternative to that specified in MIL-T-5544.

Para. 5 The requirements of Defence Specification DEF-1234 for packaging and labelling shall apply, instead of those specified.

Para. 6.3 The requirements of this paragraph are not applicable. Details of the Approval Authority for bolts manufactured in accordance with this specification are given in the comments on Para. 3.1.

Approved for issue,

E. W. RUSSELL,

Director of Materials and Structures Research and Development.

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