

INCH-POUND

MIL-B-3990D
AMENDMENT 3
21 August 1991
SUPERSEDING
AMENDMENT 2
21 December 1989

MILITARY SPECIFICATION

BEARINGS, ROLLER, NEEDLE, AIRFRAME, ANTIFRICTION, INCH

This amendment forms a part of MIL-B-3990D, dated 8 August 1980, and is approved for use by all Departments and Agencies of the Department of Defense.

PAGE 1

1.2, Type VII: Delete and substitute:

"Bearing Roller, Needle, Track Roller, Integral Stud, Antifriction, Inch (MS21432) (Inactive for new design)."

"Bearing, Roller, Needle, Track Roller, Crown Radiused O.D., Integral Stud, Type VII, Antifriction, Inch (MS21447)."

Delete and substitute:

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commanding Officer, Naval Air Engineering Center, SESD (Code 53), Lakehurst, NJ 08733-5100, by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

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Add:

"3.1.1 Product change. Any change in product design, including raceway geometry or dimensions, rolling element dimensions, rolling element quantity, seals, materials or plant location shall be reported to the qualifying activity and will require requalification of the product to an extent determined by the qualifying activity. Any other specific changes which must be brought to the qualifying activity's attention will be identified in the qualification notification letter.

AMSC N/A

FSC 3110

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

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3.1.2 Product manufacture. The bearing manufacturer shall be capable of performing the preponderance of manufacturing operations in-house, but may subcontract these operations at its option. Component inspection shall be performed at the plant listed on the Qualified Products List. If manufacturing operations are performed in more than one plant, the manufacturer's additional plant(s) shall be reported to the qualifying activity and will be listed accordingly on the QPL. The manufacturer is responsible for meeting all requirements of the specification and for the quality of the end product, whether it is manufactured totally in-house or some of the operations are performed by a subcontractor. Inherent in the responsibility for the end product is the responsibility to verify that the subcontractor's processes meet specification requirements. A change in subcontractor need not be reported to the qualifying activity unless specifically identified in the qualification notification letter. (NOTE: Bearings partly or completely manufactured in foreign countries shall be subject to the laws and procurement regulations pertaining to acquisition of foreign made products.)"

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3.4.6, delete "specified on the MS standards" and substitute "conforming to MIL-G-81322 or MIL-G-23827 so that at least 80% of the bearing void shall be filled."

3.5.3, line 2: Delete type "II."

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After paragraph 3.9, insert:

"3.10 MS sheets. The individual item requirements shall be as specified herein and in accordance with the applicable MS sheet. In the event of any conflict between the requirements of this specification and the specification sheet, the latter shall govern."

Delete paragraph 4.1 and substitute:

"4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements (examinations and tests) as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in this specification where such inspections are deemed necessary to ensure supplies and services conform to prescribed requirements."

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4.1.1 Responsibility for compliance. All items shall meet all requirements of Sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operations, is an acceptable practice to ascertain conformance to requirements, however, this does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material."

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*Table II, type VI, small size, delete "116" and substitute with "-106".

*Table II, type VII delete "-2, -4, -6" for small, medium; and large size, and substitute with "-4, -6, -8" respectively.

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Paragraph 6.3: Delete "...the Commander, Aeronautical Systems Division, Attn: ENFEM, Wright-Patterson AFB, OH 45433, and information..." and substitute "...: Commander, Naval Avionics Center, Code B/444, 6000 East 21st Street, Indianapolis, IN 46219-2189. Information..."

Add:

"6.3.1 Qualification of a bearing distributor. Department of Defense standardization regulations have specific requirements covering qualification approval of a distributor. Details of these requirements may be obtained from the qualifying activity.

6.3.2 Procurement of bearings from a distributor not listed on the QPL. Government contractors and subcontractors who plan to procure a qualified bearing from a distributor not listed on the QPL should be aware that distributors frequently stock bearings which were manufactured several years earlier. Since specification requirements are occasionally changed without a corresponding change in part marking, the parts offered for sale by the distributor may not meet current specification requirements. To assure that parts meet current specification requirements, the contractor should require the following information from the distributor:

- (1) Certification that the bearings have been inspected for compliance to the current specification requirements.
- (2) Certification of the original manufacturer's name, part number and date of lubrication on the outside of each unit package.

(NOTE: DOD regulations state that only distributors who have been approved by the qualifying activity for listing on a QPL may rebrand a QPL listed item.)"

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Add:

"6.5 Subject term (keyword) listing.

Antifriction
Bearing
Cadmium plating
Chrome plating
Lubricated
Needle roller"

The margins of this amendment are marked with an asterisk to indicate where changes (additions, modifications, corrections, deletions) from the previous amendment were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous amendment.

Custodians:

Army - AT
Navy - AS
Air Force - 99

Preparing Activity:

Navy - AS
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Review Activities:

Air Force - 84
DLA - IS