This is a preview of "ANSI/ABMA 24.2-1989 ...". Click here to purchase the full version from the ANSI store.



Accredited Standards Committee B3



Thrust Bearings Of Ball And Cylindrical Roller Types Inch Design ANSI/ABMA 24.2:1989



Secretariat

American Bearing Manufacturers Association

ANSI/ABMA 24.2:1989

Stabilized Maintenance 2010





ABMA 2025 M Street, NW Suite 800

Washington, DC 20036 Ph: 202-367-1155

Fax: 202-367-2155

E-mail: info@americanbearings.org www.americanbearings.org

AMERICAN NATIONAL STANDARD

(This is not an approved part of the standard)

Approval of an American National Standard requires verification by ANSI that the requirements for due process, consensus, and other criteria for approval have been met by the standards developer.

Consensus means substantial agreement has been reached by directly and materially affected interests. This signifies the concurrence of more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that an effort be made toward their resolution.

The use of an American National Standard is completely voluntary; their existence does not in any respect preclude anyone, whether they approved the standard or not, from manufacturing, marketing, purchasing, or using products, processes, or procedures not conforming to the standard.

The American National Standards Institute does not develop standards and will in no circumstances give an interpretation of any American National Standard. Moreover, no person shall have the right or authority to issue an interpretation of an American National Standard in the name of the American National Standards Institute. Requests for interpretations should be addressed to the secretariat of the sponsor whose name appears on the title page of this standard.

CAUTION NOTICE: This American National Standard may be revised or withdrawn at any time.

This standard is maintained under stabilized maintenance and will be reviewed by Accredited Standards Committee B3 on a 10-year cycle. Any materially affected and interested party that feels this standard should be revised or withdrawn should submit their rationale for revision or withdrawal to the B3 Secretariat at the address below.

Purchasers of American National Standards may receive current information on all standards by calling or writing the American National Standards Institute or online at www.ANSI.org.

Published by

American Bearing Manufacturers Association 2025 M Street, N.W., Suite 800 Washington, DC 20036 Copyright [©] 2011 by American Bearing Manufacturers Association

All rights reserved.

No part of this publication may be reproduced in any form, in an electronic retrieval system or otherwise, without prior written permission of the publisher.

Printed in the United States of America

This is a preview of "ANSI/ABMA 24.2-1989 ...". Click here to purchase the full version from the ANSI store.

ABMA Standards for Ball and Roller Bearings and Balls

- 4 Tolerance Definitions and Gaging Practices for Ball and Roller Bearings
- 7 Shaft and Housing Fits for Metric Radial Ball and Roller Bearings (Except Tapered Roller Bearings) Conforming to Basic Boundary Plans
- 8.1 Ball and Roller Bearing Mounting Accessories, Metric Design
- 8.2 Ball and Roller Bearing Mounting Accessories, Inch Design
- 9 Load Ratings and Fatigue Life for Ball Bearings
- 11 Load Ratings and Fatigue Life for Roller Bearings
- 12.1 Instrument Ball Bearings, Metric Design
- 12.2 Instrument Ball Bearings, Inch Design
- 13 Rolling Bearing Vibration and Noise (Methods of Measuring)
- 14 Housing for Bearings With Spherical Outside Surfaces
- 15 Ball Bearings With Spherical Outside Surfaces and Extended Inner Ring Width (Includes Eccentric Locking Collars)
- 18.1 Needle Roller Bearings Radial, Metric Design
- 18.2 Needle Roller Bearings Radial, Inch Design
- 19.1 Tapered Roller Bearings, Radial, Metric Design
- 19.2 Tapered Roller Bearings, Radial, Inch Design
- 21.1 Thrust Needle Roller and Cage Assemblies and Thrust Washers, Metric Design
- 21.2 Thrust Needle Roller and Cage Assemblies and Thrust Washers, Inch Design
- 22.2 Spherical Plain Radial Bearings, Joint Type, Inch Design
- 23.2 Thrust Bearings of Tapered Roller Type, Inch Design
- 24.1 Thrust Bearings of Ball, Cylindrical Roller and Spherical Roller Types, Metric Design
- 24.2 Thrust Bearings of Ball and Cylindrical Roller Types, Inch Design

This is a preview of "ANSI/ABMA 24.2-1989 ...". Click here to purchase the full version from the ANSI store.

Thrust Bearings of Ball and Cylindrical Roller Types Inch Design

1.	Scope	10
2.	Identification Code	10
3.	Symbols and Nomenclature	11
4.	Boundary Dimensions	14
5.	Tolerances	66
6.	Mounting Dimensions	72

LIST OF TABLES & FIGURES

TABLE 1	Thrust Ball Bearings-Type Symbols
TABLE 2	Thrust Roller Bearings-Type Symbols
TABLE 3	Thrust Bearing Series
BOUNDARY	DIMENSIONS
TABLE 4	Thrust Ball Bearings-Single Direction, Washers with Grooved Raceways, Flat Back Faces, Type TB-Ultra Light Series- Inch Design Part I -Dimensions in millimetres
TABLE 5	Thrust Ball Bearings-Single Direction, Washers with Grooved Raceways, Flat Back Faces, Type TB-Extra Light Series-Inch Design
	Part I -Dimensions in millimetres
TABLE 6	Thrust Ball Bearings-Single Direction, Washers with Grooved Raceways, Flat Back Faces, Type TB-Light Series-Inch Design
	Part I -Dimensions in millimetres
TABLE 7	Thrust Ball Bearings-Single Direction, Washers with Grooved Raceways, Flat Back Faces, Type TB-Medium Series-Inch Design
	Part I -Dimensions in millimetres ,
TABLE 8	Thrust Ball Bearings-Single Direction, Washers with Grooved Raceways, Flat Back Faces, Type TB-Medium Heavy Series-Inch Design
	Part I -Dimensions in millimetres

TABLE 9	
•	Thrust Ball Bearings-Single Direction, Washers with Grooved Raceways, Flat Back Faces, Type TB-Heavy Series-Inch Design
	Part I -Dimensions in millimetres
TABLE 10	
	Thrust Ball Bearings-Single Direction, Washers with Flat Raceways, Flat Back Faces, Type TBF-Extra Light Series- Inch Design
TABLE 11	Part I -Dimensions in millimetres
TABLE II	Thrust Bearings-Cylindrical Rollers, Single Direction, Flat Raceways, Flat Back Faces, Type TP-Extra Light Series- Inch Design
	Part I -Dimensions in millimetres
TABLE 12	Thrust Bearings-Cylindrical Rollers, Single Direction, Flat Raceways, Flat Back Faces, Type TP-Light Series-Inch Design
	Part I -Dimensions in millimetres
TABLE 13	Thrust Bearings-Cylindrical Rollers, Single Direction, Flat Raceways, Flat Back Faces, Type TP-Heavy Series
	Part I -Dimensions in millimetres
TABLE 14	Thrust Bearings-Cylindrical Rollers, Single Direction, Flat Raceways, Flat Back Faces, Outside Band, Type TPCInch Design
	Part I -Dimensions in millimetres

TABLE 15	
	Thrust Bearings, Cylindrical Roller, Single Direction, Washers with Flat Raceways, Aligning Housing Washer with Aligning Seat Washer, Type TR-Light Series-Inch Design
	Part I -Dimensions in millimetres
TABLE 16	
	Thrust Bearings-Cylindrical Rollers, Single Direction, Washers with Flat Raceways, Aligning Housing Washer with Aligning Seat Washer, Type TR-Heavy Series-Inch Design
	Part I -Dimensions in millimetres
TOLERANCES	
TABLE 17	
THELE IT	Thrust Ball Bearings-Single Direction, Types TB and TBF-All Series-Inch Design
	Part I -Dimensions in millimetres
	Deviations in micrometres
	Deviations in 0.0001 inches 60
TABLE 18	
111222 10	Thrust Bearings-Cylindrical Rollers, Single Direction, Type TPExtra Light Series-Inch Design
	Part I -Dimensions in millimetres
	Deviations in micrometres
	Part II-Dimensions in inches Deviations in 0.0001 inches
TABLE 19	
TABLE 1)	Thrust Bearings-Cylindrical Rollers, Single Direction, Type TPLight Series-Inch Design
	Part I -Dimensions in millimetres
	Deviations in micrometres
	Deviations in 0.0001 inches 61

TABLE 20	
	Thrust Bearings-Cylindrical Rollers, Single Direction, Type TPHeavy Series-Inch Design
	Part IDimensions in millimetres Deviations in micrometres
TABLE 21	Thrust Bearings-Cylindrical Rollers, Single Direction, Outside Band, Type TPC-Inch Design
	Part I -Dimensions in millimetres Deviations in micrometres
TABLE 22	
TABLE 22	Thrust Bearings-Cylindrical Rollers, Single Direction, Type TRLight Series-Inch Design
	Part IDimensions in millimetres Deviations in micrometres
TABLE 23	Thrust Bearings-Cylindrical Rollers, Single Direction, Type TRHeavy Series-Inch Design
	Part I -Dimensions in millimetres Deviations in micrometres
MOUNTING DIN	MENSIONS
TABLE 24	Thrust Ball Bearings-Single Direction, Types TB & TBF-All Series-Inch Design
	Part I -Dimensions in millimetres Deviations in micrometres

TABLE 25	Thrust Bearings-Cylindrical Rollers, Single Direction, Type TPExtra
	Light Series-Inch Design
	Part I -Dimensions in millimetres Deviations in micrometres
TABLE 26	The A. Dervice C. Parking D. Harr Circle Discrete Transfer at The ATD Links and
	Thrust Bearings-Cylindrical-Rollers, Single Direction, Types TP and TR-Light and Heavy Series-Inch Design
	Part I -Dimensions in millimetres
	Deviations in micrometres
	Deviations in 0.0001 inches 68
TABLE 27	
	Thrust Bearings-Cylindrical Rollers, Single Direction, Outside Band, Type TPC-Inch Design
	Part I -Dimensions in millimetres
	Deviations in micrometres
	Deviations in 0.0001 inches

Thrust Bearings of Ball & Cylindrical Roller Types Inch Design

1. SCOPE

This standard for inch design thrust bearings of ball and cylindrical roller types covers:

Identification Code

Symbols and Nomenclature

Boundary Dimensions

Tolerance

Mounting Dimensions

All bearings and components in this standard are not necessarily available. For availability, consult bearing manufacturers.

Other applicable standards should be consulted for tolerance definitions, gaging practices and methods of evaluating load ratings.

This standard only covers external dimensions. Functional interchangeability between different makes of standard bearings or components of the same size may depend on bearing features which are not standardized. Hence, the substitution of one make of standard bearing for another should only be made after careful comparison of their characteristics and consideration of the requirements of the particular application.

2. IDENTIFICATION CODE

This code identifies and, as far as possible, describes each thrust bearing on the basis of complete dimensional interchangeability. This code establishes a universal language for describing and identifying thrust bearings of the ball and cylindrical roller type of inch design in order to facilitate communications between the user and the manufacturer. The code is also intended to simplify the handling by user personnel of identical bearings made by different manufacturers, whose identification numbers may be different.

This code applies only to those thrust bearings or components whose boundary dimensions and tolerances conform to this standard.

The identification code for thrust bearings of ball and cylindrical roller types of inch design is made up of three parts:

- 1. A one, two, three of four digit number identifying the bearing bore in millimetres.
- 2. The letter T identifying a thrust bearing followed by one or two arbitrarily chosen letters identifying the type of thrust bearing as shown in Tables 1 and 2.
- 3. An arbitrarily chosen two digit number identifying the bearing series within its class as shown in Table 3.