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**ANSI/ABMA
Std. 7 - 1995
(Revision and redesignation of
ANSI/AFBMA Std. 7 - 1988)**

**AMERICAN NATIONAL STANDARD
ABMA STANDARD**

**SHAFT AND HOUSING FITS FOR
METRIC RADIAL BALL AND ROLLER BEARINGS
(EXCEPT TAPERED ROLLER BEARINGS)
CONFORMING TO BASIC BOUNDARY PLAN**

Sponsored by

American Bearing Manufacturers Association, Inc.

Approved October 27, 1995

American National Standards Institute, Inc.

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FOREWORD

This foreword is not a part of ANSI/ABMA Standard 7 - 1995, Shaft and Housing Fits for Metric Ball and Roller Bearings (Except Tapered Roller Bearings) Conforming to Basic Boundary Plan.

This American National Standard provides the general selection of shaft and housing fits for metric radial ball and roller bearings of tolerance classes ABEC-1 and RBEC-1. Bearing type, loading and other design requirements influence the criteria for shaft and housing fits.

The dimensions, tolerances and clearances stated in this standard are based on metric units and are found in Part I of the various tables. A soft conversion to U.S. customary (inch-pound) units is provided in Part II of the various tables for the convenience of the user.

Suggestions for the improvement of this standard gained through experience with its use will be welcomed. These should be sent to the American National Standards Institute, Inc., 11 West 42nd Street, New York, NY 10036.

The officers of Accredited Standards Committee B3 operating under the American National Standards Institute procedures and the organizations represented at the time this standard was submitted are as follows:

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Hydraulic Institute
Association for Manufacturing Technology
Society of Tribologists and Lubrication Engineers
U.S. Department of Defense, DISC
U.S. Department of the Navy

ABMA (formerly AFBMA) Standards for Ball and Roller Bearings

- 1 - Terminology for Anti-Friction Ball and Roller Bearings and Parts
- 4 - Tolerance Definitions and Gauging 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 Plan
- 8.1 - Mounting Accessories, Metric Design
- 8.2 - Mounting Accessories, Inch Design
- 9 - Load Ratings and Fatigue Life for Ball Bearings
- 10 - Metal Balls
- 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 - Housings for Bearings with Spherical Outside Surfaces
- 15 - Ball Bearings with Spherical Outside Surfaces and Extended Inner Ring Width (Includes Eccentric
Locking Collars)
- 16.1 - Airframe Ball, Roller, and Needle Roller Bearings, Metric Design
- 16.2 - Airframe Ball, Roller, and Needle Roller Bearings, Inch Design
- 17 - Needle Rollers, Metric Design
- 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
- 20 - Radial Bearings of Ball, Cylinder Roller and Spherical Roller Types, Metric 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
- 22.1 - Spherical Plain Radial Bearings, Joint Type - Metric 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
- 25.2 - Rolling Bearings, Linear Motion, Recirculating Ball, Sleeve Type - Inch Series
- 26.2 - Thin Section Ball Bearings - Inch Design

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American National Standard
ABMA Standard
Shaft and Housing Fits for Metric Radial Ball and Roller Bearings
(Except Tapered Roller Bearings)
Conforming to Basic Boundary Plan

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