AEROSPACE RECOMMENDED PRACTICE

ARP5483™	REV. B

Issued 2003-07
Revised 2017-07
Reaffirmed 2023-04

Superseding ARP5483A

Rolling Element Bearing Test Methods

RATIONALE

ARP5483B has been reaffirmed to comply with the SAE Five-Year Review policy.

1. SCOPE

This SAE Aerospace Recommended Practice (ARP) establishes methods for testing airframe rolling element bearings. The purpose of ARP5483 and its associated slash sheets is to document test methods commonly used to evaluate airframe bearings. These test methods may be referenced in standards, purchase orders, etc. when the test is deemed appropriate to the intended use of the bearing by the end user of the bearing. These test methods are not intended to encompass every conceivable requirement for an airframe bearing. The end user of the bearing must exercise engineering judgment to determine the most appropriate standard and/or nonstandard tests for the application.

2. APPLICABLE DOCUMENTS

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

2.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

ARP5483/1 Rolling Element Bearing No-Load Torque Test

ARP5483/2 Rolling Element Bearing Hardness Test

ARP5483/3 Rolling Element Bearing Axial and Radial Internal Clearance

ARP5483/4 Rolling Element Test Method for Axial Limit and Fracture Load Testing

ARP5483/5 Rolling Element Bearing Test Method for Radial Limit and Fracture Load Testing

ARP5483/6 Rolling Element Bearing Test Method for Dimensional Stability

TO PLACE A DOCUMENT ORDER: **Tel: 877-606-7323 (inside USA and Canada)**
Tel: +1 724-776-4970 (outside USA)
Fax: 724-776-0790
Email: CustomerService@sae.org
SAE WEB ADDRESS: **http://www.sae.org**

For more information on this standard, visit
https://www.sae.org/standards/content/ARP5483B/

ARP5483/7 Dynamic Radial Load Test, Track Roller Bearings

ARP5483/8 Rolling Bearing Dynamic Radial Load Test

3. GENERAL REQUIREMENTS

3.1 Test Method-Numbering System

This standard consists of a general basic document and supporting slash sheet documents. Each slash sheet document addresses a specific test method, which is designated by a slash number commencing with number 1. A different slash number is assigned to each test method.

3.2 Document Format

Each test method is prepared as an individual document in the format of an Aerospace Recommended Practice. The basic document identifier, ARP5483, followed by a sequential slash number identifies the individual test method. The slash number is identical to the number of the test method. Example:

ARP5483/ 1

Slash number
For example, Test Method No. 1, "Rolling Element Bearing No-Load Torque Test"

Document identifier assigned to the basic standard

3.3 Method of Revision

The individual test method is revised and issued independent of the other parts. Revisions are identified by a capital letter immediately following the document identifier dash number. Example:

ARP5483/ 1 ( )

Revision Letter

Slash number
For example, Test Method No. 1, "Rolling Element Bearing No-Load Torque Test"

Document identifier assigned to the basic standard

3.4 Selection of Tests

Both the application requirements and the bearing characteristics that affect its performance in the application should be considered when selecting tests. After these essential properties have been determined, the appropriate test should be selected and specified for each property. Care should be taken to specify only those tests that are needed.

3.5 Method of Reference

Test methods shall be referenced by specifying:

a. The test method number with the applicable slash sheet number. For example: "The bearing shall be tested in accordance with ARP5483/1" to specify the current version.

b. Test criteria or property values required.