



AEROSPACE RECOMMENDED PRACTICE

ARP5483™/7

REV. B

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Superseding ARP5483/7A

Dynamic Radial Load Test, Track Roller Bearing

RATIONALE

ARP5483/7B is a Five-Year Review with only minor editorial changes.

1. SCOPE

This test method outlines the recommended machine function, fixtures, and procedures for performing dynamic radial load tests on track roller bearings for airframe applications. Bearings covered by this test method shall be yoke and stud type track roller, needle bearings.

2. APPLICABLE DOCUMENTS

There are no referenced publications specified herein.

3. GENERAL REQUIREMENTS

3.1 Test Machine

The test machine shall be capable of applying a radial load equivalent to the capacity as a track roller to the bearing, as defined in the applicable drawing standard, with either reversing or rotating motion. Instructions for operating and maintaining the test machine are required.

3.1.1 Design

A test machine may test any number of bearings simultaneously, providing all bearings are being subjected to the same test conditions and that all measured values can be individually determined. The support structure, drive motor or system, tracks, and mechanisms should be designed for continuous operation and high reliability.

3.1.2 Test Fixtures

The test fixtures shall be similar to the illustration in Figures 1 and 2. The rigid support shall be of steel construction.

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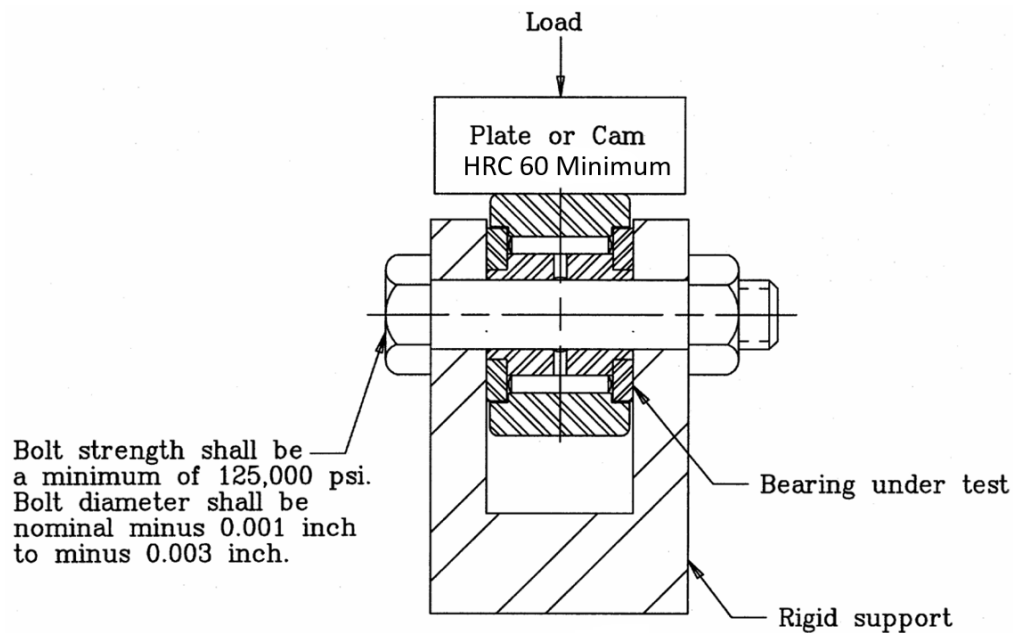


Figure 1 - Test for dynamic load rating, as a yoke type track roller

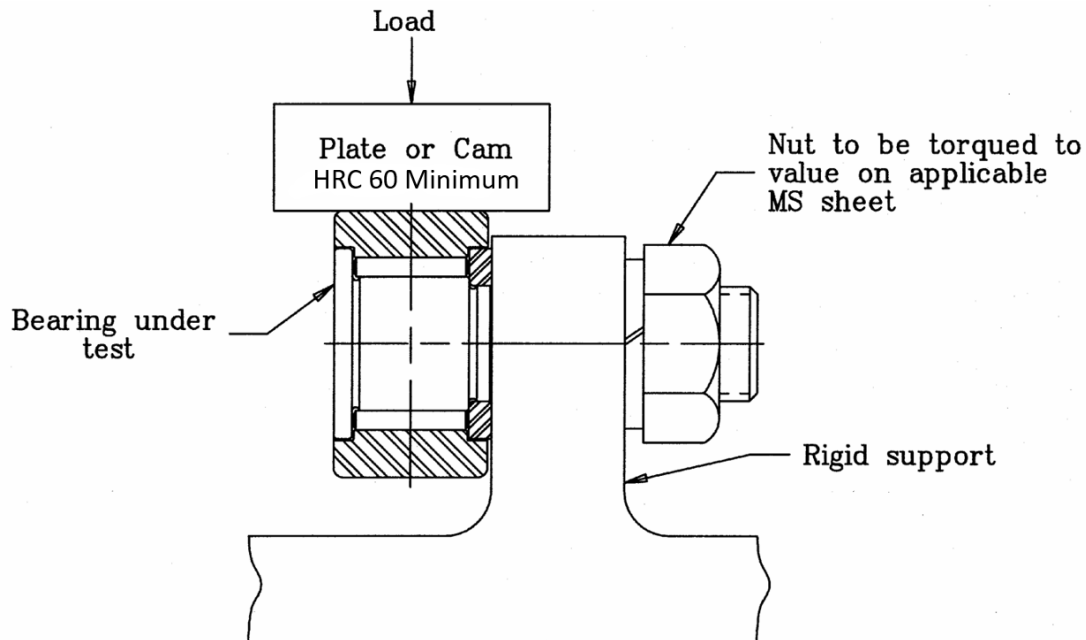


Figure 2 - Test for dynamic load rating, as an integral stud type track roller

3.1.3 Load Application

The load can be applied by any means providing the magnitude of load to each test bearing is verifiable. The load must remain constant within $\pm 2\%$ for the duration of each test.

3.1.4 Rotational Speed

The speed of the bearing outer diameter shall be controllable within the speed range of the applicable procurement standard.