



Designation: D 5977 – 9603

Standard Specification for High Load Rotational Spherical Bearings for Bridges and Structures¹

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1. Scope

1.1 This specification covers bridge bearings that consist of a spherical rotational element, where a stainless steel convex surface slides against a concave carbon steel plate covered with woven or sheet polytetrafluoroethylene (PTFE). The function of the bearing is to transfer loads and to accommodate any relative movement, including rotation between a bridge superstructure and its supporting structure, or both.

1.2 This specification covers the requirements of spherical bearings with a standard horizontal load (a maximum of 10 % of vertical).

1.3 The requirements stated in this specification are the minima necessary for the manufacture of quality bearing devices. It may be necessary to increase these minimum values due to other design conditions.

1.4 The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are for information only.

1.5 The following safety hazards caveat pertains only to the test method portion, Section 7, of this specification: *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:

A 36/A 36M Specification for Carbon Structural Steel²

¹ This specification is under the jurisdiction of ASTM Committee D-4 D04 on Road and Paving Materials and is the direct responsibility of Subcommittee D04.32 on Bridges and Structures.

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