



Designation: B67 – 05

Standard Specification for Car and Tender Journal Bearings, Lined¹

This standard is issued under the fixed designation B67; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reappraisal. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reappraisal.

This standard has been approved for use by agencies of the Department of Defense.

1. Scope*

1.1 This specification covers the establishment of requirements for lined journal bearings for use on locomotive tenders, passenger cars, and freight equipment cars. The alloy specified is UNS No. C94100.²

1.2 *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:*³

[B824 Specification for General Requirements for Copper Alloy Castings](#)

[E57 Methods for Chemical Analysis of White Metal Bearing Alloys](#)⁴

[E255 Practice for Sampling Copper and Copper Alloys for the Determination of Chemical Composition](#)

[E527 Practice for Numbering Metals and Alloys in the Unified Numbering System \(UNS\)](#)

3. General Requirements

3.1 The following sections of Specification [B824](#) constitute a part of this specification:

3.1.1 Terminology (Section 3).

3.1.2 Sampling (Section 10).

3.1.3 Number of Tests and Retests (Section 11).

3.1.4 Specimen Preparation (Section 12).

3.1.5 Test Methods (Section 13).

3.1.6 Significance of Numerical Limits (Section 14).

3.1.7 Inspection (Section 15).

3.1.8 Rejection and Rehearing (Section 16).

3.1.9 Certification (Section 17).

3.1.10 Test Report (Section 18).

3.1.11 Product Marking (Section 19).

3.1.12 Supplementary Requirements (S1–S4).

4. Ordering Information

4.1 Include the following information when placing orders for bearings under this specification as applicable:

4.1.1 Quantity of bearings required,

4.1.2 ASTM designation and year of issue (for example, B67 – 05)

4.1.3 Pattern and drawing number and condition (as cast, machined, and so forth),

4.1.4 Chemical analysis of residual elements, if specified in the purchase order (Section 6),

4.1.5 Fracture testing (Section 8),

4.1.6 Witness inspection (Specification [B824](#)), and

4.1.7 Product marking (Section 13).

5. Materials and Manufacture

5.1 Before lining, the brass backs shall be bored and thoroughly tinned in accordance with the best standard practice. After lining, the ends of the bearings shall be made smooth by scraping, filing, or machining. They shall not be ground or rubbed with abrasive materials.

5.2 The purchaser reserves the right to inspect the brass backs after boring and previous to tinning and lining.

5.3 Unless otherwise specified, bearings will be furnished with linings $\frac{1}{4}$ in. (6.35 mm) in thickness.

5.4 The bearings shall be sound and free of blowholes, dross, and mechanical defects. All bearing surfaces, including ends, before and after lining, shall be smooth finished and free from sand.

¹ This specification is under the jurisdiction of ASTM Committee B05 on Copper and Copper Alloys and is the direct responsibility of Subcommittee B05.05 on Castings and Ingots for Remelting.

Current edition approved Oct. 1, 2005. Published November 2005. Originally approved in 1927. Last previous edition approved in 1993 as B67 – 93a, which was withdrawn June 2002 and reinstated October 2005. DOI: 10.1520/B0067-05.

² The UNS system for copper and copper alloys (see Practice [E527](#)) is a simple expansion of the former standard designation system accomplished by the addition of a prefix “C” and a suffix “00”. The suffix can be used to accommodate composition variations of the base alloy.

³ For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard’s Document Summary page on the ASTM website.

⁴ Withdrawn.

*A Summary of Changes section appears at the end of this standard.