Designation: B67 – 05(Reapproved 2011)

Standard Specification for Car and Tender Journal Bearings, Lined[1]

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 reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

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 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.3 *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E57 Methods for Chemical Analysis of White Metal Bearing Alloys (Withdrawn 1986)[4]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 ¼ in. (6.35 mm) in thickness.

[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.

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[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] The last approved version of this historical standard is referenced on www.astm.org.

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