

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
29 West 39th Street
New York City

AMS 48 22B

Issued 1-22-40

Revised 6-1-51

BEARINGS, LEADED BRONZE 72Cu - 25Pb - 3Sn Steel Back

1. ACKNOWLEDGMENT: A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.

2. TYPE: Steel back having bearing metal cast on one or both faces.

3. COMPOSITION:

3.1 Bearing Metal:

Copper	68.0 - 75.0
Lead	23.0 - 27.0
Tin	2.0 - 4.0
Iron	0.35 max
Silver	0.20 max
Zinc	0.10 max
Nickel	0.01 max
Phosphorus	0.01 max
Total Named Elements	99.8 min

3.2 Back: Low carbon steel, unless otherwise specified on the drawing.

4. TECHNICAL REQUIREMENTS:

4.1 General:

4.1.1 Bearing metal shall be cast from the best grades of metals, at a temperature and cooling rate which will produce the best structure for good bearing properties.

4.1.2 Bearing metal shall be firmly and continuously bonded to the back and shall be free from excessive and injurious lead segregation.

4.2 Hardness of Back: Shall be not higher than Rockwell Superficial 15N 75 or equivalent, unless otherwise specified on the drawing.

5. QUALITY:

5.1 Bearing metal and back shall be uniform in quality and condition, clean, sound, smooth, and free from foreign materials and from internal and external defects detrimental to their performance.

5.2 Inspection standards and procedures shall be as agreed upon by purchaser and vendor.

6. REPORTS: Unless otherwise specified, the vendor of bearings shall furnish with each shipment three copies of a report showing the chemical composition of the bearings. This report shall include the purchase order number, material specification number, part number, and quantity.

Approved and practices recommended, are advisory only. Their use is not a commitment of the SAE standard or recommended practice, and no commitment is made by the Board and its Committees will not investigate or consider patents which may apply to the subject matter. Prospective users of the report are responsible for protecting themselves against liability for infringement of patents.

7. IDENTIFICATION: Bearings shall be identified in accordance with the latest issue of AMS 2800.
8. PROTECTIVE TREATMENT: Bearings shall be protected during shipment and storage by a coating of suitable corrosion-preventive compound which is readily removable by washing in hydrocarbon solvents.
9. APPROVAL:
 - 9.1 To assure adequate performance characteristics, parts shall be approved by purchaser before parts for production use are supplied, unless such approval be waived.
 - 9.2 Vendor shall use the same manufacturing procedures, processes and methods of inspection for conformance to this specification for production parts as for approved sample parts. If necessary to make any change, vendor shall obtain written permission from purchaser prior to incorporating such change.
10. REJECTIONS: Bearings not conforming to this specification or to authorized modifications will be subject to rejection.

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