

Issued Jan. 22, 1940

Revised _____

Revised _____

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.

29 West 39th Street

New York City

AMS
4800

B E A R I N G S - B A B B I T T

1. **ACKNOWLEDGMENT:** A vendor must mention this specification number and its last revision in all quotations and when acknowledging purchase orders.
2. **FORM:** This bearing shall consist of a steel or bronze back, lined on one or both sides with a bearing metal having the following composition:
3. **COMPOSITION:**

Tin	90.0 min
Antimony	4.0 - 5.0
Copper	4.0 - 5.0
Lead	0.25 max
Iron	0.08 max
Arsenic	0.1 max
Bismuth	0.08 max
Zinc	0.0
Aluminum	0.0
Total Other Impurities	0.2 max
4. **SAMPLING:** Samples of the babbitt for chemical analysis shall be taken between the surface and a point midway between the babbitt surface and the bond of the babbitt and the backing. The bearing manufacturer may take the chips during the final machining operation.
5. **QUALITY:** (a) The bearing metal shall be made only from the best grades of virgin metals or from virgin metals and scrap of known and approved composition.

(b) Bearings shall be cast at a temperature which will produce the best structure for a good wearing surface and high endurance.

(c) The backing shall be free from laps, cracks, seams, or other injurious defects.

(d) Bearing metal shall be well bonded to the backing.

(e) Finished parts broken for fracture which show the presence of blow holes or porosity, or discoloration by oxides, or coarse crystalline grain shall be considered as defective physically and such defects shall render the shipment subject to rejection.
6. **REPORTS:** The manufacturer shall furnish three copies of a certified report of chemical analysis of each shipment. This report shall include the purchase order number, material specification number, part numbers, or size, and quantity in the shipment.
7. **IDENTIFICATION:** Each bearing or finished part shall be identified by a trade mark, or letters as allocated, which shall be at a point designated on the drawing if a definite location is desired.