

AERONAUTICAL MATERIAL SPECIFICATION

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

AMS 4 635A

Issued 11-1-41

Revised 7-1-47

ALUMINUM BRONZE FORGINGS

1. ACKNOWLEDGMENT: A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.
2. FORM: Forgings, primarily, but rods and bars may be ordered if desired.
3. APPLICATION: Primarily for parts requiring strength and corrosion resistance at medium temperatures.
4. COMPOSITION:

Copper	84.5	min
Aluminum	9.0	- 11.0
Iron	2.0	- 4.0
Tin	0.20	max
Manganese	0.30	max
Total Named Elements	99.5	min

5. CONDITION: As rolled, extruded or forged, and stress relieved.
6. TECHNICAL REQUIREMENTS: Material shall have hardness of Brinell 155 - 190 using 1000 kg load, or Rockwell B 90 - 96, when taken on the surface.
7. QUALITY: Material shall be uniform in quality and condition, clean, sound, smooth and free from foreign materials and from internal and external defects detrimental to fabrication or to performance of parts. Material in which defects are revealed during fabrication will be subject to rejection.
8. TOLERANCES: Unless otherwise specified, tolerances shall conform to the latest issue of AMS 2221 as applicable. Diameter or thickness and width tolerances shall be as specified below:

(a) Rounds, Hexagons, Octagons	Table I, Refractory
(b) Squares	Table IV
(c) Rectangles, thickness	Table IV
(d) Rectangles, width	Table VII, Refractory

9. REPORTS: (a) Unless otherwise specified, the vendor of the product shall furnish with each shipment three copies of a notarized report of the results of tests to determine conformance to the requirements of this specification or stating that the chemical composition and hardness of the product conform to the requirements specified. This report shall include the purchase order number, material specification number, size and quantity. If forgings are supplied, the part number and size of material used to make the forgings shall also be included.

(b) Unless otherwise specified, the vendor of finished or semi-finished parts shall furnish with each shipment three copies of a notarized report showing the purchase order number, material specification number, contractor or other direct supplier of material, part number and quantity. When material for making parts