AERONAUTICAL MATERIAL SPECIFICATION

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

AMS4855

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Revised

BRONZE CASTINGS

1. ACKNOWLEDGMENT: A vendor must mention this specification number in all quotations and when acknowledging purchase orders.

2. COMPOSITION:

Copper	84.00 - 86.00
Tin	4.25 - 5.75
Lead	4.50 - 6.00
Zinc	4.00 - 6.00
Nickel	1.00 max
Iron	0.30 max
Phosphorus	0.03 max
Aluminum	0.03 max
Silicon	0.005 max
Total Other Constituents	0.50 max

3. QUALITY: (a) Castings must be homogeneous and free from shrinkage defects, cracks, blowholes, porosity, hard spots, foreign matter and other injurious defects, and must not reveal defects when machining. The castings shall be smooth and well cleaned.

(b) Castings when broken for fracture test must show a uniform composition and color and be substantially free from oxides and other defects, particularly in locations subject to stresses in service.

(c) Castings shall be ductile enough to show a definite amount of bending before rupture when being broken for the fracture test.

4. PRECAUTIONS: (a) Castings shall not be repaired by plugging, welding, or other methods, without written permission.

(b) Castings shall be of sufficient size to allow for finishing to blueprint requirements, but excessive size or weight will not be permitted. Excess metal to allow for chucking during machining must not be used.

(c) Oversize sprues and risers, which decrease the cooling rate of the castings, shall not be used.

5. REPORTS: Unless otherwise specified, the manufacturer shall supply three copies of a notarized report of the chemical composition representing each lot. This report shall include the purchase order number, material specification number, part numbers, quantity of each part and type of castings, such as centrifugal, chill, sand, etc.

6. IDENTIFICATION: (a) Rough castings shall be identified in accordance with AMS 2804.

(b) Finished or semi-finished parts shall be identified in accordance with AMS 2800.