

AERONAUTICAL MATERIAL SPECIFICATION

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

AMS 4490B

Issued 1-22-40

Revised 1-1-46

MAGNESIUM ALLOY CASTINGS

Die

9 Al 0.75 Zn As Cast

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

2. COMPOSITION:

Aluminum	8.3 - 9.7
Zinc	0.4 - 1.0
Manganese	0.13 min
Silicon	0.30 max
Copper	0.05 max
Nickel	0.03 max
Total Other Impurities	0.30 max
Magnesium	remainder

3. CASTING: (a) All metal which is poured into castings shall conform in composition to Section 2 above.

(b) A lot of castings shall consist of either of the following:

(1) The output of one die casting machine in continuous operation for a period not exceeding 24 hours; all castings shall be marked or identified with lot number throughout finishing operations.

(2) Not more than 1000 pounds of castings of the same part number submitted for inspection at the same time. The vendor's method of composition control shall be acceptable to purchaser, and no castings shall be released for finishing until compositions of representative analytical samples have been found to conform with Section 2 above.

4. CONDITION: Castings shall be furnished as cast.

5. QUALITY: (a) Castings shall be free from defects detrimental to fabrication or to performance of the parts. If injurious defects are revealed during fabrication, castings shall be subject to rejection. Castings shall have smooth surfaces and shall be well cleaned.

(b) Unless otherwise specified, castings shall be produced under radiographic control. This shall consist of radiographic examination of castings until proper foundry technique, which will produce castings free from harmful internal defects, is established for each die.

(c) Radiographic and other quality standards shall be as agreed between purchaser and vendor.

(d) Castings and parts made therefrom shall be subject to examination by any method which will reveal defects.

(e) Castings shall not be repaired by plugging, welding or other methods, without written permission from the purchaser.