AERONAUTICAL MATERIAL SPECIFICATIONS

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc. 485 Lexington Ave., New York 17, N.Y.

AMS 4290F

Issued 12-5-39
Revised 11-1-59

ALUMINUM ALLOY CASTINGS, DIE
9.5Si - 0.5Mg (360)
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:

Silicon	9.0 - 10.0
Magnesium	0.40 - 0.6
Iron	2.0 max
Copper	0.6 max
Nickel	0.50 max
Zinc	0.50 max
Manganese	0.30 max
Tin	0.10 max
Other Impurities, total	0.20 max
Aluminum	remainder

2.1 When low pressure die casting is permitted by purchaser, silicon may be 11.0 - 13.0% in which case magnesium shall be not higher than 0.10%.

3. CONDITION: As cast.

4. TECHNICAL REQUIREMENTS:

4.1 Casting: Castings shall be produced in lots from metal conforming to Section 2. Metal remelted from previously analyzed ingot may be poured directly into castings. Furnace or ladle additions of small amounts of grain refining elements or alloys are permissible. Unless otherwise agreed upon by purchaser and vendor, Ø molten metal taken from alloying furnaces, with or without additions of foundry operating scrap (gates, sprues, risers, and rejected castings), shall not be poured into castings unless first converted to ingot, analyzed, and remelted or until the composition of a sample taken after the last addition to the melt has been found to conform to Section 2.

4.1.1 A melt shall be the metal withdrawn from a batch furnace charge of 2000 lb or less as melted for pouring castings or, when permitted by purchaser, a melt Ø shall be 4000 lb or less of metal withdrawn from one continuous furnace in not more than 8 consecutive hours.

4.1.2 A lot shall consist of castings poured from a single melt in not more than 8 Ø consecutive hours.

4.2 Test Specimens: Chemical analysis specimens, when required by purchaser, shall Ø be cast from each melt and shall be of size and shape agreed upon by purchaser and vendor.