

AEROSPACE MATERIAL SPECIFICATION



MAM 4131B

Issued APR 1986
Revised NOV 1996
Cancelled MAR 2003

Superseding MAM 4131A

Aluminum Alloy, Die and Hand Forgings
5.6Zn - 2.5Mg - 1.6Cu - 0.23Cr (7075-T74)
Solution Heat Treated and Aged

UNS A97075

CANCELLATION NOTICE

This specification has been declared "CANCELLED" by the Aerospace Materials Division, SAE, as of March, 2003. By this action, this document will remain listed in the Numerical Section of the Index of Aerospace Material Specifications.

AMS 4131 covers the same material.

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1. SCOPE:

1.1 Form:

This specification covers an aluminum alloy in the form of die forgings and hand forgings procured to metric (SI) units.

1.1.1 AMS 4131 is the inch/pound version of this MAM.

1.2 Application:

These forgings have been used typically for parts requiring a combination of good strength and resistance to stress-corrosion cracking, but usage is not limited to such applications.

2. APPLICABLE DOCUMENTS:

The following publications form a part of this specification to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order.

2.1 SAE Publications:

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

MAM 2355 Quality Assurance Sampling and Testing, Aluminum Alloys and Magnesium Alloys, Wrought Products, Except Forging Stock, and Rolled, Forged, or Flash Welded Rings, Metric (SI) Units
AMS 2808 Identification, Forgings

2.2 ASTM Publications:

Available from ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

ASTM B 594 Ultrasonic inspection of Aluminum-Alloy Wrought Products for Aerospace Applications
ASTM B 660 Packaging/Packing of Aluminum and Magnesium Products
ASTM E 1417 Liquid Penetrant Examination

2.3 U.S. Government Publications:

Available from DODSSP, Subscription Services Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

MIL-H-6088 Heat Treatment of Aluminum Alloys

MIL-STD-6866 Inspection, Liquid Penetrant

3. TECHNICAL REQUIREMENTS:

3.1 Composition:

Shall conform to the percentages by weight shown in Table 1, determined in accordance with MAM 2355.

TABLE 1 - Composition

Element	min	max
Zinc	5.1	6.1
Magnesium	2.1	2.9
Copper	1.2	2.0
Chromium	0.18	0.28
Iron	--	0.50
Silicon	--	0.40
Manganese	--	0.30
Titanium	--	0.20
Other Impurities, each	--	0.05
Other Impurities, total	--	0.15
Aluminum	remainder	

3.2 Condition:

Solution heat treated and aged in accordance with MIL-H-6088 to the T74 temper.