

**AEROSPACE
MATERIAL
SPECIFICATION**



MAM 4141B

Issued JAN 1982
Revised JAN 1990
Cancelled MAR 2003

Superseding MAM 4141A

Aluminum Alloy Die Forgings
5.6Zn - 2.5Mg - 1.6Cu - 0.23Cr (7075-T73)
Solution and Precipitation Heat Treated

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 XXXX covers the same material.

"CANCELLED" specifications are available from SAE.

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1. SCOPE:

1.1 Form: This specification covers an aluminum alloy in the form of die forgings and forging stock ordered to metric (SI) units.

1.1.1 AMS-4141 is the inch/pound version of this MAM.

1.2 Application: Primarily for parts requiring good resistance to stress-corrosion cracking but with lower strength than AMS-4139.

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.

2.1.1 Aerospace Material Specifications:

MAM-2201 - Tolerances, Aluminum and Aluminum Alloy Bar, Rod, Wire, and Forging Stock, Rolled, Drawn, or Cold Finished

MAM-2355 - Quality Assurance Sampling and Testing of Aluminum Alloys and Magnesium Alloys, Wrought Product (Except Forging Stock) and Flash Welded Rings, Metric (SI) Units

AMS-2630 - Ultrasonic Inspection

AMS-2645 - Fluorescent Penetrant Inspection

AMS-2808 - Identification, Forgings

- 2.2 ASTM Publications: Available from ASTM, 1916 Race Street, Philadelphia, PA 19103-1187.

ASTM B 660 - Packaging/Packing of Aluminum and Magnesium Products

- 2.3 U.S. Government Publications: Available from Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

- 2.3.1 Military Specifications:

MIL-H-6088 - Heat Treatment of Aluminum Alloys

- 2.3.2 Military Standards:

MIL-STD-2154 - Inspection, Ultrasonic, Wrought Metals, Process for

3. TECHNICAL REQUIREMENTS:

- 3.1 Composition: Shall conform to the following percentages by weight, determined in accordance with MAM-2355:

	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: The product shall be supplied in the following condition:

- 3.2.1 Forgings: Solution and precipitation heat treated in accordance with MIL-H-6088.

- 3.2.2 Forging Stock: As ordered by the forging manufacturer.

- 3.3 Properties: The product shall conform to the following requirements, determined in accordance with MAM-2355:

- 3.3.1 Forgings:

- 3.3.1.1 Tensile Properties: Shall be as follows: