SOCIETY OF AUTOMOTIVE ENGINEERS, Inc. 485 Lexington Ave., New York, N.Y. 10017

AEROSPACE MATERIAL SPECIFICATIONS

AMS 4057B
Superseding AMS 4057A
Issued 1-15-60
Revised 9-30-66

ALUMINUM ALLOY SHEET AND PLATE
4.5Mg - 0.65Mn - 0.15Cr (5083-H323)

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

2. APPLICATION: Primarily for parts requiring moderate forming and where welding and good resistance to corrosion are important. Excessive cold work or prolonged heating in the temperature range of 150 - 300 F (66 - 149 C) may cause susceptibility to stress corrosion.

3. COMPOSITION:

	min	max
Magnesium	4.0	4.9
Manganese	0.30	1.0
Chromium	0.05	0.25
Iron	--	0.40
Silicon	--	0.40
Zinc	--	0.25
Titanium	--	0.15
Copper	--	0.10
Other Impurities, each	--	0.05
Other Impurities, total	--	0.15
Aluminum	remainder	

Ø 4. CONDITION: Strain-hardened quarter hard and then stabilized.

5. TECHNICAL REQUIREMENTS: The product shall conform to the following requirements; tensile Ø properties shall be determined in accordance with the latest issue of AMS 2355.

5.1 Tensile Properties:

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Nominal Thickness Inch	Tensile Strength psi	Yield Strength at 0.2% Offset or at Extension Indicated (E = 10,200,000)		Elongation % in 2 in. min
		psi	Extension Under Load in. in 2 in.	
0.051 to 0.125, incl	45,000 - 54,000	34,000 - 44,000	0.0107 - 0.0126	8
Over 0.125 to 0.249, incl	45,000 - 54,000	34,000 - 44,000	0.0107 - 0.0126	10

5.1.1 When a dispute occurs between purchaser and vendor over the yield strength values, yield strength determined by the offset method shall apply.

5.1.2 If sizes other than those shown are ordered, tensile property requirements shall be as agreed upon by purchaser and vendor.

6. QUALITY: Material shall be uniform in quality and condition, clean, sound, and free from foreign materials and from internal and external imperfections detrimental to fabrication or to performance of parts.

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