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

AEROSPACE MATERIAL SPECIFICATIONS

AMS 4115B
Superseding AMS 4115A
Issued 1-15-60
Revised 11-1-67

ALUMINUM ALLOY BARS, ROLLED, DRAWN, OR COLD FINISHED
1.0Mg - 0.6Si - 0.30Cu - 0.20Cr (6061-0)

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

2. FORM: Bars, rods, and wire.

3. APPLICATION: Primarily for parts requiring moderate strength, especially where such parts and assemblies require brazing or welding during fabrication.

4. COMPOSITION:

	min	max
Magnesium	0.8	1.2
Silicon	0.40	0.8
Copper	0.15	0.40
Chromium	0.04	0.35
Iron	--	0.7
Zinc	--	0.25
Manganese	--	0.15
Titanium	--	0.15
Other Impurities, each	--	0.05
Other Impurities, total	--	0.15
Aluminum	remainder	

5. CONDITION: Rolled, drawn, or cold finished, as ordered, and annealed.

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

6.1 Tensile Properties: Except as specified in 6.1.1 and 6.1.2, the following requirements apply to all sizes:

Tensile Strength, psi	22,000 max
Elongation, % in 2 in. or 4D	18 min

6.1.1 Tensile properties of material over 8.000 in. in diameter or distance between parallel sides shall be as agreed upon by purchaser and vendor.

6.2 Hardness: Material should have hardness not higher than Brinell 40 using 500 kg load and 10 mm ball or 1000 kg load and 9/16 in. ball, or not higher than Brinell 45 using 1000 kg load and 10 mm ball, but shall not be rejected on the basis of hardness if the tensile property requirements are met.

6.3 Properties After Heat Treatment: Except as specified in 6.3.2, all sizes of material, after proper solution and precipitation heat treatment, shall conform to the following requirements:

Tensile Strength, psi	42,000 min
Yield Strength at 0.2% offset or at 0.0111 in. in 2 in. Extension under Load (E = 9,900,000), psi	35,000 min
Elongation, % in 2 in. or 4D	10 min