AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
29 West 39th Street
New York City

AMS 5687

Issued 7-1-48
Revised

ALLOY WIRE, CORROSION AND HEAT RESISTANT
Nickel Base - 15.5Cr - 8Fe
Annealed

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

2. APPLICATION: Primarily lock wire requireing oxidation resistance superior to that of the 18-8 type of steel.

3. COMPOSITION:

Carbon	0.15 max
Manganese	1.00 max
Silicon	0.50 max
Chromium	14.00 - 17.00
Nickel + Cobalt	72.00 min
Cobalt, if determined	1.00 max
Iron	6.00 - 10.00
Copper	0.50 max

4. CONDITION: Cold-drawn and annealed, unless otherwise specified.

4.1 Wire shall be supplied in coils, unless otherwise ordered.

5. TECHNICAL REQUIREMENTS:

5.1 Tensile Strength:

Nominal Diameter, Inch	Tensile Strength, psi	
	Coils	Straight Lengths
Under 0.032	115,000 max	130,000 max
0.032 and over	105,000 max	120,000 max

5.2 Wrapping: Wire shall withstand, without cracking, wrapping at room temperature five full, closely spaced turns around a diameter equal to the diameter of the wire.

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

7. TOLERANCES: Unless otherwise specified, diameter tolerances shall be as follows:

Nominal Diameter, Inch	Tolerance, Inch plus and minus
0.023 and under	0.0004
Over 0.023 - 0.032, incl	0.0005
Over 0.032 - 0.043, incl	0.0008
Over 0.043 - 0.312, incl	0.001