Society of Automotive Engineers, Inc.
TWO PENNSYLVANIA PLAZA, NEW YORK, N.Y. 10000

AEROSPACE MATERIAL SPECIFICATION

AMS 5674

Issued 5-1-69
Revised

STEEL WIRE, CORROSION AND HEAT RESISTANT
18Cr - 11.5Ni - (Cb+Ta) (SAE 30347)

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

2. APPLICATION: Primarily for screening and stitching requiring good corrosion resistance and which will be subjected to elevated temperatures during fabrication or in service. Material has satisfactory oxidation resistance up to approximately 1500 F (816 C), but is useful at that temperature only when stresses are low.

3. COMPOSITION:

	min	max
Carbon	--	0.08
Manganese	--	2.00
Silicon	--	1.00
Phosphorus	--	0.040
Sulfur	--	0.030
Chromium	17.00	19.00
Nickel	9.00	12.00
Columbium + Tantalum	10 x C	1.10
Molybdenum	--	0.50
Copper	--	0.50

3.1 Check Analysis: Composition variations shall meet the requirements of the latest issue of AMS 2248.

4. CONDITION: Unless otherwise ordered, solution heat treated, free from continuous carbide network, and bright finished.

5. TECHNICAL REQUIREMENTS:

5.1 Tensile Properties:

Nominal Diameter Inch	Tensile Strength, psi, max	
	Coils	Straight Lengths
Up to 0.020, incl	125,000	135,000
Over 0.020 to 0.125, incl	115,000	125,000
Over 0.125	105,000	115,000

5.2 Bending: Wire shall withstand, without cracking, bending flat on itself.

6. QUALITY:

6.1 Material shall be uniform in quality and condition, clean, and free from kinks, twists, scrapes, splits, cold shuts, and other injurious imperfections.

6.2 The surface shall have a bright, smooth finish, free from pits, abrasions, and other surface imperfections.