

# AERONAUTICAL MATERIAL SPECIFICATION

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

## AMS 5688A

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### STEEL WIRE, CORROSION RESISTANT 18 Chromium - 8 Nickel (Spring)

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

2. COMPOSITION:

Carbon	0.15 max
Manganese	0.20 - 2.50
Silicon	0.20 - 1.50
Copper	0.50 max
Phosphorus	0.04 max
Sulphur	0.04 max
Chromium	17.00 min
Nickel	7.00 min

3. CONDITION: Spring temper, cold drawn to the required size. The wire shall conform to the following minimum physical properties:

<u>Diameter</u> inch	<u>Number of Bends</u> (3/16 inch radius)	<u>Tensile Strength</u> lb. per sq. in.
0.010 and less	--	255,000
Over 0.010 to 0.016, incl.	--	250,000
Over 0.016 to 0.025, incl.	--	245,000
Over 0.026 to 0.033, incl.	10	245,000
Over 0.033 to 0.041, incl.	8	245,000
Over 0.041 to 0.051, incl.	8	240,000
Over 0.051 to 0.063, incl.	8	235,000
Over 0.063 to 0.071, incl.	7	230,000
Over 0.071 to 0.080, incl.	7	225,000
Over 0.080 to 0.090, incl.	7	220,000
Over 0.090 to 0.100, incl.	6	215,000
Over 0.100 to 0.106, incl.	6	210,000
Over 0.106 to 0.130, incl.	6	205,000
Over 0.130 to 0.138, incl.	5	205,000
Over 0.138 to 0.146, incl.	5	200,000
Over 0.146 to 0.162, incl.	5	195,000
Over 0.162 to 0.180, incl.	5	180,000

4. QUALITY: (a) The wire shall be uniform in quality, cylindrical, clean and free from kinks, twists, scrapes, splits, cold shuts, and other injurious defects.

(b) The surface must have a bright, smooth, cold-drawn finish, free from pits, abrasions, and other surface imperfections.