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Revised

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AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.

29 West 39th Street

New York City

AMS
5688

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

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

Carbon	0.15 max
Manganese	2.00 max
Silicon	0.75 max
Phosphorus	0.03 max
Sulphur	0.03 max
Chromium	17.00 min
Nickel	7.00 min
3. **CONDITION:** Spring temper, cold drawn to the required size. The material shall conform to the following minimum properties:

<u>Diameter, inches</u>	<u>Tensile Strength, lb/sq in.</u>	<u>Bends before Breaking, 3/16 inch radius</u>
0.025	300,000	—
0.040	280,000	10
0.060	260,000	10
0.080	240,000	9
0.100	230,000	8
0.120	220,000	7
0.140	210,000	6
0.160	200,000	5
0.180	190,000	5

Sizes other than those indicated shall be in proportion.

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.
5. **TOLERANCE:** The following variations in thickness are permissible. All dimensions are in inches:

<u>Diameter</u>	<u>Tolerance</u>	
	<u>plus</u>	<u>minus</u>
0.025 or less	0.000	0.0005
0.026 to 0.032, inclusive	0.000	0.001
0.033 to 0.090, "	0.000	0.002
0.091 to 0.180, "	0.000	0.003