AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS 5517C

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STEEL SHEET AND STRIP, CORROSION RESISTANT
18Cr - 8Ni
(Cold Rolled - 125,000 psi)

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

2. APPLICATION: This material is intended for applications requiring drawing or forming.

3. COMPOSITION:

			Check Analysis Under Min	Check Analysis Over Max
Carbon	0.15	max	--	0.01
Manganese	2.00	max	--	0.04
Silicon	1.00	max	--	0.05
Phosphorus	0.040	max	--	0.005
Sulfur	0.030	max	--	0.005
Chromium	17.00	min	0.20	--
Nickel	7.00	min	0.10	--
Molybdenum	0.50	max	--	0.03
Copper	0.50	max	--	0.03

4. CONDITION: Unless otherwise specified, the material shall be furnished in the following condition:

4.1 Sheet: Solution heat treated, pickled, and cold rolled (No. 2B Finish).

4.2 Strip: Cold rolled, solution heat treated, pickled, and rerolled (No. 2 Strip Finish).

5. TECHNICAL REQUIREMENTS:

5.1 Physical Properties: Material shall have the following physical properties:

Tensile Strength, psi	125,000 - 150,000
Yield Strength (0.2% Offset or at 0.0098 inch in 2 in. Extension Under Load), psi	75,000 min
Elongation, % in 2 in.	25 min

For widths 9 inches and over, tensile test specimens shall be taken with the axis perpendicular to the direction of rolling. For widths less than 9 inches, tensile test specimens shall be taken with the axis parallel to the direction of rolling.

5.2 Bending: Material shall withstand, without cracking, bending at room temperature through the angle indicated below around a diameter equal to the bend factor times the thickness of the material, with axes of bends both perpendicular and parallel to the direction of rolling:

Thickness Inch	Angle, Degrees Min	Bend Factor
Under 0.050	180	1
0.050 and Over	90	2

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