AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS 5519C

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STEEL SHEET AND STRIP, CORROSION RESISTANT
18Cr - 8Ni
(Cold Rolled - 185,000 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 moderate bending.

3. COMPOSITION:

		Check Analysis	
		Under Min or	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:

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

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

5. TECHNICAL REQUIREMENTS: (a) Physical Properties. - Material shall have the following physical properties:

Tensile Strength, psi	185,000 min
Yield Strength (0.2% Offset or at 0.0148 inch in 2 in. Extension Under Load), psi	110,000 min
Elongation, % in 2 in.	
Thickness: 0.015 and under	8 min
Over 0.015	9 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.

(b) 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 "N"
Under 0.031	180	4
0.031 and Over	90	3