AERONAUTICAL MATERIAL SPECIFICATION

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

AMS 5519 A

Issued 1-23-40
Revised 11-1-41

STEEL SHEET AND STRIP, CORROSION RESISTANT
Cold Rolled High Ductility Type
18 Chromium - 8 Nickel (185,000 T.S.)

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 to 2.50
Silicon	0.75 max
Phosphorous	0.03 max
Sulphur	0.03 max
Copper	0.50 max
Chromium	17.00 min
Nickel	7.00 min

3. CONDITION: (a) Hot rolled, solution heat-treated, pickled and cold rolled. (No. 2B Finish)

(b) Tensile test specimens shall be pulled at a rate of 0.05 inch per minute, and shall conform to the following requirements:

Tensile Strength, lbs./sq.in.	185,000 min
Yield Strength, lbs./sq.in.	140,000 min
Extension Under Load, Inch in 2 Inches	0.0148
Elongation % in 2 inches	
Thicknesses up to 0.015	8 min
Thicknesses over 0.015	9 min

For widths 9 inches or 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.

(c) Bend test specimens shall withstand bending in any direction through an angle indicated in the following table on a diameter equal to "N" times the least thickness of the specimen, without cracking.

Thickness, Inch	Angle, Deg.	Bend Factor
0.030 and Under	180	4
0.031 to 0.050	90	3

4. QUALITY: (a) This material must be uniform in quality, free from surfaces or internal defects and must not reveal material defects during fabrication.

(b) All sheets or strips shall be free from grease or other foreign matter, and shall have a workmanlike finish.