AERONAUTICAL MATERIAL SPECIFICATION

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

AMS 5044

Issued 12-1-42

Revised

STEEL SHEET AND STRIP
Low Carbon - Half Hard

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

2. **COMPOSITION:**

		Individual Sheet Check Analysis Over or Under
Carbon	0.08 - 0.13	0.01
Manganese	0.30 - 0.50	0.03
Phosphorus	0.04 max	0.008
Sulphur	0.05 max	0.008

3. **CONDITION:** (a) Cold rolled and oiled.

   (b) Test specimens, cut across the direction of rolling except on Strip less than nine inches wide, shall conform to the following requirements:

Tensile Strength, lbs per sq in.	60,000 min
Tensile Strength, lbs per sq in.	75,000 max
Elongation, % in 2 in.	4 min
Rockwell Hardness	B 70-83

   (c) Bend test specimens shall withstand cold bending through a 90° angle round a radius equal to the thickness of the test piece, but not less than 0.010 inch without cracking, the axis of bend being perpendicular to the direction of rolling.

4. **QUALITY:** This material must be uniform in quality and temper, straight, flat, clean and smooth, free from seams, laminations, blisters, scale and other injurious defects within the limits of best commercial manufacturing methods. Material revealing defects during fabrication is subject to rejection.

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

THICKNESS TOLERANCES, INCHES
WIDTH RANGE

Thickness Inches From	To & Incl.	Over 12 to 30 Incl.	Over 30 to 32 Incl.	Over 32 to 34 Incl.	Over 34 to 36 Incl.	Over 36 to 38 Incl.	Over 38 to 42 Incl.	Over 42 to 46 Incl.	Over 46 to 50 Incl.	Over 50 to 54 Incl.	Over 54 to Incl.
.0451	.0620	.0030	.0030	.0030	.0030	.0030	.0030	.0030	.0030	.0035	.0040
.0361	.0450	.0020	.0020	.0020	.0020	.0025	.0025	.0030	.0030	.0035	.0040
.0301	.0360	.0015	.0015	.0020	.0020	.0025	.0025	.0030	.0030	.....	.....
.0241	.0300	.0010	.0015	.0015	.0020	.0020	.0025	.0030	.....	.....	.....
.0181	.0240	.0010	.0015	.0015	.0020	.0020	.....	.....	.....	.....	.....
.0081	.0180	.0005	.0015	.....	.....	.....	.....	.....	.....	.....	.....