

AERONAUTICAL MATERIAL SPECIFICATION

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

AMS5045A

Issued 7-1-45

Revised 12-1-47

STEEL SHEET AND STRIP Low Carbon - Hard

1. **ACKNOWLEDGMENT:** A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.
2. **APPLICATION:** Primarily for stamped parts where strength, imparted by cold rolling, rather than ductility is required.

3. **COMPOSITION:**

		Check Analysis	
		Under Min	or Over Max
Carbon	0.25 max	--	0.03
Manganese	0.30 - 0.60	0.03	0.03
Phosphorus	0.040 max	--	0.01
Sulfur	0.050 max	--	0.01

4. **CONDITION:** Cold rolled and oiled, having hardness of Rockwell B 90-102 in thicknesses 0.069 in. and under and Rockwell B 84-96 in thicknesses over 0.069 in. Acceptability of material 0.037 in. and under in thickness shall be based on conformance to one of the following requirements as applicable:

Nominal Thickness Inch	Hardness (Equivalent to Rockwell B 90-102)
0.006 to 0.013, incl	Superficial Rockwell 15-T 90-94
Over 0.013 to 0.037, incl	Superficial Rockwell 30-T 76-83

5. **QUALITY:** Material shall be uniform in quality and condition, clean, sound, smooth, and free from foreign materials and from internal and external defects detrimental to fabrication or to performance of parts.
6. **TOLERANCES:** Unless otherwise specified, tolerances shall conform to the latest issue of AMS 2232 as applicable. Thickness and width tolerances shall be as specified below:

- (a) Thickness - Table I
- (b) Width - Table III

7. **REPORTS:** (a) Unless otherwise specified, the vendor of the product shall furnish with each shipment three copies of a notarized report showing the results of tests to determine conformance to the requirements of this specification, or stating that the chemical composition and hardness of the material conform to the requirements specified. This report shall include the purchase order number, material specification number, size, and quantity.

(b) Unless otherwise specified, the vendor of finished or semi-finished parts shall furnish with each shipment three copies of a notarized report showing the purchase order number, material specification number, contractor or other

Section 7C of the SAE Technical Board rules provides that: "All technical reports, including standards approved and practices recommended, are advisory only. Their use by anyone engaged in industry or trade is entirely voluntary. There is no agreement to adhere to any SAE standard or recommended practice, and no commitment to conform to any SAE standard or recommended practice. The Board and its Committees will not investigate or consider patents which may apply to the subject matter. Prospective users of the report are responsible for protecting themselves against liability for infringement of patents."