AERONAUTICAL MATERIAL SPECIFICATION

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

AMS 5080

Issued 6-1-42
Revised

CARBON STEEL
.32 - .38 Carbon

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

2. FORM: Bars, billets, forgings, or as ordered.

3. COMPOSITION:

		Individual Bar Check Analysis Over or Under
Carbon	0.32 - 0.38	0.02
Manganese	0.60 - 0.90	0.03
Phosphorus	0.040 max	0.008
Sulphur	0.050 max	0.008

4. CONDITION: (a) Bar stock must be supplied in a machinable condition with a hardness of not more than Brinell 229, unless otherwise ordered.

(b) Stock ordered for forgings shall be supplied in the condition and finish as ordered by the forging manufacturer.

(c) Forgings are to be supplied as ordered.

5. QUALITY: Bars shall be commercially straight, sound, of uniform quality and condition, free from pipes, laps, cracks, twists, seams, scale, damaged ends, or other injurious defects, and shall have a smooth finish of the best quality.

6. TOLERANCES: Unless otherwise ordered, the following tolerances shall apply:

(a) Cold-finished round bars and all hexagons shall be in accordance with the following:

Diameter or Thickness, inches	Tolerance, inch plus	minus
Up to 2, incl.	0.000	0.004
Over 2 to 3, incl.	0.000	0.006
Over 3 to 6, incl.	0.000	0.008

(b) Other shapes of cold-finished bars shall be in accordance with A.S.T.M. A108-36.

(c) All hot-rolled bars, other than hexagons, shall be in accordance with A.S.T.M. A107-40.