

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS5080B

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STEEL
0.32-0.38C (SAE 1035)

1. ACKNOWLEDGMENT: A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.

2. FORM: Bars, billets, forgings, and mechanical tubing.

3. COMPOSITION:

Check Analysis			
Under Min or Over Max			
Carbon	0.32 - 0.38	0.03	0.03
Manganese	0.60 - 0.90	0.03	0.03
Silicon	0.15 - 0.30	0.02	0.02
Phosphorus	0.040 max	--	0.008
Sulfur	0.050 max	--	0.008

4. CONDITION:

4.1 Bars: In a machinable condition having hardness not higher than Brinell 229 or equivalent, except that, if ordered cold finished, bars may have hardness as high as Brinell 241 or equivalent.

4.2 Tubing: In a machinable condition.

4.3 Forgings: As ordered.

4.4 Forging Stock: As ordered by the forging manufacturer.

5. QUALITY: Material shall be uniform in quality and condition, clean, sound, 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 following:

6.1 Bars: The latest issue of AMS 2231 as applicable. Diameter and thickness tolerances for cold finished bars and all hexagons Table I, column headed "Over 0.28 to 0.55 incl."

6.2 Tubing: The latest issue of AMS 2253 as applicable to Mechanical Type.

7. REPORTS:

7.1 Unless otherwise specified, the vendor of the product shall furnish with each shipment three copies of a report of the results of tests for chemical composition of each heat in the shipment. This report shall include the purchase order number, heat number, material specification number, size, and quantity from each heat. If forgings are supplied, the part number and size of stock used to make the forgings shall also be included.

on 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 inform to or be guided by any technical report. In formulating and approving technical reports, 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."