

AERONAUTICAL MATERIAL SPECIFICATION

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AMS5060 B

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STEEL
0.13-0.18C (SAE 1015)

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. APPLICATION: Primarily for steel backed bearings, and carburized parts requiring a low maximum hardness after quenching uncarburized surfaces of the steel in water from a temperature above the transformation range of the steel.
4. COMPOSITION:

Check Analysis			
Under Min or Over Max			
Carbon	0.13 - 0.18	0.02	0.02
Manganese	0.30 - 0.60	0.03	0.03
Phosphorus	0.040 max	--	0.008
Sulfur	0.050 max	--	0.008

5. CONDITION:
 - 5.1 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.
 - 5.2 Tubing: In a machinable condition.
 - 5.3 Forgings: As ordered.
 - 5.4 Forging Stock: As ordered by the forging manufacturer.
6. TECHNICAL REQUIREMENT: Specimens with a section 0.25 in. in thickness, after being quenched in water from a temperature above the transformation range, shall have surface hardness not higher than Rockwell C 30.
7. 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.
8. TOLERANCES: Unless otherwise specified, tolerances shall conform to the following:
 - 8.1 Bars: The latest issue of AMS 2231 as applicable. Diameter or thickness tolerances for cold finished bars and all hexagons shall conform to Table I, column headed "0.28 and under".
 - 8.2 Tubing: The latest issue of AMS 2253 as applicable to Mechanical Type.

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