AEROSPACE
MATERIAL SPECIFICATIONS

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc. 485 Lexington Ave., New York 17, N.Y.

AMS 6250E

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STEEL BARS, FORGINGS, AND TUBING
1.5Cr - 3.5Ni (0.07 - 0.13C) (SAE 3310)

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

Ø 2. FORM: Bars, forgings, forging stock, and mechanical tubing.

3. APPLICATION: Primarily for carburized parts, including gears, which require high minimum core hardness with narrow range. The core is machinable after hardening.

4. COMPOSITION:

Carbon	0.07 - 0.13
Manganese	0.40 - 0.70
Silicon	0.20 - 0.35
Phosphorus	0.025 max
Sulfur	0.025 max
Chromium	1.25 - 1.75
Nickel	3.25 - 3.75

4.1 Check Analysis: Composition variations shall meet the requirements of the latest issue of AMS 2259, paragraph titled "Low Alloy Steels."

5. CONDITION:

5.1 Bars: Unless otherwise ordered, in a machinable condition and hot finished, having hardness not higher than Brinell 229 or equivalent, except that bars ordered cold finished may have hardness as high as Brinell 248 or equivalent.

5.2 Forgings: As ordered.

5.3 Forging Stock: As ordered by the forging manufacturer.

5.4 Mechanical Tubing: In a machinable condition.

6. TECHNICAL REQUIREMENTS: When ASTM methods are specified for determining conformance to the following requirements, tests shall be conducted in accordance Ø with the issue of the ASTM method listed in the latest issue of AMS 2350.

6.1 Hardenability: Shall be J41 = 1 max and J32 = 6 min when determined by the standard end-quench test specimen in accordance with the SAE Method of Determining Hardenability published in the latest issue of the SAE Handbook, except that the steel shall be normalized at 1700 F ± 10 (926.7 C ± 5.6) and the test specimen austenitized at 1500 F ± 10 (815.6 C ± 5.6). The hardenability test is not required on a product which will not yield a suitable specimen, but the steel from which the product is made shall conform to the hardenability specified in this paragraph.