AEROSPACE
MATERIAL SPECIFICATIONS

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc. 485 Lexington Ave., New York, N.Y. 10017

AMS 6264D

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STEEL BARS, FORGINGS, AND TUBING
1.2Cr - 3.25Ni - 0.12Mo (0.14 - 0.20C) (SAE 9317)

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

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

3. APPLICATION: Primarily for carburized parts, such as gears, requiring high minimum core hardness with narrow range. The core is not machinable after hardening.

4. COMPOSITION:

	min	max
Carbon	0.14	0.20
Manganese	0.40	0.70
Silicon	0.20	0.35
Phosphorus	--	0.025
Sulfur	--	0.025
Chromium	1.00	1.40
Nickel	3.00	3.50
Molybdenum	0.08	0.15
Copper	--	0.35

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 Mechanical Tubing: In a machinable condition and cold finished, having hardness not higher than Rockwell C 25 or equivalent, except that tubing ordered hot finished shall be in a machinable condition having hardness not higher than Rockwell B 99 or equivalent.

5.4 Forging Stock: As ordered by the forging manufacturer.

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

6.1 Hardenability: Shall be J48=1 max and J40=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.

