



AEROSPACE MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
TWO PENNSYLVANIA PLAZA, NEW YORK, N. Y. 1000

AMS 5010E

Superseding AMS 5010D

Issued 1-22-40
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STEEL BARS Screw Stock (SAE 1112)

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

2. **COMPOSITION:**

	min	max
Carbon	--	0.13
Manganese	0.70 - 1.00	
Phosphorus	0.07 - 0.12	
Sulfur	0.16 - 0.23	

- 2.1 **Check Analysis:** Composition variations shall meet the requirements of the latest issue of AMS 2259, paragraph titled "Carbon Steels, Bars, Forgings, and Forging Stock."

3. **CONDITION:** Unless otherwise ordered, the product shall be cold drawn.

4. **TECHNICAL REQUIREMENTS:** Unless otherwise specified, hardness shall be as follows:

Nominal Diameter or Distance Between Parallel Sides Inches	Hardness Brinell
Up to 1.00, incl	170 - 255
Over 1.00 to 2.00, excl	156 - 201
2.00 and Over	110 - 201

5. **QUALITY:** The product shall be uniform in quality and condition, sound, and free from foreign materials and, consistent with the type of steel involved, from internal and external imperfections detrimental to fabrication or to performance of parts.
6. **TOLERANCES:** Unless otherwise specified, tolerances shall conform to all applicable requirements of the latest issue of AMS 2231.

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. This report shall include the purchase order number, material specification number and its revision letter, size, and quantity.
- 7.2 Unless otherwise specified, the vendor of finished or semi-finished parts shall furnish with each shipment three copies of a report showing the purchase order number, material specification number and its revision letter, contractor or other direct supplier of material, part number, and quantity. When material for making parts is produced or purchased by the parts vendor, that vendor shall inspect each lot of material to determine conformance to the requirements of this specification, and shall include in the report a statement that the material conforms, or shall include copies of laboratory reports showing the results of tests to determine conformance.