

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
29 West 39th Street
New York City

AMS 7304A

Issued 7-1-48

Revised 6-1-51

STEEL SPRINGS 0.85 - 1.05C

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

2. **TYPE:** Coiled springs made from cold drawn annealed round wire.

3. **COMPOSITION:**

		Check Analysis	
		Under Min	Over Max
Carbon	0.85 - 1.05	0.02	0.02
Manganese	0.25 - 0.60	0.02	0.02
Phosphorus	0.045 max	--	0.005
Sulfur	0.050 max	--	0.005

4. **CONDITION:** Hardened and tempered after forming.

5. **TECHNICAL REQUIREMENTS:**

5.1 **Hardness:** Unless otherwise specified on the drawing, hardness of finished springs shall be Rockwell Superficial 30-N 64-69, or equivalent.

5.2 **Decarburization:** Springs shall be free from decarburization to the extent that the increase in hardness from the surface to any point below the surface will be not more than four points on the Rockwell Superficial 30N scale.

5.3 Springs shall be subject to magnetic particle inspection.

6. **QUALITY:** Springs shall be uniform in quality and condition, clean, sound, smooth, and free from foreign materials and from internal and external defects detrimental to their performance.

7. **REPORTS:** Unless otherwise specified, the vendor of springs shall furnish with each shipment three copies of a report showing the purchase order number, material specification number, contractor or other direct supplier of wire, part number, and quantity. When wire for making parts is produced or purchased by the parts vendor, that vendor shall inspect each lot of wire to determine conformance to the requirements of this specification, and shall include in the report a statement that the wire conforms, or shall include copies of laboratory reports showing the results of tests to determine conformance.

8. **IDENTIFICATION:** Unless otherwise agreed upon by purchaser and vendor, each spring shall be marked with coil number and part number on one end. Marking shall appear on chamfer or on ground face of dead coil. If springs are too small to be marked individually, part numbers shall appear on containers.

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 the SAE standard or recommended practice, and no commitment to conform 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."