



AEROSPACE MATERIAL SPECIFICATION

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

AMS 5110B
Superseding AMS 5110A

Issued 12-4-39
Revised 5-1-69

MUSIC WIRE Commercial

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

2. **FORM:** Cold drawn wire supplied as coils of wire or as finished springs.

3. **COMPOSITION:**

	min	max
Carbon	0.75	0.88
Manganese	0.60	0.90
Silicon	0.15	0.30
Phosphorus	--	0.040
Sulfur	--	0.050

3.1 **Check Analysis:** Composition variations shall meet the requirements of the latest issue of AMS 2259, paragraph titled, "Carbon Steels, Wire other than Flat".

4. **CONDITION:** Cold drawn.

5. **TECHNICAL REQUIREMENTS:**

5.1 **Wire:**

5.1.1 **Tensile Properties:**

Nominal Diameter Inch	Tensile Strength, psi	
	min	max
Up to 0.062, incl	300,000	---
Over 0.062 to 0.091, incl	285,000	335,000
Over 0.091 to 0.124, incl	265,000	315,000
Over 0.124 to 0.149, incl	255,000	295,000
Over 0.149 to 0.174, incl	240,000	280,000
Over 0.174 to 0.191, incl	225,000	265,000
Over 0.191 to 0.250, incl	200,000	250,000

5.2 **Finished Springs:** Unless otherwise specified, after coiling, springs shall be stress relieved by heating in oil to 550 F ± 10 (287.8 C ± 5.6), holding at heat for 1 hr, and cooling in air.

6. **QUALITY:** Wire shall have a bright, smooth, cold drawn finish and shall be free from imperfections such as seams, pits, nicks, scratches, and other imperfections detrimental to fabrication or to performance of parts. A dull surface resulting from the use of a phosphate coating during drawing is acceptable, unless otherwise specified.

SAE Technical Board rules provide that: "All technical reports, including standards, are advisory only. Their use by anyone engaged in industry or trade is entirely voluntary. There is no agreement to adhere to any 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."