

AERONAUTICAL MATERIAL SPECIFICATIONS

AMS 7210c

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

Issued 3-13-40
Revised 1-15-60

COTTER PINS, STEEL, CORROSION RESISTANT 13Cr - 8Ni

1. ACKNOWLEDGMENT: A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.
2. APPLICATION: Primarily for use where a corrosion resistant locking device is required at temperatures up to 800 F.
3. COMPOSITION:

		Check Analysis	
		Under	Min or Over Max
Carbon	0.20 max	--	0.01
Manganese	2.00 max	--	0.04
Silicon	0.75 max	--	0.05
Phosphorus	0.030 max	--	0.005
Sulfur	0.030 max	--	0.005
Chromium	17.00 min	0.20	--
Nickel	8.00 min	0.10	--

4. CONDITION: Wire from which pins are manufactured shall be solution heat treated and cold drawn.

5. TECHNICAL REQUIREMENTS:

- 5.1 Hardness: Pins shall have hardness as follows:

Ø	Nominal Pin Diameter Inch	Hardness	
		Vickers (10 Kg load) or Rockwell 15N	
	1/16 and under	200 - 350	65 - 78
	Over 1/16 to 3/32, incl	170 - 245	60 - 70
	Over 3/32	140 - 220	55 - 67

- 5.2 Bending: Either prong of any pin shall withstand bending flat on itself, without cracking; the flat of the prong shall form the outside of the bend.

6. QUALITY: Pins shall be uniform in quality, condition, and diameter, of smooth, bright finish and good workmanship, and shall be free from foreign materials and from internal and external imperfections detrimental to their performance.

7. SHAPE: Unless otherwise specified on the drawing, pins shall have ends slightly rounded, beveled, or pointed, and with one end slightly extended beyond the other to permit easy assembly.

8. TOLERANCES: Permissible variations in the cross-section dimensions of the half-round wire used for manufacture of pins shall be ± 0.002 in. for the major axis and ± 0.001 in. for the minor axis.

Section 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 obligation 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."