

AERONAUTICAL MATERIAL SPECIFICATIONS

AMS 7211A

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COTTER PINS, STEEL, CORROSION AND HEAT RESISTANT
18Cr - 9.5Ni - Ti

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 and heat resistant locking device \emptyset is required at temperatures up to 1500 F.
3. COMPOSITION:

		Check Analysis	
		Under	Min or Over Max
Carbon	0.08 max	--	0.01
Manganese	2.00 max	--	0.04
Silicon	1.00 max	--	0.05
Phosphorus	0.040 max	--	0.005
Sulfur	0.030 max	--	0.005
Chromium	17.00 - 19.00	0.20	0.20
Nickel	8.00 - 11.00	0.15	0.15
Titanium	6xC - 0.70	0.05	0.05
Molybdenum	0.50 max	--	0.03
Copper	0.50 max	--	0.03

4. CONDITION: Wire from which pins are manufactured shall be solution heat treated and cold finished.
5. TECHNICAL REQUIREMENTS:

- 5.1 Hardness: Pins shall have hardness as follows:

\emptyset	Nominal Pin Diameter Inch	Hardness	
		Vickers (10 kg load) or Rockwell 15-N	
	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 \emptyset rounded, beveled, or pointed, and with one end slightly extended beyond the other to permit easy assembly.

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