

AEROSPACE MATERIAL SPECIFICATIONS

AMS 7211B

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc.

485 Lexington Ave., New York, N.Y. 10017

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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 is required at temperatures up to 1500 F (816 C).

3. **COMPOSITION:**

	min	max
Carbon	--	0.08
Manganese	--	2.00
Silicon	--	1.00
Phosphorus	--	0.040
Sulfur	--	0.030
Chromium	17.00	19.00
Nickel	8.00	11.00
Titanium	6xC	0.70
Molybdenum	--	0.50
Copper	--	0.50

- 3.1 **Check Analysis:** Composition variations shall meet the requirements of the latest issue of AMS 2248.
4. **CONDITION:** Wire from which pins are manufactured shall be solution heat treated and cold finished.
5. **TECHNICAL REQUIREMENTS:**
 - 5.1 **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.
9. **REPORTS:** Unless otherwise specified, the vendor shall furnish with each shipment three copies of a report stating that the product conforms to the condition, chemical composition, and technical requirements of this specification. This report shall include the purchase order number, material specification number, part number, nominal size, and quantity.

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