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Revised _____

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AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.

29 West 39th Street

New York City

AMS

7210

COTTER PINS Corrosion Resistant Steel

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

2. **COMPOSITION:**
- | | |
|------------|-----------|
| Carbon | 0.20 max |
| Manganese | 2.00 max |
| Silicon | 0.75 max |
| Phosphorus | 0.03 max |
| Sulphur | 0.03 max |
| Chromium | 17.00 min |
| Nickel | 8.00 min |

3. **CONDITION:** (a) Wire from which pins are manufactured shall be annealed and cold drawn to conform to the following hardness values:

<u>Nominal pin diameter, inch</u>	<u>Vickers</u>	<u>or Rockwell 15-N</u>
1/16 and less	200-300	65-75
3/32	165-235	58-67
1/8 and over	140-200	55-65

(b) A pin shall withstand bending a prong flat on itself without cracking; the flat side of the prong shall form the outside of the bend.

4. **QUALITY:** Pins shall be uniform in quality, temper and diameter, of smooth bright finish and good workmanship, and shall be free from defects which might affect their serviceability.
5. **SHAPE:** Pins shall have ends slightly rounded, beveled, pointed, or with one end slightly extended beyond the other to permit easy assembly.
6. **TOLERANCE:** Permissible variations in the cross-sectional dimensions of the half-round wire used for the manufacture of the pins shall be plus or minus 0.002 in. for the major axis and plus or minus 0.001 in. for the minor axis.
7. **SIZES:** Standard sizes shall start with 1/16 in. nominal diameter and increase by 1/32 in. increments to and including 1/4 in. nominal diameter, and then increase by 1/16 in. increments for diameters over 1/4 in.
8. **REPORTS:** The manufacturer shall supply three copies of a report of the chemical composition of each lot on each shipment. These reports shall include the material specification number, purchase order number, part number, size and quantity.