

# AERONAUTICAL MATERIAL SPECIFICATIONS

**AMS 7229B**

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

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## RIVETS, STEEL, CORROSION AND HEAT RESISTANT 18Cr - 11Ni - (Cb+Ta)

1. **ACKNOWLEDGMENT:** A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.
2. **APPLICATION:** Rivets requiring corrosion resistance, and heat and oxidation resistance up to approximately 1500 F, but not high strength at that temperature. Rivets should not be hand peened during riveting.

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                  | 9.00 - 12.00  | 0.15 | 0.15  |
| Columbium +<br>Tantalum | 10xC - 1.10   | 0.05 | 0.05  |
| Molybdenum              | 0.50 max      | --   | 0.03  |
| Copper                  | 0.50 max      | --   | 0.03  |

4. **CONDITION:** Cold headed, unless purchaser permits machining, and solution heat treated free from continuous carbide network, and descaled if necessary. Rivets shall be fabricated from wire cold drawn from hot finished wire or rod which has been previously ground or has had surface preparation (other than by pickling) for removal of seams and other injurious surface imperfections.
5. **TECHNICAL REQUIREMENTS:**
  - 5.1 **Heat Treatment:** Solution heat treatment shall be done in a furnace atmosphere which will not cause surface hardening.
  - 5.2 **Hardness:** Rivets shall have hardness not higher than Vickers 150 or equivalent, when determined on a flat, smooth, filed or ground surface near the midlength of the shank.
  - 5.3 **Embrittlement:** Rivets shall be capable of meeting the following test: