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

AMS 7229C

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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	Check Analysis 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 + 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, from cold drawn wire. Unless otherwise specified, rivets after forming shall be solution heat treated free from continuous carbide network, and descaled if necessary.

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:

5.3.1 Representative rivets, after being heated at 1200 F ± 10 for 2 hr and air cooled, shall withstand immersion for 48 hr in a boiling aqueous solution containing 100 g of $CuSO_4.5H_2O$ and 100 ml of H_2SO_4 (sp gr 1.84) per liter of solution under a reflux condenser, without evidence of intercrystalline surface attack.

5.4 Rivets shall be capable of being driven satisfactorily with a full head free from cracks.

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