AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS5636

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STEEL, CORROSION RESISTANT
18Cr - 8Ni (SAE 30302)
Cold Drawn - 100,000 psi

1. ACKNOWLEDGMENT: A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.

2. FORM: Bars up to and including 0.75 in. in diameter or distance between parallel sides.

3. APPLICATION: Primarily for small parts, such as bolts, screws, and clevis pins requiring corrosion resistance for use up to 700 F and fabricated by heading or by machining from bars and roll threading.

4. COMPOSITION:

		Check Analysis Under Min	Check Analysis Over Max
Carbon	0.08 - 0.15	0.01	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	7.00 - 10.00	0.10	0.10

5. CONDITION: Solution heat treated free from continuous carbide network and cold drawn.

6. TECHNICAL REQUIREMENTS:

6.1 Physical Properties: Bars shall conform to the following requirements:

Tensile Strength, psi	100,000 min
Yield Strength at 0.2% offset or at 0.0081 inch in 2 in. extension under load, psi	60,000 min
Elongation, % in 4D	35 min
Reduction of Area, %	50 min

7. QUALITY: Material shall be uniform in quality and condition, clean, sound, and free from foreign materials and from internal and external defects detrimental to fabrication or to performance of parts.

8. TOLERANCES: Tolerances shall conform to the latest issue of AMS 2241 as applicable to cold finished.

9. REPORTS:

9.1 Unless otherwise specified, the vendor of bars shall furnish with each shipment three copies of a notarized report of the results of tests for chemical composition of each heat in the shipment. This report shall include the purchase order number, heat number, material specification number, size, and quantity from each heat.