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400 COMMONWEALTH DRIVE, WARRENDALE, PA 15096

AEROSPACE MATERIAL SPECIFICATION

AMS 5720A

Issued 12-1-50
Revised 10-1-82

UNS K63198

STEEL BARS, CORROSION AND HEAT RESISTANT
20Cr - 9Ni - 1.4Mo - 1.4W - 0.42(Cb + Ta) - 0.22Ti

This specification has been declared "NONCURRENT" by the Aerospace Materials Division, SAE, as of 9-27-72. It is recommended, therefore, that this specification not be specified for new designs.

This cover sheet should be attached to the "A" revision of the subject specification.

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This specification has been declared "CANCELLED" by the Aerospace Materials Division, SAE, as of 10-1-82. By this action, subject specification number and title will be deleted from the active specification index of Aerospace Material Specifications.

This specification is under the jurisdiction of AMS Committee "E".

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
29 West 39th Street
New York City

AMS 5720 A

Issued 12-1-50
Revised 2-15-52

STEEL, CORROSION AND HEAT RESISTANT
20Cr - 9Ni - 1.4Mo - 1.4W - (Cb+Ta) - Ti

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

2. FORM: Bars over 1 in. to 1.5, incl, in diameter or distance between parallel sides.

3. APPLICATION: Primarily for parts, such as bolts, dowels and fittings, for use Ø up to 1150 F.

4. COMPOSITION:

		Check Analysis Under Min	Check Analysis Over Max
Carbon	0.28 - 0.35	0.02	0.02
Manganese	0.75 - 1.50	0.04	0.04
Silicon	0.30 - 0.80	0.05	0.05
Phosphorus	0.040 max	--	0.005
Sulfur	0.030 max	--	0.005
Chromium	18.00 - 21.00	0.25	0.25
Nickel	8.00 - 11.00	0.15	0.15
Molybdenum	1.00 - 1.75	0.05	0.05
Tungsten	1.00 - 1.75	0.05	0.05
Columbium + Tantalum	0.25 - 0.60	0.05	0.05
Titanium	0.10 - 0.35	0.00	0.05
Copper	0.50 max	--	0.03

5. CONDITION: Hot rolled, with final rolling done at a temperature not lower than 1200 F, and stress relieved after final sizing at not lower than 1200 F for not less than 4 hours. Unless otherwise specified, material shall be cold finished for size.

6. TECHNICAL REQUIREMENTS:

6.1 Tensile Properties:

Tensile Strength, psi	100,000 min
Yield Strength at 0.2% Offset or at 0.0095 in. in 2 in. Extension Under Load (E=29,000,000), psi	80,000 min
Elongation, % in 4D	18 min
Reduction of Area, %	35 min

Ø 6.2 Hardness: Material shall have hardness of Brinell 269-321 or equivalent.

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.

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