Society of Automotive Engineers, Inc.
485 LEXINGTON AVENUE, NEW YORK, N.Y. 10017

AEROSPACE MATERIAL SPECIFICATION

AMS 5740

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Revised

STEEL BARS, FORGINGS, AND RINGS, CORROSION AND MODERATE HEAT RESISTANT
14.5Cr - 6.5Ni - 0.72Ti
Solution Treated and Maraged (155,000 psi)

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

2. FORM: Bars, forgings, flash welded rings, and stock for forgings or flash welded rings.

3. APPLICATION: Primarily for parts requiring corrosion resistance and high strength at temperatures up to 600 F (316 C).

4. COMPOSITION:

	min	max
Carbon	--	0.05
Manganese	--	0.50
Silicon	--	0.30
Phosphorus	--	0.03
Sulfur	--	0.03
Chromium	14.00	15.00
Nickel	6.00	7.00
Titanium	0.55	0.90

4.1 Check Analysis: Composition variations shall meet the requirements of the latest issue of AMS 2248.

5. CONDITION: Unless otherwise ordered, the product shall be supplied in the following condition:

5.1 Bars, Forgings, and Flash Welded Rings: Solution heat treated and maraged as in 6.1.

5.1.1 Rounds: Hot finished, solution heat treated, maraged, and centerless ground.

5.1.2 Squares, Flats, and Hexagons: Solution heat treated, maraged, and cold drawn.

5.1.3 Flash welded rings shall not be supplied unless specified or permitted on purchaser's part drawing. When supplied, they shall be manufactured in accordance with the latest issue of AMS 7490; unless otherwise specified.

5.2 Stock for Forgings and Flash Welded Rings: As ordered by the forging or flash welded ring manufacturer.

6. TECHNICAL REQUIREMENTS:

6.1 Heat Treatment: Unless otherwise specified, the product shall be solution heat treated by heating to 1500 F ± 25 (815.6 C ± 14), holding at heat for 1 hr, and cooling as required, and then maraged by heating to 1000 F ± 25 (537.8 C ± 14), holding at heat for 2 hr, and cooling in air.