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

AMS 5592

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Revised

STEEL SHEET, STRIP, AND PLATE, HEAT RESISTANT
18.5Cr - 35Ni - 1.15Si

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

2. APPLICATION: Primarily for parts and assemblies requiring heat and oxidation resistance at elevated temperatures and where such assemblies may require welding during fabrication. Oxidation resistant up to 2100 F (1150 C).

3. COMPOSITION:

Carbon	0.08 max
Manganese	2.00 max
Silicon	0.75 - 1.50
Phosphorus	0.030 max
Sulphur	0.030 max
Chromium	17.00 - 20.00
Nickel	34.00 - 37.00
Copper	0.50 max
Tin	0.025 max
Lead	0.005 max

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

4. CONDITION:

4.1 Sheet 0.050 In. and Over Thick: Hot rolled, solution heat treated free from continuous carbide network, and descaled.

4.2 Sheet Under 0.050 In. Thick and Strip: Cold rolled, solution heat treated free from continuous carbide network, and descaled.

4.3 Plate: Hot rolled, solution heat treated free from continuous carbide network, and descaled.

5. TECHNICAL REQUIREMENTS:

5.1 Tensile Properties:

Tensile Strength, psi	70,000 min
Elongation, % in 2 in.	30 min

5.1.1 Elongation requirement does not apply to sheet or strip under 0.020 in. in thickness.

5.2 Hardness: Shall be not higher than Rockwell B 95 or equivalent.

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