AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS 6320 A

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STEEL
.55 Ni .5 Cr .25 Mo (.33 -.38 C)

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

2. FORM: Bars, billets, forgings, or as ordered.

3. COMPOSITION:

		Individual Bar Check Analysis Over or Under
Carbon	0.33 - 0.38	0.02
Manganese	0.75 - 1.00	0.04
Phosphorus	0.040 max	0.005
Sulphur	0.040 max	0.005
Silicon	0.20 - 0.35	0.02
Nickel	0.40 - 0.70	0.03
Chromium	0.40 - 0.60	0.03
Molybdenum	0.20 - 0.30	0.03

4. GRAIN SIZE: 5 or finer, ASTM E19-39T, method a, unless otherwise ordered. A heat of steel predominately 5 or finer with grains as large as 3 is permissible.

5. CONDITION: (a) Bar stock must be supplied in a machinable condition with a hardness of not more than Brinell 229, unless otherwise ordered.

(b) Stock ordered for forging must be supplied in the condition and finish ordered by the forging manufacturer.

(c) Forgings are to be supplied as ordered.

(d) Material 1" and less in section may be decarburized, but the carbon content 0.012" below the surface must not be under the specified low limit. All sizes ordered ground, turned, polished, etc., must not be decarburized.

6. QUALITY: (a) This material must be aircraft quality. It shall be sound, clean, commercially straight and must not reveal injurious defects during forging, heat treating, or machining.

(b) Visual examination of deep acid etched bars in the as furnished condition shall show no evidence of abnormal segregation, pipes, cracks, seams, or abnormal change in structure from the surface to the center.

(c) Unless otherwise stated, finished parts are subject to magnetic inspection.