


MACSTEEL - SPECIAL STEELS CATALOGUE

Lea Road
Dunswart
P O Box 6130, Dunswart 1508
South Africa

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835M30 (EN30B)
(BS970 Pt 1 of 1983, as Black Annealed Bar
4 1/4% Nickel Chrome Steel

Typical Uses

High Duty gears, pinions, aero engine connecting rods, differential shafts, transmission components, gudgeon pins, heavy roller bearings, breech mechanisms and small arms components, plastic die casting moulds, header dies and die rings.

BS970 of 1955 EN30B	
BS970 Pt 1 of 1983 W.Stoff (German)	835M30 1.2766
Carbon	0.26 – 0.34
Silicon	0.10 – 0.35
Manganese	0.45 – 0.70
Nickel	3.90 – 4.30
Chromium	1.10 – 1.40
Molybdenum	0.20 – 0.35
Sulphur	0.025 max
Phosphorus	0.025 max

Properties Minima unless stated

Heat Treatment	Tensile Strength Rm MPa	Yield Stress Re MPa	Rp 0.2 Mpa	A min on 5.65 √ So	Impact		Hardness HB	Limiting Ruling Section mm
					Izod Ft.lb	KCV J		
Z	1550	1235	1125	7	15	16	444	150

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Size Range			
Diameter in mm	Theoretical Mass Kg/m	Diameter in mm	Theoretical Mass Kg/m
35	7.552	150	138.713
40	9.864	160	157.824
50	15.413	170	178.169
60	22.194	180	199.746
70	30.209	190	222.557
75	34.678	203	254.053
80	39.456	210	271.877
90	49.937	215	284.977
103	65.404	220	298.386
108	71.909	250	385.313
115	81.532	280	483.336
120	88.776	305	573.499
130	104.189	320	631.296
140	120.834		

N.B.

1. Actual mass will vary from theoretical mass due to manufacturing tolerances.
2. Sizes above limiting ruling section will be heat treated to a hardness only, with no guarantee on mechanical properties.
3. A 6 % allowance should always be made for removal of surface defects during machining.
4. For sizes not listed please contact our sales department - we may be able to assist you.
5. Condition "W" this material is often ordered in the annealed condition for machining and subsequent heat treatment to achieve these properties.

Although every care has been taken in the compilation of this brochure, which is for information only, no responsibility can be accepted for inaccuracies.

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