

Material Grade: **835M15**
 Material Condition(s): **Annealed**
 Surface Finish: **As rolled / As forged**

Associated Standard: **BS970**

Description:

4.5% nickel-chromium-molybdenum case hardening steel which may be carburised and hardened in large sections to produce a hard wear resistance case, and developing a core strength of the order of 1310N/mm² with good resistance to stock.

Typical applications: **High duty gears, heavy duty worms, heavy roller bearings, breech mechanisms and small arms components, camshafts, clutch plates, valve rockers.**

1. STEELMAKING

	<u>C</u>	<u>Si</u>	<u>Mn</u>	<u>S</u>	<u>P</u>	<u>Cr</u>	<u>Ni</u>	<u>Mo</u>
Min	0.12	0.10	0.25			1.00	3.90	0.15
Max	0.18	0.35	0.50	0.040	0.035	1.40	4.30	0.30

2. TYPICAL MECHANICAL PROPERTIES

Test type	Tensile and hardness test (at room temperature)						Impact test (KV)
	Yield (Re)	0.2 % proof	UTS (Rm)	Elong (A)	R of A (Z)	Hardness	Room Temp
Unit	N/mm ²	N/mm ²	N/mm ²	%	%	HB	J
Annealed	Min						
	Max					277	
Q+T capability test on 19mm sample	Min		1310	8			28
	Max						