

## EN39B Case hardening steel

Typical Analysis (Ave. values %)	C	Si	Mn	Ni	Cr	Mo	S	P
	0.15	0.25	0.4	4.2	1.2	0.25	0.025	0.025
NEAREST STANDARD	AS		DIN			BS		
	X9315		1.6723			835 M 15		

<b>DESCRIPTION</b>	4¼% Nickel Chromium Molybdenum case hardening steel for large and highly stressed applications.
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<b>APPLICATIONS</b>	Components with large cross sections requiring very high toughness and core strength (1300 MPa) such as gears, gear shafts and heavy duty gear shafts in aircraft, truck construction and mechanical engineering.
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<b>MECHANICAL PROPERTIES</b> Heat Treated Condition	Tensile Strength MPa	Elong. %	Izod Impact J	Brinell Hardness Annealed
	1310	12	33	277 max

<b>HEAT TREATMENT</b>	Forge	850-1050°C. Cool in furnace.
	Normalize	850-880°C. Air cool.
	Anneal	650-700°C. Cool slowly in controlled furnace.
	Carburize	880-930°C. Furnace or Air cool
	Core Refine	850-880°C. Oil quench or Air cool.
	Harden	760-780°C Oil quench.
	Temper	180-200°C air cool

<b>WELDING</b>	Parts should be welded before Carburizing and Hardening. Preheat to 250-350°C. Filler metals:-Bohler FOX DCMS-KB or FOX 2.5 Ni electrodes. DCMS-IG wire.
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<b>SIZE</b>	Round	42-142 mm
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RANGE		
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## Notes

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