

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		

DESCRIPTION	4¼% Nickel Chromium Molybdenum case hardening steel for large and highly stressed applications.
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APPLICATIONS	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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MECHANICAL PROPERTIES Heat Treated Condition	Tensile Strength MPa	Elong. %	Izod Impact J	Brinell Hardness Annealed
	1310	12	33	277 max

HEAT TREATMENT	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

WELDING	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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SIZE RANGE	Round	42-142 mm
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LOCATIONS

Bohler Uddeholm Australia Pty Ltd ABN 15000013052

Sydney	129-135 McCredie Rd Guildford	2161	Ph (02) 8724 5554	Fax (02) 8724 5555
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Albury	1 Eames St Albury	2640	Ph (02) 6041 3399	Fax (02) 6041 1820
Wollongong	40 Doyle Ave Unanderra	2526	Ph (02) 4272 6544	Fax (02) 4272 7563
Marayong	1/21 Binney Rd Marayong	2148	Ph (02) 9831 4431	Fax (02) 9671 1682
Melbourne	282-290 Greens Rd Dandenong	3175	Ph (03) 9767 5554	Fax (03) 9767 5555
Bayswater	4 Amsted Rd Bayswater	3153	Ph (03) 9739 8022	Fax (03) 9739 8033
Adelaide	1 Williams Cir Pooraka	5095	Ph (08) 8368 4554	Fax (08) 8368 4555
Brisbane	12-18 Limestone St Darra	4076	Ph (07) 3712 9554	Fax (07) 3712 9555
Townsville	9-11 Caldwell St Garbutt	4814	Ph (07) 4479 4800	Fax (07) 4725 1316
Perth	29-33 Gauge Cir Canningvale	6155	Ph (08) 9455 8672	Fax (08) 9455 8673
Kewdale	5 Beete St Welshpool	6106	Ph (08) 9350 9582	Fax (08) 9350 9683
Launceston	20 Murphy St Invermay	7248	Ph (03) 6334 3542	Fax (03) 6331 4001

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