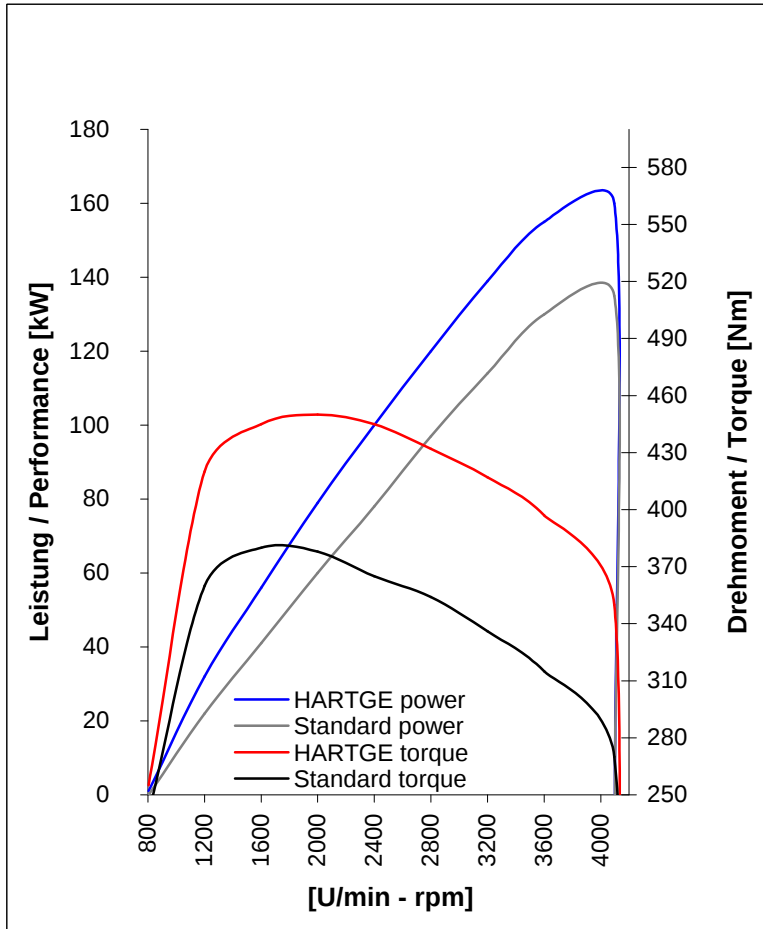


HARTGE engine conversion Performance and engine diagram



**HARTGE engine conversion 11 20 0184
BMW F11 520d (based on 135 kW / 184 hp)**



**HARTGE engine conversions are tested
on the test bench and race track**

Engine	HARTGE	Standard
Cylinders/valves	4 / 4	4 / 4
Displacement (cc)	1995	1995
Stroke/bore (mm)	90.0 / 84.0	90.0 / 84.0
Max output (kW/hp/rpm)	160 (218) / 4000	135 (184) / 4000
Max torque (Nm/rpm)	450 / 1800	380 / 1750 - 2750
Compression ratio :1	16.5	16.5
Fuel	Diesel	Diesel

Emissions/eurocode/fuel consumption	HARTGE	Standard
CO2 emissions (g/km)	130 - 137	130 - 137
Eurocode	Euro 5	Euro 5
Fuel consumption	approx. 0.5 litre less consumption	

Acceleration	Difference	HARTGE	Standard
80 - 180 km/h (sec)	4.16 s	21.66 s	25.82 s
0 - 200 km/h (sec)		**	**
Top speed	+ 7 km/h	229 km/h	222 km/h

** no performance figures available

-Technical data subject to alterations-

Performance figures can vary which is based on the vehicle model e.g. weight, equipment, wheel/tire combination etc.

**HARTGE is approved as an automobile manufacturer by the KBA (German Government Motor Vehicle Authority) since 1985
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