



Actros

Engines

Mercedes-Benz



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Design and construction

Mercedes-Benz engines are specifically designed for use in Mercedes-Benz diesel trucks. The block utilises a cast iron parent bore design which is induction-hardened at the top for extra strength around the combustion chamber.

The combustion process for the engine is a four stroke diesel system incorporating high-pressure direct injection nozzles and pumps.

Aluminium pistons are used to minimise weight. Forged conrods and crankshaft hold the pistons in place. The integrated oil cooler helps keep all of this lubricated and cool during operation.

The cylinder heads on the Mercedes-Benz engine are cast iron and include two inlet and two exhaust valves on each cylinder. A constant throttle exhaust brake valve is also incorporated into the cylinder head.

A single turbocharger drives the air intake system for optimum power.

Emission control

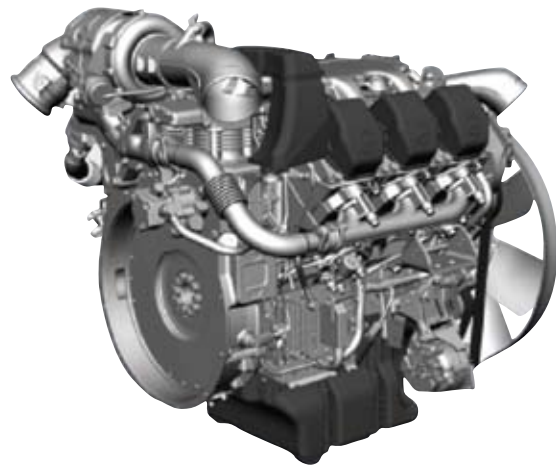
Mercedes-Benz has opted to use SCR (Selective Catalytic Reduction) technology to satisfy ADR80/02 and ADR80/03 emission requirements. SCR technology uses a non-toxic re-agent which is injected into the exhaust system after the turbo. Through a chemical reaction with the re-agent within the catalytic converter emission levels are lowered significantly.

Utilising this SCR technology also helps the engine to run more efficiently as all exhaust treatment is performed after the combustion process, hence exhaust gases do not need to be re-circulated.

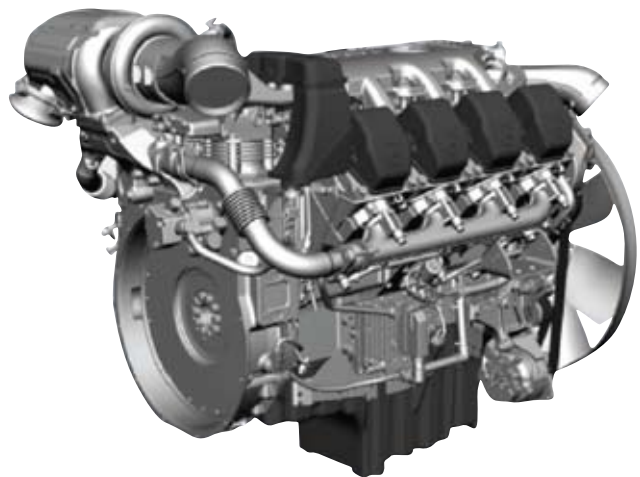
Auxillaries

All Mercedes-Benz engines include a 28V alternator with an 80 Amp output. This can be increased to 100 Amp as an option and is included as standard in trucks with a GCM of 70 tonnes or more. A single air compressor is fitted as standard with the option of upgrading to a twin cylinder compressor. The twin cylinder compressor is standard on trucks with a GCM of 70 tonnes or more.

V6 engine



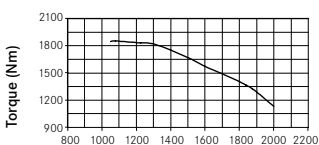
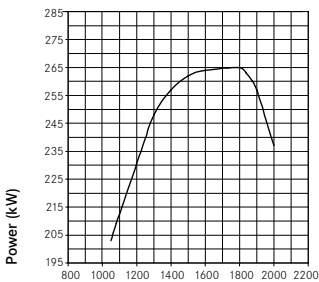
V8 engine



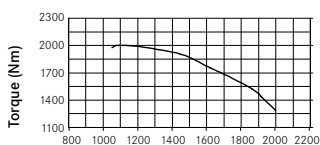
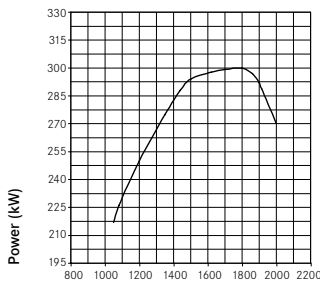
	360 hp	410 hp
Type	Mercedes-Benz OM 510 LA, 12 litre turbo-intercooled 4 valves per cylinder, V6 direct injection	
Maximum power @ 1,800 rpm	265 kW (360 hp)	300 kW (408 hp)
Maximum torque @ 1,080 rpm	1,850 Nm (1,365 lb.ft)	2,000 Nm (1,475 lb.ft)
Bore	130 mm	130 mm
Stroke	150 mm	150 mm
Capacity	11.95 litres	11.95 litres
Weight	940 kg	940 kg
Control	Telligent® electronic engine management	Telligent® electronic engine management
Fuel injection	Direct injection via unit injectors	Direct injection via unit injectors
Cooling	Water cooled with electromagnetic fan	Water cooled with electromagnetic fan
Engine brake	Brake flap & decompression valve	Brake flap & decompression valve
Exhaust	Stainless steel with SCR catalytic converter	Stainless steel with SCR catalytic converter

	440 hp	480 hp
Type	Mercedes-Benz OM 501 LA, 12 litre turbo-intercooled 4 valves per cylinder, V6 direct injection	
Maximum power @ 1,800 rpm	320 kW (435 hp)	350 kW (476 hp)
Maximum torque @ 1,080 rpm	2,100 Nm (1,550 lb.ft)	2,300 Nm (1,696 lb.ft)
Bore	130 mm	130 mm
Stroke	150 mm	150 mm
Capacity	11.95 litres	11.95 litres
Weight	940 kg	940 kg
Control	Telligent® electronic engine management	Telligent® electronic engine management
Fuel injection	Direct injection via unit injectors	Direct injection via unit injectors
Cooling	Water cooled with electromagnetic fan	Water cooled with electromagnetic fan
Engine brake	Brake flap & decompression valve	Brake flap & decompression valve
Exhaust	Stainless steel with SCR catalytic converter	Stainless steel with SCR catalytic converter

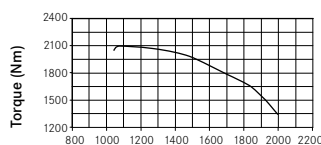
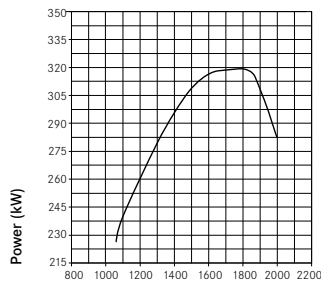
360 hp



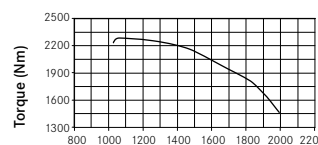
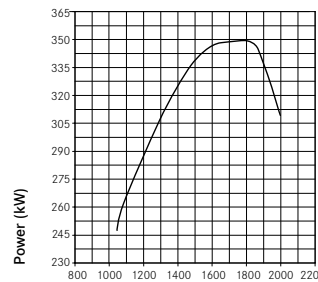
410 hp



440 hp

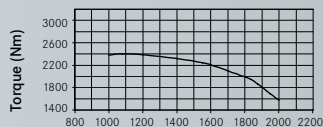
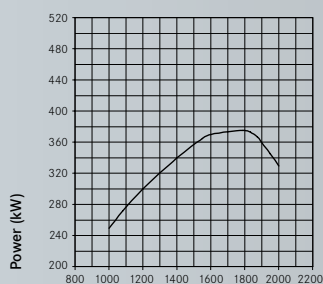


480 hp

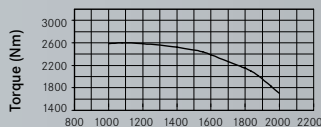
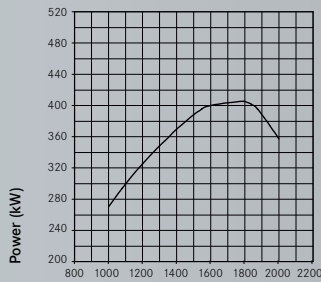


	510 hp	550 hp	600 hp
Type	Mercedes-Benz OM 502 LA, 16 litre turbo-intercooled 4 valves per cylinder, V8 direct injection		
Maximum power @ 1,800 rpm	375 kW (510 hp)	405 kW (551 hp)	440 kW (598 hp)
Maximum torque @ 1,080 rpm	2,400 Nm (1,770 lb.ft)	2,600 Nm (1,917 lb.ft)	2,800 Nm (2,065 lb.ft)
Bore	130 mm	130 mm	130 mm
Stroke	150 mm	150 mm	150 mm
Capacity	15.93 litres	15.93 litres	15.93 litres
Weight	1258 kg	1258 kg	1258 kg
Control	Telligent® electronic engine management	Telligent® electronic engine management	Telligent® electronic engine management
Fuel injection	Direct injection via unit injectors	Direct injection via unit injectors	Direct injection via unit injectors
Cooling	Water cooled with high capacity fan	Water cooled with high capacity fan	Water cooled with high capacity fan
Engine brake	Brake flap & decompression valve	Brake flap & decompression valve	Brake flap & decompression valve
Exhaust	Stainless steel with SCR catalytic converter	Stainless steel with SCR catalytic converter	Stainless steel with SCR catalytic converter

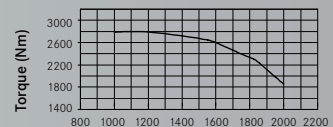
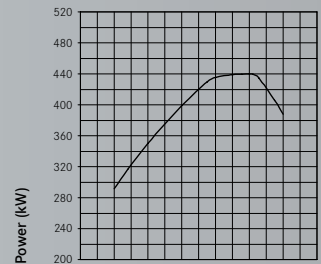
510 hp



550 hp




600 hp



Authorised Dealer

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