



OM 501 LA – OM 502 LA engines
Operating Instructions



Mercedes-Benz

- ① Fan
- ② Coolant pump
- ③ Charge-air pressure pipe (with flame-start system*) from charge-air cooler
- ④ Charge-air pressure pipe to charge-air cooler
- ⑤ Oil filler neck
- ⑥ Exhaust gas turbocharger
- ⑦ Crankcase ventilation system oil trap
- ⑧ Exhaust pipe (with engine brake throttle valve*)
- ⑨ Oil filter
- ⑩ Fuel filter
- ⑪ Starter motor
- ⑫ Dipstick

▼ Monitoring engine operation

Charge current

The charge current indicator lamp must go out after the engine has been started.



Charge current indicator lamp

If the indicator lamp does not go out or lights up when the engine is running, stop the engine and check the poly-V-belt.



The poly-V-belt contact surfaces must not be damaged (e.g. torn), oily or glazed, as otherwise the poly-V-belt may slip.

Do not run the engine without a poly-V-belt. The alternator and coolant pump will not be driven which will result in engine damage.

Diesel fuels

Only use commercially available vehicle diesel fuels (EN 590). Grades such as marine diesel fuel, heating oils, etc. are not permitted.

Fuel additives are not necessary. The warranty entitlement may be restricted if fuel additives are used.

If diesel fuels with a sulphur content above 0.3% by weight are used, carry out an oil change at shorter intervals. Observe the information provided in the Maintenance Booklet.

Filling the vehicle's fuel tank from drums or canisters may introduce impurities into the fuel system. This can lead to fuel system malfunctions. Therefore, filter the fuel when filling the tank.

Never allow water to mix with the diesel fuel.

The OM 501 LA and OM 502 LA engines are suitable for use with FAME fuels in accordance with DINE 51606. Consult a Mercedes-Benz Service Centre to have the exact conditions of use (e.g. maintenance intervals) explained before you start using such fuels.

Diesel fuels in extremely cold weather

At low outside temperatures, paraffin separation may affect the flow characteristics of diesel fuel.

To prevent operating problems (e.g. as a result of blocked filters), diesel fuel with improved cold flow properties is available on the market in the winter months. Deviations may be possible in the transition between the cold and the warm seasons, and in other countries. In Germany, special cold-resistant winter-grade diesel fuels are sold. They ensure reliable operation down to approximately -20°C .

Winter-grade diesel fuel can normally be used without risk of malfunctioning at the outside temperatures expected in the country of sale.

FR

(Drive control) control unit. The drive control is a monitored electronic system and is connected to the engine control via the CAN bus. The FR is permanently installed in the driver's cab. It controls vehicle-relevant functions and switches on the engine control via CAN bus commands, e.g. engine torque request via accelerator pedal position.

Minidiag 2

DaimlerChrysler AG electronic diagnostic tool for reading faults and parameters on commercial vehicles.

MR

(Engine control) control unit. Engine control is a monitored electronic system which forms part of the Telligent® engine system. It controls the engine functions, such as the engine idling speed and exchanges data with the drive control.

OM

Engine name, abbreviation for oil engine = diesel engine.

Sensor

Electronic component which converts certain parameters (e.g. oil temperature, engine speed and others) into electrical values for use in the engine control unit.

STAR DIAGNOSIS

DaimlerChrysler AG electronic diagnostic system

TDC

Top dead centre; term for the upper position of the piston in the cylinder.

Telligent® engine system

Mercedes-Benz electronic engine control. Controls fuel injection period and quantity depending on the current operating conditions and driver's preferences.

Tightening torque (Nm)

Product of force and lever arm lengths with which bolt connections, e.g. cylinder head screws, are tightened.
(Nm = Newton metres)

Turbobrake

Special engine braking system on Mercedes-Benz commercial vehicles. The Turbobrake uses the engine exhaust gas turbocharger to achieve greater braking efficiency in overrun mode.

Full Version Available

Mercedes-Benz OM 501 LA and OM 502 LA Engine Operator Manual

Mercedes-Benz OM 501 LA, OM 502 LA engine operator manual covering safe operation, daily checks and care. 7 PDF files. Instant PDF download.

[VIEW THE FULL MANUAL](#)

Book No: 6462 9807 02 · File Pages: 842 · File Count: 7 · File Language: English, German