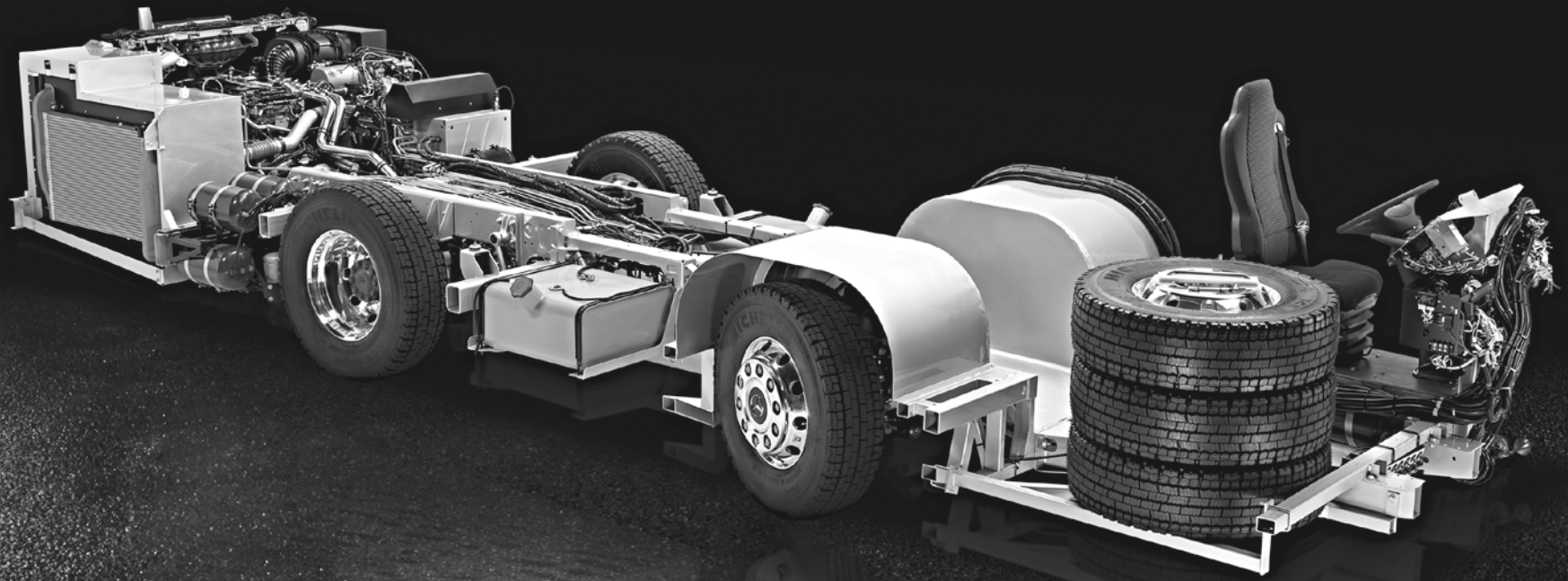
Chassis OC 500 LE

One basis, many options.

Technical Information

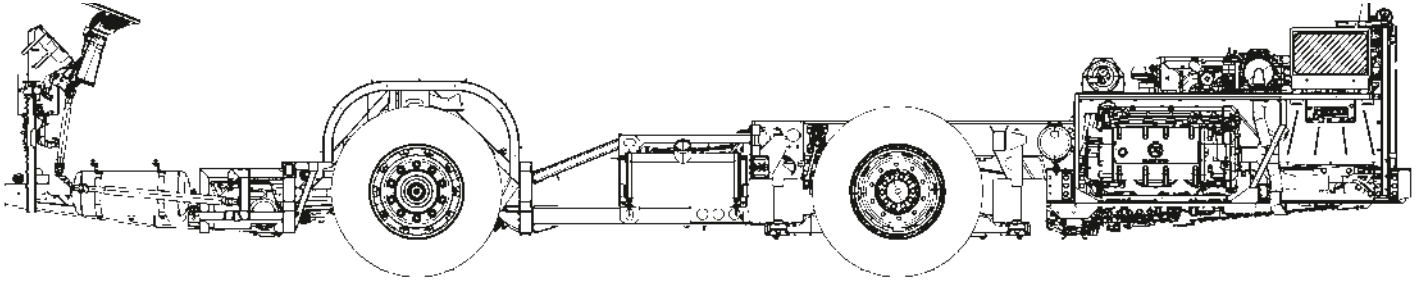


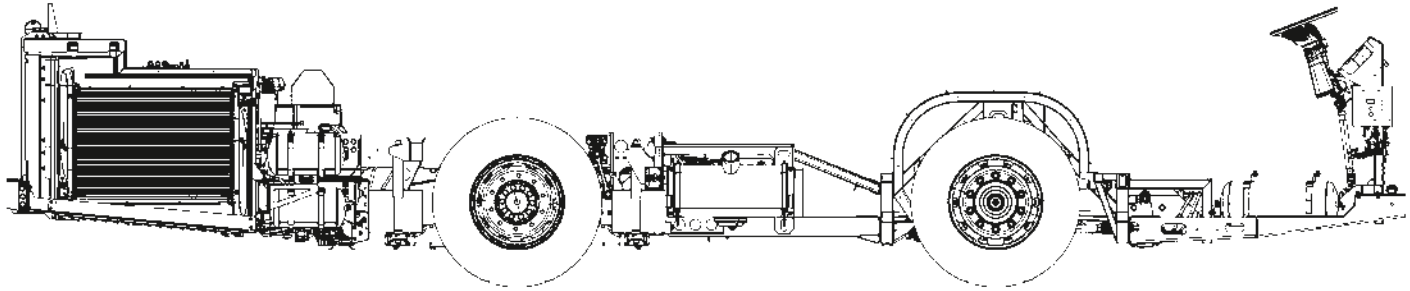
Mercedes-Benz

The standard for buses.

Model variant

OC 500 LE C634.422-11 / C634.423-21



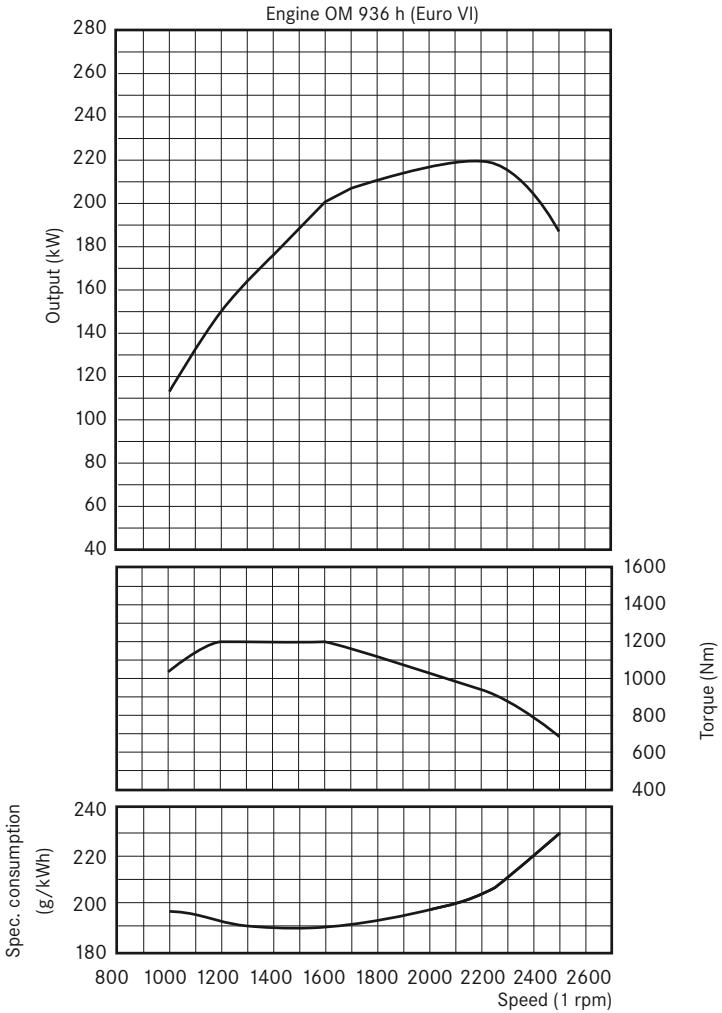


Dimensions/weights

	OC 500 LE
Chassis length	8,769 mm
Chassis width	2,400 mm
Wheelbase, front axle-drive axle	3,000 mm
Overhang, front	2,570 mm
Overhang, rear	3,200 mm
Angle of approach min./max.	8.4°/8.8°
Angle of departure min./max.	6,9°/7.6°
Tyre size	275/70 R 22.5
Track width, front axle	2,101 mm
Track width, drive axle	1,803 mm
Maximum front axle turning angle, inside/outside wheel (275/70 R 22,5)	51°/39.5°
Frame height above road, front (275/70 R 22.5)	381 mm
Frame height above road, rear (275/70 R 22.5)	887 mm
Maximum front axle turning angle, inside/outside wheel (295/80 R 22.5)	47°/37.3°
Frame height above road, front (295/80 R 22.5)	421mm
Frame height above road, rear (295/80 R 22.5)	927 mm
Weights, max. permissible*	
Gross vehicle weight	19,100 kg
Front axle	7,100 kg
Drive axle	12,000 kg

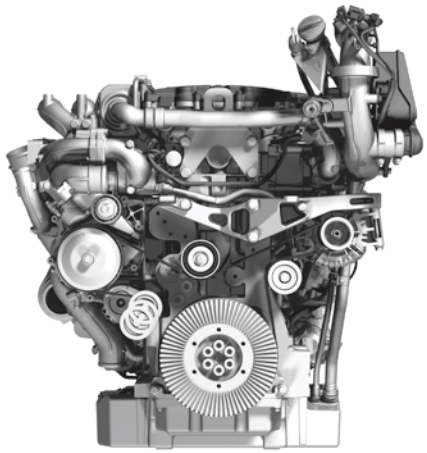
* Depends on model of tyre, speed and country of registration (example is for Germany)

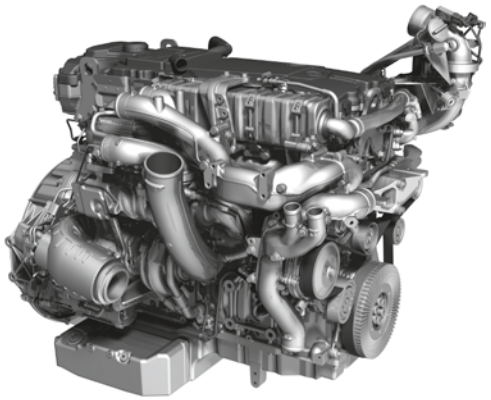
Drive train and technology



P_{max} 220 kW at 2,200 rpm (80/1269/EWG)
Md_{max} 1,200 Nm at 1,200-1,600 rpm

Steady-state full-load curves





Engine	OM 936
Displacemant	7.7 l
Output (standard)	220 kW
Cylinders/arrangement	6/in-line
Max. torque	1,200 Nm at 1,200-1,600 rpmn
Transmission	ZF Ecolife
Steering	ZF power steering
Axles	
– Front axle	Mercedes-Benz V04
– Drive axle	Mercedes-Benz RO 440
Brakes	Electro-pneumatic braking system (EBS) with disk brakes
	Anti-lock Braking System (ABS)
	Electronic Stability Program (ESP®)

Standard and special equipment (selected)

Engine and running gear	OC 500 LE
Engine Mercedes-Benz OM 936 LA, 220 kW (Euro VI)	●
Tailpipe is angled toward the road	●
Emission standard Euro VI	●

Transmission	OC 500 LE
Transmission ZF EcoLife, 6-speed, automatic transmission	●
Transmission VOITH DIWA 6.0, 4-speed, automatic transmission	❍
Retarder System Integration (DBI)	●

Axles	OC 500 LE
Rear axle Mercedes-Benz RO 440, overall ratio 4.778	❍
Rear axle Mercedes-Benz RO 440, overall ratio 5.875	●
Rear axle Mercedes-Benz RO 440, overall ratio 5.222	❍

Technical modifications may have occurred after the copy deadline. This data sheet is only an extract of possible equipment. Some equipment items are country-dependent. We reserve the right to make technical modifications Therefore, please contact your Mercedes-Benz sales representative for the latest binding version.

● Standard equipment/equipment at no extra charge ❍ Special equipment - not available

Chassis	OC 500 LE
Acceleration Slip Regulation (ASR)	●
Retarder System Integration (DBI)	●
Electro-pneumatic braking system (EBS) with integrated Anti-lock Braking System (ABS)	●
Electronic Level Control (ENR)	●
Electronic Stability Program (ESP), including Acceleration Slip Regulation (ASR), ESP including ASR, can be deactivated via a button on the instrument panel	●
Bus stop brake with moving-off lock	❍
Bus stop brake without starting lock	●
Lifting and lowering system	❍
Rear overhang extended by 100 mm	●
Tyres 275/70 R 22.5 and steel rims 8.25 x 22.5, mid-centred	●
Tyres 275/70 R 22.5 and aluminium rims 8.25 x 22.5, mid-centred	❍
Tyres 295/80 R 22.5 and steel rims 8.25 x 22.5, mid-centred	❍
Body lifting system approx. 70 mm max.	❍

● Standard equipment/equipment at no extra charge ❍ Special equipment - not available

Heating/ventilation/air conditioning	OC 500 LE
Provision for air-conditioning with refrigerant compressor	❍
Provision for air-conditioning without refrigerant compressor	❍
Auxiliary heater	❍

Supply system	OC 500 LE
Transfer tank 30 l	●
AdBlue® tank 45 l	●
Fuel tank approx. 280 l (over front axle)	❍
Fuel tank can be filled from left and right	❍
Deaeration of fuel line by electrical pump	●
Compressed air filling connection	●
Test connectors for compressed air system	❍

● Standard equipment/equipment at no extra charge ❍ Special equipment - not available

Electrical system	OC 500 LE
Batteries, 2 x 200 Ah, low maintenance, Super Heavy Duty version	●
Batteries, 2 x 225 Ah, low maintenance, Super Heavy Duty version	❍
Battery under driver's area	❍
Battery displacement further forwards (electrical provision only)	❍
Battery tray with sliding rails	❍
Onboard diagnostics (OBD), integrated diagnostic system (IDS)	●
Fire detection system for engine compartment monitoring	●
EU control unit, digital, DTCO, without engine speed recorder	●
Daytime running lights circuit	❍

● Standard equipment/equipment at no extra charge ❍ Special equipment - not available

Glossary

Anti-lock Braking System (ABS)
The braking forces acting on the individual wheels are distributed by the ABS so that even in an emergency braking situation no wheel is blocked for any length of time and the steering control of the bus is largely maintained.

Acceleration Slip Regulation (ASR)
The ASR prevents wheelspin when driving away on a slippery surface. It provides no more power than the drive wheels are able to transfer to the road surface. Wheelspin by one wheel – e.g. on an icy roadside – is prevented by metered braking.

BlueEfficiency Power
In developing the new BlueEfficiency Power engine generation, Mercedes-Benz has broken new ground. The goal was to develop a new engine that meets the Euro VI standard and is future-proof without increasing fuel consumption at a high output.

Mercedes-Benz had already done development to meet earlier standards for emission technologies. In order to meet the stringent requirements of the new standard, the following technologies are now used in combination:

- Cooled on-demand exhaust gas recirculation (EGR)
- Diesel particulate filter (DPF)
- SCR technology

Another major goal in the development of the new engine generation beside compliance with Euro VI was economy. That primarily means a low fuel consumption. In coach operations, levels as for Euro V are achieved or even bettered. In addition, the developers have concentrated on low maintenance costs. As a result, the maintenance intervals for the OM 470 in coach operations have been extended by up to 30 %, in comparison with the predecessor engines.

Another factor affecting economy is the long life and reliability of the engine. To ensure this, the engines have been tested worldwide under the toughest conditions. Up to now, the engines have covered more than 60 million kilometres in endurance tests on test stands and in the field – never before has an engine been so intensively tested.

BlueTec 6®
The new exhaust emission standard Euro VI requires a further drastic lowering of emissions. To meet these requirements, as part of the introduction of BlueEfficiency Power, a completely new generation of engines and exhaust after-treatment systems with the designation BlueTec® 6 is being launched. With this new development, Mercedes-Benz is continuing the tradition as a pioneer in environmental protection.

Following the mandatory Euro V and voluntary EEV standards for the reduction of pollutant emissions, from 1 January 2014 the new Euro VI emission standard will apply for new registrations. The aim of this legal measure is a drastic reduction of pollutants and hence an even more environmentally friendly and more efficient drive technology.

The provisions of the new emission standard demand a reduction of 66 % for particulate emissions; in the case of nitrogen oxide levels, a reduction of 80 % compared with Euro V must be realised. Earlier Euro standards were achieved with the following exhaust emission technologies: exhaust gas recirculation or BlueTec® engine technology comprising a highly efficient engine and SCR system with or without a diesel particulate filter.

In order to meet the required Euro VI levels, a complex system of emission control is necessary for the engines. The three proven technologies are now brought together in a matched system optimised for fuel economy.

Coupling new engines and complex after-treatment with different drive train combinations and vehicle concepts in the construction of buses of different heights and lengths, necessitates making complex changes in the vehicle body. Next to the greatest possible environmental compatibility, the primary aims of the development of the new engine generation included economic aspects like low lifecycle costs. That means first and foremost a low fuel consumption. In coach operations, this is at the level of Euro V or even lower for the new engine.

With an eye on saving resources, environmental aspects and rising diesel fuel prices worldwide, the Mercedes-Benz development engineers have succeeded in achieving a mile-stone in engine development with the BlueEfficiency Power engines.

Cataphoretic dip priming (CDP)
Cataphoretic dip priming (CDP) is an electro-chemical process for coating the complete body skeleton in an immersion bath. It is ideal for painting intricate structures and large numbers of units. This water-based paint protects the bus perfectly against corrosion because the paint coat is applied everywhere to the body with uniform thickness. Cataphoretic immersion priming is demonstrably the best protection against corrosion in vehicle construction at present available.

Electronic Stability Programme (ESP®)
In situations where the driving dynamics are critical, ESP® selectively controls engine output and the braking forces on each wheel individually. Within the boundaries of the physical laws, finely regulating the braking of the vehicle in this way prevents any possible “breakaway“ by the bus. ESP® therefore contributes noticeably to a reduction in the tendency to understeer and the risk of skidding during cornering or evasive manoeuvres.

Electro-pneumatic braking system (EBS)
As a further development of the conventional air brake, the electro-pneumatic braking systemoffers numerous advantages. When braking, the control unit first activates the retarder.
If greater deceleration is required, the control unit uses the information in the data network to determine the optimum braking pressure for each axle. The electro-pneumatic braking system thus enables much shorter stopping distances and significantly less brake disc and lining wear.

www.mercedes-benz.de/omnibus
EvoBus GmbH, Neue Str. 95, 73230 Kirchheim unter Teck
BUS/MPM-M - 5102.02.11/0814/02 Printed in German