

# Chassis OC 500 RF

One basis. Many options.



Mercedes-Benz  
The standard for buses.

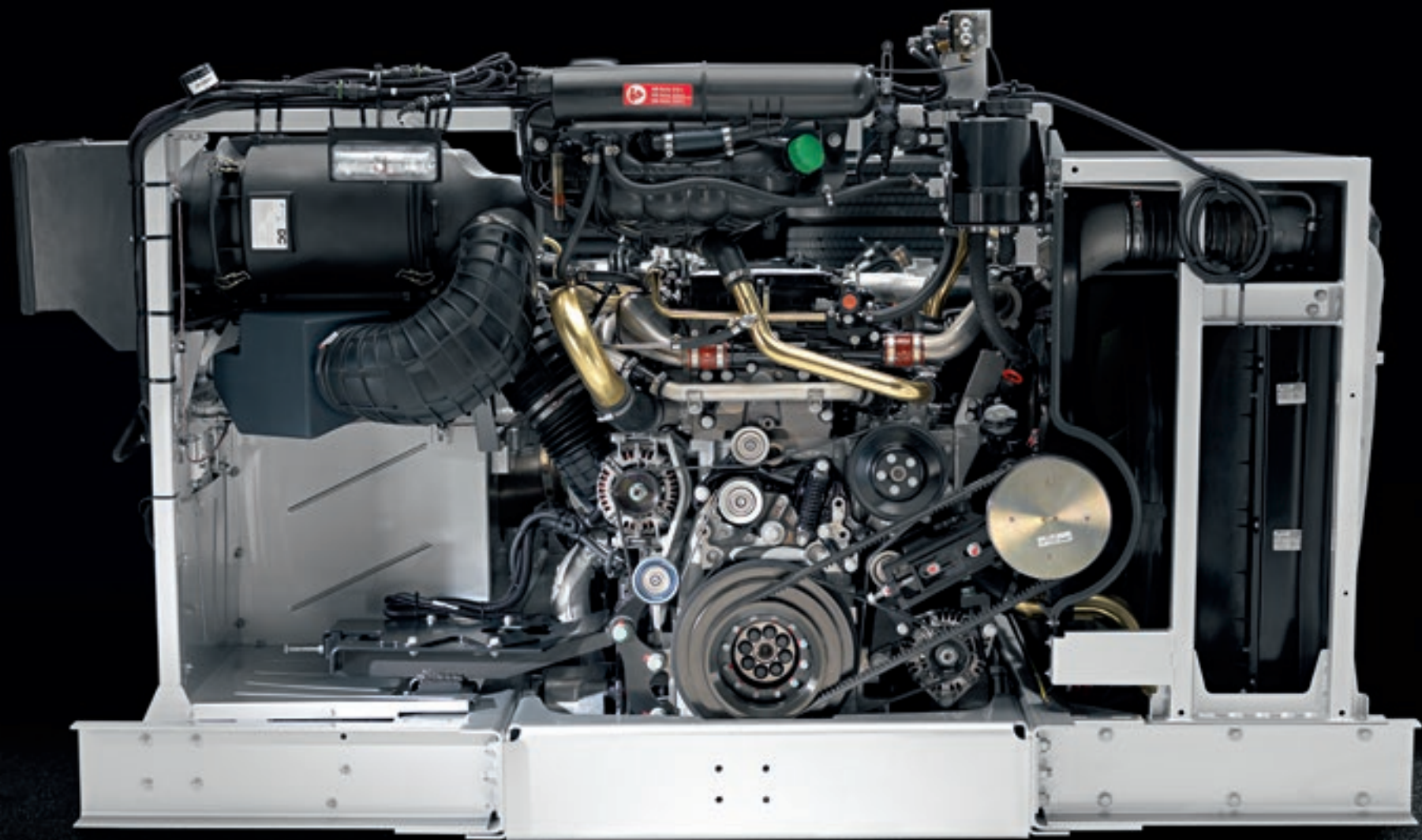




# What can you expect of a Mercedes-Benz? More.

There are chassis. And there are Mercedes-Benz chassis. In today's tough competition, the Star makes the difference. It gives you a decisive edge – and the good feeling of having made the best choice for your company.

**At the forefront of innovation.** Like no other manufacturer in the world, Mercedes-Benz has taken on responsibility for the bus and its technological development. Not only because Carl Benz constructed the world's first omnibus in 1895, but also because Mercedes-Benz has since then developed the bus into a high-performance, safe and environmentally friendly means of transport. This is why Mercedes-Benz Buses and Coaches offers practical and advanced solutions to meet the challenges of tomorrow – ensuring that you can remain one step ahead of the competition in future.



# OC 500 RF highlights.

Surprisingly flexible, superior quality throughout, consistently economical: designers throughout the world value the OC 500 RF chassis for coaches as the basis of their ideas. With the Euro VI generation, there are now a few more convincing arguments too.

**The very best in technology.** Mercedes-Benz has traditionally been a pioneer in the development of environmentally friendly, innovative drive technologies. With the new BlueEFFICIENCY Power technology, Mercedes-Benz has once again set new standards. The top-class technology from complete bus development is now also being used in the OC 500 RF and ensures fewer emissions and greater economy. Because thanks to the efficient, powerful BlueTec® engines, fuel consumption has not increased, despite Euro VI, and the life and maintenance intervals have been extended. For excellent overall economy – for the entire life of the bus.

**The basis for your ideas.** You need the maximum possible freedom for your vehicle body. The OC 500 RF therefore simply adapts to fit your ideas. The secret to the practically unlimited options is its modularity. You can choose between body widths from 2.50 to 2.60 m and body lengths up to 13.50 m, or even 15 m with the 3-axle option. To implement your individual ideas, you also have various engine options, as well as different transmission types and ratios. Even the driver's workstation, instrument panel and second door can be arranged in various ways. And the size of the tank is also determined by your requirements. With the OC 500 RF, your ideas become reality.

**The result of good partnership.** The OC 500 RF is the result of a close partnership between Mercedes-Benz and body manufacturers. Their suggestions and requirements were incorporated in the development of the chassis and are reflected in a sophisticated vehicle concept. For example, uniformly defined interfaces ensure the straightforward and fast connection of the body electronics. And the newly designed transport module ensures easy and safe handling. It's often the little things that make day-to-day life easier. And if a problem should arise, the Mercedes-Benz body consultants are available to provide you with expert support.

# Ensure your competitive edge.

Now more than ever, economy is a key argument for bus operators. With the new OC 500 RF with Euro VI, you establish the foundation for maximum efficiency – and ensure your bus has a decisive competitive edge.

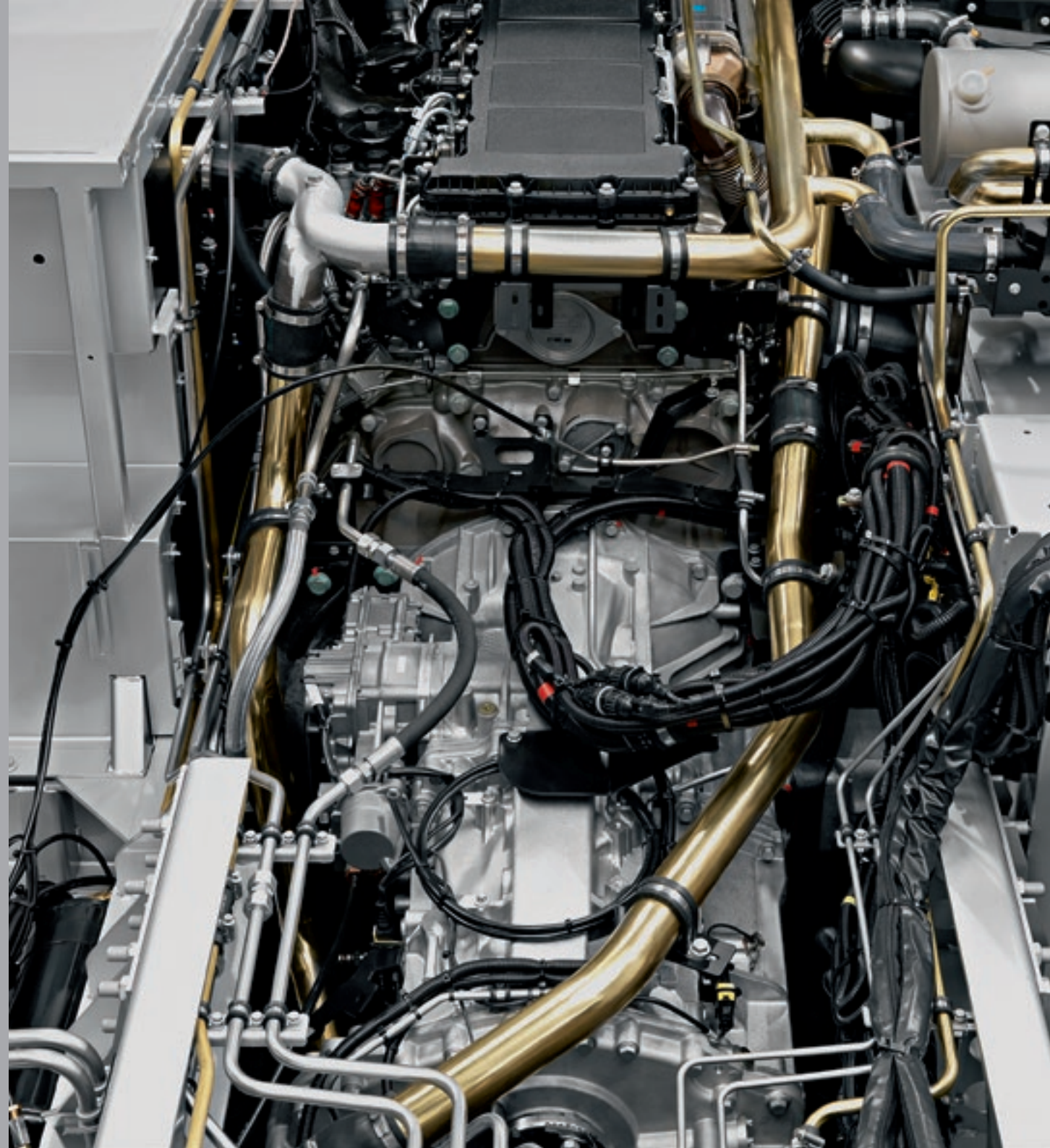


**A milestone in engine development:** Development of the new chassis generation focused on the new drive train for Euro VI, which was achieved with the new BlueEFFICIENCY Power engines from Mercedes-Benz. The new drives, which already meet the Euro VI emission class in all performance levels, do not just impress through their high environmental compatibility, but also through extremely high economy. No additional consumption despite Euro VI – who but Mercedes-Benz would be able to offer that?

**Clean performance.** OM 936 or OM 470: Maximum efficiency is a matter of course in the new engines. They all combine impressive driving performance with forceful acceleration even at low speeds, and very quiet running with low consumption as well as exemplary protection of the environment. The strict requirements were achieved through combining Common Rail injection, on-demand exhaust gas recirculation, downstream oxidation catalytic converter, particulate filter and SCR technology with AdBlue® injection for exhaust gas treatment.

**Comfortable in all gears.** The transmission technology of the OC 500 RF is specially designed for use in a coach. Both the standard 6-gear manual transmission and the automatic transmission optionally available for many variants offer high ride comfort. Maximum efficiency and an extremely comfortable driving experience with easy operation via the pitman arm makes a new type of transmission possible, which has already proven its worth in the Travego Edition 1: the automatic 8-gear transmission GO 250-8. Here, the driver can fully concentrate on the traffic - the transmission control system takes care of the rest. And incidentally, the innovative transmission also helps save fuel.

**Innovative cooling.** The designers at Mercedes-Benz are always striving to find groundbreaking solutions. One result: integration of the new water retarder in the innovative cooling concept of the chassis. In the OC 500 RF this is used in combination with all manual transmissions. It uses the engine cooling water as the braking and cooling medium. The oil and water heat exchanger previously used is therefore no longer needed. And while the weight is reduced by around 30 kg, the continuous braking power increases. All that's left to mention is that with the maintenance-free retarder, the life cycle costs are further reduced.







# Make no compromises.

The expectations on a coach are high, and rightly so. The new OC 500 RF makes it even easier to implement individual ideas exactly.

**A safe workplace.** The cockpit of the new chassis generation is now even more attractive. It has the same non-slip and aesthetic four-spoke steering wheel as the coaches from Mercedes-Benz. The modern, easy-to-read instrument panel is also new. Adapted to the electronic structure and information requirements of Euro VI, it can, if required, also support the driver with enhanced information such as route data or fuel consumption. The driver there has everything safely under control at a glance.

**A host of options.** The driver's workstation in the OC 500 RF can be adapted easily to many requirements. For example, the steering column height and tilt is adjustable. Instead of a conventional gearshift lever, a joystick with pneumatic shift assist (PSH) is next to the driver's workstation and can be positioned in various locations. It is easy to reach and operate, and offers the same ease of gear shifting as in a car. This makes things easier for the driver, who can then fully concentrate on the road – an important contribution for greater driving safety.

**Concentrated intelligence.** The OC 500 RF is also superior to other chassis with regard to the electronics, because it has a central "brain": an IES-CAN (integrated electronic system controller area network), in which all electronic components are integrated. With the help of the IES onboard diagnostic system, you can quickly check all the control units. In the event of maintenance or repair, faults can therefore be found quickly and in a targeted way, which later reduces the idle and maintenance times, and therefore costs, for the bus operator.

**Uniform interfaces.** The uniform interfaces for your electronic equipment and a modular electrical compartment on the driver's workstation with standardised slots are further advantages of the raised-floor chassis. All systems are subdivided into code numbers so the chance of confusion is very low. You can therefore connect up the electrical equipment of your body flexibly and without difficulties – and at the same time have free rein with regard to the location and installation of your electronic components.



# Build on ride quality.

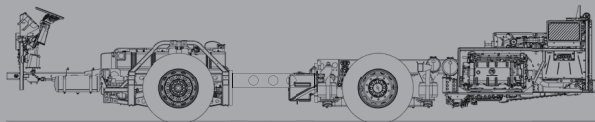
Ride quality is a top priority at Mercedes-Benz. The OC 500 RF provides you with an excellent basis for coach designs that impress both drivers and passengers.

**Advanced axles.** The OC 500 RF ensures top-class ride comfort. The front axle with independent wheel suspension keeps the bus safely on track, provides stabilisation against rolling motion and allows extremely large steering angles. An approximately 21 m turning circle on a 12 m long two-axle vehicle and 24 m on a 15 m long three axle vehicle, depending on structure, speaks for itself. The new rear axle is ideally matched to this, because thanks to a further improved axle location, it provides highly efficient drive power on the road, and with smooth and quiet running ensures excellent ride comfort. On the three-axle vehicle, this is rounded off with a hydraulically steered, active trailing axle. This makes the coach far more agile when manoeuvring and keeps it very stable when travelling straight ahead.

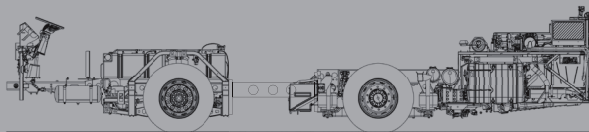
**Flexibility in driving.** En route to the destination, the bus driver needs to overcome a number of obstacles. To avoid damage to the vehicle, you can therefore additionally equip the chassis with a pneumatic lowering and lifting device. The device also makes it easier for passengers to board and exit.

**Ease of steering.** Drivers prefer buses that make their job as easy as possible. The steering gear with variable steering ratio in the OC 500 RF meets this requirement. It reacts more effortlessly the more strongly the driver turns the steering wheel. As a result, the vehicle can be steered easily, directly and safely. This means greater driving safety, and particularly high economy, because the steering does not have to be lubricated, meaning it is practically maintenance-free.

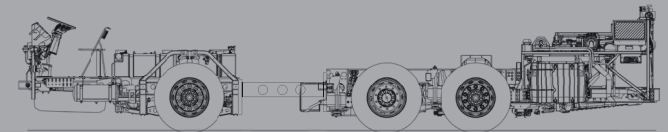
**Talent on three axles.** On the three-axle chassis, you have high flexibility with regard to the body length: anything is possible from 13.50 m – the maximum length of the two-axle vehicle – to 15 m. This leads to far more seats and a higher passenger handling capacity. And the three-axle vehicle can do this with ease, because thanks to the three axles, the chassis has a higher maximum payload. Heavy structures such as double-decker coaches or super high deckers are optimally possible.



Chassis IBC C634.412-11/C634.413-21

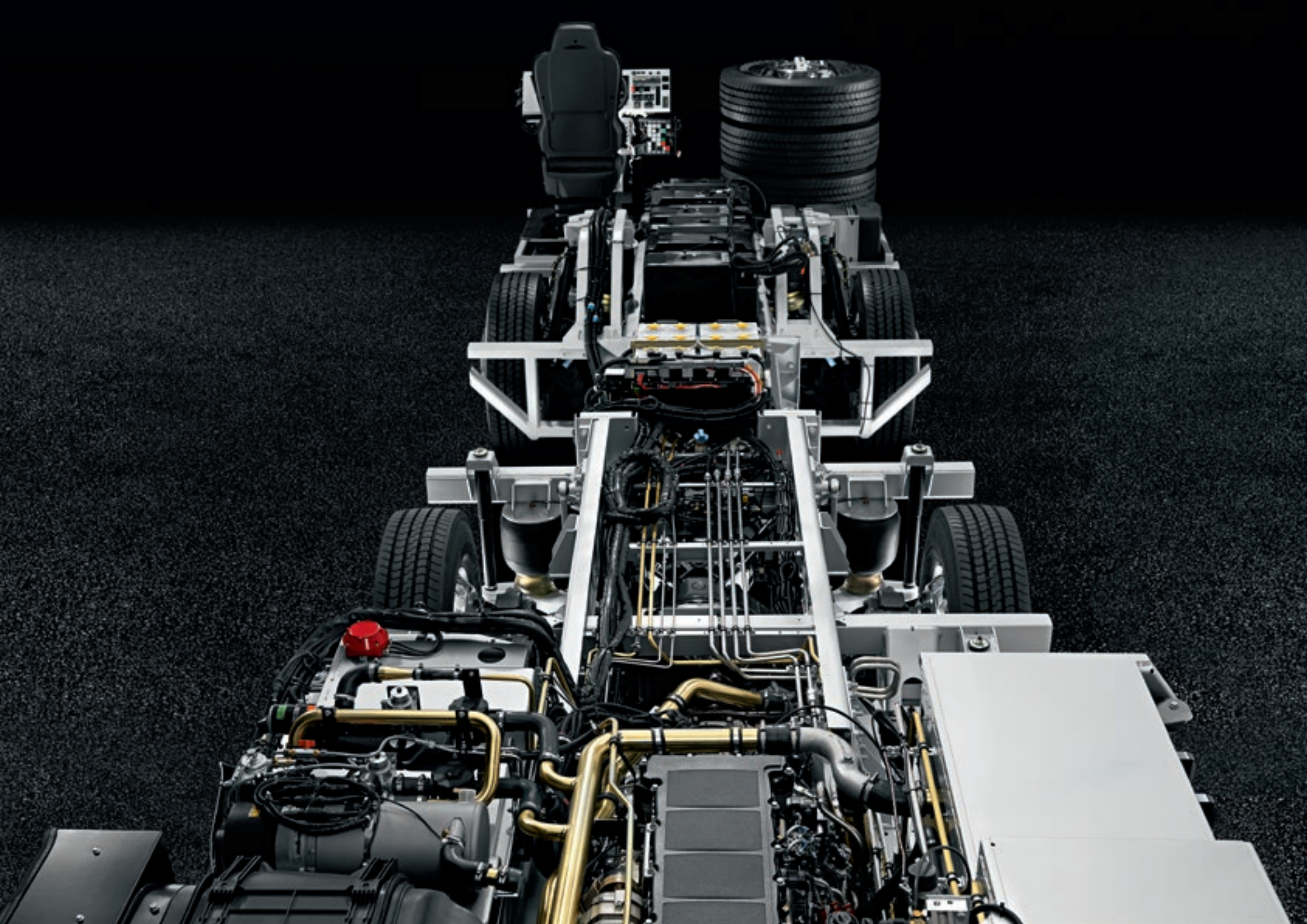


Chassis IBC C634.402-11/C634.407-21



Chassis IBC C634.404-11/C634.405-21





# Make savings at the right place.

Sometimes, less really is more. Mercedes-Benz has done everything to make savings at the right place to make the OC 500 RF even more valuable for you.

**Not one kilogramme too heavy.** Lower emissions do not need to mean added weight: Mercedes-Benz has been able to implement Euro VI without increasing the vehicle weight. The new rear axle is one of many measures taken by the development engineers to compensate for the unavoidable additional weight of Euro VI. Additional savings have been made in the more lightweight water retarder, new engine encapsulation, more lightweight and powerful alternators and, not least, the use of high strength steels for the optimised frame. The result: not one kilogramme too heavy – but just as stable.

**Less is more.** Mercedes-Benz has not only been able to keep fuel consumption at the usual low level, but to also reduce the AdBlue® consumption by up to 40 % as well as oil consumption by up to 50 %. The oil change intervals, extended to up to 120,000 km, also provide more overall economy. The first diesel particulate filter change is not even needed until after 360,000 km or 3 years, and then every 2 years or 240,000 km.

**Time is money.** The buggy centre section has also been improved further, so that you save valuable time and transfer costs even before the first work step. The newly designed transport module makes the OC 500 RF capable of being manoeuvred and steered with its own drive, protects the valuable components against damage during transportation and enables simple and safe handling. Quick release couplings on the cable lines ensure that you can start construction quickly.

# Bank on safety and comfort.

The bus is seen as one of the safest and most comfortable forms of transport in the world. Innovations from Mercedes-Benz have played a decisive part in this – and also make the OC 500 RF a pioneer on the roads.

**A safe brake system.** Safety has traditionally been a priority at Mercedes-Benz. A fast-reaction, electronically controlled brake system with disc brakes is therefore just as natural for all bus chassis as the anti-lock braking system (ABS) and brake assist system (BAS) as standard. In emergency braking situations, it builds up maximum braking power in fractions of a second and therefore leads to a shorter stopping distance. The Electronic Stability Program ESP® with ASR (acceleration slip regulation) helps you deal with critical driving situations. With guardian angels everywhere, your coach will reach its destination safely.

**A good feeling.** Mercedes-Benz has already subjected the new chassis to intensive tests. These include endurance tests or the testing of components, such as axles or tanks, on the Hydropuls rig. And the new engines have also been tested under the hardest conditions, from the polar circle to the heat and dust of South Africa for use in complete buses and for operation in commercial vehicles with a total traction weight of up to 40 t. The tests also involved maximum loads that would never occur in actual coach use. All with one goal: Giving you a good feeling, a safe basis for your demanding, economic and environmentally friendly coaches.

**A real comfort zone.** In a coach, appearance is important, but inner qualities are even more crucial. The OC 500 RF has a lot to offer in this respect. For example, the new electronic level control ensures that passengers are comfortable the moment they start boarding, because it ensures that the entrance height of the vehicle is always the same, regardless of the load. And with the new low-noise drive axle, the journey itself is much more relaxing. It ensures the interior is pleasantly quiet. There is good reason why it has already earned top marks for use in the Travego Edition 1.



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