Power and dynamics.
The secret behind our drive.
When we think about the coach of the future, we think of you first, your requirements and your business. We know that it all comes down to comfort and safety – and, of course, efficiency and sustainability.

A Setra coach will only fulfill its mandate perfectly if it increases your business success and contributes to keeping your company competitive over the long term. At a time when environmental protection is increasingly important and fuel is becoming more and more valuable, we know that we have to design and engineer truly exceptional coaches and buses.

Your decisive advantage is that every one of our vehicles is driven by the superb technological expertise of Mercedes-Benz. And more than ever, the current generation of Mercedes-Benz engines contributes to making every coach and bus increasingly clean by minimising emissions. At the same time, they are getting very close to achieving even higher levels of fuel efficiency. Thanks to our intelligent technology, they are not only more lightweight and powerful, but also more fuel efficient. With all this in mind, every Setra is a driving force behind your company’s sustainability.
Every application and every topography places different demands on a coach’s engine. For a long haul route, a different driving style is required to that of intercity journeys. And if your coaches often travel over long mountain passes, this puts very different demands on the drive technology than use on flat routes. This is why we have the ideal selection of Mercedes-Benz engines for each of our coach models, perfectly tailored to different areas of application. While the OM 936, with its low weight and compact dimensions, is the ideal unit for city and intercity routes, the OM 470 and OM 471 are ideally suited for use in touring vehicles thanks to their high performance. Depending on your individual requirements, you can choose between different performance levels with almost all models. And this guarantees that - along with the right transmission and equipment for your vehicle – you will always benefit from deploying the most suitable coach for the job.
Everyone who opts for a Setra coach today benefits from proven Mercedes-Benz diesel technology. It boasts an impressive history of innovation, which reached a significant milestone with the BlueEfficiency Power engines. Today there are more than a hundred thousand vehicles equipped with these engines on the road.

The units are produced in the state-of-the-art Mercedes-Benz engine plant in Mannheim. There, not only are the engine blocks produced in a separate foundry and aggregates equipped with cutting-edge engine technology, each and every engine is meticulously tested on fully automated test rigs. For a lifetime of perfect operation – and up to 1.2 million kilometres of running performance.

Developed today.
Built for tomorrow.
Engine tested, proven running performance: 1.2 million kilometres of driving pleasure.
Clean performance, clean air.

Our current generation of engines bear witness to the fact that environmental protection, profitability and performance can all be reconciled. During development, we succeeded in significantly reducing the emissions of particulates and nitrogen oxides—with a highly efficient combustion system that makes the most of available fuel.

To this end, Selective Catalytic Reduction (SCR), cooled and controlled exhaust gas recirculation (EGR), an oxidation catalyst and a special diesel particulate filter (DPF) were intelligently linked. This has resulted in a state-of-the-art engine generation, which offers the right performance for every coach application: the BlueEfficiency Power engines.

Each of these is an intelligently controlled system that not only meets the Euro VI standard in terms of emissions, but also achieves a significant fuel consumption reduction at the same level of performance. The BlueEfficiency Power engines make a clear progressive statement in the area of sustainability.
The OM 936 power engine is one of the most modern and powerful models among the compact diesel engines for commercial vehicles. Conceived as an engine for the medium performance range from 220 kW to 260 kW – it is especially suitable for urban and intercity applications as well as for middle-decker coaches.

Its high strength materials enable a new dimension of performance – and therefore downsizing: an important requisite to ensure the best possible values for exhaust gas, fuel consumption and power to weight ratio. And, since it achieves its performance with comparatively low displacement, the OM 936 can also be used to replace significantly larger volume and heavier engines. This makes the coach lighter and therefore most cost-effective.

In all variants, this engine provides a close to constant performance characteristic in a wide speed range. At the same time, it impresses with a dynamic acceleration at low speeds. Its longevity is very persuasive as well: the predicted running performance is 700,000 kilometres in intercity applications without a major overhaul.

The OM 936:

**Technical data OM 936**

- **Type**: Inline diesel engine with electronic engine management
- **Installation position**: Vertical engine
- **Injection system**: Common rail fuel system
- **Injection pump**: High pressure pump to produce rail pressure
- **Turbocharging system**: Exhaust gas turbocharging with charge air cooling
- **Exhaust gas recirculation**: Exhaust gas recirculation with indirect gas recirculation valve
- **Exhaust gas after-treatment**: Combined system consisting of diesel oxidation catalytic converter, diesel particulate filter and SCR system with AdBlue injection
- **Combustion principle**: Four-stroke diesel direct injection
- **Number of cylinders**: 6
- **Capacity [litre]**: 7.7
- **Cylinder bore [mm]**: 110
- **Piston stroke [mm]**: 135
- **Compression ratio**: 17.0
- **Maximum injection pressure [bar]**: 2,400
- **Firing order**: 1 – 5 – 3 – 6 – 2 – 4
- **Output, torque OM 936/220 kW**:
  - Nominal capacity [kW/PS] at rotation speed [1/min]: 220/299 at 1,800
  - Max. torque [Nm] at rotation speed [1/min]: 1,200 at 1,200
- **Output, torque OM 936/260 kW**:
  - Nominal capacity [kW/PS] at rotation speed [1/min]: 260/354 at 1,800
  - Max. torque [Nm] at rotation speed [1/min]: 1,400 at 1,200

**The OM 936 BlueEfficiency**

- **Vertical and therefore space-saving design.
- **Solid crankcase, solid crankshaft drive.
- **Cross-flow cylinder head for optimum cooling.
- **First series production diesel engines with an adjustable camshaft.
- **Injection pressure of up to 2,400 bar.
- **Highly flexible injection strategy for up to five injections per injection cycle.
- **Firing pressures of more than 200 bar.
- **Combustion-optimised air compressor.
- **The OM 936 variant has two stage supercharging with two turbos.
- **Compliance of Euro 6.
- **AdBlue and engine oil.
- **Integrated cooled exhaust gas recirculation.
- **Engine tested in a commercial vehicle with up to 45 tonnes of pull weight.
The OM 470.
The effective allrounder.

Lower fuel consumption and lower emissions – combined with increased performance, more elec
tricity and even greater robustness: the current generation of the compact OM 470 with a displacement of 10.7 l is impressive any way you look at it. In range of applications extends from intercity coaches through to the ComfortClass middle- and high-deckers.

The inline six cylinder is the ideal engine when compact design with low weight, high performance with good pulling power, as well as maximum efficiency with low fuel consumption and long maintenance inter-
vals are required.

As of 1,100 rpm, the OM 470 has an available torque of 2,100 Nm. In spite of its compact dimensions, the top variant achieves 335 kW of power and delivers a powerful torque of 2,200 Nm.

The OM 470
The benefits at a glance.

• High performance with low exhaust emissions and low fuel consumption.
• Compact dimensions due to six cylinder inline vertical engine.
• Very robust cylinder head for high firing pressures and best damping properties.
• Dynamic response thanks to turbocharger technology with asymmetric fixed geometry.
• Unique common-rail system with the X-PULSE pressure boost.
• Consumption-optimised air compressor.
• Innovative engine brake: decompression brake integrated into the engine control.
• Favorable AdBlue consumption.
• Change interval of the particulate filter up to 360,000 km (1st change) thereafter every 240,000 km.
• Up to 30% extended maintenance intervals in touring applications.
• High reliability through intensive trials over more than 60 million kilometres.

Technical data OM 470

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>OM 470</th>
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<tbody>
<tr>
<td>Type</td>
<td>Inline diesel engine with electronic engine management</td>
</tr>
<tr>
<td>Installation position</td>
<td>Vertical engine</td>
</tr>
<tr>
<td>Injection system</td>
<td>High pressure common-rail fuel system X-PULSE – second generation</td>
</tr>
<tr>
<td>Injection pump</td>
<td>High pressure pump to produce rail pressure</td>
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<tr>
<td>Turbocharging system</td>
<td>Exhaust gas turbocharging with charge air cooling (air/air)</td>
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<tr>
<td>Exhaust gas turbocharger (ATL)</td>
<td>ATL asymmetric, fixed geometry</td>
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<tr>
<td>Exhaust gas recirculation</td>
<td>High pressure EGR with controlled recirculation rate, EGR valve and EGR cooler</td>
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<tr>
<td>Exhaust gas after treatment</td>
<td>Combined system consisting of diesel oxidation catalytic converter, diesel particulate filter and SCR system with AdBlue injection</td>
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<tr>
<td>Combustion principle</td>
<td>Four stroke diesel direct injection</td>
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<td>Number of cylinders</td>
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<td>Capacity [litre]</td>
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<td>Cylinder bore [mm]</td>
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<td>Piston stroke [mm]</td>
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<td>Maximum injection pressure [bar]</td>
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<td>Firing order</td>
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<td>Output, torque</td>
<td>265 kW 290 kW 315 kW 335 kW</td>
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<tr>
<td>Nominal capacity [kW/PS] at rotation speed [1/min]</td>
<td>265/360 290/395 315/428 335/456</td>
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<tr>
<td>Max. torque [Nm] at rotation speed [1/min]</td>
<td>1,700 1,900 2,100 2,200</td>
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</table>

The OM 470
Type Inline diesel engine with electronic engine management Installation position Vertical engine Injection system High pressure common-rail fuel system X-PULSE – second generation Injection pump High pressure pump to produce rail pressure Turbocharging system Exhaust gas turbocharging with charge air cooling (air/air) Exhaust gas turbocharger (ATL) ATL asymmetric, fixed geometry Exhaust gas recirculation High pressure EGR with controlled recirculation rate, EGR valve and EGR cooler Exhaust gas after treatment Combined system consisting of diesel oxidation catalytic converter, diesel particulate filter and SCR system with AdBlue injection Combustion principle Four stroke diesel direct injection Number of cylinders 6 Capacity [litre] 10.7 Cylinder bore [mm] 125 Piston stroke [mm] 145 Compression ratio 17.6 Maximum injection pressure [bar] 2,700 Firing order 1 – 5 – 3 – 6 – 2 – 4 Output, torque 265 kW 290 kW 315 kW 335 kW Nominal capacity [kW/PS] at rotation speed [1/min] 265/360 290/395 315/428 335/456 Max. torque [Nm] at rotation speed [1/min] 1,700 1,900 2,100 2,200
The OM 471.
The frugal power package.

The current generation of the OM 471 has been significantly improved compared to its predecessor thanks to several individual measures. The engine is now even more consistently designed for low operating costs. It consumes about three per cent less fuel than the first generation. At the same time, the coach’s dynamic response has increased noticeably as a result of higher torque.

With its high level performance, the OM 471 is used exclusively in touring coaches. Its main features are two overhead camshafts, the unique X-PULSE common-rail injection system, the asymmetric exhaust gas turbocharger, the powerful engine brake and exhaust gas purification with SCR technology.

The maximum torque of at least 2,000 Nm is available at speeds of less than 1,000 revolutions. Depending on the performance variant, the maximum output is already reached at approximately 1,600 rpm. Its extremely long maintenance intervals of up to 120,000 kilometres make this robust engine especially cost-effective.

The OM 471: The benefits at a glance.

• High performance with low exhaust emissions and low fuel consumption.
• Compact dimensions due to six cylinder inline vertical engine.
• Very robust cylinder head for high firing pressures and best damping properties.
• Dynamic response thanks to turbocharger technology with asymmetric fixed geometry.
• Unique common-rail system with the X-PULSE pressure boost.
• Consumption-optimised air compressor.
• Innovative engine brake: Decompression brake integrated into the engine control.
• Excellent AdBlue consumption.
• Change interval of the particulate filter up to 360,000 km (1st change) thereafter every 240,000 km.
• Up to 35% extended maintenance intervals in touring applications.
• High reliability through intensive trials over more than 60 million kilometres.

Technical data OM 471

Type Inline diesel engine with electronic engine management
Installation position Vertical engine
Injection system High pressure common-rail fuel system
Injection pump High pressure pump to produce rail pressure
Turbocharging system Exhaust gas turbocharging with charge air cooling (air/air)
Exhaust gas turbocharger (ATL) 1 – ATL asymmetric, fixed geometry
Exhaust gas recirculation High pressure EGR with controlled recirculation rate, EGR valve and EGR cooler
Exhaust gas after treatment Combined system consisting of diesel oxidation catalytic converter, particulate filter and SCR system
Combustion principle Four stroke diesel direct injection
Number of cylinders 6
Capacity [litre] 12.8
Cylinder bore [mm] 132
Piston stroke [mm] 156
Compression ratio 18.3
Maximum injection pressure [bar] 2,700
Firing order 1 – 5 – 3 – 6 – 2 – 4
Output, torque OM 471/350 kW OM 471/375 kW
Nominal capacity [kW/PS] at rotation speed [1/min] 350/476 375/510
Max. torque [Nm] at rotation speed [1/min] 2,300 2,500
Max. speed at rotation speed [1/min] 1,100 1,100
## Powerful performance at a glance.

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<th>TopClass</th>
<th>S 531 DT</th>
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<tbody>
<tr>
<td>Engines</td>
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<tr>
<td>OM 936</td>
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### Transmission Variants
- GO 190
- GO 210
- GO 230
- GO 250
- EcoLife
- DIWA.6

- Standard equipment
- Special equipment
- In combination with the optional OM 470 (290 kW)
- In combination with the optional OM 470 (335 kW)
- In combination with the optional OM 936 (260 kW) incl. the Pneumatic Boost System (PBS)

Electronic vehicle components (e.g. Airbag Control Unit, Engine Control Unit) contain data storage for vehicle Technical Data, including but not limited to Diagnostic Fault Codes in the event of a malfunction, vehicle speed, braking force, or operating conditions of the Restraint System and Driver Assistance Systems in case of an accident (no audio and no video data recording). This data is either stored volatile, punctual as snapshot e.g. Diagnostic Trouble Codes, over a short period of time (a few seconds only) e.g. in case of an accident or in aggregated form e.g. for component load evaluation. The data can be read using interfaces connected to the vehicle. Trained technicians can process and utilize the data to diagnose and repair possible malfunctions. The manufacturer can use the data to analyze and improve vehicle functions. When requested by the customer, Technical Data can form the basis of additional optional services.

In general, data from the vehicle is transferred to the manufacturer or a third party only according to legal allowance, or based on a contractual customer consent in accordance with data protection laws. Further information regarding storage of vehicle Technical Data is provided in the vehicle Owner’s Manual.

Setra Buses and Coaches naturally handles customer data confidentially.

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