Technical data and equipment.

ComfortClass 500 HD models.

SETRA

The Sign of Excellence.

The ComfortClass HD models at a glance.

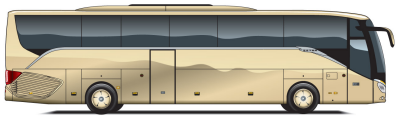
ComfortClass S 511 HD.

Length [mm]:	10.465	Cockpit height [mm]:	920
Turning circle min. [mm]:	17.780	Width [mm]:	2.550

ComfortClass S 515 HD.

Length [mm]:	12.295	Cockpit height [mm]:	920
Turning circle min. [mm]:	21.616	Width [mm]:	2.550

ComfortClass S 516 HD/2.

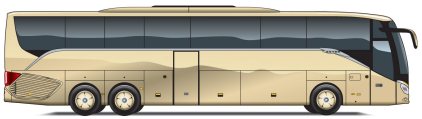


Length [mm]:	13.115	Cockpit height [mm]:	920
Turning circle min. [mm]:	23.754	Width [mm]:	2.550

ComfortClass S 516 HD.

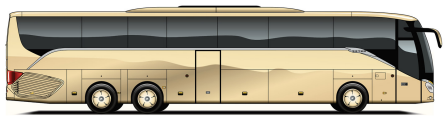
Length [mm]:	13.115	Cockpit height [mm]:	920
Turning circle min. [mm]:	21.408	Width [mm]:	2.550

ComfortClass S 517 HD.



Length [mm]:	13.935	Cockpit height [mm]:	920
Turning circle min. [mm]:	23.354	Width [mm]:	2.550

ComfortClass S 519 HD.



Length [mm]:	14.945	Cockpit height [mm]:	920
Turning circle min. [mm]:	24.090	Width [mm]:	2.550

Technical data and equipment at a glance.

	S 511 HD	S 515 HD	S 516 HD/2	S 516 HD	S 517 HD	S 519 HD
Dimensions						
Length [mm]	10.465	12.295	13.115	13.115	13.935	14.945
Length incl. mirrors [mm]	10.687	12.517	13.337	13.337	14.157	15.167
Width [mm]	2.550	2.550	2.550	2.550	2.550	2.550
Height [mm]	3.770	3.770	3.770	3.770	3.770	3.770
Inner stand height central aisle [mm]	2.100	2.100	2.100	2.100	2.100	2.100
Wheelbase front axle-drive axle [mm]	5.005	6.090	6.910	6.090	6.910	7.140
Tyre size	295/80 R 22,5	295/80 R 22,5	295/80 R 22,5	295/80 R 22,5	295/80 R 22,5	295/80 R 22,5
Overhang at front [mm]	2.265	2.890	2.890	2.890	2.890	2.890
Overhang at rear [mm]	3.195	3.315	3.315	2.785	2.785	3.315
Turning circle min. [mm]	17.780	21.616	23.754	21.408	23.354	24.090
Ring width turning circles min. [mm]	5.922	6.926	7.305	6.872	7.224	7.358
Track circle minimal [mm]	14.628	17.451	19.587	17.251	19.191	19.925
Wheel impact front axle max. [°]	54	54	54	54	54	54
Swing-out dimension [mm]	773	720	653	1.186	1.126	1.485
Cockpit height [mm]	920	920	920	920	920	920
Usable volume / capacity AdBlue [l]	approx. 35	approx. 35	approx. 35	approx. 35	approx. 35	approx. 35
Capacity fuel tank left / right [l]	approx. 310	approx. 480	approx. 480	approx. 480	approx. 480	approx. 480
Luggage compartment volume [m³]	approx. 6.5	approx. 9.9	approx. 12.1	approx. 9.9	approx. 12.1	approx. 12.6
Additional storage area volume [m³]	0,95	1,35	1,35	1,5	1,5	2,3

Floor height central aisle over roadway [mm]	approx. 1,370	approx. 1,370	approx. 1,370	approx. 1,370	approx. 1.370	approx. 1,370
Pedestal height [mm]	150	150	150	150	150	150
Entry height door 1 [mm]	370	370	370	370	370	370
Entry height door 2 [mm]	370	370	370	370	370	370
Step height entry 1 [mm]	3x 184 + 1x 220	3x 184 + 1x 220	3x 184 + 1x 220	3x 184 + 1x 220	3x 184 + 1x 220	3x 184 + 1x 220
Step height entry 2 [mm]	4x 250	4x 250	4x 250	4x 250	4x 250	4x 250
Door opening width 1 [mm]	900	900	900	900	900	900
Door opening width 2 [mm]	900	900	900	900	900	900
Slope angle in front [°]	6	7	7	7	7	7
Slope angle rear [°]	7,2	6,9	6,9	8,4	8,4	6,9
Transmission						
Engine	OM 470 Euro VI	OM 470 Euro VI	OM 470 Euro VI	OM 470 Euro VI	OM 470 Euro VI	OM 470 Euro VI
Engine type	6-cylinder in-line engine	6-cylinder in-line engine	6-cylinder in-line engine	6-cylinder in-line engine	6-cylinder in-line engine	6-cylinder in-line engine
Output [kW]	290	315	315	315	315	315
Max. torque [Nm]	1.900	2.100	2.100	2.100	2.100	2.100
At speed [1/min]	1.100	1.100	1.100	1.100	1.100	1.100
Displacement [l]	10,7	10,7	10,7	10,7	10,7	10,7
EU emissions standard	VI	VI	VI	VI	VI	VI
Transmission	Mercedes-Benz GO 230-6, 6-speed	Mercedes-Benz GO 230-6, 6-speed	Mercedes-Benz GO 230-6, 6-speed	Mercedes-Benz GO 250-8 PowerShift, 8-speed	Mercedes-Benz GO 250-8 PowerShift, 8-speed	Mercedes-Benz GO 250-8 PowerShift, 8-speed
Transmission 2*	Mercedes-Benz GO 250-8, PowerShift 3, 8-speed	Mercedes-Benz GO 250-8 PowerShift, 8-speed	Mercedes-Benz GO 250-8 PowerShift, 8-speed	-	-	-

	S 511 HD	S 515 HD	S 516 HD/2	S 516 HD	S 517 HD	S 519 HD
Chassis						
Steering	Power steering	Power steering	Power steering	Power steering	Power steering	Power steering
Front axle, type	ZF, independent wheel suspension	ZF, independent wheel suspension	ZF, independent wheel suspension	ZF, independent wheel suspension	ZF, independent wheel suspension	ZF, independent wheel suspension
Front axle: independent suspension, anti-roll bar	●	●	●	●	●	●
Driven axle, type	Mercedes-Benz RO 440	Mercedes-Benz RO 440	Mercedes-Benz RO 440	Mercedes-Benz RO 440	Mercedes-Benz RO 440	Mercedes-Benz RO 440
Drive axle: with anti-roll bar	●	●	●	●	●	●
Raising/Lowering system	●	●	●	●	●	●
Kneeling	●	●	●	●	●	●
Air suspension via electronic level control system (ENR)	●	●	●	●	●	●
Brakes						
Pneumatic disc brakes on all axles	●	●	●	●	●	●
Electronic Stability Programme (ESP®)	●	●	●	●	●	●
Electronically controlled braking system (EBS)	●	●	●	●	●	●
Anti-locking system (ABS)	●	●	●	●	●	●
Brake Assist (BAS)	●	●	●	●	●	●
Acceleration Slip Regulation (ASR)	●	●	●	●	●	●
Retarder limiter (RL)	●	●	●	●	●	●
Retarder	●	●	●	●	●	●
Automatic bus stop brake with pull-away lock	●	●	●	●	●	●
Parking brake	●	●	●	●	●	●
HOLD function	○	○	○	○	○	○

	S 511 HD	S 515 HD	S 516 HD/2	S 516 HD	S 517 HD	S 519 HD
Safety and driver assistance systems						
Rollover strength compliant with in ECE R29	●	●	●	●	●	●
Adaptive Cruise Control (ART)	○	○	○	○	○	○
Lane Assist (SPA)	●	●	●	●	●	●
Attention Assist (AtAs)	●	●	○	●	●	●
Tyre Pressure Monitoring (TPM)	●	●	●	●	●	●
Active Brake Assist 6 (ABA 6)	●	●	●	●	●	●
Sideguard Assist 2	●	●	●	●	●	●
Electronic Stability Program (ESP®)	●	●	●	●	●	●
Reversing camera	●	●	●	●	●	●
Reversing buzzer	○	○	○	○	○	○
Extinguishing system	●	●	●	●	●	●
Rain-light sensor	●	●	●	●	●	●
Flat wiper blades with water fed through wiper blade	●	●	●	●	●	●
Rollover strength compliant with ECE-R 66.02	●	●	●	●	●	●
360° Camera	○	○	○	○	○	○
Active Drive Assist 2	-	○	○	○	○	○
Traffic Sign Assist	●	●	●	●	●	●
Frontguard Assist	●	●	●	●	●	●
MirrorCam	○	○	○	○	○	○

	S 511 HD	S 515 HD	S 516 HD/2	S 516 HD	S 517 HD	S 519 HD
Profitability						
Predictive Powertrain Control (PPC)	●	●	●	●	●	●
Driver Score	○	○	○	○	○	○
Tyre Pressure Monitoring (TPM)	●	●	●	●	●	●
Air resistance	0,33	0,33	0,33	0,33	0,33	0,33
Weight and fuel tanks						
Capacity of fuel tank [l]	approx. 310	approx. 480	approx. 480	approx. 480	approx. 480	approx. 480
AdBlue® additive tank [l]	approx. 35	approx. 35	approx. 35	approx. 35	approx. 35	approx. 35
Gross vehicle weight [kg]	19.500	19.500	19.500	24.750	24.750	24.750
Axle loads, max. permissible front axle [kg]	7.500	7.500	7.500	7.500	7.500	7.500
Axle loads, max. permissible drive axle [kg]	12.600	12.600	12.600	12.600	12.600	12.600

	S 511 HD	S 515 HD	S 516 HD/2	S 516 HD	S 517 HD	S 519 HD
Heating, air conditioning and ventilation						
Heater with convectors at side walls	●	●	●	●	●	●
Driver’s area air conditioning	●	●	●	●	●	●
EvoCool Basic	●	●	●	●	●	●
EvoCool Comfort	○	○	○	○	○	○
EvoCool ComfortPlus	○	○	○	○	○	○
Cooling capacity passenger compartment [hp/kW]	32	32	32	32	35	39
Cooling capacity passenger compartment 2* [hp/kW]	35	35	35	35	39	-
Cooling capacity passenger compartment 3* [hp/kW]	39	39	39	39	-	-
Driver’s area air conditioning [hp/kW]	8	8	8	8	8	8
Heating power passenger compartment [hp/kW]	36	36	36	36	39	39
Heating power passenger compartment 2* [hp/kW]	39	39	39	39	-	-
Heating power driver's seat [hp/kW]	18	18	18	18	18	18
Refrigerant filling capacity [lbs/kg]	6,5	6,5	6,5	6,5	7,5	7,5
CO_2 equivalent [lbs/t]	9,295	9,295	9,295	9,295	10,725	10,725

	S 511 HD	S 515 HD	S 516 HD/2	S 516 HD	S 517 HD	S 519 HD
Doors and glazing						
Number of doors	2	2	2	2	2	2
Door position (A or B)	A	A	A	A	A	A
Rear-end door	○	○	○	-	-	○
Outward swiveling door	●	●	●	●	●	●
Double glazed	●	●	●	●	●	●
Windscreen heatable	○	○	○	○	○	○
Windscreen Opticool	●	●	●	●	●	●
Lighting						
Low beam	●	●	●	●	●	●
High beam	●	●	●	●	●	●
Daytime driving lights with LED technology	●	●	●	●	●	●
Headlamps halogen	●	●	●	●	●	●
Headlamps with LED technology	○	○	○	○	○	○
Front fog lamp	●	●	●	●	●	●
Entrance lighting	●	●	●	●	●	●
Cornering light	●	●	●	●	●	●
Position lights	●	●	●	●	●	●
Ambient lighting luggage compartment	●	●	●	●	●	○
Ambient lighting for reverse driving	○	○	○	○	○	○
Ambient lighting for lift	○	●	○	○	○	○

	S 511 HD	S 515 HD	S 516 HD/2	S 516 HD	S 517 HD	S 519 HD
Transport capacity						
Number of seats – standard seating	43	51	55	55	59	63
Passenger capacity min.	32	40	44	44	48	44
Passenger capacity max.	49	55	57	59	61	72
Seating type Voyage	●	●	●	●	●	●
Seating type Voyage Plus	○	○	○	○	○	○
Seating type Voyage Ambassador	○	○	○	○	○	○
Seating type Ambassador	○	○	○	○	○	○
Driver’s seat GRAMMER Linea MSG 90.6 P, air-sprung	●	●	●	●	●	●
Driver’s seat ISRI 6860, integrated pneumatic system, 3-point seat belt	○	○	○	○	○	○
Wheelchair space	○	○	○	○	○	○

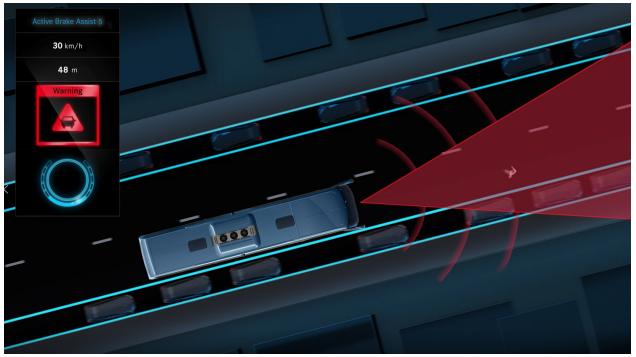
● Standard equipment ○ Optional equipment * Optional equipment

Safety.

Adaptive Cruise Control (ACC) with Active Brake Assist 6 (ABA 6).

The Adaptive Cruise Control (ACC) with Active Brake Assist 6 (ABA 6) relieves the driver of the unnecessary stresses associated with maintaining a constant distance from the vehicle ahead, with a continuous measurement. ABA 6 additionally supports the driver in case of an imminent collision with stationary objects, moving objects and moving pedestrians.

Active Brake Assist 6.



The emergency braking system ABA 6 assists the driver by automatically initiating emergency braking if there is a risk of rear-impact collision with vehicles in front or stationary obstacles. It also detects moving or stationary persons and cyclists in front of the vehicle. The system reacts to this with an acoustic and visual warning to the driver as well as an automatically initiated partial braking or emergency braking.

Active Drive Assist 2.

Active Drive Assist 2 actively assists the driver with distance and lane keeping by combining various assistance systems. The system can brake, accelerate and keep the vehicle on track through active steering movements. To this end, it combines the functions of the individual systems in a unique way and thus already enables semi-automated driving in all speed ranges.

Acceleration Skid Control (ASR).

ASR prevents the drive wheels from spinning in two ways. On the one hand, ASR minimises wheel spinning through a measured braking intervention. On the other hand, the torque of the engine is regulated via the "electronic accelerator pedal".

Anti-lock Braking System (ABS).

The Anti-lock Braking System (ABS) supports driving stability during critical braking operations and ensures that the vehicle remains steerable. 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 steerability of the bus is largely maintained.

AquaBlade® windscreen wipers.

With its innovative profile, the flat wiper blade ensures that screen wash is evenly distributed on the windscreen. This increases comfort, saves screen wash and, due to the considerably better cleaning action, also ensures optimum visibility – ultimately a plus for safety.

Attention Assist (AtAs).

Attention Assist (AtAs) is a safety assistance system that can help prevent microsleep. It thus contributes to improved driving safety, especially on long journeys and when driving at night. The system warns the driver visually and acoustically when it detects typical signs of overtiredness or inattention and prompts him/her to take a break. The warning is independent of the electronic logging device (ELD).

Continuous brake limiter (DBL).

The continuous brake limiter (DBL) is a safety system that makes it impossible, for example, to decouple the drivetrain by depressing the clutch pedal when going downhill. DBL constantly monitors the maximum permissible speed of the vehicle. If a vehicle exceeds the maximum permitted speed, e.g. when driving downhill, DBL communicates with the other safety systems.

360° camera.

The 360° camera system consists of four cameras that capture the immediate vehicle environment and generate an indirect all-round view. The associated 10" screen is located on the A-pillar above the cockpit. This system allows pedestrians, cyclists and obstacles to be seen even in areas that are otherwise not visible to the driver. In this way, the system increases road safety, as collision hazards can be detected and, at best, prevented.

Electronic Stability Program (ESP®).

The Electronic Stability Program (ESP®) significantly reduces the risk of the vehicle skidding and tipping over by selectively braking individual wheels or by braking the vehicle as a whole.

Electro-pneumatic service brake system (EBS).

Exemplary safety even in unforeseen traffic situations - the electro-pneumatic service brake system (EBS) achieves shorter braking distances and less brake wear. The electro-pneumatic service brake system (EBS) increases road safety by improving braking stability and reducing braking distances.

Drive authorization system 4 (FBS4).

Start the vehicle without putting the key in the ignition: the keyless access system Keyless-Start (drive authorisation system 4 FBS 4) makes this possible. The electronic vehicle key only has to be located in the cockpit area, so it can remain in the driver's pocket. The engine is started by pressing the start button.

High beam assistant.

The function can be activated or deactivated. It is active from a speed of approximately 20 mph (35 km/h) and is automatically deactivated below a speed of approximately 15 mph (27 km/h). The function adapts to the illumination/brightness of the surroundings (no automatic switching on if there is sufficient street lighting).

Front Collision Guard (FCG).

The Front Collision Guard offers increased safety in the event of a head-on collision by means of a transverse profile behind which crash elements are located. Their absorber structure converts the impact energy into deformation energy. The transverse profile serves as a reliable underride guard. Since the driver’s work space is mounted on a massive frame component, it can be pushed backwards to maintain a protective space for the driver in the case of a frontal impact.

Hold function.

The electronic brake with hold function combines easier handling, more comfort and greater safety. When the bus is at a standstill, the vehicle is held by the service brake by pressing the brake pedal above a certain point, and the brake is automatically released when starting off. The function can be deactivated by a button.

Rain-light sensor.

The light sensor increases road safety by automatically switching on the driving lights depending on the current lighting conditions and thus improving the visibility of the roadway.

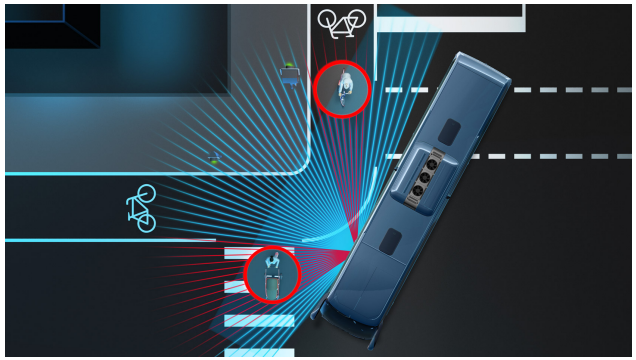
Tyre Pressure Monitoring (TPM).

The right tyre pressure contributes to driving safety and significantly reduced fuel consumption. Even a tyre pressure set 0.5 bar too low can increase fuel consumption by up to 5%. The wheel electronics are positioned on the valve on the inside of the rim. The sensors record the data relevant to the tyre pressure and transmit it to the display instrument.

LED headlights for low beam and high beam.

The low beam and high beam benefit from the outstanding luminous efficacy of the integral LED headlights, which also use significantly less energy than standard lights. They provide broad and precise illumination of the road. Another safety benefit is the temperature of the light, which is similar to that of daylight and makes the eyes tire less quickly. The LED lights assure a long service life and low degradation (decrease in luminosity).

Sideguard Assist.

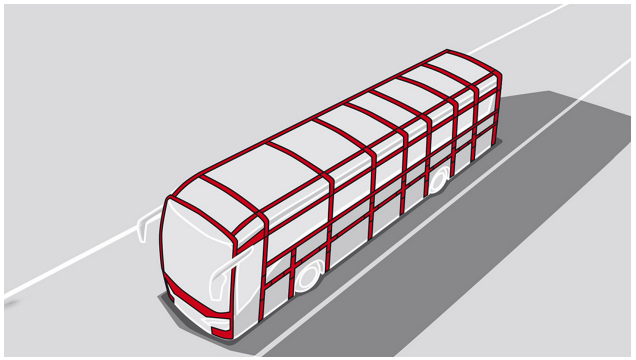


Sideguard Assist is a safety assistance system that supports the driver in critical cornering situations where visibility may be limited. When turning or changing lanes, the system is designed to help avoid critical situations, within its limitations, or reduce the consequences of accidents.

Lane Assist (SPA).

With the aid of a camera system behind the windshield, the Lane Departure Warning system detects when the vehicle unintentionally leaves a marked lane. As soon as the vehicle crosses the markings, the driver is warned by a clear vibration on the corresponding side of the driver's seat.

Stable bodywork (body in compliance with ECE-R 66.02).



The strength of the bus/touring coach body is also an important factor for the level of passive safety of a bus/touring coach. Its resilience can mitigate the consequences of an accident. The high strength of our vehicles' bus/touring coach bodies is guaranteed in part by all-round, weight-optimised annular frames.

MirrorCam.

The modern MirrorCam system provides a clear and full view of the road traffic. Equipped with high-resolution cameras, the driving safety is improved and the risk of accidents is minimised. The extended field of vision enables the driver to see pedestrians, cyclists and other road users in the surrounding area. This eliminates the blind spot when turning right.

Traffic Sign Assist (TSA).

The innovative Traffic Sign Assist offers maximum safety and comfort on the road. Thanks to GPS and camera support, the vehicle speed is constantly compared with the current traffic regulations.

Frontguard Assist.

Frontguard Assist is an advanced system that was specially developed to warn drivers of pedestrians located immediately in front of the vehicle and also to warn them of an impending accident. Whether you are pulling away or driving slowly (up to 9.3 mph), the intelligent assistance system can detect potential collisions with unprotected road users.

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Setra – A Daimler Truck AG Brand

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