

AXOR

Features and Benefits



125! years of innovation



Mercedes-Benz
Trucks you can trust.





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Our name stands out. The Axor.

Of the many factors that determine how economical a truck is, payload is perhaps the most decisive. Especially when it comes to medium-distance haulage and heavy-duty short radius distribution in the GVM category from 18 to 35 ton. The Axor was designed specifically for these tasks, so high payload is one of its fortes. It is already a very efficient truck with a durable, economical and powerful 6-cylinder engine plus a special powertrain configuration. With robust design and long service intervals, we have now also reduced the weight of the Axor wherever possible.

Also, there are now more Axor models and Cabs to choose from, as well as even more comprehensive comfort, safety and equipment packages. Freight carriers are now available in addition to tractor units. Powerful clear-lens headlamps are fitted as standard. You are sure to find the right Cab, as there are three on offer, including larger Cabs for more space up front and smaller Cabs for increased payload, depending on engine power and application in question. Drivers especially will be pleased about the mini revolution that has taken place in the interior: controls that are even easier to use and new bunks. After all, driver motivation is an important economic factor too.



Lightening the load: The Cab.

It's all about focussing on the essentials. Axor trucks used for medium-distance haulage and heavy-duty short-radius distribution offer just the right amount of room. All thanks to ergonomic design and optimum use of the available space, the aim being to make the driver's job easier. Prominent aspects of the Cab generation include the flowing, rounded forms of the cockpit and instrument panel, more freedom of movement, extra stowage options and the fact that all the main controls are positioned within easy reach around the driver. Furthermore, the engine tunnel in

Axor trucks has been lowered by 120 mm in order to provide easy through-cab access and more standing room. And with two different cockpit variants, you are sure to find the ideal solution for your medium-distance haulage or short-radius distribution truck. We also attached great importance to selecting easy-care materials that are pleasant to the touch and easy on the eye. In short, the Axor Cab is designed to provide the driver with an extremely comfortable working environment, resulting in improved driver productivity, safety and economy.

Tailor-made Cabs

With three different Cabs on offer, the Axor has all the bases covered, regardless of whether it is destined for medium-distance haulage (longer trips with frequent overnight stops) or heavy duty short-radius distribution (routes that can be completed within a day).

The spacious Low Roof Sleeper Cab has one comfortable bed fitted as standard. There is also a High Roof Sleeper Cab available, providing increased standing room and offering the luxury upper bed in addition to the standard lower bed. Finally, the standard day Cab provides a generous feeling of space and additional stowage options behind the seats. With this Cab we can now offer a foldup bunk in Freight Carrier and Truck Tractors.

Precision engineering for Cabs

The Cab exterior clearly reflects the attention to detail shown by the engineers who designed the Axor, especially the wind deflectors which improve aerodynamics and reduce dirt build-up on the side doors, the front spoiler and the bumpers made from weight-saving plastic, not to mention the clear-glass headlamps for even better illumination of the road. Generously proportioned, non-slip steps and wide-opening doors make climbing on board extremely easy, whilst superb visibility is assured thanks to the large windscreen, deep-set side windows, heated exterior mirrors with manual control, wide-angle rear-view mirror and a kerb mirror. The new front bumper view mirror reduces blind spots and enhance safety.

Cockpits designed for the job in hand

In order to fulfil specific requirements, there are cockpit variants available for Axor trucks: "Distribution" and "Long-distance". Tailored to specific needs, the cockpits feature a harmonious flowing design, a host of stowage options and ergonomically arranged controls within easy reach of the driver, from the A4-size compartment on the instrument panel to the pen holder, the heating/air conditioning controls and the differential lock switch. Cup and bottle holders are located in the centre of the instrument panel, new clothes rail with hooks within easy reach of both the driver and the co-driver.





The anti-glare instrument cluster: the function check covers the most important vehicle data and functions and, apart from the tyre checks, replaces the daily exterior checks of the vehicle carried out by the driver.

Acceleration and braking: a single control stalk is used to operate the cruise control and engine brake functions, making the Axor feel almost as easy to drive as a passenger car.

The new easy-grip multi-function steering wheel has an infinitely variable pneumatic adjustment mechanism. It has a height adjustment range of 66 mm, whilst the reach can be adjusted inbetween.

22° and 39° - all at the touch of a button - so that the driver can set the ideal driving position with easy access in and out of the cabin.

The air-controlled heating system and ventilation can be individually adjusted and distributes the air through a cleverly thought-out system of air ducts and other nozzles. It has a fast response time and thus reacts almost immediately to driver inputs.

The new multi-function steering wheel has integrated control functions for the on-board computer, radio and telephone. All this value added equipment allows for more comfort at the workplace.

Featuring two keys as standard in a new design. Functional to open and close the doors, steering wheel and diesel tank locks.

New instrument cluster with chrome rings offering a more informative new-graphics display and new automatic departure check system display.

New Radio with CD and Bluetooth capabilities offering hands-free telephone operation and in cab entertainment.

Freedom of movement is the priority in the "Distribution" cockpit. The instrument panel and the recess below are especially designed to allow fast and easy through-cab access. This cockpit is fitted to all Axor Freight Carriers.

In the "Long-distance" cockpit, the extended instrument panel provides further generously sized stowage operations. This option comes as standard in all the Axor Truck Tractor Cabs.



Cab

Outstanding seats

The human body was not designed for sitting. All the more reason to make seats as comfortable as possible. Ergonomically optimised seats are vital for driver well being. Plus they enable drivers to be motivated, productive and remain alert, especially when they are sitting behind the wheel for kilometre after kilometre. Standard equipment for the Axor therefore includes an airsprung suspension driver's seat with a host of adjustment options for finding the ideal sitting position. Contemporary new seat covers in "Brasau design" means the seats look good as well as being hard wearing and functional.

Outstanding controls

The cab door features an operating panel incorporating a host of functions that can be controlled using conveniently large buttons. Further features of note include the comfortable armrest and the eyeball-type outlets with sensitive airflow control at the front of the driver's and co-driver's door. Firstly, these outlets prevent the side windows from misting or icing over. Secondly, they can emit warm air to form a "wall of heat" in front of the side window when it is cold outside. Thirdly, they can blow fresh, cool air towards the driver when the temperature outside starts to rise. Finally, the door also incorporates an open pocket with an integral bottle holder and scratchproof surfaces.

(Right) A 1.5-litre bottle holder is integrated in the open door pocket - an extremely practical solution which ensures that drinks are easy to reach and cooler, since they are shielded from direct sunlight.



(Far right) The door-operating panel with easy-to-use function button: for adjusting the exterior mirrors on the driver's and co-driver's side, switching the exterior mirror heaters on/off, operating the power windows on the driver's and co-driver's side.



Easy reading

All of the most important vehicle data such as road speed, r/min, fuel level and brake pressure are clearly visible on the anti-glare instrument cluster. New graphic display, optimised window and chrome rings around instrument dials: the adaptive green rev counter helps the driver to save diesel, for example.

Ideal working conditions

A pleasant climate helps to create that all-important feel-good factor and prevent lapses in concentration. Perhaps the most crucial aspect of all is how the body reacts to the heat or cold and this varies from person to person.

Sleeping made easy

The bunks available for the Axor sleeper Cabs are proper, full-size beds. The lower bunk is the comfortable standard bed with a single-section sprung mattress. The upper bunk, standard on the High Roof Sleeper Cab, is a luxury bed with a flexible, body contour-supporting slatted base and a high-quality foam mattress. Movable support elements enable the slatted base to be adjusted to suit the occupant's weight. Varying degrees of support can be provided for specific areas of the body. Drivers who have to change Cabs can simply take their mattresses with them. After all, it's always nice to sleep in your own bed.

In addition, there are three spacious stowage compartments under the standard bed. The sleeper Cab even has its own unique brand of room service in the form of a control panel in the C-pillar, which can be used to operate the interior lighting and alarm clock from the comfort of the bed. These conveniently placed controls can also be used to operate the plastic sunroof, which comes as standard on High Roof Sleeper Cab.

Illuminating details

The lighting in the driver's area includes a bright reading light, which proves especially useful when filling out tachograph discs, or checking freight papers, for example. Two additional interior lighting functions provide optimum illumination in the High Roof Sleeper Cab: dimmed green lighting allows relaxed, stress-free driving whilst anti-glare lights illuminate the principal areas of the interior. For work, rest and recreation.



(Far left) Storage space in the High Roof Sleeper Cab is increased further, thanks to the inclusion of a spacious compartment with a hinged cover and an open compartment.

(Left) The new multi-function steering wheel has integrated control functions for the on-board computer, radio and telephone. All this value added equipment allows for more comfort in the workplace.

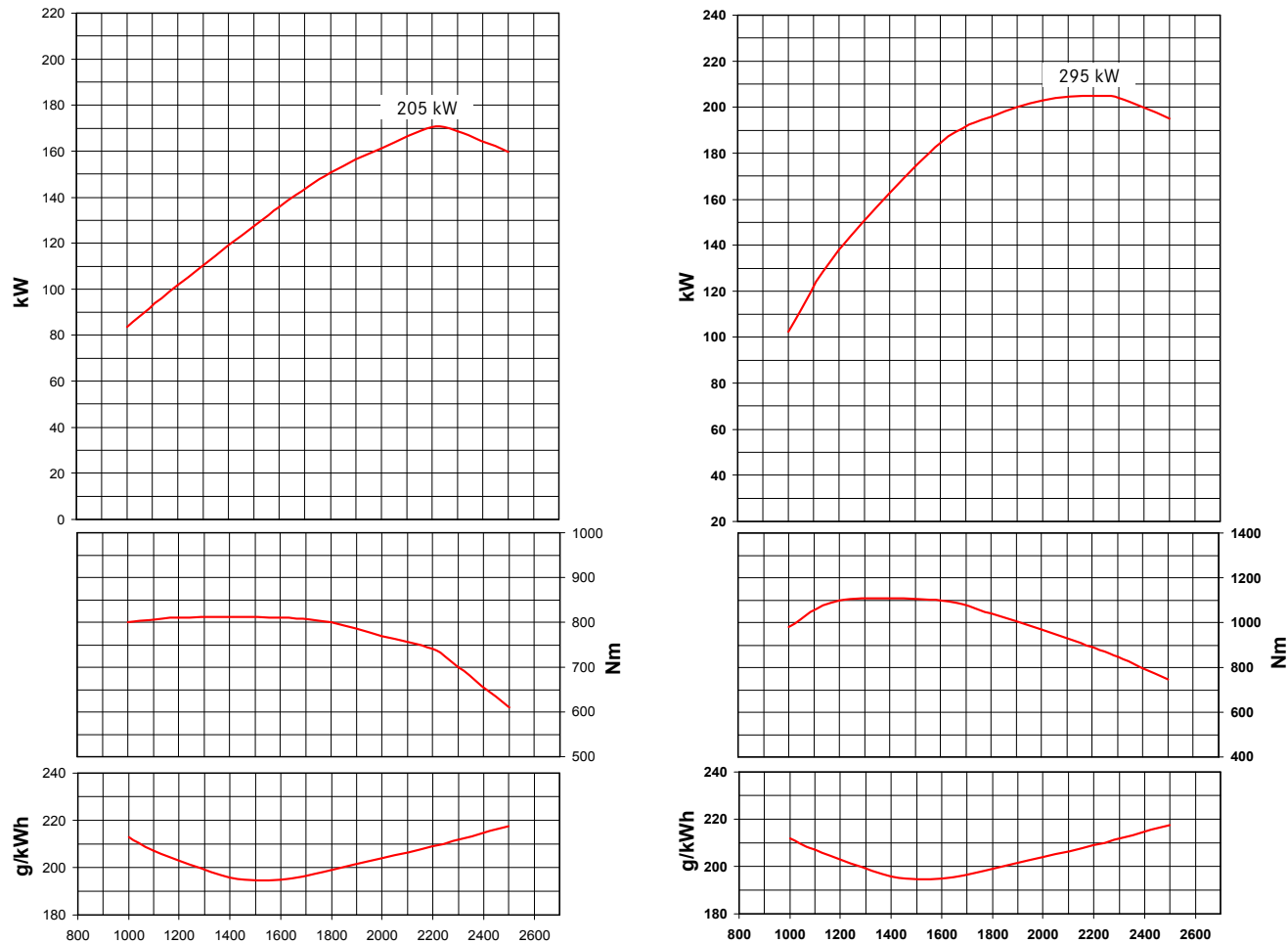


The Axor looks good.
Both on the road and on your balance sheet.

Whether it be the tried-and-trusted tractor unit or the Freight Carrier, the Axor is hard to beat in terms of economy. During the design phase we do all we can to minimise weight and thus maximise payload, cases in point being the new direct-drive transmission, the 2-bellows air suspension and the bumpers. Every kilogram counts, after all. A true glutton for work, the Axor also sets the standards when it comes to other economic

factors such as fuel consumption and servicing, featuring the Telligent® engine management system and powerful yet economical 6-cylinder in-line engines. Finally, the Axor also delivers impressive performance in terms of reliability and longevity, displaying an extraordinary ability to clock up the miles. So it's hardly surprising that some haulers affectionately describe the Axor as an "economic miracle".

Every company needs a driving force.
This is where we come in.



In a class of their own

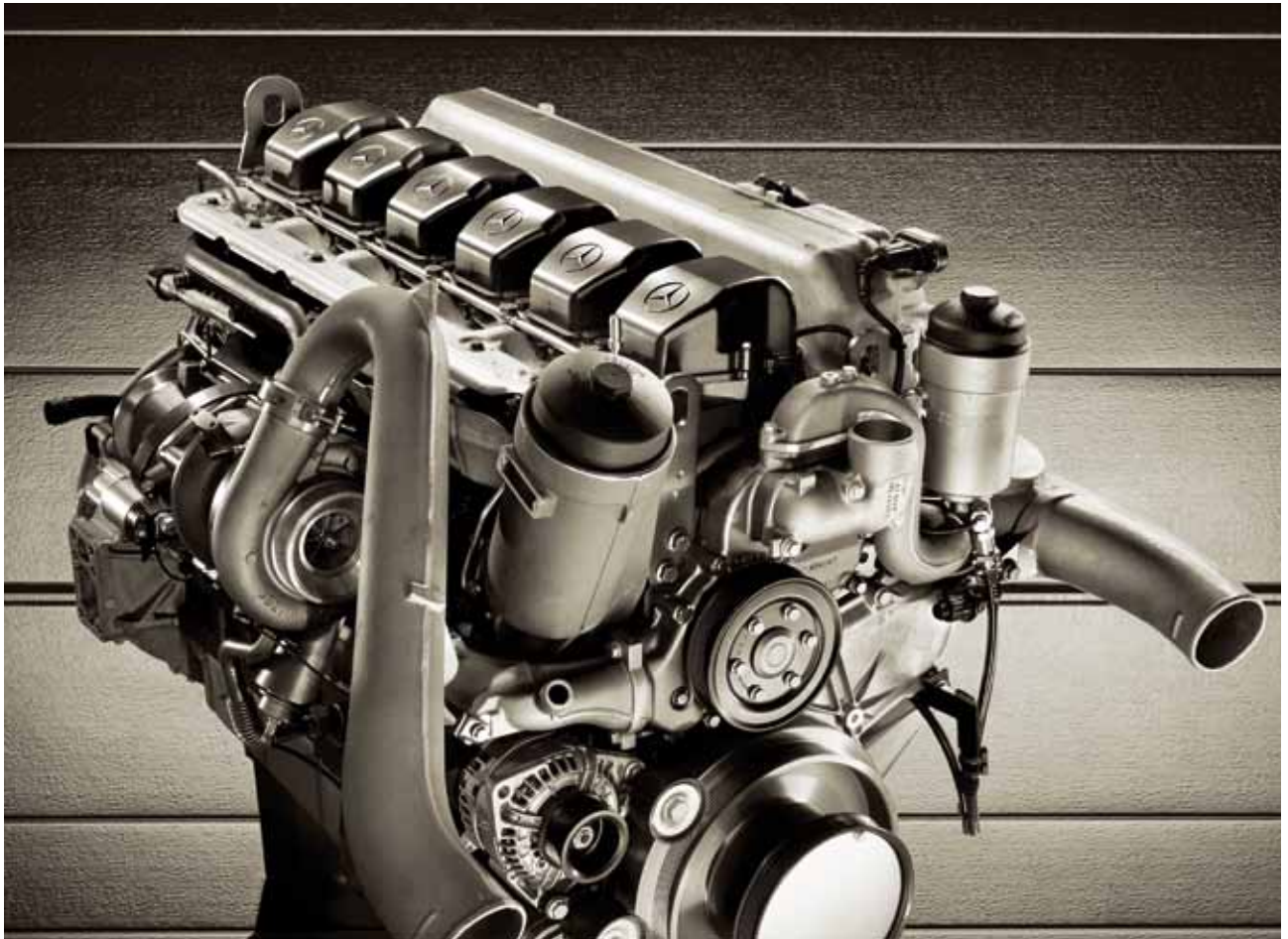
Ideally, the torque should be at its highest in the r/min range in which fuel consumption is at its lowest. This maxim certainly holds true in the case of the 6-cylinder in-line engines with a displacement of 6 litre and 12 litre, since their peak torque ranging from 1 100 Nm for the engine with 205 kW (279 hp) to 2000 Nm for the engine with 295 kW (401 hp) is developed at just 1 250 r/min and 1 100 r/min respectively. All engines in the Axor range are Euro 3 compliant.

Telligent® engine management system: intelligent thinking pays off

Near-perfect combustion is required if an engine is to operate economically, effectively and as cleanly as possible. This complex process is controlled by the Telligent® engine management system, which constantly calculates the correct injection timing, the optimal injection metering and the precise injection period for the current driving situation at lightning speed, based on the continuous input of relevant data such as air and boost pressure as well as engine, fuel and charge air temperature. Outstanding efficiency is assured thanks to pump-line-nozzle (PLD) technology, 6-hole injection nozzles (for engines with an output of 260 kW/354 hp or more) and 5-hole injection nozzles (for the 205 kW/279 hp engine) and an extremely high injection pressure of up to 1 800 bar. The result is lower fuel consumption, less nitrogen oxide and particulate emissions, not to mention a level of power delivery that will impress even the keenest and most experienced of drivers.

Servicing. Another case of less being more

First inspections after 5 000 km are not something the Axor is overly familiar with. They may be a necessary evil for many vehicles, but not for Axor trucks. The Axor has many other advantages to help keep you in the black, not least the long service life of all the major components, or operating fluids that do not need changing during the vehicle lifetime. Furthermore, many parts, such as the rubber molecular bearings, are now completely maintenance-free. Finally, the entire truck has been designed so as to ensure that any repairs required can be carried out as quickly as possible. So the Axor spends less time in the workshop and more on the road.



All of the engines reach their peak torque in the r/min range offering the lowest fuel consumption. This means power is available when it is needed most, ie when accelerating, on hills and when overtaking. It also means lower fuel consumption.

Gearshift, Transmission, Axles

Direct power transmission: one of our strongest suits.

A powertrain in which everything acts in concert

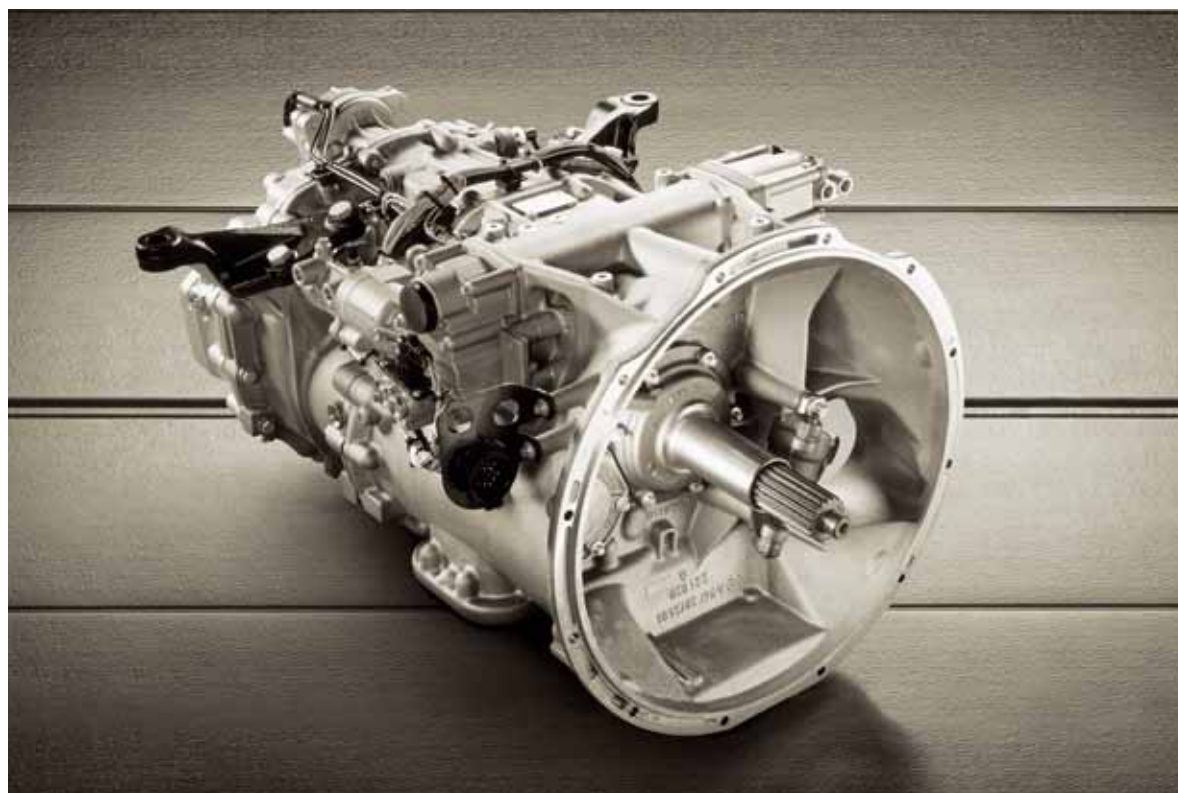
Our drive concept is based on a simple philosophy: getting the vehicle to do what the driver wants as quickly and efficiently as possible. In other words, the engine power has to be transferred to the road with a minimum of fuss and without incurring losses due to friction. To make sure this is the case, Axor drive systems are precisely configured to fit the engine power and transport task in question. The 9-speed direct-drive transmission allows practically effortless gear changes and, thanks to a deep crawler gear and reverse gear ratio, enable precise low-speed manoeuvring.

Specifically selected gear ratio steps ensure optimal transfer of tractive power to the road in Axor medium-distance haulage and heavy-duty short-radius distribution trucks. Vehicles that require a single live rear axle are fitted with the single-reduction HL 6 hypoid axle, which quickly sends the power to the wheels with almost no losses, caused by friction. Rear axles with air-suspension are fitted with a stabiliser link, which reduces body roll and improves axle location as well as helping to reduce weight.

In addition to direct drive transmissions, the Axor has robust single and double overdrive gearboxes. These gearboxes are specifically matched with well-proven hub reduction axles for those “tough” operations that require a rugged vehicle.



Fewer gear sets, less friction, less wear: the single-reduction HL6 hypoid rear axle ensures power transmission with practically no losses due to friction resulting in low fuel consumption.



Precise shift travel, supreme ease of shifting: the 9-speed direct-drive transmission (with eight gears plus one crawler gear) with hydraulic gearshift. The hydraulic oil in the gearshift mechanism does not need to be changed or topped-up during the entire service life of the truck.

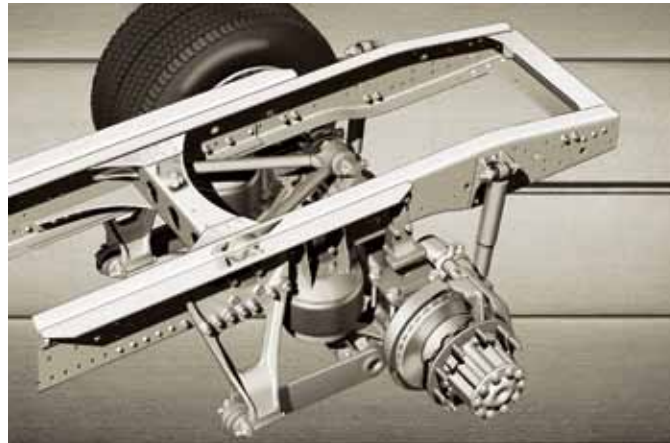
Comfort, strength, lightweight design.
The ideal platform to work on.

Less weight, more endurance, more payload

Extreme loadability on the one hand and not a single gram of excess weight on the other the – Axor is exemplary in both respects. A whole host of measures has been implemented to reduce weight wherever possible and achieve the perfect balance between robust design and high payload. Despite its lightweight design, the Axor is capable of carrying extremely heavy loads: the parallel frame stands up to significantly more than the plated weights on the Cab imply. Furthermore the 50 mm hole pattern on the frame ensures that no additional holes need to be drilled for attaching bodies and other units so the exemplary corrosion protection afforded by the cathodic dip coating process is not damaged. The stabiliser link on the HL 6 rear axle with air suspension helps to reduce weight, whilst the 2-bellows air suspension for tractor units enhances driving dynamics. In addition, the Telligent level control system enables the frame of vehicles with air suspension to be raised by 170 mm or lowered by 90 mm when coupling and uncoupling. We attached great importance to the chassis and suspension, without forgetting comfort, as can be seen by the new, Cab mounting which ensures optimal damping of vehicle vibrations.



The new Cab mountings with additional longitudinal mounts and rubber mounts ensure better damping of shocks and vibrations caused by uneven road surfaces, for example.



The 4 x 2 tractor units with air-sprung rear axle are now fitted with improved 2-bellows air suspension which makes for more stable handling qualities and improved driving dynamics.



Simple connections without tiresome Cable routing: the new body manufacturer interface, integrated centrally in the Cab hatch, simplifies communication between the Cab and the body and affords the body manufacturer easier access to the electrical systems.



It's not just about looking after the load.

You can overdo things. But there's no such thing as too much safety. And this maxim certainly applies to the Axor, which has a cleverly thought-out safety concept that protects both vehicle and driver. Firstly, there's the smooth, sure handling coupled with excellent visibility. Not to mention details such as heated exterior mirrors with manual control and powerful clear-glass headlamps. Axor Cabs also comply with the latest safety standards, of course, having passed the customary crash tests with flying colours. And even the forms and materials used for the interior appointments have been chosen with safety firmly in mind. Lying at the heart of the Axor safety concept is an extremely powerful brake system fitted as standard. Axor trucks with an output of 260 kW /354 hp have a feature which enhances both economy and safety, namely the "Turbobrake" engine brake which improves the braking effect considerably when driving down steep hills. The Axor fitted with a 295 kW/ 401 hp engine comes standard with a Voith retarder instead of a Turbobrake.

All-round safety

The Axor Cab is an extremely safe construction that is designed to offer maximum protection, having successfully passed the strict European crash test ECE R 29. Only flame-retardant, splinter-proof materials with rounded corners and edges are used in the interior. Not only that, but seat belts with belt tensioners are also standard. In addition, visibility has been improved in order to enhance safety. Fitted as standard, the clear-glass headlamps illuminate a wide area of the road, whilst heated exterior mirrors with manual control, wide-angle rear-view mirrors mounted below the main mirrors and the fact that each of the mirrors is offset outwards by 50 mm combine to ensure excellent rear visibility. The

Safety

curved design of the mirror glass reduces the size of the blind spot. Wind deflectors and corner panels divert the air to prevent dirt build-up on the door handles and the side windows. The new front bumper view mirror reduces blind spots and enhance safety.

Antilock braking system (ABS)

The antilock braking system is a safety feature that prevents lock-up of the wheels during braking. The system is based on a dual-circuit brake system that is also equipped with an electronic control loop. The control unit of the brake electronics detects the current wheel speed via the pole wheels and wheel sensors. When braking, the system controls the brake pressure at the individual wheel brake cylinders via control valves. In the case of drastic braking and braking operations with locking wheels, the system automatically opens and closes the control valves of the wheel brake cylinders at very short intervals, thus preventing wheel lock-up and keeping the vehicle steerable. On Tipper chassis, concrete Mixer chassis and all-wheel-drive chassis, ABS can be deactivated via a switch on the main control panel for construction-site and off-road operation. ABS is activated automatically each time the engine is started. Note: if the ABS function is deactivated for construction-site/off-road operation, it must be reactivated again before using the vehicle on public roads.

Road safety is enhanced, since the vehicle always remains steerable and maintains directional stability in the case of critical braking operations, because skidding of the vehicle is prevented when braking on roadways, which are dry/slippery on one side. Truck-and-trailer units remain directionally stable even during critical braking operations. Operating costs are reduced, as brake damage to the tyres (flat spotting) is prevented during drastic braking. The driver's workload is relieved, since the system optimally performs cadence braking for the driver.



The wind deflectors on the A-pillar, exterior mirror fairings and corner panels to improve aerodynamics and reduce dirt build-up on the side door and side window.



No misting over, no icing over and no burning-on of dirt particles, since the standard-fit electric heaters for the large exterior mirrors can be controlled manually. The wide-angle rear-view mirror is mounted below the main mirror so as to provide better rear visibility. New front bumper view mirror reduces blind spots and enhance safety.



See and be seen: the stunning grill houses clear-glass headlamps for optimal illumination of the road. Fast bulb changes are now child's play: simply open up the light. Further extras include fog lamps in the front spoiler on the Truck Tractors.



Axor trucks have the "Turbobrake" engine brake, a wear-free auxiliary brake which increases the boost pressure and, therefore, increases the engine braking effect to as much as 300 kW.



You wouldn't believe what your Axor had to go through before it reached you.

For us quality is an on-going process. A process that begins in the design and concept development phase, as this is when the quality of the truck is largely decided. Even at this early stage, it must be assured that the whole is greater than the sum of its parts. CAD enables different design variants to be compared in computer simulations. So our trucks have to pass their first tests before they are even built. Then comes tests on special test rigs, in which components and materials are subjected to levels of load and stress that are several

times higher than those they will face during the long truck service life. From engine endurance tests to material tests on the smallest of parts such as a rocker switch or direction indicator. The final hurdle is on-road testing in South Africa where the Axor has to prove it can deliver to both our and your satisfaction. Not just once, but year after year. After all, the development of a truck does not end with production start-up. And when it comes to quality in particular, better is the enemy of good.

Development, Testing, Quality and Service

Testing to the limit

Our engineers are genuinely nice people. But when it comes to work, they take things very seriously indeed. An Axor has to go through extreme conditions before it is allowed on the road. Because, in order to fulfill stringent quality requirements, the conditions on our test rigs are usually several times more extreme than any the Axor will ever encounter on the road: Axor engines have to survive cold/hot, partial-load, full-load and endurance tests equivalent to some 3.6 million kilometres of driving. In the case of the Cab, the simulated crash test results are confirmed in real-life pendulum impact tests on the front end, roof load tests and rear panel pressure tests. But it is not only the Cabs that have to go through crash testing. Even the seats have to be able to withstand 95 times normal G-force without being torn from their mountings

during a crash. And the indicator stalk is operated 1 million times with twice the normal pressure. However, it is only allowed to be used in production if the switch triggering resistance remains the same throughout the test and there are no signs of material fatigue at the end of the test.

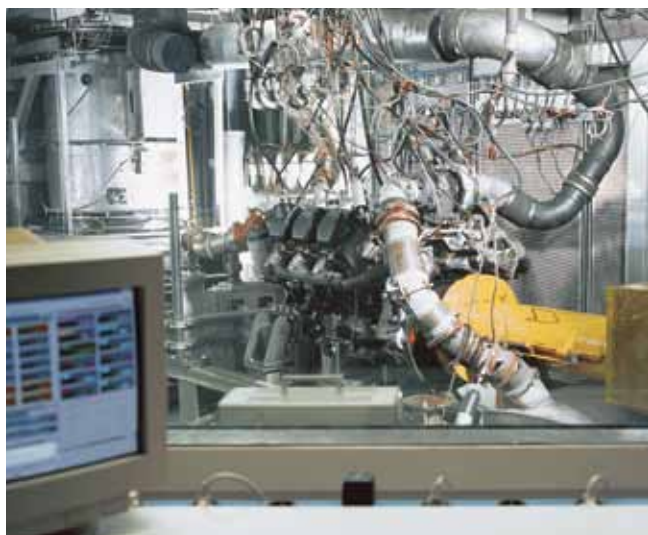
Mobile assistance around the clock: Service 24 hours

Service 24hr has a fleet of mobile workshops that you can call on in an emergency - 365 days a year, day and night. Just dial 0800-1333-55.

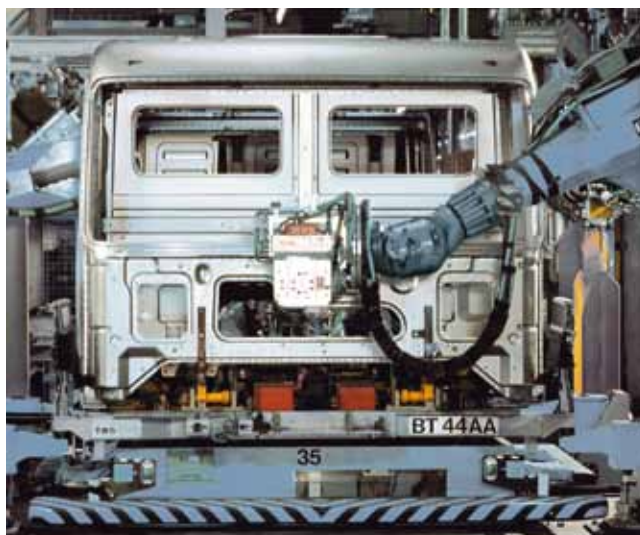
One call is all it takes. Some 80% of all breakdowns can be fixed at the side of the road. After all, the show must go on. Particularly where distribution trucks are concerned.

Driver Training Academy

Mercedes-Benz eco-training for drivers provides you with vital tips and information about economical driving. You can reduce fuel consumption by up to 10% without any noticeable drop in performance. Meanwhile our driver safety training programme teaches you how to master dangerous and extreme situations by practising emergency stops, cornering and many other useful exercises. So you are fully prepared for whatever the working day can throw at you.



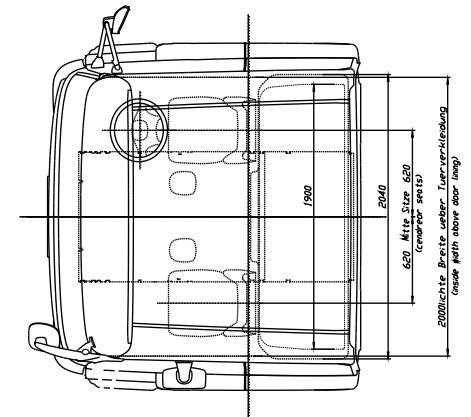
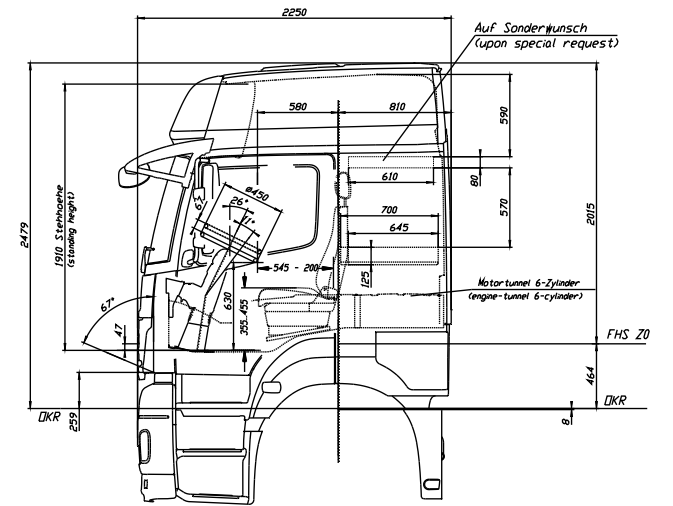
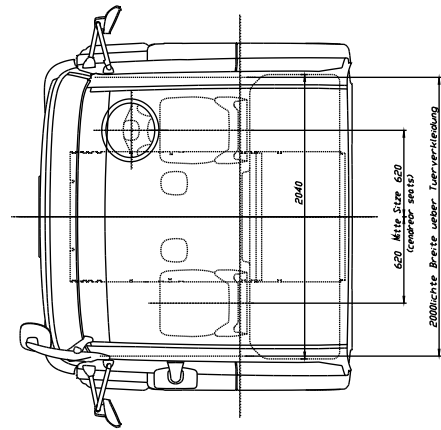
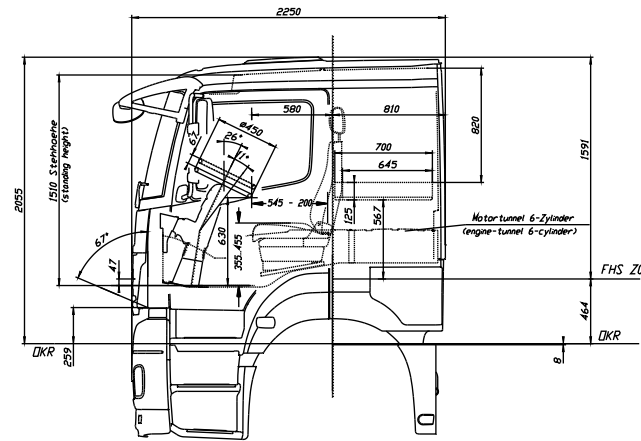
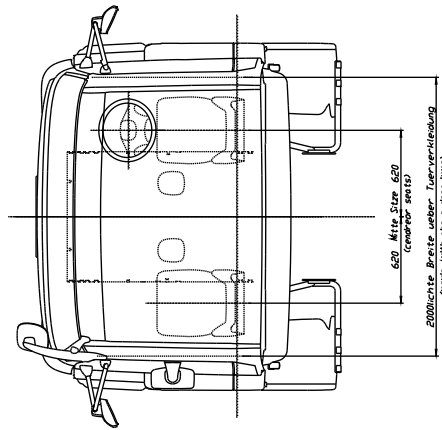
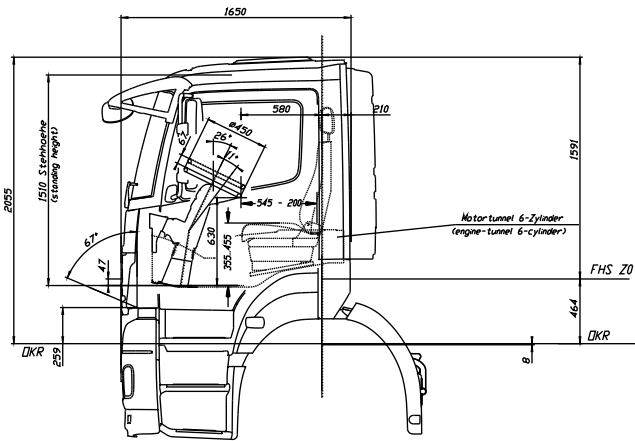
Hot/cold, partial-load, full-load and endurance tests: all in all, our engines have to survive dynamometer endurance tests equivalent to some 3.6 million kilometres of driving on the road. Otherwise the engine never makes it into an Axor truck.



So light yet so safe: the Cab for the Axor is extremely rigid and complies with European Safety Standard ECE R 29. This is largely thanks to its lightweight monocoque body shell, and all-steel construction, which is the product of highly precise, state-of-the-art-production processes. Driver safety is further enhanced by extremely lightweight panels and components in weight-optimised and torsionally stiff shell form.



Test rigs are used to simulate loads which are several times higher than the loads that Cabs will face in action service. The hydropulse test rig simulates extremely poor conditions such as roads with potholes in order to test the durability of specific components.



Standard Day Cab

Exterior length.....	1 650 mm
Exterior width.....	2 280 mm
Interior height.....	1 510 mm
Interior width.....	2 000 mm

* 180 mm extended rear wall

Low Roof Sleeper Cab

Exterior length.....	2 250 mm
Exterior width.....	2 490 mm
Interior height.....	1 510 mm
Interior width.....	2 000 mm

High Roof Sleeper Cab

Exterior length.....	2 250 mm
Exterior width.....	2 490 mm
Interior height.....	1 910 mm
Interior width.....	2 000 mm

Dealer

Please note: Changes may have been made to the product since the brochure went to press (25.02.2011). The manufacturer reserves the right to make changes to the design, form, colour and specification of any Mercedes-Benz vehicle during the lifecycle period, provided these changes, while taking into account the interests of the vendor, is communicated to the purchaser. The illustrations may show accessories and items of optional equipment which are not part of standard South African specification. Colours may differ slightly from those shown in the brochure, owing to the limitations of the electronic and printing process.

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Part number: 0001 5547 02