THE MAN TGS.

Efficiency in traction and heavy-duty distribution transport.

M AN 471



THE MANY SIDES TO THE MAN TGS.

The MAN TGS is uniquely versatile. In heavy local and distribution transport, in construction site deployment, for public-utility transport and as the specialist for special assignments: the versatile MAN TGS is perfectly tailored for use in this sector. With its powerful propulsion, unbeatable payload and unique ergonomics, it defines new benchmarks.

Some of the equipment shown in this brochure is not included as standard.

Both the vehicle's air conditioning system and refrigerator contain fluorinated greenhouse gases (R134a / GWP 1430 with up to 1.15 kg; 1.6445 t CO₂ accordingly).

The MAN TGS will be available complete with practical features from 2018. The driver's workplace has a much tidier look to it and the sleeping area has been further optimised.

The MAN TGS delivers better driving performance, greater comfort, maximum transport capacity, top quality, long service life, and exemplary safety and environmental compatibility. And not only does it fulfil all expectations, it exceeds them. For years, the TÜV has been certifying that it achieves the highest standards of reliability and the lowest incidence of defects when compared to the competition.

Experience for yourself the benefits of a truck that offers significantly more value for substantially lower costs. You will be convinced – in operation and when reviewing your financial books!

www.truck.man



MADE FOR POWER.

MA



FULL POWER AHEAD.

The MAN TGS delivers power on the road – and on muddy forest and field tracks, gravel tracks, gradients or rain-soaked construction sites.

Because the new MAN D15 and MAN D26 Euro 6 engines run with less weight but nevertheless increased power. On top of this they are also more fuel-efficient. However, power alone achieves nothing. It must be applied with pinpoint precision. The wide variety of propulsion formulae for the MAN TGS enable you to leverage the full benefits of MAN TGS Power. This is a vehicle capable of tackling every challenge in heavy-duty construction site work and traction operations.

Its powerful engines and unrivalled payload also enable it to get even the heaviest of loads to their destination in distribution transport. As with every MAN vehicle, they are backed by MAN Team Power.



THE MAN TGS – VERSATILITY WITH A CAPITAL V.

The MAN TGS is a flexible solution tailored precisely to customer requirements. The high-quality interior of the M, L and LX cab variants with its practical layout provides a perfect environment for driving, working and rest stops.

The MAN TGS is the ideal solution for all transport needs in heavy-duty distribution transport with or without a trailer.

It dominates the traction market for permissible gross weights of between 18 and 41 t. The MAN TGS is the right vehicle for all transport needs in this sector, be it for all-wheel drive, cement pumps, mixers or crane tippers. The switchable hydro-static front-wheel drive MAN HydroDrive[®] can master traction-critical driving situations beyond the capacity of vehicles equipped solely with rear-wheel drive.

The MAN PriTarder[®] allows all MAN TGS models to achieve maximum brake force even at low speeds, thus reducing wear while increasing safety.



MADE FOR EFFICIENCY.



MORE POWER WITH LESS FUEL.

Proven engine technology, mature components and perfectly matched technologies: this is the MAN recipe for efficiency.

The heart of the MAN TGS series is provided by the new innovative MAN D15 and MAN D26 engines with outputs from 243 kW (330 hp) to 375 kW (510 hp). They combine power with economy and deliver greater performance.

The MAN Euro 6 engines raise the bar in terms of fuel efficiency and AdBlue[®] consumption. MAN achieves its emission figures through the consistent development and use of key technologies such as common-rail fuel injection, exhaust gas recirculation (EGR), selective catalytic reduction (SCR) and diesel particle filters (DPF/ CRT).

The exhaust silencer with integrated CRT filter system and Selective Catalytic Reduction has a compact design which provides enough space for bodies to be fitted to the side of the chassis. There is also a silencer position which provides sufficient space for crane support feet. To protect the engine from the dust that can swirl up when operating away from surfaced roads, a version with a perpendicular exhaust pipe is available for three-axled vehicles. A partially perpendicular exhaust pipe is available for 8x4, 8x6 and 8x8 chassis units.

To further improve savings of fuel and CO₂ emissions, the Idle Shut Down feature shuts down the engine on the MAN TGS automatically after four minutes at idle speed, after first issuing a warning message.

MAN approves the MAN D15, MAN D26 and MAN D38 engines for use with paraffin fuels in accordance with EN15940. Fuels that comply with this standard include hydrogenated vegetable oils (HVO), coal to liquids (CTL), gas to liquids (GTL) and biomass to liquids (BTL).

The new MAN D15 engine will be available from the middle of 2019. Like the MAN D20 engine, it has very good dynamic handling thanks to its optimal turbocharger configuration, but offers more payload. The weight of the engine has been reduced by approx. 230 kg as compared with the MAN D20, and fuel efficiency has been increased. Even at low engine speeds, the maximum torque is available.

The MAN TurboEVBec in conjunction with the MAN D15 engine enables gradual regulation of engine brake output up to a maximum of 350 kW. In addition, numerous optimisations of the new MAN D26 engine concept result in greater power at the same low fuel consumption and a weight reduction of around 80 kg.



EFFICIENCY IS PRE-PROGRAMMED INTO THE MAN TGS.

With the MAN TipMatic®, MAN has stepped up yet another gear in terms of efficiency.

With the new MAN TipMatic[®], the vehicle automatically detects loads and angles of inclination and optimises the shift strategy to ensure, for example when setting off, that the best and most appropriate gear is always selected. The SmartShifting function is a further development of the familiar SpeedShifting function that minimises interruptions in traction, for example when changing gears on an uphill gradient.

Also, the MAN TipMatic[®] saves the shift strategy and shift functions in the control unit of the system. This enables you to adapt shift characteristics individually at any time to suit operational conditions, thereby allowing you to start your day on an efficiency setting. As well as the full version, "PROFI", there are specifically pre-programmed software variants for a vast array of different application areas. The "OFFROAD" gearbox software is specifically designed for operation in the traction segment. The additional Dx position on a rotary switch permits altered shifting times as well as higher gearshift engine speeds, thus preventing gear skipping and resulting in minimum interruption of tractive force. Moreover, the engaged gears are retained for longer, even on kick-down, which enables the vehicle to move off at a higher torque. The shake-free mode makes it easier to drive off whenever the vehicle becomes stuck in snow or on a wet, loose surface. At the touch of a button, the MAN TGS quite literally drags itself out of the mud.



THE MAN TGS KNOWS EVERY HILL AND THE RIGHT GEAR FOR EACH OCCASION.

Anyone wishing to cover more distance on one tank must adopt an anticipative driving style. With a MAN, the truck does that for you.

The further development of the GPS-assisted cruise control, MAN EfficientCruise[®], has been available since 2016. On the basis of map material stored in memory and the GPS position of the truck, it can detect uphill and downhill gradients on the route ahead. The system uses this data to adjust the vehicle speed continuously and efficiently. In this process, it uses the dynamic change in kinetic energy. For example, unnecessary downshifts are avoided on uphill gradients. In conjunction with EfficientRoll, MAN EfficientCruise[®] can let the vehicle roll automatically in dips in the road or at the start of a downhill gradient. At the very minimum, fuel consumption ceases to be a continuously fluctuating issue.



MADE FOR DESIGN.



GREAT VIEWS.

The MAN TGS can expect numerous equipment highlights to make the interior even more driver-friendly and optimised for vehicle operation.

The warm sand and graphite tones of the interior panelling, grained plastic surfaces, satin-chrome-plated door handles and the seat covers have already been lending the cab a comfortable yet stylish atmosphere.

The optional darker "Urban Concrete" colour will be available for the cockpit. It is a hard-wearing colour scheme for all surfaces that may come into contact with dirty hands or work clothing during vehicle deployments in dirty conditions. The look of the cab interior can also be customised with three optional variants for the all-round trim strips (in brushed aluminium, Net-Black and wood).

The multi-function steering wheel forms the perfect interface between vehicle and driver: various functions are integrated into the steering wheel in a clearly laid out and intuitive manner. Without taking your hands off the wheel, you can call up vehicle information, receive telephone calls and adjust the radio settings. The driver can freely adjust the height and angle of the multi-function steering wheel, which is also available in leather.

A slimmer centre console and a coolbox/storage box, which can be completely stowed under the bed, create a more comfortable sitting and standing experience in the central area. And yet, the coolbox offers more space. The cup holders are more flexible, and the bunk control panel in the longer cabs with beds is more convenient. The lighting in the living space provides a cosier atmosphere thanks to goose neck lights.

The function-based switch layout and the colour display offer the driver a modern, ergonomic work place.



TOTALLY IN THE COMFORT ZONE.

When driving on construction sites and off-road, drivers need to be more empowered. MAN cabs offer enough space to meet any requirement. The only thing that the cabs don't have room for are compromises!

The cockpit can also be adapted to suit the individual needs of the driver and is perfectly designed for comfortable and safe operation. The high-resolution, four-colour LCD display in the instrumentation is clearly structured: coloured indicators on the 4-inch display aid readability and orientation, making it easier for the driver to spot notifications, such as activated assistance systems or warnings. A digital speed display supplements the analogue dial. In addition, menus and controls boast colours coordinated with the MAN Media Truck infotainment system. This infotainment system with its large touchscreen, colour display and optional navigation data, boasts features including a Bluetooth interface and USB/auxiliary input.

In terms of ergonomic comfort, there is a wide selection available, from the air suspension to air-conditioning of the driver's seat. Practical details such as the wipe-clean door interior cladding and the compressed-air connection to simplify cleaning operations ensure that the cab can be kept clean – enhancing driver satisfaction in the process.

The new, electric glass elevating roof makes the cab even cosier by allowing daylight to stream in. The glass elevating roof makes the interior feel really light and airy and enables an optimal exchange of air without the driver feeling a draught. The roof is controlled electrically, thereby increasing the driver's level of comfort.

No matter which cab you choose, it is certainly going to be a good choice because all of these cabs, as you would expect, comply with the most stringent crash safety requirements and offer optimum occupant safety. Especially for construction site vehicles, a virtually identical steel fender is available for all cabs.





ROOM TO RELAX.

MAN's strength does not just lie in the power of the engine, but also in the peace in the cab. True to this motto, the L and LX cabs feature a comfortable sleeping and rest zone for revitalising relaxation.

The level of sleeping comfort offered by the high-quality bunks with slatted supporting frame and optional multizone cold foam mattress is a dream come true. The elastic fabric covers of the replaceable mattresses can be washed and are made of breathable, hygienic materials. Even the undersides of the beds are covered with fabric as standard. The gooseneck lights and an easy-to-reach control unit for the bunks make for a pleasant atmosphere and greater comfort and allow the switches for the interior lighting, window lifters and sliding roof to be controlled. An alarm clock with an LCD display, 12V or 24V sockets and a USB power socket with a 5V connection on the top, e.g. for a mobile phone or tablet, round off the Stowable coolbox/stowage box handy features. The control unit is on the right side of the vehicle. It can be placed either side of the top bunk, meaning you can choose the position you want to lie in.

There is plenty of room for personal items in the many spacious stowage boxes. Large cupboards above the windscreen in the LX cab and a three-section roof stowage unit in the L cab provide ample space for luggage and other equipment. An illuminated storage compartment, accessible from outside and inside, provides plenty of space for personal gear in the L and LX cabs. A further stowage box only accessible from outside can be used for working clothing or various pieces of equipment. The new coolbox/stowage box with an integrated bin can be stowed fully under the bunk. A handy tray can be placed on the box or stored separately, providing a lot of extra space and some comfortable legroom when sitting on the bunk. Nevertheless, the new layout still offers more cooling space and additional storage compartments. The feature that allows cups to be placed on the top has also been optimised: one or two retaining devices can be fixed in the middle, within easy reach of the driver and co-driver.





Coolbox/stowage box pulled out



EVERYTHING INSIDE, AND ALL AT A GLANCE!

It is the driver who turns efficiency into motion. His performance at the wheel is the key to reliable transport and to a safe, cost-effective driving style. So it's vital that the workplace is well equipped for this.

In the redesigned MAN cockpit, everything is in the right place. The displays are clear, while frequently used switches and switches requiring quick access are close to the driver. To ensure intuitive operation, interrelated functions are grouped into switch groups, which are always in the same position in all vehicles and series. Having this standardised layout simplifies operation for drivers when switching vehicles. The dial switch for the MAN TipMatic[®] automated gearbox is now in the driver's field of view. The main panel of controls now houses all switches vital to operation and driving, while relevant functions for add-ons can be assigned to a second, optional panel of switches at a later date. Placing the panel of buttons for essential functions, such as interior lighting, above the driver provides easy access even while driving.

The instrumentation takes centre stage, with its LCD display in four colours. This four-inch, highresolution colour display supports legibility and orientation, and highlights features such as activated assistance systems and warning messages to enable quicker recognition. A digital speed display complements the analogue display. In addition, menus and controls boast colours coordinated with the MAN Media Truck infotainment system. The air-conditioning panel features displays with a white background, making them considerably easier to read thanks to the better contrast.



Enhanced colour display in the instrumentation



Neat switch layout



Rearranging the TipMatic switch and parking brake creates additional space



GREAT ENTERTAINMENT.

MAN offers some practical features with its MAN Media Truck infotainment system.

The standard MAN Media Truck variant includes a 5" TFT display with touchscreen and SD card slot. On request, it's also available with a hands-free system, Bluetooth audio streaming, USB/AUX inputs, and DAB+ digital radio. In addition, the MAN Media Truck Advanced version offers a larger 7" display, voice control, a hands-free system for a telephone, video display via USB & SD, traffic information via radio, and a maximum of two camera interfaces. MAN Media Truck Navigation includes a specialist truck navigation system. Also, the versions MAN Media Truck Advanced and Navigation offer the function of "Twin Pairing", which enables two mobile phones to be connected to the system in parallel. Both variants can also be provided with a hook-up for a rear-view camera.

The "Mirror Link" function transfers the user interface of mobile devices to the infotainment system, enabling safe operation via the multi-function steering wheel and the system itself (connection via USB cable). The navigation screen also continuously shows maximum speed limitations (dependent on the map data including the respective information). The digital radio (DAB/DAB+) is easy to access and use via voice control.



MAN Media Truck Navigation



Function "Mirror Link"

YOU CAN ALWAYS REST ASSURED ABOUT ONE THING: EVERY DRIVE WITH MAN.

With MAN, there is the right cab for every requirement - and a maximum level of comfort and ergonomics travels with you wherever you go.

This is because our cabs are designed to facilitate fatigue-free, concentrated driving, relaxing recovery and maximum occupant safety. All cabs provide optimum safety. The mirror concept contributes to this, with main and wide-angle mirrors, a large ramp mirror and front mirrors. The problem of the blind spot has been more or less eliminated. The heated windscreen on vehicles involved in snow-clearing duties provides optimum visibility, especially designed for those cold winter months.

There is a choice of three cabs for the MAN TGS. The compact width of the driver's cab makes this vehicle easy to operate in confined spaces, e.g. on construction sites, in forests, or for delivery transport.

M cab.

Compact and comfortable: for short distances in local and distribution transport, in the building sector and for public utility assignments, our smallest cab is the greatest. Favourable dimensions, maximum payload, generous stowage possibilities and compartments, and the option of a folding bunk with extra stowage combine to make the M cab unique.

L cab.

Flexible and versatile: our L cab is the ideal choice for all tanker and silo vehicles, as well as for timber, building material and refrigerated transport. The low overall height of the vehicle and the low weight enable the L driver's cab to manage greater payloads. The comfortable bed, the diverse array of stowage options and – if so desired – the multi-function stowage facility all enhance the detailing of this cab.

LX cab.

A workplace with the comfort of a living room: the LX driver's cab is equipped with a comfortable bed, an upper bunk or a multi-function stowage facility (both optional), making it an oasis of comfort on the road. With the generously proportioned stowage spaces, the standing room height in front of the co-driver's seat and the low vehicle weight – the key to an optimum payload – mean that the LX cab leaves nothing to be desired.









L cab









LX cab







MADE FOR WORK.



WITH A BUILT-IN GUARDIAN ANGEL.

The MAN safety and assistance systems deliver increased safety, fewer accidents and greater efficiency.

In addition to economic aspects, ensuring maximum protection for the driver and other road users is the priority. We need to do all we can to minimise the risk of accidents, which is why the MAN TGS offers a safety architecture with innovative technologies. This helps the driver in everyday and in difficult situations, and effectively helps to prevent accidents.



ESP compensatory braking when vehicle is oversteered



ESP compensatory braking when vehicle is understeered

MAN ASSISTANCE EQUIPMENT.

Electronic stability program (ESP)

ESP protects you from unpleasant surprises. ESP sensors constantly monitor the driving dynamics. If there is a risk of imminent skidding or tipping over, the individual wheels are braked accordingly and, where necessary, the engine torque is reduced. In this way ESP stabilises the vehicle and keeps it safely in the lane. MAN offers the electronic stability program for vehicles with leading or trailing axles and even for 4-axle vehicles or multiple tractors.

MAN BrakeMatic[®] brake system with ABS and ASR

The most important distance is the braking distance. To prevent any nasty surprises, the electronic brake system (EBS), including ABS and ASR, ensures reduced braking distances. The coupling force control for optimal balancing of the trailer and/or semitrailer brakes enables perfect brake performance, reduced braking distances and evens brake lining wear along the entire vehicle combination to increase the service life of the linings.

Brake assistant

The brake assistant registers speed and pressure when the brake pedal is operated and optimises the applied brake pressure through to full brake force. It recognises an emergency stop when it is initiated and immediately develops the largest possible brake pressure.

Continuous braking

EVBec[®]: As a further development of the MAN EVB engine brake (Exhaust Valve Brake), the EVBec[®] has many advantages, e.g. an improved braking effect by controlling the exhaust gas back pressure, significantly increased brake output especially in the lower engine speed range, overheating protection during long braking operations and constant brake output whether the engine speed is rising or falling. Three brake output stages are available.

The retarder is a hydrodynamic continuous brake integrated into the gearbox housing. Its brake output depends on the driving speed, with the best performance achieved in the medium to high speed range. The brake output level does not depend on gearshifts or clutch operation. This increases driving safety during long descents by relieving the load on the service brake system.



Functional principle EBA: advanced traffic monitoring by using two independent sensor systems (radar and video)

Emergency Brake Assist (EBA)

As even a brief moment of distraction can lead to an accident, MAN has developed the anticipatory Emergency Brake Assist (EBA). It gives drivers an advance warning of impending collisions, providing them with valuable time to react. The system automatically initiates braking in an emergency. The optimised Emergency Brake Assist (EBA) features a more advanced traffic monitoring system by using two independent sensor systems (radar and video) to detect a potential collision more quickly and to issue a warning signal earlier.

Emergency Stopping Signal (ESS)

Instead of the brake lights simply coming on, the Emergency Stopping Signal (ESS) warns the traffic behind of emergency braking via the hazard lights. These flash faster to alert the traffic behind to the emergency. Once the vehicle is stationary, the hazard lights are automatically activated to prevent rear-end collisions. The ESS therefore helps to enhance road safety.

10-tonne front axle¹

Depending on country-specific requirements, particularly powerful body concepts that require a bearing load of 10 tonnes on the front axle can be implemented.

¹ Available for MAN TGS from approximately September 2019, depending on the wheel configuration

Lane Guard System (LGS) including Lane Return Assist (LRA)²

The electronic Lane Guard system permanently monitors the lane ahead of the vehicle. If drivers stray from the lane without activating a flasher, they are warned by an acoustic signal. Depending on the direction in which the driver has strayed, the loudspeaker on the left- or right-hand side emits rumble-strip noise, which the driver intuitively understands correctly. LGS increases the driver's awareness of staying in the lane, thus preventing many a dangerous situation.

The Lane Guard System (LGS) with Lane Return Assist (LRA) helps drivers stay in their lane and actively prevents the vehicle straying from the lane. If the system detects that the vehicle is drifting out of the lane, it independently steers the vehicle back to driving straight ahead. The vehicle is not kept continuously in the lane; drivers must keep their hands on the steering wheel (hands-on detection) and are responsible for guiding the vehicle at all times. Drivers can override the corrective steering torque at any time. The function also works in the dark and increases transport safety and reliability.



Lane Guard System (LGS) including Lane Return Assist (LRA)



Vehicle behaviour with CDC



Vehicle behaviour without CDC

Adaptive Cruise Control ACC with stop-and-go function¹

Adaptive Cruise Control automatically evaluates the distance and differential speed of the vehicle in front and ensures a safe distance through electronic intervention in the accelerator or brake pedal. ACC can be used at driving speeds from 25 km/h and helps the driver to stay relaxed while driving. The stop-and-go function is new. In slow-moving traffic, congestion or when driving in city traffic, the truck automatically brakes to a stop behind the vehicle in frontand moves off again either independently (when the truck is stopped for fewer than two seconds) or when the driver depresses the accelerator or presses the button on the multi-function steering wheel.

Active roll stabilisation CDC and high-load roll stabilisation.

With active roll stabilisation, dampers are automatically regulated by the CDC (Continuous Damping Control). This prevents the development of rolling or pitching movements, and thus makes driving safer. For vehicles with high centres of gravity, high-load roll stabilisation with an additional X control arm is ideal. This ensures that sideways tilting is effectively reduced.

¹ Available for MAN TipMatic[®] 14 gearbox with MAN D26 engine and for MAN TipMatic[®] 12 gearbox with MAN D15, D26 and D38 engines. Not for heavy-duty applications.

MAN ComfortSteering²

MAN ComfortSteering helps the driver to steer and forms the basis of other assistance systems such as Lane Return Assist (LRA). Because the steering forces are adapted to the road speed, the strain is taken off the driver and there is ease of movement when manoeuvring and ability to stay in a lane at high speed. Irrespective of the axle configuration, a small steering wheel is fitted (Ø 460 mm) and a more direct steering gear ratio is adopted.

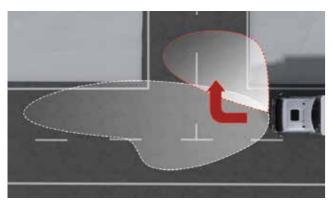
LED daytime driving lights

Twin headlights with integrated LED daytime driving lights (in compliance with the requirements of Directive ECE R-87) make the MAN TGS easier to see during the day compared to daytime driving lights with H7 lamps, thereby improving active safety. The lights are turned on and off automatically with the ignition and are dimmed to the maximum permitted luminance if other lights such as the low-beam headlights or indicators are switched on – not, however, if only the headlight flasher is actuated. The high level of light intensity of the long-lasting LED daytime driving lights give the vehicle a modern look.



LED daytime driving lights

² Available from mid-2019, depending on the vehicle type and engine



Cornering light for a better visibility

Xenon light for better vision

The combination of Xenon light and free-form reflectors casts a whole new light on the road. The luminance of the long-lasting Xenon lamps results in a wide stretch of road being illuminated. Illumination in this area is bright and homogeneous without dazzling oncoming traffic.

Cornering light

The cornering light supplements the normal low-beam headlights at speeds of up to 40 km/h. It is activated when the driver operates the indicator or – on vehicles fitted with ESP – when the steering wheel is turned far enough. This improves visibility in the dark and in foggy conditions, while providing additional lighting on the side of the vehicle to prevent injuring persons or causing damage when cornering.

Automatic low-beam headlights and automatic wiper system with sensors

The automatic low-beam headlights with light sensors activate and deactivate the front, side and rear lights as needed. At dawn and at dusk, tunnels and bridges are detected and the lighting is regulated accordingly. The automatic wipers with rain sensor are activated as soon as visibility is affected by water or dirt.

New LED rear lights

With tail lights in an LED design, burnt-out lightbulbs and the associated compromised safety and maintenance costs can be avoided. LED lights have a longer service life with lower energy consumption than conventional lightbulbs.

Manoeuvring light

A manoeuvring light is available as an option to assist night-time manoeuvring and cornering. The illuminated area coincides with the field of vision of the ramp mirror. This enables the driver to safely recognise the condition and edge of the road and any obstacles in the dark. Active safety during manoeuvring is improved.

Turning camera

Early recognition of critical situations on the difficult-to-view right side of the vehicle is essential when turning or manoeuvring. A camera on MAN trucks extends the visible area to the blind spot. The monitor is in the field of vision when looking to the right in the mirror and helps the driver to better view the area next to the vehicle. It recognises whether, for example, cyclists or smaller vehicles are located directly next to the driver's cab and, when manoeuvring, obstacles stand out better. The system is activated automatically whenever the right-hand indicator is switched on. This equipment can be ordered ex works.



LED rear lights

MADE FOR PERFORMANCE.



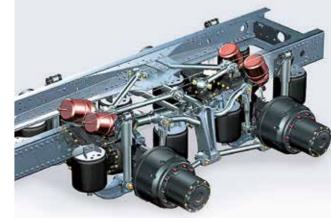


ALWAYS UP TO THE TASK.

From axles and suspension to meet every requirement, to body-friendly frames and robust chassis units. On the MAN TGS, all components are designed to meet the highest standards of reliability, safety and efficiency.

The frame design on MAN traction vehicles provides you with more stability, more options for fitting bodies and greater economy. The completely flat upper edge of the frame and the cavities in the frame enable bodies of any kind to be mounted. With the low-friction hypoid drive axle, you can get from A to B in a very fuel-efficient manner, and with the off-road-compatible external planetary drive axle that provides good ground clearance and great traction to the wheels, you are perfectly equipped for heavy-duty operation.

In light-duty traction operation, the new lightweight hypoid tandem axle can replace the standard HY tandem axle or even the planetary hub reduction tandem axle. The design delivers a payload advantage of between 180 and 280 kg. MAN delivers vehicles in normal, medium and all-wheel-drive heights, corresponding to increased requirements in terms of ground clearance and angle of approach.



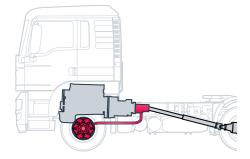
Construction air suspension on rear axle with electronic ECAS level control

One of MAN's specialities is construction air suspension on the AP rear axles – available for construction vehicles of medium height and all-wheel drive height with internal stabilisers for better off-road characteristics. With ECAS electronic level control, this delivers very good driving comfort in all load conditions.

A new feature is the variable axle load ratio for vehicles with a leading or trailing axle. This variable ratio means that the drive axle always has optimum traction, regardless of the payload being carried. The variable distribution of the axle load between the driven and non-driven rear axle ensures that, in every payload situation, the drive axle always has sufficient traction, and that the axle load is never below the legally stipulated minimum.



Lightweight hypoid tandem axle



Functional principle of the MAN HydroDrive®



Front axle with hydrostatic wheel hub motors

MORE TRACTION AT THE TURN OF A SWITCH.

Out on the road, you never know what you might encounter. So it's best to be well prepared to meet anything. For example, slippery surfaces, mud and loose gravel.

MAN was the first manufacturer of commercial vehicles to introduce selectable hydrostatic front-wheel drives. In many situations, MAN HydroDrive[®] has been proving itself capable for many years. It handles all traction-critical driving situations with consummate ease – even where trucks only equipped with rear-wheel drive would get no further at all. With MAN, driving downhill is safer as the engine braking torque is also transferred to the front axle ("support"). The strain on the service brake is also eased thanks to the combination of MAN HydroDrive[®] and a PriTarder. That means improved driving safety, better tracking stability on uneven ground, even when driving downhill – the perfect solution for your applications.

A quick turn of the switch in the cockpit gives you much more traction and optimal drive, whether you are driving forwards or reversing. Your MAN therefore now has an even broader range of operation. Compared to a conventional all-wheel drive system, you not only save fuel, you also save up to 400 kg of weight. Even if you spend almost all of your time on surfaced roads, the extra traction provides you with more mobility and safety, especially when driving without a load on slippery road surfaces, or on winter roads under snow and ice.

MAN HydroDrive[®] is also available in combination with the automated MAN TipMatic[®] manually operated gearbox. Only MAN enables you to choose between an automated or manual gearbox.





OPTIMISING USE DOWN TO A TEE.

Whether in urban distribution transport or interurban deliveries, efficiency and productivity are the key to success in domestic and global competitive markets. For over a century we have been manufacturers of trucks and buses as well as technological leaders in the transport business.

Digitalisation also offers this sector great new opportunities. With MAN DigitalServices we simplify your fleet business, making it more efficient and more reliable so that you have more time to concentrate on your core business.

To this end, we work closely with our partner RIO, the open, manufacturer-independent and cloud-based digital platform from TB Digital Services GmbH, a company of the TRATON GROUP. This makes it especially easy to start using digital services for fleet management. The prerequisite for using digital services is that vehicles are equipped with the RIO Box. This is simple to retrofit in trucks from all manufacturers.

MAN DigitalServices assists you in optimising your vehicle analysis and performance, maintenance management and driver performance. After registration for using the services and registration of the vehicle, the basic service MAN Essentials is automatically activated free of charge. This service already includes reliable information on trip history as well as vehicle-specific deployment analysis. For efficient and reliable maintenance management you can simply book MAN ServiceCare as well – straightforward and free of charge. Via the Marketplace, which is the RIO platform online portal, you can access numerous tailor-made, vehicle-specific digital services from MAN exclusively for MAN vehicles. For information, go to: www.digital.man

Fleet management	Maintenance management	Driver deployment	Driver assistance
 MAN Essentials 	 MAN Maintenance 	 MAN Perform 	 MAN Driver App
 MAN Advance 	 MAN ServiceCare 	 MAN Compliant 	
 MAN Bridge 		 MAN Connected CoDriver 	

The MAN Driver app:

Make your everyday work as a driver easy and networked with a wide variety of functions such as scanning the switches and check lamps in the truck and getting an explanation of their functions sent directly to your smartphone. You can also document digital damage reports and send them to the fleet manager. Using MAN ServiceCare you can send damage reports to your MAN service outlet, if required.

Find out more: www.digital.man/driverapp



YOUR TRUCK IN THE BEST HANDS.

Maximum quality over the maximum possible vehicle service life and excellent availability – this is our promise to you.

With a wide-ranging portfolio of services, we offer 360° support that is both efficient and reliable. You can rest assured at all times: your MAN truck is in the best hands with us. MAN services offer everything your coach needs, meaning that your MAN trucks are always operated in the best possible conditions and that you can get the most out of your vehicles for even longer. With MAN Service-Contracts or MAN Mobile24, your mobility is our concern. That is true of our additional services too. MAN services, for instance, have tailored solutions on hand to optimise operating your vehicles, increase profitability and enhance efficiency. Whatever service you choose, you're always on the right road with MAN.

The quickest way to find out more: www.truck.man

All information on our products, services and other service topics such as MAN ServiceContracts, MAN Card, MAN ProfiDrive[®], MAN Financial Services and MAN Mobile24, etc. can be found on our website www.truck.man – discover the MAN brand interactive and up close.

* The services offered as part of the joint business relationship "MAN Financial Services" (financing, leasing and insurance products) vary from country to country. They are provided or brokered by various subsidiaries of Volkswagen Financial Services AG.

MAN ProfiDrive®

The MAN ProfiDrive[®] driver training programmes and corporate coaching modules bring you up to speed, making day-to-day driving safe. The support and training programmes on offer give you additional opportunities to optimise your commercial environment.

MAN | Financial Services

MAN Financial Services* help you to stay financially mobile. Moreover, our truck rental service makes it possible to be more flexible in responding to short-ages or increased demand.

MAN Card

Europe-wide non-cash payments

Financing

Acquisition of property through flexible financing solutions

Insurance

Insurance solutions for commercial vehicles

Leasing

Budget-friendly leasing models

Rental

Vehicle rental with a flexible contract term

MAN | Service

Higher quality, more time: new – two-year warranty on MAN service and parts.

- MAN Genuine Parts: top quality, long service life and availability ensured
- MAN Genuine Parts ecoline: save a lot and protect the environment in the process with reconditioned MAN Genuine Parts from MAN, the manufacturer or external service providers
- MAN Genuine Accessories
- MAN Genuine coolant & lubricant: MAN Genuine coolants and lubricants provide proven protection against wear and thus contribute to a longer service life and to a reduction in the total cost of ownership (TCO)
- MAN Mobile24: Europe-wide breakdown service for trucks
- MAN ServiceContracts: service agreements covering service and inspection tasks on the maintenance schedule. Depending on the add-on option, different modules such as contract management, driveline guarantee and wear-and-tear repairs can be included.
- MAN guarantee extensions: guarantee extension for driveline and complete vehicle



MAN | TopUsed

- **Top used vehicles:** large selection of high-quality used vehicles of all truck types
- As a reliable partner we represent top quality, top advisory service, top selection, top financing, top service
- MAN TopUsed extended warranty: Driveline guarantee with 0% customer contribution, MAN driveline guarantee PLUS, complete vehicle warranty with 20% customer contribution
- MAN TopUsed Seal of Quality: Whether one, two or three stars: thanks to our Seal of Quality, you can identify the most important features of our MAN TopUsed vehicles at a glance.
- MAN TopUsed used trucks, buses/coaches, vans and trailers: To find the used vehicles of all brands and types that we have on offer, go to www.mantopused.com

MAN Rental

MAN Rental offers you utmost flexibility, mobility and peace of mind – even if your order situation changes. MAN Rental is the profitable and practical choice:

- High-quality MAN vehicles and next-generation trailers
- A comprehensive MAN product and service portfolio
- Rental periods starting from 24 hours as well as fixed monthly rental instalments
- Flexible, demand-based rental and equipment options
- Options to boost flexibility and mobility
- Appropriate insurance cover
- A tailored all-round carefree package

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