

A DEMANDING JOB.

MAN vehicles for timber transport.



FULLY-LOADED EFFICIENCY.

Difficult transport routes and heavy loads make the transportation of timber extremely challenging.

Unpaved forest trails, gravel paths, and roads full of twists and turns add further demands – and can all be tackled with the right solutions from MAN. MAN trucks combine innovation with reliability to provide the best possible transport efficiency. Find out for yourself:

www.truck.man

Some of the equipment illustrated in this brochure is not included in the scope of series production.

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).



SUCCESSFUL ON FOREST ROADS – EFFICIENT AND RELIABLE.

When it comes to handling logs up to 6 metres in length, an articulated train with a rear-loading crane is ideal for the job. It becomes an unparalleled tool when combined with the MAN TGX and TGS construction series.

MAN brings you the ideal forestry worker, along with the perfect transport solution for forest roads all over the world. Vehicles in this series are available in 2-, 3-, and 4-axle versions; with classic tandem-axle assembly or with all-wheel drive (depending on requirements); and with a steered, lifting trailing axle for reduced tyre wear and excellent manoeuvrability. If additional traction is required, the connectable front-axle drive MAN HydroDrive® has been an impressive alternative for over ten years.

Chassis with front-loading cranes are also available, of course. Semi-trailer tractors in 2-axle and 3-axle models complete the MAN range.

→ Safe on the road in the forest:

- Perfect for the job, with reliable 3-axle units
- Weight-optimised chassis
- Unique ECAS controlling (control of the air spring) for safer stabilisation with crane
- MAN HydroDrive® for more traction on demand (manual shifting or with MAN TipMatic®)
- Available at normal, medium and high all-wheel-drive design height
- Digital axle-load display in the driver's cab for air-sprung axles
- Two transmission-side auxiliary drives for increased hydraulic performance and faster crane operation
- High load compensation stabilisation for even more safety for heavy loads with a high centre of gravity
- Ventilation grills against dust turbulence
- Chassis with full air suspension (depending on the type)
- Variable axle-load ratio for chassis with a trailing or leading axle, for optimum traction
- Turning brake for optimised turning circle
- Construction air spring for comfortable and safe handling
- Lightweight hypoid axle tandem for weight-optimised usage



LONG LOGS SAFELY ON THE WAY.

Long-timber transportation involves logs as long as 23 metres. This means taking on tight turns through forest, as well as curving roads, with a total vehicle length up to 27 metres.

You can do it with MAN: the MAN TGX and MAN TGS chassis can both be combined with a self-steering trailing axle to create the perfect unit for the job. They are equipped for the leading axle loads that come with cranes, and are robust enough for every application. The alternative to a chassis unit is the MAN semi-trailer tractor unit with interchangeable equipment for trailer steering or with a trailer. The powerful engine with easy-to-operate gearbox, as well as rear-axle drive, all-wheel drive or switchable hydraulic leading-axle drive with MAN HydroDrive® ensure impressive dynamics and traction to suit every job.

→ **Features which you can rely on:**

- Manoeuvrable chassis and tractor unit for narrow forest tracks and roads.
- Roof cut-out for a loading crane
- Unique ECAS controlling (control of the air spring) for safer stabilisation with crane
- MAN HydroDrive® for more traction when needed (manual switching or with MAN TipMatic®)
- Ex works optimised frame add-on for crane structure
- Construction air spring for comfortable and safe handling
- MAN D38 15.2-litre engine with up to 471 kW (640 hp)
- Turning brake for optimised turning circle
- Chassis with leaf, air or full air suspension for maximum driving comfort in every load state
- Light tandem hypoid axle for weight-optimised application





THE DRIVE FOR BEST PERFORMANCE.

Trees are turned into wood chippings – a popular renewable material, used to fuel heating systems, for example. All-wheel drive trucks from MAN ensure mobility, reliably conveying wood chippers to exactly where they are needed.

The modern forestry industry is barely conceivable without this piece of equipment: the mobile wood chipper on an HGV, powered by a high-performance vehicle engine. Choose the MAN chassis with all-wheel drive to increase effective working radius on forest roads and tracks, thereby saving on time and towing costs. The all-wheel drive makes easy work of sandy areas and very moist ground, reliably supplying the necessary traction, while the short wheelbase means the chipper is particularly manoeuvrable and still incorporates the steered and lifting trailing axle (depending on model). MAN can provide the perfect, modified chassis for effective wood chipping operations – including when the wood chipper is powered by an external motor or generator, of course.

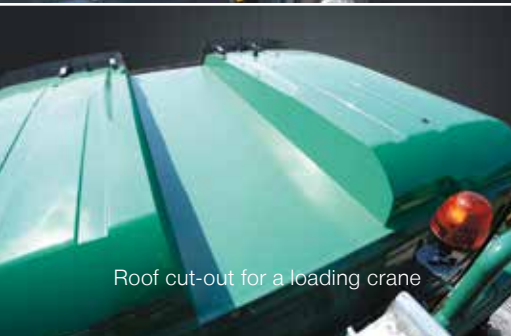
→ Powerful in operation:

- Connectable power take-off on the transfer case up to 8000 Nm ex works
- 2-, 3- and 4-axle units to suit every chipper dimension
- Strong PTOs ex works for powerful crane operation
- Permanent or switchable all-wheel drive for maximum traction
- All-wheel drive chassis such as 6x4-4 with trailing axle for maximum manoeuvrability, or 6x6 for maximum traction
- Air deflector plate to prevent dust turbulence
- Comprehensive range of MAN Modification – the perfect basis for wood-chipping HGVs ex works
- MAN ComfortSteering
- Steel bumper





Cab with side and rear wall glazing



Roof cut-out for a loading crane



External cooling unit



Swivel work seat in wood logger



AS INDIVIDUAL AS YOUR REQUIREMENTS.

Special requirements call for special solutions. MAN Modification® delivers those special customer requests that cannot be implemented in series production.

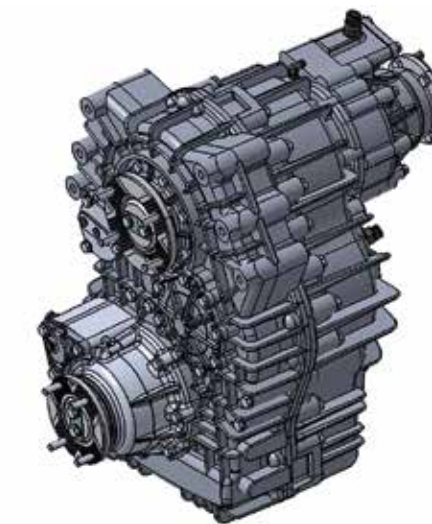
MAN Individual takes your individual requests and implements them professionally and with technical perfection. The range of potential vehicle modifications achievable is almost unlimited. Whether in the cab, chassis, driveline, electronics or body, tailored solutions are implemented not only for specific individual requirements but also for the entire vehicle.

Contact your seller to let them know your individual requests. They will work together with MAN Individual to find the best solution for you; our specialists will handle your specific requirements to the high quality standard that you expect from MAN.

Forestry-specific solutions include roof notches to hold loading cranes, cab glazing for a better overview, and external refrigerated systems. Ex works swivel work seats and optimised frame add-ons for crane structures for timber transporters round off the offering.

→ MAN Individual for forestry vehicles:

- Roof cut-out for a loading crane
- Cab with side and rear wall glazing
- Swivel work seat in wood logger
- External cooling systems for particularly high cooling output
- Relocation of frame attachments as is typical for the sector
- High degree of flexibility and quality in design
- Vehicles comply with standards following conversion
- MAN After Sales provides global support and supply of spare parts



Distribution transmission for power take-off

EFFICIENCY IS A MATTER OF TECHNOLOGY.

Forestry operations involve demanding transport tasks. Whether when transporting chopped logs from the forest to the nearest saw-mill, chopping wood on-site, or using the harvester to cut down trees, de-limb them, cut them to length and place them on the side of the road: MAN trucks are big-hitters, with their high payload, low fuel consumption and high truck-typical driving speeds.

Difficult terrain really gives MAN trucks the opportunity to demonstrate their high level of efficiency, including with their ECAS electronically controlled air suspension system. Height adjustment makes your job easier and also saves you time in a wide variety of transport tasks. Enjoy optimum suspension comfort as the vehicle adapts automatically to the relevant load; the frame height remains constant. You can simply stow the control unit in a holder on the driver's seat – and it's also possible to perform height adjustment from outside the vehicle.

→ **More input, more output, more results:**

- Common rail diesel with 243 kW (330 hp) up to 471 kW (640 hp), MAN D38 engine only for MAN TGX
- 12-speed gearbox with the latest-generation MAN TipMatic®, also available with off-road mode
- MAN HydroDrive® for more traction
- 3-part robust steel bumper with centred towing eye
- Preparation for engine start-stop facility, operation from crane operator seat possible
- Available at normal, medium and high all-wheel-drive design height
- Digital axle-load display in the driver's cab for air-sprung axles
- ECAS controlling for safe supporting during crane operation with air-sprung vehicles
- KSM interface for external data exchange
- Locking management
- Ventilation grills against dust turbulence
- MAN ComfortSteering
- Steering brake



Stahlstoßfänger mit Steinschlagschutzgitter für Kühler und Scheinwerfer.



ECAS-Steuerung.



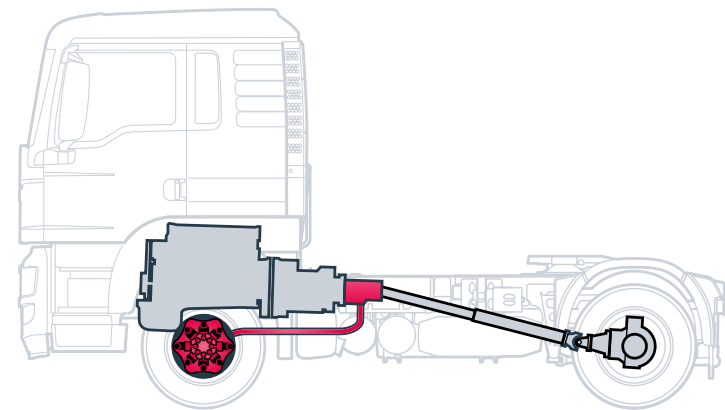
MAN TipMatic® OFFROAD.

THE MAN DRIVELINE.

MAN HydroDrive® – more traction as required

MAN, the inventor of MAN HydroDrive®, has in the meantime expanded the range and now offers a unique variety of versions from two-axle to four-axle vehicles with leading or trailing axles.

MAN HydroDrive® for more traction and safety when driving into or out of construction sites and dirt roads, on slopes and slippery roads. The selectable hydrostatic front-wheel drive gives you the driving power you need in all these situations, forwards and in reverse. When you're driving downhill and the MAN HydroDrive® is engaged, the sustained-action brake also acts on the front axle, thus stabilising the vehicle. MAN HydroDrive® can also be engaged while driving and under load by turning the rotary switch. As far as fuel consumption and wear and tear are concerned, it is comparable to a conventional rear-wheel drive and weighs only slightly more. The design height remains unchanged, which means: easy access, low overall height, low centre of gravity and thus optimal driving



Funktionsprinzip MAN HydroDrive®.

stability. MAN HydroDrive® is available in combination with MAN TipMatic® or manually operated gearboxes.

All-wheel drive for everyone

Wherever maximum traction is needed, that's where MAN vehicles with permanent or selectable all-wheel drive go into action. They're available as 4x4, 6x6, 8x6 and 8x8 versions. The power is distributed by two-speed MAN transfer cases with on-road and off-road ratios. Planetary axles with greater ground clearance, differential locks, drum brakes and stabilisers are also fitted in the all wheel-drive vehicles. A new feature on the MAN TGM is the optional electronic transfer case and lock management. This helps the driver to operate the vehicle on- and off-road as the conditions in terms of traction require and takes some of the load off the power train. In the MAN TGX and MAN TGS too the engaging and disengaging of differential locks is electronically monitored.

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.

With the innovative MAN PriTarder®, the MAN TGS comes with a highly efficient primary brake system that is one of a kind. The combination of EVBec® engine brake and PriTarder means that an enormous brake output of up to 645 kW is

already produced at low driving speeds. The MAN PriTarder® really demonstrates its strengths in distribution or traction: the completely maintenance-free system increases the payload by up to 64 kg while doubling the lining life of the service brake. The MAN PriTarder® is integrated into the MAN BrakeMatic® electronic continuous brake management and is easy to operate via the stalk switch.

MAN TipMatic® OFFROAD

It is extremely easy to change gear correctly with the automated MAN TipMatic®, because it can be operated in automatic mode as well as manually using the tilt lever. There is a six-gear version for the four-cylinder engines and a 12-gear version for the six-cylinder engines. MAN TipMatic®, which is specially tailored for construction site deployment, permits the convenient use of automatic mode even in off-road environments. Simply set the selector switch to "DX" and you'll find that the gear shifts are noticeably faster, while the engine speed range in each gear is more fully utilised. The new generation MAN TipMatic® adds new functions to the convenient and efficient automatic gearbox.

SmartShifting increases the shifting speed intelligently by adapting it to the respective driving situation and, depending on the driver's request, the mass of the vehicle and the driving resistance. The advantages are an extremely fast and convenient gearshift process. SmartShifting works even faster when skipping multiple gears and on steep uphill gradients with upshift assistance (HSU). Here, the engine speed drops faster when the clutch is disengaged, due to the closing of the exhaust throttle valve. This realises a shorter interruption of the tractive force on uphill gradients because the frictional connection can be restored quickly. The truck loses less momentum. In this way, SmartShifting supports fuel-saving operation with lower engine speeds in the higher gears. In the traction segment, shorter interruptions of tractive force are noticeable on inclines.

MAN EfficientCruise® + EfficientRoll.

Both systems can now be combined.

MAN EfficientCruise® uses 3D map data and the vehicle's GPS position to calculate the topography of the route and determine the required fuel injection. That means independent and proactive speed regulation before and on inclines and slopes. The driver can choose speed tolerances for optimal consumption values from four field-tested levels, of course making it easy to use for maximum driving comfort.

EfficientRoll is designed for gently sloping motorways and principal roads. The MAN TipMatic® then automatically shifts into neutral and lets the vehicle roll, without the engine braking effect reducing the speed of the vehicle. The truck carries the momentum from gentle downhill sections into a following flat stretch or slight incline.

Idle speed driving enables comfortable moving off and driving at idling speed. After driving off, the vehicle pulls away with the clutch engaged and continues moving at a low idling speed of approx. 600 rpm until the brake is applied or the gradient is too steep. The driver can therefore manoeuvre the truck very precisely and sensitively forward and backward and get through stop-and-go traffic with-out any issues. That means reduced wear and tear on the clutch as well as gentle torque build-up during start-up.

THE MAN RUNNING GEAR.



Planetary axle



Hypoid axle.

Axle and suspension systems

Whether planetary or hypoid axle – both axle systems are available with various transmissions and parabolic or air suspension. The planetary axle is also available with trapezoidal suspension. Parabolic suspension makes driving the loaded or the empty vehicle very comfortable and is beaten into second place only by air suspension. The available weight-optimised hypoid axle results in a weight saving of 180 kg compared to the normal hypoid axle and 280 kg for the planetary axle. The ground clearance is similar to a planetary axle. Vehicles with leaf springs are available with simple tandem hypoid axles in normal and medium-high design height. Vehicles with air suspension are available in normal design.

Construction air suspension

One of MAN's specialities is construction air suspension on the rear planetary axles – available for construction vehicles of medium height and all-wheel drive height. With lifting and lowering equipment fitted as standard, it has a load-carrying capacity of up to 13 t per rear axle. This is ideal for the tough work on building sites (overload reserve) and on difficult terrain. Advantages: a smooth ride in any load condition, thanks to the electronic levelling system ECAS, easier on the vehicle, the body, the load and the road. For use with road finishers there are internal stabilisers.

Steel bumper

The three-part steel bumper with centred towing eye and hinged front step is not only robust but also integrates itself elegantly into the MAN TGS/MAN TGX design. A modified version of the bumper is available, prepared for fitting an attachment plate for a snow-plough or shackle. Robust steel bumpers are also available for the MAN TGL and MAN TGM ranges as special equipment.

Vehicle heights

MAN delivers vehicles in normal, medium and all-wheel drive heights, corresponding to increased requirements in terms of ground clearance and angle of approach.

Steering brake

Take the sharpest bends. With the steering brake function activated, the rear wheels on the inside of the bend are braked depending on how far the steering wheel is turned. This considerably decreases the turning circle. The steering brake, which is available for the 6x4 and 8x4 vehicles with tandem axles, is activated by pressing a button and functions at speeds of up to 30 km/h.

Hill-climbing brake

The hill-climbing brake for MAN all-wheel vehicles acts pneumatically on all wheels, holding the truck reliably when stopping and moving off, and is controlled by the driver by means of a switch on hills. As opposed to systems that use spring reservoirs to brake only the rear axle, an MAN all-wheel truck equipped with the hill-climbing brake can't slip.

Tyres with various profiles ex works

You receive your vehicle from the works fitted with tyres in the profile of your choice. You can also select your brand of tyre from various well-known manufacturers.

Variable axle load ratio

With variable axle load ratio, the drive axle always has optimal traction, regardless of loading height. The drive axle is fully loaded until it reaches the prescribed axle load. Afterwards, the additional load is absorbed by the auxiliary axle – without lowering the drive axle load. The axle load is therefore not fixed but rather distributed variably between the rear axles, so that the drive axle has sufficient traction in any loading condition and the legally prescribed minimum axle load is not fallen short of in any loading condition. The system does not have to be switched on separately; it is always active.

Modifications to cab and chassis

Special axle configurations and modifications to the driver's cab can be individually retrofitted for specific customers or branches.

110-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.

MAN ComfortSteering²

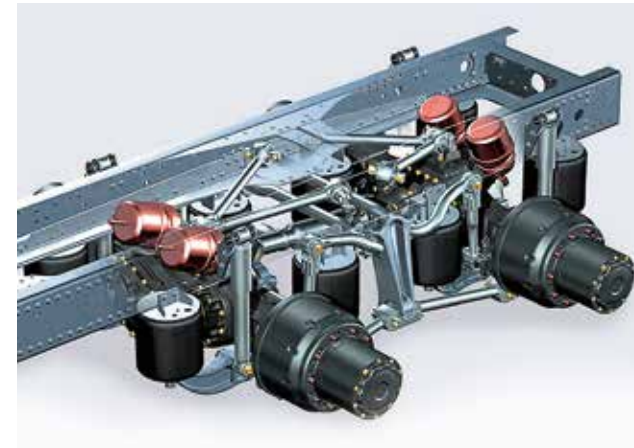
MAN ComfortSteering helps the driver to steer and forms the basis of other assistance systems such as Lane Return Assist (LRA). Because the steering forces are adapted to the road speed, the strain is taken off the driver and there is ease of movement when manoeuvring and ability to stay in a lane at 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.

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

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



Light MAN TGS tandem hypoid axle



Construction air suspension.

MAN ASSISTANCE EQUIPMENT.



ESP compensatory braking when vehicle is oversteered.



ESP compensatory braking when vehicle is understeered.

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 electronic MAN BrakeMatic® brake management system coordinates the functions of the EBS service brake and the MAN EVB or EVBec continuous brakes (MAN PriTarder or retarder) with one another. As a result, the degree of utilisation of the permanent braking devices is increased in a comfortable and safe manner and the wear and tear on the service brake is reduced. The most important distance is the braking distance. So that you do not experience any nasty surprises, the EBS electronic brake system with its sub-functions, ABS and ASR, ensures shortened braking distances and a harmonisation of the brake lining wear for the entire vehicle combination with extremely long lining service lives. The coupling force control for optimum adjustment of the trailer or semitrailer brakes ensures perfect trailer synchronisation.

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.

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.

MAN EasyStart

Problems with starting on a slope are out. MAN EasyStart with MAN TipMatic® is in. The start assistant for slopes makes things easy for the driver. When the brake pedal is released, the brake pressure is maintained for one second so that the driver can change to the accelerator and the vehicle can move off without jolting, with low wear and without rolling back.

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

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.

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



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



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



Vehicle behaviour with CDC



Vehicle behaviour with CDC

MAN AttentionGuard

MAN AttentionGuard detects signs of reduced driver alertness at an early stage and warns the driver accordingly. A second-generation (or higher) Lane Guard System is required for this system to work. The MAN AttentionGuard is a key factor in preventing the driver from accidentally leaving the lane on monotonous stretches of road – one of the typical causes of accidents. The MAN AttentionGuard also works during driving at night.

Adaptive Cruise Control ACC with stop-and-go function*

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 front, and 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.

*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.

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.

Emergency Stopping Signal (ESS)

Instead of the brake lights simply coming on, the Emergency Stopping Signal (ESS) warns traffic behind of emergency braking using the hazard lights. These flash faster to alert 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.

MAN BirdView

The MAN BirdView system consists of four HD cameras with wide-angle lenses: high-definition all-round vision guarantees the best possible view in difficult manoeuvres and reduces the risk of accidents when turning off and changing lanes. This makes the entire vehicle environment seamlessly visible, including all blind spots. MAN BirdView is automatically activated. As the vehicle drives, the view changes depending on the speed, turning indicators and which gear is selected, allowing the driver to turn safely and perform especially precise manoeuvres. The images supplied by the cameras are digitally processed and displayed in real time on the seven-inch colour monitor included in the scope of delivery. The normal field of vision is not restricted. Fitting is carried out by MAN Individual or your service network.

Preparation for rear-view camera

The rear-view camera is automatically activated when reverse gear is engaged. This provides additional comfort and increases safety when reversing/manoeuvring. The cameras can be located anywhere on the vehicle/body/trailer from where they can, for example, monitor body functions (taking cargo on board or tipping).

Turning camera

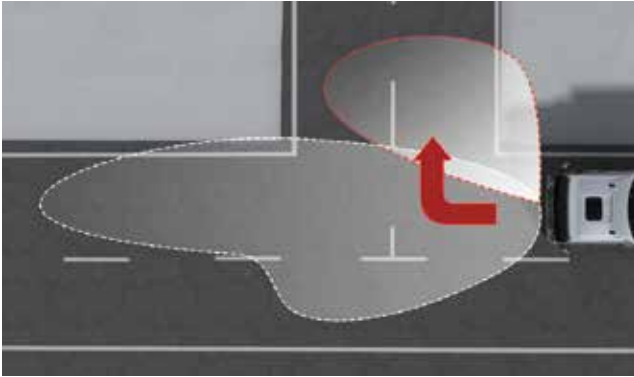
Critical situations when turning or manoeuvring should be recognised early on the difficult-to-view right side of the vehicle. A camera on MAN trucks extends the visible area to the blind spot. The monitor is in the field of vision when looking to the right in the mirror and helps the driver to better 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.



MAN Birdview



Rear-view camera



Cornering light for 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.

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. Dawn and dusk, tunnels and bridges are also 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. The optimum wiper speed is then set automatically depending on the situation. The control system can detect all kinds of visibility conditions such as rain, splashes, streaks or dirt.

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 as well as providing additional lighting on the side of the vehicle to prevent injuring persons or causing damage when cornering.

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 and MAN TGX easier to see during the day compared with 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 gives the vehicle a modern look.

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 establish the condition and edge of the road and any obstacles in the dark. Active safety during manoeuvring is improved.



LED daytime driving lights



LED rear lights

EFFICIENCY AT FULL THROTTLE.

Ideally, vehicles in forestry operations offer high torque on the one hand, and low fuel consumption on the other. The high-performance MAN engine meets both requirements.

The highly efficient four- and six-cylinder engines with ratings of 184 kW (250 hp) to 471 kW (640 hp) make an impression with their outstanding power delivery even at low engine speeds. The engines are also designed for service intervals of up to 140 000 kilometres*. The new MAN D38 engines are part of a master class. Technologically sophisticated details, such as enhanced Common Rail technology with extremely high injection pressures of up to 2 500 bar, high ignition pressures of up to 250 bar and biturbocharging with a two-stage intercooler set new standards with regard to tractive power, fuel consumption and CO2 emissions. High-tech for increased reliability. When you need to move mountains, but also want to protect the environment, MAN engines are the perfect partner.

Alternative fuels.

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).

For global applications MAN also offers efficient Euro 2 to Euro 5 engines from 265 to 353 kW (360 to 480 hp).

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.

* For MAN D26 engines; up to 120,000 km for the MAN D15 engine

Euro 6 engines				
	Type	Capacity	Rated output	Max. torque
D0834	R4	4.6 l	118 kW (160 hp)	600 Nm
	R4	4.6 l	140 kW (190 hp)	750 Nm
	R4	4.6 l	162 kW (220 hp)	850 Nm
D0836	R6	6.9 l	184 kW (250 hp)	1 050 Nm
	R6	6.9 l	213 kW (290 hp)	1 150 Nm
	R6	6.9 l	235 kW (320 hp)	1 250 Nm
D1556	R6	9.0 l	243 kW (330 hp)	1 600 Nm
	R6	9.0 l	265 kW (360 hp)	1 700 Nm
	R6	9.0 l	294 kW (400 hp)	1 800 Nm
D2676	R6	12.4 l	316 kW (430 hp)	2 200 Nm
	R6	12.4 l	346 kW (470 hp)	2 400 Nm
	R6	12.4 l	375 kW (510 hp)	2 600 Nm
D3876	R6	15.2 l	397 kW (540 hp)	2 700 Nm
	R6	15.2 l	427 kW (580 hp)	2 900 Nm
	R6	15.2 l	471 kW (640 hp)	3 000 Nm





DIVERSE SOLUTIONS FOR WIDE-RANGING NEEDS.

In the wide range of forestry tasks, there is nothing which our vehicles cannot perform. Irrespective of where reliable transport performance is always demanded, MAN is there to provide the service.

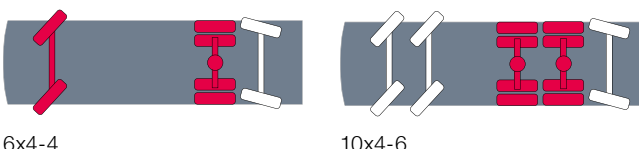
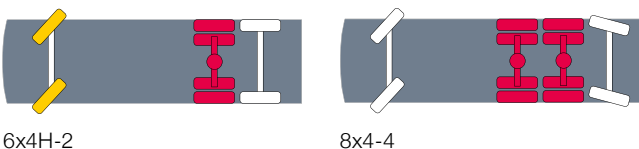
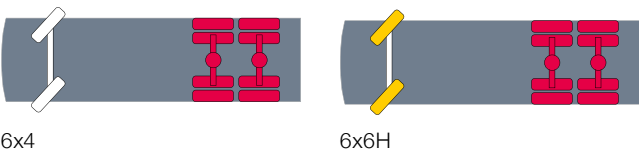
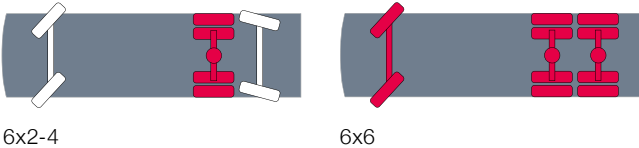
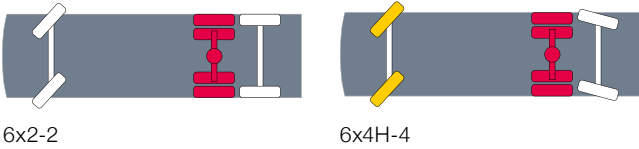
The comprehensive MAN vehicle range with the construction series MAN TGL, MAN TGM, MAN TGS and MAN TGX covers a requirement between 7.49 to 50 tons. Thanks to our wealth of experience and close cooperation with body manufacturers, we are able to provide you with the ideal vehicle solution for each and every task.

Chassis for logging

Type			Suspension
TGS / TGX	26 to 28 t	6x2-2	BL
TGS / TGX	26 t	6x2-2	LL
TGS / TGX	26 to 28 t	6x2-4	BL
TGS / TGX	26 t	6x2-4	LL
TGS	26 to 28 t	6x4-2H	BL
TGS	26 t	6x4-4H	BL
TGS / TGX	26 to 40 t	6x4	BB
TGS / TGX	26 to 33 t	6x4	BL
TGS	26 t	6x6H	BL
TGS	28 t	6x4-4	BL
TGS	26 to 40 t	6x6	BB
TGS	26 to 33 t	6x6	BL
TGS/TGX	35 t	8x4-4	BL
TGS	50 t	10x4-6	BL

Chassis for wood chippers

Type			Suspension
TGS	18 t	4x4	BB
TGS	28 t	6x4-4	BL
TGS	26 to 40 t	6x6	BB
TGS	35 to 41 t	8x4	BB
TGS / TGX	35 t	8x4-4	BL
TGS	35 to 41 t	8x8	BB



THE CHOICE IS YOURS.

The right cab for every need – and a maximum level of comfort and ergonomics travels with you wherever you go.

MAN driver's cabs are designed and equipped for stress-free, concentrated driving and relaxed regeneration. And of course safety. All cabs meet the crash safety requirements, comply with the ECE-R29 directive and offer optimum passenger protection.

Many small thought out details, such as the washable door-interior coverings, the easy to clean fixtures, the compressed air connection for simplified cleaning and the optional headlight washing unit show that nothing has been left to chance in the design process. Take the optimum all-round visibility, for example, which is supported by such features as the mirror concept with the main and wide-angle mirror, large kerb mirror and front mirror. The blind spot has been practically eliminated. The heated windscreen for winter service vehicles ensures an unobstructed view even at the coldest times of the year.

Cab	Vehicle series			
	TGL	TGM	TGS	TGX
C cab	■	■		
Crew cab	■	■	■*	
M cab			■	
L cab	■	■	■	
LX cab	■	■	■	
XL cab				■
XLX cab				■
XXL cab				■

* available for MAN TGS via MAN Individual

C cab



M cab



L cab



LX cab



XL cab



XLX cab



GREAT VIEWS.

MAN vehicles can expect numerous new 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 resistant 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 up to 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 in 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 (not available in the C cab), 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 workplace. In the MAN TGX, comfort and working conditions for the driver have been improved thanks to the 1.5 dB reduction in interior noise compared to the previous series.

The new, electric glass elevating roof (not available for C cab) 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.

“Urban Concrete” colour





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 focus will be on the instrumentation with new LCD display in four colours. This four-inch, high-resolution 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.

MAN infotainmentsystem.

MAN offers some improved features with the new 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 (depending on whether the map data includes the respective information). The digital radio (DAB/DAB+) is easy to access and use via voice control.

READY FOR USE IN THE FOREST.

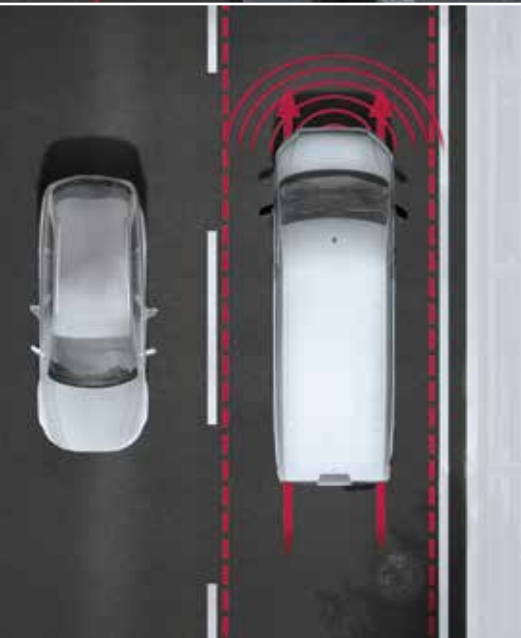
The all-rounder with all-wheel drive, for any stock of trees – the MAN TGE is the perfect light commercial vehicle solution for forestry.

Efficient forest management requires efficient transport solutions. With the MAN TGE, MAN provides foresters with modifications tailored to work assignments in forests and meadows.

Secure grip and reliable traction on uneven terrain is ensured by our 4x4 all-wheel drive which is provided ex works, and distributes the driving force variably between both axles. The rear axle is also available with differential lock. The crew cab in particular offers great comfort – up to 7 people can fit in the generously proportioned interior.

With a payload of over 3.0 t at a permissible gross vehicle weight of 5.5 t, larger loading quantities are no longer a problem. Reinforced chassis suspension and damping on both axles ensure safe driving characteristics and the variable tipper and transport configurations offer efficient workflows in the forest. By request we will also equip your MAN TGE with a 3-sided tipper or a robust platform body ex works.





INNOVATIONS AND SAFETY.

You need a team you can rely on.

Which is why the new MAN TGE comes with a range of innovative safety systems to help you, depending on the capabilities of the selected system, to concentrate on your work and prevent costly damage to your vehicle at the same time.

1 – Park steering assist¹

When activated, the park steering assist takes over the steering of the vehicle during parking, slipping the MAN TGE smoothly and accurately into the narrowest spots. The driver continues to operate the acceleration and brakes manually, remaining in full control of the vehicle. The system makes parking easier than ever in the MAN TGE, and prevents damage from parking errors.

2 – Emergency brake assist (EBA) as standard equipment

If the MAN TGE is approaching an obstacle and the driver doesn't react, as-standard emergency brake assist warns the driver and then activates the brake in case of an emergency. In combination with the automatic transmission, the system automatically brings the vehicle to a complete stop to prevent a collision.

3 – Park out assist¹

A feature of lane change assist, park out assist helps the driver when backing out of a parking place, and brakes the MAN TGE automatically if there is a risk of collision with oncoming traffic.

¹ Optional equipment at extra cost.

4 – Active lane assist¹

If the vehicle unintentionally exits the lane, active lane assist automatically compensates and steers the vehicle back into the lane. The system automatically activates at speeds over 65 km/h, and functions reliably even in poor weather conditions or with low visibility.

5 – Side wall protection assist¹

360° optical vehicle surveillance with lateral protection. Sixteen ultrasonic sensors monitor the distance of objects on either side of the vehicle and in an emergency warn the driver of objects close to the MAN TGE. At the driver's seat, a convenient display shows objects all around the vehicle and indicates potential collision risks when changing lanes. An acoustic signal also warns the driver of collision risks.

6 – Trailer assist¹

This system can be activated when required. When reversing with a trailer, the MAN TGE automatically follows a previously set turning angle. The driver controls the acceleration and braking only, the steering is automatically controlled by the vehicle.

7 - Adaptive cruise control (ACC)¹

Convenient and practical adaptive cruise control with speed limiter that in combination with automatic transmission can brake the vehicle to a full stop.



DRIVE AND ENGINES.



These engines specially developed for the tough demands of commercial vehicle use combine a long service life with impressive power and low fuel consumption. Any of the available transmissions and engines will deliver outstanding performance, high efficiency and superb reliability even under extreme driving conditions.

2.0 I (75 kW, 300 Nm):
Front-wheel drive
Average consumption: from 7.4 l/100 km
CO₂-emissions¹: from 193 g/km

2.0 I (90 kW, 300 Nm)²:
Rear-wheel drive with dual tyres

2.0 I (103 kW, 340 Nm)³:
Front-wheel drive, rear-wheel drive and all-wheel drive 4×4
Average consumption: from 7.4 l/100 km
CO₂-emissions¹: from 193 g/km

2.0 I (130 kW, 410 Nm):
FFront-wheel drive, rear-wheel drive and all-wheel drive 4×4
Average consumption: from 7.5 l/100 km
CO₂-emissions¹: from 196 g/km

¹ For models with standard wheelbase and high roof.
² Data not available at the time of printing.
³ Not available in conjunction with dual tyres.

VAN OPTIONS.¹

The MAN TGE panel van



The MAN TGE combi van²



The MAN TGE crew cab






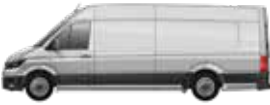


The MAN TGE chassis cab



Models with super-high roof will be available at a later date.

¹ The dimensions shown refer to vehicles with front-wheel drive and factory-original chassis with platform body. ² Available at a later date.

VEHICLE LINE-UP.

MAN TGE Panel van			
	Standard	Long	Extra-long
	Length: ■ Total: 5 986 mm ■ Loading compartment: 3 450 mm ¹ Wheelbase: 3 640 mm	Length: ■ Total: 6 836 mm ■ Loading compartment: 4 300 mm ² Wheelbase: 4 490 mm	Length: ■ Total: 7 391 mm ■ Loading compartment: 4 855 mm ³ Wheelbase: 4 490 mm
Normal roof Height: 2 355 mm Interior height: 1 726 mm			
High roof Height: 2 590 mm Interior height: 1 961 mm			
Super-high roof Height: 2 798 mm Interior height: 2 189 mm			











Dimensions refer to models with front-wheel drive, except for vehicles with extra-long chassis.

¹ Length measured at the vehicle floor incl. subfloor storage compartment extending past the divider wall. Loading length in the upper area of the loading compartment: 3 201 mm.

² Length measured at the vehicle floor incl. subfloor storage compartment extending past the divider wall. Loading length in the upper area of the loading compartment: 4 051 mm.

³ Length measured at the vehicle floor incl. subfloor storage compartment extending past the divider wall. Loading length in the upper area of the loading compartment: 4 606 mm.

⁴ Data not available at the time of printing.

MAN TGE Chassis			
	Standard	Long	Extra-long
	Length: 5 996 mm Wheelbase: 3 640 mm Max. body length: ■ Chassis cab: 3 750 mm ■ Crew cab: 2 700 mm	Length: 6 846 mm Wheelbase: 4 490 mm Max. body length: ■ Chassis cab: 5 570 mm ■ Crew cab: 4 300 mm	Length: 7 211 mm Wheelbase: 4 490 mm Max. body length: ■ Chassis cab ⁴
Chassis cab Height: 2 305-2 327 mm			
Crew cab Height: 2 321-2 352 mm			
MAN TGE Chassis with platform body			
	Standard	Long	Extra-long
	Length: 6 204 mm Wheelbase: 3 640 mm Platform length: ■ Chassis cab: 3 500 mm ■ Crew cab: 2 700 mm	Length: 7 004 mm Wheelbase: 4 490 mm Platform length: ■ Chassis cab: 4 300 mm ■ Crew cab: 3 500 mm	Length: 7 404 mm Wheelbase: 4 490 mm Platform length: ■ Chassis cab: 4 700 mm
Chassis cab Height: 2 305-2 327 mm			
Crew cab Height: 2 321-2 352 mm			

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
<ul style="list-style-type: none">■ MAN Essentials■ MAN Advance■ MAN Bridge	<ul style="list-style-type: none">■ MAN Maintenance■ MAN ServiceCare	<ul style="list-style-type: none">■ MAN Perform■ MAN Compliant■ MAN Connected CoDriver	<ul style="list-style-type: none">■ MAN Driver App

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 ServiceContracts 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.



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 shortages 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:**
enjoy more savings 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

* 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.

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