



# MAKING MORE OUT OF LESS.

Increasing performance and reducing costs – that's the effective, the efficient way to leave competitive pressure standing.

MAN construction site vehicles do an excellent job in getting you there. They're dependable, rugged and hardwearing, their payload is optimal, they perform more than well on the road, and with optimal traction they make sure you safely encounter any off-road situation.

Innovative solutions play a big part in the enhanced efficiency of MAN trucks.

Best of all, find out for yourself.

www.truck.mar

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

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 CO<sub>2</sub> accordingly).



### IT'S THE VERSATILITY THAT DOES IT.

Construction without a tipper? Impossible. Whether they've loaded bulk material, excavated material or asphalt or are carrying equipment, without the versatile carrier, literally nothing on the site would run.

The MAN TGL Tipper is a lightweight vehicle which performs exceptionally in the weight classes of 7.5 to 12 tonnes. The MAN TGL, as a tipper or crane-tipper, is ideal for main construction and subconstruction works as well as garden, landscaping and many other applications. MAN also offers this truck ex works as a complete three-way tipper, ready for operation right away, and optionally with preparation for a crane. With the powerful torque of its common-rail diesel engine, its reliable gearbox designed for construction site and distribution transport, and its stable yet lightweight frame, the MAN TGL has everything a tipper vehicle requires.

Top class in the medium class, that's the MAN TGM in the segment from 12 to 18 tonnes as 4x2 for 12, 15, 18 and 19 tonnes, and also as 4x4 with 13 and 18 tonnes and 6x4 with 26 tonnes. It carries a high payload, is flexible and stable, just made to be a tipper that can take it away. The 13-tonne and 18-tonne models with permanent or selectable all-wheel drive will convince you with their outstanding traction and off-road ability. The differential lock is electronically managed, while electronic transfer case management can be fitted as special equipment. Unique technology for a vehicle in this class, the air-sprung rear axle is electronically controlled to maintain a constant ground clearance level, regardless of the load.

The crew cab for the MAN TGL and MAN TGM series is in a class of its own in terms of size. With its row of four seats in the rear plus the optional second co-driver's seat, it offers space for up to seven people (6+1).









# THE TRUCK FOR ALL CASES.

As a solo vehicle, as a tractor for trailer operation or as a semitrailer tractor, the MAN TGS provide the answers in every case.

With a high degree of reliability, the 18 to 44-tonners master just about every transport job you could think of in the construction industry. If rear-wheel drive is not enough, there are variants with MAN Hydro Drive®, permanent or selectable all-wheel drive right up to 8x8. MAN is the first manufacturer of commercial vehicles to introduce selectable hydrostatic front-wheel drive: MAN HydroDrive® for more flexibility and traction for vehicles operated mainly on paved roads. MAN's long experience in this field, the great reliability of the MAN HydroDrive® and the availability of a wide range of variants, from two-axle to four-axle vehicles, are unrivalled. MAN HydroDrive® is available in combination with MAN TipMatic® or manually operated gearboxes. Technologies that make sense, such as EasyStart, give the driver some useful assistance. And speaking of the driver: the narrow driver's cabs for the MAN TGS are ideal for construction sites, a particular advantage being that their low weight allows a high payload.

TGS vehicles are available with two, three, four and five axles, with the required load-bearing capacities, wheelbases and frame overhangs and with economical high-torque engines.

Maximum performance thanks to MAN TipMatic with special off-road gearshift program, higher gearshift speeds, rock-free mode as well as slope and load detection distinguish the TGS in off-road operation





# BIG ON COMFORT, BIG ON POWER.

Perfect ergonomics, high productivity and low transport costs are the hallmarks of our TGX series tippers.

The MAN TGX is built to impress. It redefines workplace comfort with wide cabs. With ample interior space and an assortment of practical details, it makes the driver's job a good deal easier. In operation, the high-traction, dynamic MAN TGX 4x4H, 6x4 and 8x4-4 demonstrate why they occupy an efficiency class of their own. The MAN Common Rail engines produce high power with low fuel consumption. As a result, the MAN D38 power units with 397 kW (540 hp), 427 kW (580 hp) and 471 kW (640 hp) are setting records in terms of performance and efficiency.

The MAN TipMatic® gearbox therefore fits perfectly with the integrated EasyStart moving-off aid, MAN EfficientCruise® with EfficientRoll, speed shifting, optimised manoeuvring feature, idle speed driving, and rock-free mode. It reduces the pressure on the driver, eases the load on the driveline and saves diesel. The intelligent assistance and safety systems increase transport safety, reduce fuel consumption and reduce wear. In terms of safety, the new EVBec® engine brake with Pritarder in the MAN D38 engine produces an enormous braking power of up to 645 kW even at medium engine speeds, which enables safe and wear-free downhill travel.

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 for the same low fuel consumption and a weight reduction of around 80 kg.



### PERFECT IN EVERY DETAIL.

Just how much practical experience is packed into every MAN tipper can be seen by the many ingenious solutions for every task.

Whether it's the convincing axle and suspension systems for all requirements, the powerful engines or the variety of drive formulae, at MAN you get the tipper you want, perfectly equipped from its robust steel bumper to its fold-back rear underride guard, the reference level for functionality and efficiency.

#### → Vehicle configuration (partly optional):

- Planetary hub or hypoid axles, light MAN TGS tandem hypoid axle
- Parabolic, trapezoidal, air or construction air suspension with internal stabilisers
- High-torque engines up to 471 kW (640 hp)
- MAN D15 engines with up to 294 kW (400 hp) for weight-optimised vehicles
- Air intake directed upwards with or without pre-filter for the engine
- Permanent and selectable all-wheel drive, differential lock and transfer case management
- Weight-saving MAN HydroDrive® (MAN TGS, MAN TGX) for a range of deployments MAN TGS can be retrofitted with optional 5th axle (10x4 and 10x8), trailing axle or right up to the construction site
- MAN TipMatic® Offroad (MAN TGM, MAN TGS, MAN TGX), MAN TipMatic® for the MAN TGL
- Robust three-part steel bumper with centred towing eye
- Robust radiator protection
- Solidly secured frame attachments (battery boxes, tanks)
- Fold-back or rigid rear underride guard

- Raised or partly raised exhaust or side exit exhaust
- Construction-site hinged step unit
- Construction-site rise with support rail on roof
- Equipment for snow clearing, standardised attachment plate
- Electronic braking system MAN BrakeMatic®
- Electronic driver assistance systems ABS, ASR, ESP, LGS, EBA, ACC stop-and-go and Lane Return Assistant, depending on vehicle type
- leading axle (MAN TGS 10x4-6 BL as the standard option)
- MAN ComfortSteering for low steering forces and good tracking
- 10-tonne front axle for large-crane bodies on four-axle vehicles
- Digital axle load indicator on vehicles fitted with air suspension
- Paver brake
- Turning brake



Construction-site rise with support rail on roof.



Protective headlight grilles



Steel bumper with centred towing eye Protective guard in front of radiator and hinged front step. Particularly robust protective grille in front of radiator.





Raised exhaust tailpipe



Partially raised exhaust system



Exhaust system, side, right



Partially raised exhaust system for L cab



# MAN IS THE SOLUTION.

MAN chassis with interchangeable systems - that which belongs together comes together.

The range includes chassis from 7.5 to 44 tonnes for set-down and roll-off skip loaders, tippers, containers and silo erectors of every size and type. You can get them as two-, three-, four- or five-axle versions with the load capacities, wheelbases and overhangs you require, with economical engines delivering high torques, and ergonomic driver's cabs for every purpose. The range of drive formulae runs from 4x2 to 8x8 to 10x4. One of these powerful types is the MAN TGM 18-tonner, with its record-breaking payload. A unique idea, and one that will keep you moving, is the selectable hydrostatic front-wheel drive MAN HydroDrive® for MAN TGS and MAN TGX. Particularly when combined with steered leading or trailing axles, this brings unbeatable manoeuvrability, weight and traction.

A new feature is the variable axle load ratio for vehicles with a leading or trailing axle. 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 whatever the load. The system does not have to be switched on separately; it is always active.

The similarly new MAN ComfortSteering system 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.



### FLEXIBILITY IS TRUMPS.

When all-round transport solutions with the highest degree of flexibility are required, then interchangeable systems are exactly what you need.

You operate vehicles for demolition materials and site waste as well as scrap or recyclable waste, also with interchangeable systems for transporting building equipment, vehicles or other devices. Minimised downtimes mean that roll-off and set-down skip loaders produce high transport performance. They are easy to load and unload, they make transfer-handling superfluous, and in addition to all versions, they can also be used for interim storage. Last but not least, they are able to carry out widely-differing transport tasks, thanks to the compatibility of various containers. These are some of the positive points that enable roll-on and set-down skip loaders to render services that are quickly recognised as outstanding.

#### Vehicle configuration::

- Two-, three-, four- and five-axle versions with trailing axle, leading axle and/or tandem axle unit
- Parabolic or air suspension, depending on the operating requirements
- Springs/dampers adjusted for the roll-off and set-down skip loaders' high centre of gravity
- CDC roll stabilisation as special equipment
- Construction-site version in medium height with steel bumper and planetary axles
- Primarily for road deployment in normal design, also with hypoid axle or lightweight hypoid tandem axle
- Complete range of engines from 118 kW (160 hp) to 471 kW (640 hp)
- Sector-specific parameterisation of the intermediate speeds
- Gear ratio spread as required by type of operation and corresponding rear axle ratio
- Optimal, branch-related gear strategy with the MAN TipMatic® Offroad
- Automatic lowering of air suspension on rear axle ex works
- The right power take-offs for all requirements
- Variable axle load ratio for chassis with a trailing or leading axle for optimum traction
- MAN ComfortSteering for low steering forces and good tracking
- Adaptive Cruise Control ACC with stop-and-go function
- The Lane Guard System (LGS) with Lane Return Assist (LRA) helps keep the vehicle in its lane and actively prevents it straying from the lane.
- On vehicles equipped with MAN HydroDrive®, a power take-off at the flywheel end is available for body manufacturers
- MAN HydroDrive® for an expanded range of operations















# MAN KNOWS WHAT MAKES THE WORLD GO AROUND.

When it comes to transporting concrete from the mixing plant to the construction site, speed, reliability and a maximum of payload are crucial: after all, the concrete has to be delivered just in time if the construction work is going to progress.

If you're looking for a safe bet, go with MAN. Whether it's an extremely light chassis with optimum payload that you want, a truck with high load reserves, or a heavy-duty vehicle with maximum transport capacity, we have the solution you're looking for.

#### Solutions for all requirements.

Truck mixer chassis from MAN combine innovative technology with high economy - a winning mixture wherever you are. The classic European vehicle has to be the 8x4 in the MAN TGS series, a truck that fulfils the customers' most important requirements to a T. As a 32-tonner optimised in terms of weight and fitted with the MAN D15 engine and light hypoid tandem axle, it provides the biggest payload advantages in its class. Despite weight optimisation, MAN truck mixers are suitably equipped for the sector. For special requirements MAN offers the 8x4H-6, which combines efficiency and traction as required with maximum manoeuvrability.

The MAN TGS 4x4H semitrailer tractor with MAN HydroDrive® for mixer trailers is a new concept for special requirements. The MAN range is rounded off by the three-axle version with 26 tonnes gross vehicle weight, which is available as 6x4 in the MAN TGS range, and, for special markets, in the MAN TGM range – for example, with right-hand-drive for the UK.

#### → Vehicle configuration:

- Preparation ex works for straightforward, economical mounting of drum
- Springs and stabilisers adjusted for high centre of gravity
- Extremely resilient planetary drive axles with good ground clearance, alternatively hypoid axles or light MAN TGS tandem hypoid axle with ground clearance almost as
- High-torque engines with EDC control for stable engine speeds when mixing
- Preparation for switching engine on/off externally
- External selection of engine speed for various mixing tasks
- Engine-dependent power take-offs for mixer hydraulics, designed for high torque
- Low frame top edge
- Bleeding of compressed air to pressurise the water tank
- ESP as special equipment for 8x4 as solo vehicle version
- Exhaust system for two- and three-axle versions: standard or raised; for four-axle version: standard or partially raised
- Lateral underride guard included in scope of delivery
- Thrust plate for attaching the superstructure subframe
- Window in rear wall of driver's cab is special equipment and provides an angled rearward field of vision
- MAN ComfortSteering for low steering forces and good tracking
- Adaptive Cruise Control ACC with stop-and-go function
- Lane Guard System (LGS) including Lane Return Assist (LRA) helps keep the vehicle in its lane and actively prevents it straying from the lane.
- Meets the off-road vehicle (N3G) criterion at normal design height.
- MAN D15 engine with a weight advantage of approx. 230 kg as compared to the MAN D20 engine
- Special truck mixer chassis for 8x4 (weight optimised)





# **GETTING RIGHT UP THERE WITH MAN.**

They have made building more rational and more economical, they have reduced the physical labour, they have rendered special feeder equipment superfluous.

Concrete pumps are worth their weight in gold, even though the investment costs for the core pump and the distribution mast are high, but that is precisely the reason why the base has to be right. What is required here are absolutely reliable chassis that are prepared for the most economical fitting of bodies possible.

There's still no place on a construction site that can't be reached by the concrete pumps on MAN's 6x4, 8x4 and 10x4 chassis. The MAN TGS three-axle version can take concrete pumps with a mast length of up to 39 metres, the four-axle up to 48 m and the 5-axle up to 60 m. Components such as battery compartments, air tanks and exhaust systems are arranged so that the mounting of the concrete pump is straightforward. MAN offers this concrete pump preparation feature ex works.

Ergonomic driver's cabs for short journeys, also with lowered roofs or cut-outs, are available. The development effort that we at MAN have invested in these vehicles, highlights our claim that we provide our customers with the optimal transport solutions. And that includes service: there are approximately 1 550 support outlets all around Europe, ready to serve you.

#### → Vehicle configuration:

- Sturdy, powerful engines
- Start-stop facility on frame end or under front flap
- Engageable engine-dependent PTO for high performance, ex works
- Springs and stabilisers designed for body's high centre of gravity
- Concrete pump braking unit, without spring suspension, on the rear axle
- Normal and medium-height construction design
- Equipped for the construction site with differential locks, planetary axles with traction tyres, steel bumper with towing eye
- Roof of driver's cab can be lowered or slit to enable straightforward mounting of pump
- Free spaces for superstructure (offset frame components) ex works
- MAN ComfortSteering for low steering forces and good tracking
- Special engine parametrisation for concrete pumps
- 5th axle possible

# AS INDIVIDUAL AS YOUR REQUIREMENTS.

Special requirements call for special solutions. MAN Individual delivers customers' special requests that cannot be implemented in series production.

MAN Individual takes your individual requests and implements them in a professional manner with technical perfection. The range of potential vehicle modifications is almost unlimited. Whether in terms of 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. Working together with MAN Individual, they will find the best solution for you. Our specialists will handle your specific requirements, providing the high standard of quality you expect from MAN.

#### Examples of modifications for construction uses:

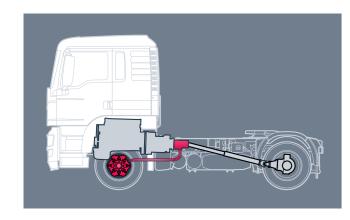
- Preparation for concrete pump
- Space for support
- Relocation of frame attachments as is typical for the sector
- Raised exhaust and relocated exhaust muffler. Various additional exhaust variations also available
- High degree of flexibility and quality in the design
- Vehicles comply with standards following conversion
- Five-axle vehicle ex works
- Brake system for concrete pumps
- MAN After Sales provides global support and supply of spare parts



### 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



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 TurboEVBec® engine brake with PriTarder in the MAN D38 engine produces an enormous brake output of up to 645 kW even at a moderate engine speed, enabling safe and wear-free downhill driving. The MAN TurboEVBec® in the MAN D15 engine enables gradual regulation of engine brake output up to a maximum of 350 kW. The MAN Pri-Tarder® 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 12gear 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 offroad 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 reducing the speed of the vehicle. 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 clutch as well as gentle torque build-up during start-up. 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

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 without any issues. That means reduced wear and tear on the New moving-off and gearshift strategy for MAN TGL and TGM.

In addition, MAN TipMatic® with Idle Speed Driving, Speed Shifting1) and EfficientRoll1) functions is now also available for MAN TGL and TGM. These moving-off and gearshift strategies improve driving comfort and reduce fuel

1) Speed Shifting and EfficientRoll only available with 12-speed

### THE MAN RUNNING GEAR.



Planetary axle.



Hypoid axle.

#### Axle and suspension systems.

available with various transmissions and parabolic or air rolling back. 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.

#### 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 use with road finishers there are internal stabilisers. 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.

#### 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 ve-Whether planetary or hypoid axle – both axle systems are hicle can move off without jolting, with low wear and without

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.

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

#### 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 means of a switch on hills. As opposed to systems that use spring reservoirs to brake only the rear axle, a MAN allwheel 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.

#### Modifications to cab and chassis.

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

#### 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.

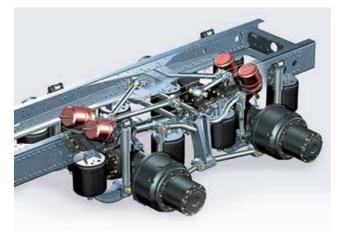
#### MAN ComfortSteering<sup>2</sup>

MAN ComfortSteering helps the driver to steer and forms the basis of other assistance systems such as Lane Return stopping and moving off, and is controlled by the driver by 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.

#### 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.





Construction air suspension

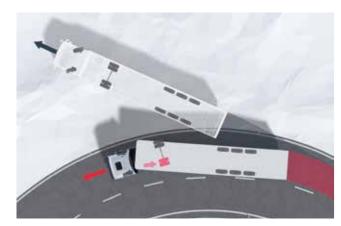
- <sup>1</sup> Available for MAN TGS from approximately September 2019, depending on the wheel configuration
- <sup>2</sup> Available from mid-2019, depending on the vehicle type and

24 Running gear

# 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 (LRA)<sup>2</sup> 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.

#### Adaptive Cruise Control ACC with stop-and-go tuation. function1

stance and differential speed of the vehicle in front and ensures a safe distance through electronic intervention in speeds from 25 km/h and helps the driver to stay relaxed while driving.

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 multifunction steering wheel.

# Lane Guard System (LGS) including Lane Return Assist

constantly monitor the driving dynamics. If there is a risk 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 si-

The Lane Guard System (LGS) with Lane Return Assist Adaptive Cruise Control automatically evaluates the di- (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 accelerator or brake pedal. ACC can be used at driving 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 The stop-and-go function is new. In slow-moving traffic, 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

#### 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 reguired 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.

#### 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.



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



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

Assistance equipment 27

<sup>&</sup>lt;sup>1</sup> Available for MAN TipMatic<sup>®</sup> 14 gearbox with MAN D26 engine <sup>2</sup> Available from mid-2019, depending on the vehicle type and and for MAN TipMatic® 12 gearbox with MAN D15, D26 and D38 engine engines. Not for heavy-duty applications.



Vehicle behaviour with CDC



Vehicle behaviour without CDC

#### Active roll stabilisation CDC and high-load roll stabilisation

With active roll stabilisation, dampers are automatically The automatic low-beam headlights with light sensors activregulated 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 the lighting is regulated accordingly. of gravity, high-load roll stabilisation with an additional X The automatic wipers with rain sensor are activated as soon control arm is ideal. This ensures that sideways tilting is effectively reduced.

#### 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

ate and deactivate the front, side and rear lights as needed. Dawn and dusk, tunnels and bridges are also detected and

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.

#### LED daytime driving lights

Twin headlights with integrated LED daytime driving lights 
Critical situations when turning or manoeuvring should 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.

#### Turning camera

(in compliance with the requirements of Directive ECE R-87) be recognised early on the difficult-to-view right side of make the MAN TGS and MAN TGX easier to see during the the vehicle. A camera on MAN trucks extends the visible day compared with daytime driving lights with H7 lamps, area to the blind spot. The monitor is in the field of vision thereby improving active safety. The lights are turned on when looking to the right in the mirror and helps the driver and off automatically with the ignition and are dimmed to to better view the area next to the vehicle. It recognises the maximum permitted luminance if other lights such as whether, for example, cyclists or smaller vehicles are locatthe low-beam headlights or indicators are switched on - ed directly next to the driver's cab and, when manoeuvring, not however if only the headlight flasher is actuated. The obstacles stand out better. The system is activated autohigh level of light intensity of the long-lasting LED daytime matically whenever the right-hand indicator is switched on. This equipment can be ordered ex works.



LED daytime driving lights



LED rear lights

28 Assistance equipment Assistance equipment 29

### EFFICIENCY AT FULL THROTTLE.

Vehicles in construction-site deployment must ideally have, on the one hand, high torque and, on the other hand, low fuel consumption: The high performance MAN engine provides both.

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 of the MAN D15 and MAN D26 series 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 CO<sub>2</sub> 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.

#### Euro 6 engines

|       | Type   | Capacity | Rated output    | Max. torque |
|-------|--------|----------|-----------------|-------------|
| D0834 | R4     | 4.6      | 118 kW (160 hp) | 600 Nm      |
|       | <br>R4 | 4.6      | 140 kW (190 hp) | 750 Nm      |
|       | R4     | 4.6      | 162 kW (220 hp) | 850 Nm      |
| D0836 | R6     | 6.9      | 184 kW (250 hp) | 1 050 Nm    |
|       | R6     | 6.9      | 213 kW (290 hp) | 1 150 Nm    |
|       | R6     | 6.9      | 235 kW (320 hp) | 1 250 Nm    |
| D1556 | R6     | 9.0 I    | 243 kW (330 hp) | 1 600 Nm    |
|       | R6     | 9.0 I    | 265 kW (360 hp) | 1 700 Nm    |
|       | R6     | 9.0 I    | 294 kW (400 hp) | 1800 Nm     |
| D2676 | R6     | 12.4 I   | 316 kW (430 hp) | 2 200 Nm    |
|       | R6     | 12.4 l   | 346 kW (470 hp) | 2400 Nm     |
|       | R6     | 12.4 I   | 375 kW (510 hp) | 2600 Nm     |
| D3876 | R6     | 15.2 l   | 397 kW (540 hp) | 2700 Nm     |
|       | R6     | 15.2 l   | 427 kW (580 hp) | 2900 Nm     |
|       | R6     | 15.2 l   | 471 kW (640 hp) | 3000 Nm     |





# DIVERSE SOLUTIONS FOR WIDE-RANGING NEEDS.

Within the broad scope of construction-site applications, there is really nothing that our vehicles cannot do. Wherever there is a need for reliable emergency services, a MAN is on the scene.

The comprehensive MAN vehicle range, which includes the MAN TGL, TGM, TGS and TGX series, ranges from 7.49 to 44 tonnes. 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.

#### Tipper chassis

| Туре  |        |        |        |
|-------|--------|--------|--------|
| TGL   | 8.xxx  | 4x2    | BB, BL |
| TGL   | 10.xxx | 4x2    | BB, BL |
| TGL   | 12.xxx | 4x2    | BB, BL |
| TGM   | 13.xxx | 4x4    | BL     |
| TGM   | 15.xxx | 4x2    | BL, BB |
| TGM   | 18.xxx | 4x2    | BB, BL |
| TGM   | 18.xxx | 4x4    | BB     |
| TGM   | 26.xxx | 6x4    | BB     |
| TGS   | 18.xxx | 4x4H   | BL     |
| TGS   | 18.xxx | 4x2    | BB, BL |
| TGS   | 18.xxx | 4x4    | BB     |
| TGS   | 18.xxx | 4x4    | BL     |
| TGS   | 26.xxx | 6x6H   | BL     |
| TGS   | 26.xxx | 6x4    | BB, BL |
| TGS   | 26.xxx | 6x6    | BB     |
| TGS   | 26.xxx | 6x6    | BL     |
| TGS   | 35.xxx | 8x4-4  | BL     |
| TGS1) | 50.xxx | 10x4-6 | BL     |

| Type |        |       |        |
|------|--------|-------|--------|
| TGS  | 26.xxx | 6x4-4 | BL     |
| TGS  | 33.xxx | 6x4   | BB, BL |
| TGS  | 33.xxx | 6x6   | BB     |
| TGS  | 33.xxx | 6x6   | BL     |
| TGS  | 35.xxx | 8x6H  | BL     |
| TGS  | 35.xxx | 8x4   | BB, BL |
| TGS  | 35.xxx | 8x6   | BB     |
| TGS  | 35.xxx | 8x8   | BB     |
| TGS  | 37.xxx | 8x4   | BB     |
| TGS  | 41.xxx | 8x4   | BB     |
| TGS  | 41.xxx | 8x6   | BB     |
| TGS  | 41.xxx | 8x8   | BB     |
| TGX  | 18.xxx | 4x4H  | BLS    |
| TGX  | 26.xxx | 6x4   | BB, BL |
| TGX  | 33.xxx | 6x4   | BB, BL |
| TGX  | 35.xxx | 8x4-4 | BL     |

1) on the basis of 8x4 with trailing axle





#### Chassis for three-way tipper body, ex works

|      |        |      | 3,     |
|------|--------|------|--------|
| Туре |        |      |        |
| TGL  | 8.xxx  | 4x2  | BB, BL |
| TGL  | 10.xxx | 4x2  | BB, BL |
| TGL  | 12.xxx | 4x2  | BB, BL |
| TGM  | 13.xxx | 4x4  | BL     |
| TGM  | 15.xxx | 4x2  | BL, BB |
| TGM  | 18.xxx | 4x2  | BB, BL |
| TGM  | 18.xxx | 4x4  | BB     |
| TGS  | 18.xxx | 4x4H | BL     |
| TGS  | 18.xxx | 4x2  | BB, BL |
| TGS  | 18.xxx | 4x4  | BB, BL |
| TGS  | 26.xxx | 6x6H | BL     |
| TGS  | 26.xxx | 6x4  | BB, BL |
| TGS  | 26.xxx | 6x6  | BB, BL |
| TGS  | 35.xxx | 8x4  | BB, BL |
| TGS  | 35.xxx | 8x6  | BB     |
| TGS  | 35.xxx | 8x8  | BB     |
| TGX  | 26.xxx | 6x4  | BB, BL |
| TGX  | 33.xxx | 6x4  | BB, BL |

#### Truck chassis for crew cab

| Type |        |     |        |
|------|--------|-----|--------|
| TGL  | 8.xxx  | 4x2 | BB, BL |
| TGL  | 10.xxx | 4x2 | BB, BL |
| TGL  | 12.xxx | 4x2 | BB, BL |
| TGM  | 12.xxx | 4x2 | BL     |
| TGM  | 13.xxx | 4x4 | BL     |
| TGM  | 15.xxx | 4x2 | BB, BL |
| TGM  | 18.xxx | 4x2 | BB, BL |
| TGM  | 18.xxx | 4x4 | BB     |

#### Roll-off skip loader chassis

| Туре  |        |        |        |
|-------|--------|--------|--------|
| TGL   | 8.xxx  | 4x2    | BB, BL |
| TGL   | 10.xxx | 4x2    | BB, BL |
| TGL   | 12.xxx | 4x2    | BB, BL |
| TGM   | 18.xxx | 4x2    | BB, BL |
| TGS   | 18.xxx | 4x2    | BB, BL |
| TGS   | 26.xxx | 6x2-2  | BL1)   |
| TGS   | 28.xxx | 6x2-4  | BL2)   |
| TGS   | 28.xxx | 6x2-2  | BL2)   |
| TGS   | 26.xxx | 6x4    | BB     |
| TGS   | 26.xxx | 6x4    | BL     |
| TGS   | 26.xxx | 6x4H-4 | BL     |
| TGS   | 35.xxx | 8x4-4  | BB, BL |
| TGS   | 35.xxx | 8x4H-6 | BL     |
| TGS4) | 50.xxx | 10x4-6 | BB, BL |
| TGX   | 18.xxx | 4x2    | BL     |
| TGX   | 26.xxx | 6x2-2  | BL1)   |
| TGX   | 28.xxx | 6x2-2  | BL3)   |
| TGX   | 35.xxx | 8x4-4  | BL     |

- 4) on the basis of 8x4 with trailing axle

| Туре  |        |        |        |
|-------|--------|--------|--------|
| TGL   | 8.xxx  | 4x2    | BB, BL |
| TGL   | 10.xxx | 4x2    | BB, BL |
| TGL   | 12.xxx | 4x2    | BB, BL |
| TGM   | 18.xxx | 4x2    | BB, BL |
| TGS   | 18.xxx | 4x2    | BB, BL |
| TGS   | 26.xxx | 6x2-2  | BL1)   |
| TGS   | 28.xxx | 6x2-4  | BL2)   |
| TGS   | 28.xxx | 6x2-2  | BL2)   |
| TGS   | 26.xxx | 6x4    | BB     |
| TGS   | 26.xxx | 6x4    | BL     |
| TGS   | 26.xxx | 6x4H-4 | BL     |
| TGS   | 35.xxx | 8x4-4  | BB, BL |
| TGS   | 35.xxx | 8x4H-6 | BL     |
| TGS4) | 50.xxx | 10x4-6 | BB, BL |
| TGX   | 18.xxx | 4x2    | BL     |
| TGX   | 26.xxx | 6x2-2  | BL1)   |
| TGX   | 28.xxx | 6x2-2  | BL3)   |
| TGX   | 35.xxx | 8x4-4  | BL     |

#### 1) Also available with steered trailing axle.

- 2) With steered trailing axle 9 t.
- 3) With twin-wheel trailing axle 9 t.

#### Set-down skip loader chassis

| Type |        |       |        |
|------|--------|-------|--------|
| TGL  | 8.xxx  | 4x2   | BB, BL |
| TGL  | 10.xxx | 4x2   | BB, BL |
| TGL  | 12.xxx | 4x2   | BB, BL |
| TGM  | 18.xxx | 4x2   | BB, BL |
| TGS  | 18.xxx | 4x2   | BB, BL |
| TGS  | 26.xxx | 6x2/4 | BL     |
| TGS  | 26.xxx | 6x4   | BB     |
| TGS  | 26.xxx | 6x4   | BL     |
| TGX  | 18.xxx | 4x2   | BL     |
| TGX  | 26.xxx | 6x4   | BL     |

#### Chassis for TM type vehicle (truck mixer)

|                 |                                      |                             |                      | Recommended                     |
|-----------------|--------------------------------------|-----------------------------|----------------------|---------------------------------|
| Type            |                                      |                             |                      | drum size (m³)                  |
| TGM             | 26.xxx                               | 6x4                         | BB                   | 6, 7                            |
| TGS             | 26.xxx                               | 6x4                         | BB                   | 6, 7                            |
| TGS             | 32.xxx                               | 8x4                         | BB                   | 8, 9                            |
| TGS             | 35.xxx                               | 8x4                         | BB                   | 9                               |
| TGS             | 35.xxx                               | 8x4H-6                      | BL                   | 8, 9                            |
| TGS             | 41.xxx                               | 8x4                         | BB                   | 9, 10 (12)                      |
| TGS1)           | 41.xxx                               | 10x4-6                      | BB, BL               | 10, 12                          |
| TGS TGS TGS TGS | 32.xxx<br>35.xxx<br>35.xxx<br>41.xxx | 8x4<br>8x4<br>8x4H-6<br>8x4 | BB<br>BB<br>BL<br>BB | 8, 9<br>9<br>8, 9<br>9, 10 (12) |

1) on the basis of 8x4 with trailing axle

#### Concrete pump chassis

|      |        |        |        | Length o | f mast |
|------|--------|--------|--------|----------|--------|
| Type |        |        |        | from     | to     |
| TGM  | 18.xxx | 4x2    | BB     | -        | 24 m   |
| TGS  | 18.xxx | 4x2    | BB     | 17 m     | 24 m   |
| TGS  | 26.xxx | 6x4    | BB     | 31 m     | 38 m   |
| TGS  | 37.xxx | 8x4    | BB     | 36 m     | 48 m   |
| TGS  | 41.xxx | 8x4    | BB     | 36 m     | 48 m   |
| TGS  | 41.xxx | 10x4-6 | BB, BL | 47 m     | 52 m   |







34 Ranges of vehicles Range of vehicles 35

# THE CHOICE IS YOURS.

The right cab for every need - and a maximum level of comfort and

ing recovery. And of course safety. All cabs meet the crash safety requirements, comply with the ECE-R29 directive and offer optimum passenger protection. The many useful details such as the washable door interior cladding, the easycare fittings, the compressed-air connection that turns cleaning into such a simple job and the optional headlight washer unit make it clear: nothing has been forgotten. 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

| Cab      |          | Vehicle | series |     |
|----------|----------|---------|--------|-----|
|          | TGL      | TGM     | TGS    | TGX |
| Crew cab |          | •       | *      |     |
| C cab    | •        | •       |        |     |
| M cab    |          |         | •      |     |
| L cab    | •        | •       | •      |     |
| LX cab   | •        | •       | •      |     |
| XL cab   |          |         |        | •   |
| XLX cab  |          |         |        | •   |
| XXL cab  | <u> </u> |         |        | •   |

<sup>\*</sup>available for MAN TGS via MAN Individual

C cab

M cab

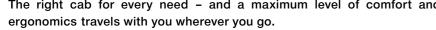
L cab

LX cab

XL cab

XLX cab

XXL cab



MAN cabs are designed to facilitate fatigue-free, concentrated driving and relax-

kerb mirror and front mirror. The blind spot has been practically eliminated.

|       | The state of the s |      |
|-------|--|------|
| 27795 | 1650   | 11/0 |
|       |  | 1645 |

























Cabs 37

### **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 into the space. The electric 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.

# **BUILDING ON RELIABLE FOUNDATIONS.**

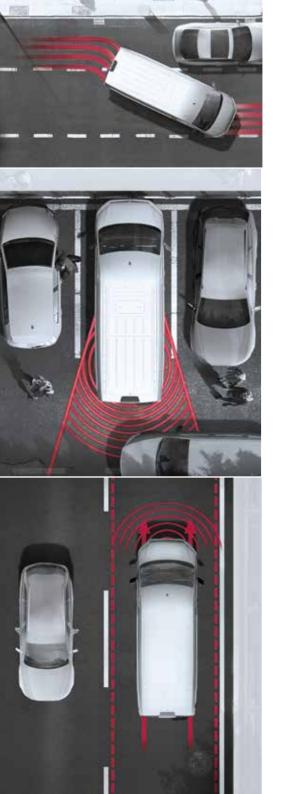
The compact powerhouse in the van segment. A wide range of applications mean building companies using MAN TGE vehicles really hit the nail on the head.

High load outlay, loading work within a small space – strong performances are needed in every weight class at the construction site. One of our top performers is the MAN TGE; it helps you to achieve great things, even in smaller construction projects.

This little powerhouse can be delivered ex works configured for a tipper, with a rear window, reinforced suspension, damping system and stabilisation as well as with a trailer coupling. We can also equip the MAN TGE with a 3-sided tipper or a robust platform body by request. The vehicle can even come with the required equipment for a roll-off skip loader.

The powerful PTO and an additional oil cooler, which can be delivered ex works, allow for a continuously high performance of up to 40 kW. Thanks to the 4x4 all-wheel drive, uneven terrain is no longer an issue either.





### 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.

#### <sup>1</sup> 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-emissions<sup>1</sup>: 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 I/100 km CO2-emissions<sup>1</sup>: from 193 g/km

#### 2.0 I (130 kW, 410 Nm):

Front-wheel drive, rear-wheel drive and all-wheel drive 4×4

Average consumption: from 7.5 I/100 km

CO2-emissions1: from 196 g/km

#### <sup>1</sup> For models with standard wheelbase and high roof.

### 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.

46 MAN TGE

<sup>&</sup>lt;sup>2</sup> Data not available at the time of printing.

<sup>&</sup>lt;sup>3</sup> Not available in conjunction with dual tyres.

<sup>&</sup>lt;sup>1</sup> The dimensions shown refer to vehicles with front-wheel drive and factory-original chassis with platform body. <sup>2</sup> Available at a later date.

### **VEHICLE LINE-UP.**

#### MAN TGE Panel van

|                           | Standard                           | Long  | Extra-long                         |
|---------------------------|------------------------------------|---|------------------------------------|
|                           | Length:                            | Length:   | Length:                            |
|                           | ■ Total: 5986 mm                   | ■ Total: 6836 mm  | ■ Total: 7391 mm                   |
|                           | ■ Loading compartment:<br>3450 mm¹ | <ul> <li>Loading compartment:</li> <li>4300 mm<sup>2</sup></li> </ul> | ■ Loading compartment:<br>4855 mm³ |
|                           | Wheelbase: 3640 mm                 | Wheelbase: 4490 mm  | Wheelbase: 4490 mm                 |
| Normal roof               | 100                                |   |                                    |
| Height: 2355 mm           |                                    |   |                                    |
| Interior height: 1726 mm  | 0-                                 |   |                                    |
| High roof                 | la la                              | had .   | 6                                  |
| Height: 2590 mm           |                                    |   |                                    |
| Interior height: 1961 mm  | 0                                  | 0-  | 0                                  |
| Super-high roof           |                                    |   |                                    |
| Height: 2798 mm           |                                    | A   |                                    |
| Interior height: 2 189 mm |                                    | 0   | 0                                  |

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

- <sup>1</sup> 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.
- <sup>2</sup> 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: 4051 mm.
- <sup>3</sup> 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: 4606 mm.
- <sup>4</sup> Data not available at the time of printing.

#### MAN TGE Chassis

|                      | Standard   | Long                   | Extra-long                 |
|----------------------|--|------------------------|----------------------------|
|                      | Length: 5996 mm  | Length: 6846 mm        | Length: 7211 mm            |
|                      | Wheelbase: 3640 mm   | Wheelbase: 4490 mm     | Wheelbase: 4490 mm         |
|                      | Max. body length:  | Max. body length:      | Max. body length:          |
|                      | ■ Chassis cab: 3750 mm   | ■ Chassis cab: 5570 mm | ■ Chassis cab <sup>4</sup> |
|                      | <ul><li>Crew cab: 2700 mm</li></ul>  | ■ Crew cab: 4300 mm    |                            |
| Chassis cab          |  |                        |                            |
| Height: 2305-2327 mm |  | 0                      |                            |
| Crew cab             | To the same of the | he e                   |                            |
| Height: 2321-2352 mm |  |                        |                            |

#### MAN TGE Chassis with platform

| body                 |                                     |                                     |                      |
|----------------------|-------------------------------------|-------------------------------------|----------------------|
|                      | Standard                            | Long                                | Extra-long           |
|                      | Length: 6204 mm                     | Length: 7004 mm                     | Length: 7404 mm      |
|                      | Wheelbase: 3640 mm                  | Wheelbase: 4490 mm                  | Wheelbase: 4490 mm   |
|                      | Platform length:                    | Platform length:                    | Platform length:     |
|                      | ■ Chassis cab: 3500 mm              | Chassis cab: 4300 mm                | Chassis cab: 4700 mm |
|                      | <ul><li>Crew cab: 2700 mm</li></ul> | <ul><li>Crew cab: 3500 mm</li></ul> |                      |
| Chassis cab          |                                     | ASSI                                | /sil                 |
| Height: 2305-2327 mm | 0                                   | 0                                   |                      |
| Crew cab             | To the second                       | 100                                 | _                    |
| Height: 2321-2352 mm |                                     |                                     |                      |

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| Fleet management                 | Maintenance management              | Driver deployment                          | Driver assistance                |  |
|----------------------------------|-------------------------------------|--|----------------------------------|--|
| <ul><li>MAN Essentials</li></ul> | <ul><li>MAN Maintenance</li></ul>   | <ul><li>MAN Perform</li></ul>              | <ul><li>MAN Driver App</li></ul> |  |
| <ul><li>MAN Advance</li></ul>    | <ul> <li>MAN ServiceCare</li> </ul> | <ul><li>MAN Compliant</li></ul>            |                                  |  |
| <ul><li>MAN Bridge</li></ul>     |                                     | <ul> <li>MAN Connected CoDriver</li> </ul> | r                                |  |

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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.

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