

# TRACTION COUNTS.

Efficiency decides.





# 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.man](http://www.truck.man)



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





# 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 that performs exceptionally in the weight class 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 with 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 engageable 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 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 semi-trailer 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 MAN HydroDrive®, permanent or engageable all-wheel drive right up to 8x8. MAN is the first manufacturer of commercial vehicles to introduce engageable 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.





# BIG ON COMFORT, BIG ON POWER.

Perfect ergonomics, high productivity and low transport costs are the hallmarks of our MAN 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 Retarder produces an enormous brake output of up to 600 kW even at medium engine speeds, which enables safe and wear-free downhill travel.







# 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 protection, the reference level for functionality and efficiency.

Construction-site rise with support rail on roof



Protective headlight grills



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



Protective guard in front of radiator

## → 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 427 kW (580 hp), semitrailer tractors up to 471 kW (640 hp)
- Air intake directed upwards with or without pre-filter for the engine
- Permanent and engageable all-wheel drive, differential lock and transfer case management
- Weight-saving MAN HydroDrive® (MAN TGS and TGX) for a range of deployments right up to the construction site
- MAN TipMatic® Offroad (MAN TGM, TGS, TGX), MAN TipMatic® for the MAN TGL
- Robust three-part steel bumper with centred towing eye, also with preparations for snowplough attachment plate or shackle
- Robust radiator protection
- Solidly-secured frame attachments (battery boxes, tanks)
- Fold-back or rigid rear underride protection
- 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 and ACC, depending on the type of vehicle
- MAN TGS can be retrofitted with optional fifth axle (10x4 and 10x8), trailing axle or leading axle (MAN TGS 10x4-6 BL as the standard option)
- Paver brake
- Turning brake



Raised exhaust tailpipe



Raised exhaust tailpipe



Partially raised exhaust system for L cab



Exhaust system, side, right



# 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 engage-able hydrostatic front-wheel drive MAN HydroDrive® for MAN TGS and 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. This variable ratio means that the drive axle always has optimum traction, regardless of the payload being carried. The variable distribution of the axle load between the driven and non-driven rear axle ensures that, in every payload situation, the drive axle always has sufficient traction, and that the axle load is never below the legally stipulated minimum.







# 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 load-bearing trailers 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 that, 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 version with trailing axle, leading axle or tandem axle unit
- Parabolic or air suspension, depending on the operating requirements
- Springs/dampers adjusted for the roll-off skip loader's 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 110 kW (150 hp) to 412 kW (560 hp)
- Sector-specific parameterisation of the intermediate speeds
- Gear ratio spread as required by type of operation and corresponding rear axle ratio
- Gearshift strategy optimised for the sector
- Automatic lowering of air suspension on rear axle ex works
- The right power take-offs for all requirements
- 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 to put your money on, 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, it provides the biggest payload advantages in its class. The 35-tonner is an all-rounder with a favourable empty weight and high load reserves, while the heavy-duty version, with a gross maximum vehicle weight of 41 tonnes, has the highest load-carrying capacity. The 35- and 41-tonners are also available in normal and medium-high design height. Note: technically permissible gross vehicle weights are 34, 37, and 44 t.

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
- 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 load
- 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 protection 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
- Special truck mixer chassis for 8x4 (weight optimised)
- Variable axle load ratio for chassis with a trailing or leading axle for optimum traction







→ **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-high design height
- 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
- fifth axle possible

# 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 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 five-axle up to 60 m. To meet the special requirements for even longer masts, the MAN TGS can be retrofitted with a fifth axle. 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 dealerships all around Europe, ready to serve you.



Free spaces for superstructure

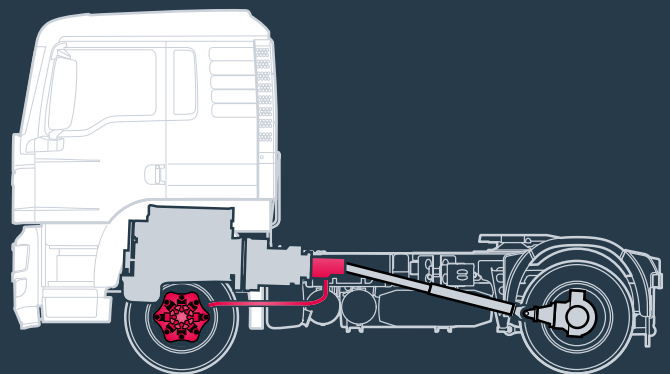




# THE MAN DRIVELINE.

## 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 engageable 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 continuous 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 engageable 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 driveline. In the MAN TGX and 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 620 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 brake lining

service 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 touch-action lever. There is a six-gear version for the four-cylinder engines and a 12-gear version for the six-cylinder engines. The 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 automated 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 with ease of operation for maximum driving comfort.

**EfficientRoll** is designed for gently sloping motorways and main 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 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 clutch as well as gentle torque build-up when moving off.

New moving-off and gearshift strategy for MAN TGL and TGM

In addition, MAN TipMatic® with Idle Speed Driving, Speed Shifting<sup>1)</sup> and EfficientRoll<sup>1)</sup> functions is now also available for MAN TGL and TGM. These moving-off and gearshift strategies improve driving comfort and reduce fuel consumption.

<sup>1)</sup> Speed Shifting and EfficientRoll only available with 12-speed version





Planetary axle



Hypoid axle



Light MAN TGS tandem hypoid axle



Construction air suspension

# THE MAN RUNNING GEAR.

## 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 with 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 height.

## 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 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.

## Turning brake

Take the sharpest bends. With the turning 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 turning 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.

## Paver brake

A 'paver brake' has been designed specifically for the transfer of asphalt to a road paver. It is activated with a button on the driver's console, which introduces a reduced braking pressure, so that the vehicle is pushed forward by the road paver, but does not roll away. The foot brake pedal can be used to brake on steep gradients.

## MAN EasyStart

Problems with starting on a slope are out. MAN Easy-Start with MAN TipMatic® is in. The moving-off aid 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, in low wear and without rolling back.

## 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 treads ex works

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

## Variable axle load ratio

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

## Modifications to cab and chassis

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





# MAN DRIVER ASSISTANCE EQUIPMENT.

## Electronic stability program (ESP)

ESP protects you from unpleasant surprises. ESP sensors constantly monitor the driving dynamics. If there is a risk of imminent skidding or tipping over, the separate 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 four-axle vehicles or articulated road trains.

## Lane guard system LGS

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.

## 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 when driving at night.

## Adaptive Cruise Control (ACC)

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.

A new feature is the stop-and-go function in conjunction with the MAN TipMatic® 12+2 gearbox. In slow-moving traffic, congestion or when driving in city traffic, the truck automatically brakes to a stop behind the vehicle in front, and either moves off again independently (when the truck is stopped for fewer than two seconds) or when the driver depresses the accelerator or presses the button on the multi-function steering wheel.

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

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

## MAN BrakeMatic® brake system with ABS and ASR

The most important distance is the braking distance. To prevent any nasty surprises, the electronic brake system (EBS), including ABS and ASR, ensures reduced braking distances. The coupling force control for optimal balanc-

ing of the trailer and/or semitrailer brakes enables perfect brake performance, reduced braking distances and evens brake lining wear along the entire vehicle combination to increase the service life of the linings.

## Brake assistant

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

## 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. EBA complies with the more stringent legal requirements for emergency braking systems starting in 2016/2018.

## 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

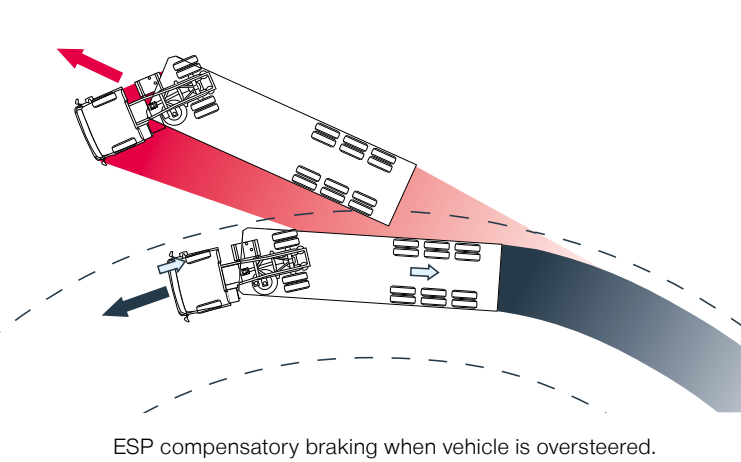
The automatic low-beam headlights with light sensors activate and deactivate the front, side and rear lights as needed. Dawn and dusk, tunnels and bridges are also detected and the lighting is regulated accordingly. The automatic wipers with rain sensor are activated as soon as visibility is affected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

## New LED rear lights

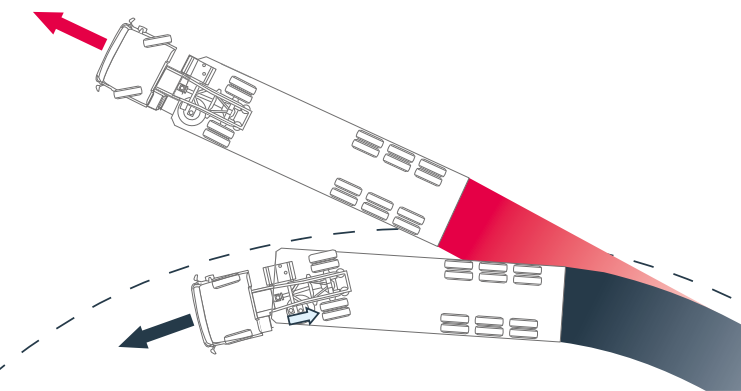
With tail lights in an LED design, burnt-out lightbulbs and the associated compromised safety and maintenance costs can be avoided. LED lights have a longer service life with lower energy consumption than conventional lightbulbs.



LED rear lights



ESP compensatory braking when vehicle is oversteered.



ESP compensatory braking when vehicle is understeered.



# 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 cabs are designed to facilitate fatigue-free, concentrated driving and relaxing 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 easy-care 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 kerb mirror and front mirror. The blind spot has been practically eliminated.

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







# GREAT VIEWS. ON EVERY DRIVE.

The 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, sat-in-chrome-plated door handles and the new seat covers have already been lending the cab a comfortable yet stylish atmosphere.

The new 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 (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 new 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 new function-based switch layout and the colour display offer the driver a modern, ergonomic work place. In the MAN TGX, comfort and working conditions for the driver have been improved thanks to the reduction in interior noise by 1.5 dB compared to the previous series.

“Urban Concrete” colour





# EVERYTHING INSIDE, AND ALL AT A GLANCE!

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

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

The 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.



Enhanced colour display in the instrumentation



Neat switch layout



Rearranging the TipMatic switch and parking brake creates additional space

## MAN infotainmentsystem

MAN offers some improved features with the new infotainment system. The standard MAN Media Truck variant includes a 5" TFT display with touch-screen 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 new "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.



MAN Media Truck Navigation



Function "Mirror Link"



# EFFICIENCY AT FULL THROTTLE.

Vehicles in construction-site deployment should ideally provide a large amount of torque along with reduced fuel consumption: the high-performance MAN engines tick both of these boxes.

The highly efficient four- and six-cylinder engines with ratings of 118 kW (160 hp) to 471 kW (640 hp) make an impression with their outstanding power delivery even at low engine speeds. The engines of the MAN D20 and MAN D26 series are also designed for service intervals of up to 140 000 kilometres. In order to achieve the extremely low Euro 6 values, MAN has implemented key technologies such as Common Rail injection, exhaust gas recirculation (EGR), SCRT filters and diesel particulate filters (DPF/CRT) for many years. The result? MAN Euro 6 engines raise the bar in terms of fuel consumption and AdBlue® consumption. If you want to move things in a big way and at the same time protect the environment, then MAN engines are exactly the drive you need.

Since 2017, MAN will approve the MAN Euro 6 engines for use with paraffin fuels in accordance with EN15940. Fuels that comply with this standard include hydrogenated vegetable oils (HVO), coal to liquids (CTL), gas to liquids (GTL) and biomass to liquids (BTL).

The new generation of MAN D08 engines powers the MAN TGL and TGM with even greater force. And the new engine concept also enhances efficiency at the same time: Fuel consumption is reduced by up to 5%. The new, simplified exhaust gas cleaning without exhaust gas recirculation also makes the engine lighter and less complex.

Engines Euro 6				
	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
D2066	R6	10.5 l	235 kW (320 PS)	1 600 Nm
	R6	10.5 l	265 kW (360 PS)	1 800 Nm
D2676	R6	12.4 l	309 kW (420 PS)	2 100 Nm
	R6	12.4 l	338 kW (460 PS)	2 300 Nm
	R6	12.4 l	368 kW (500 PS)	2 500 Nm
D3876	R6	15.2 l	397 kW (540 PS)	2 700 Nm
	R6	15.2 l	427 kW (580 PS)	2 900 Nm
	R6	15.2 l	471 kW (640 PS)	3 000 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, an 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			
Type			
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
TGS <sup>1)</sup>	50.xxx	10x4-6	BL

1) On the basis of 8x4 with trailing axle

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



Chassis for three-way tipper body, ex works

Type			
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

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	6x2-2	BL <sup>1)</sup>
TGS	28.xxx	6x2-4	BL <sup>2)</sup>
TGS	28.xxx	6x2-2	BL <sup>2)</sup>
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
TGS <sup>4)</sup>	50.xxx	10x4-6	BB, BL
TGX	18.xxx	4x2	BL
TGX	26.xxx	6x2-2	BL <sup>1)</sup>
TGX	28.xxx	6x2-2	BL <sup>3)</sup>
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.
- 4) On the basis of 8x4 with trailing axle

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)

Type				Recommended 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 (1 <sup>2)</sup> )
TGS <sup>1)</sup>	41.xxx	10x4–6	BB, BL	10, 12

1) On the basis of 8x4 with trailing axle

Concrete pump chassis

Type				Length of mast	
				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



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D111.3552/E · wü 08171 · Printed in Germany

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