

# EFFICIENCY EN ROUTE.

Vehicle concepts for short-haul and long-haul transport.





# GREATER EFFICIENCY IN TRANSPORT.

MAN concepts matched to their sector, for solo vehicles, semitrailer combinations and articulated trains, face the challenges of our time: they combine maximum operating efficiency with exemplary reliability and safety. Innovative MAN technologies keep your costs to a minimum while boosting your benefits. Experience MAN, experience transport efficiency at its very best.

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

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).



# SECURE IN THE SADDLE WITH MAN.

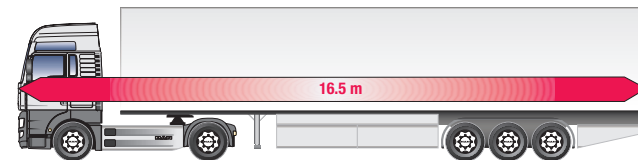
There is a lot in favour of the Euro semitrailer.

The full-length cargo bay in the semitrailer is a major advantage. Semitrailer tractors, moreover, can pick up and drop their semitrailers, increasing flexibility and transport throughput while minimising stoppages. It is worth bearing in mind, too, that semitrailer combinations are also used for relay transport.

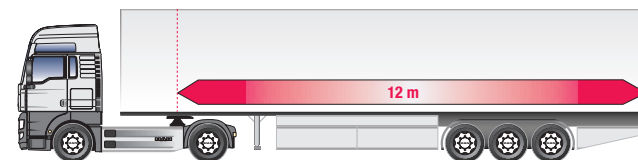
So there are many advantages you can now utilise to even better effect. Because in terms of drive dynamics, reliability and cost-effectiveness, MAN semitrailer tractors come complete with everything necessary for success.



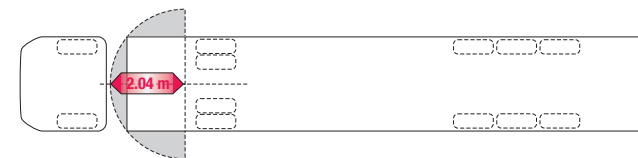




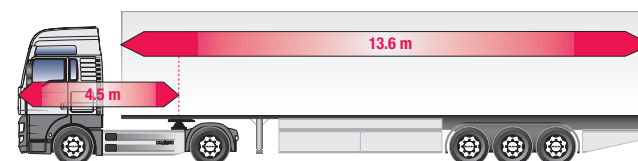
Overall length of semitrailer tractor + semitrailer



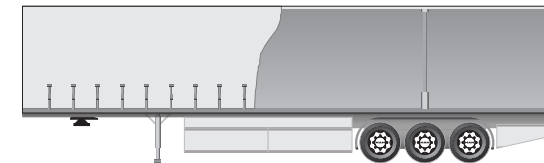
Middle of kingpin to end of semitrailer



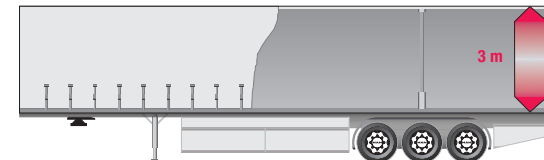
Front slew radius



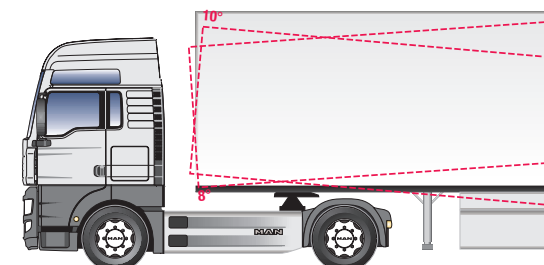
Derivative dimensions



Euro chassis height 1100 mm



High-capacity coupling height starting from 930 mm



Angle of inclination of fifth-wheel coupling at 150 mm height and tyres 315/70 R 22.5

# LAYING DOWN THE LAW.

## Chassis heights for Euro-standard semitrailers and high-capacity semitrailers

Because the dimensions for the semitrailer combination are statutory, the coupling height is the most important starting point for flexible load volume in the semitrailer. In theory, the following is true: the lower the coupling height, the greater the load volume. In practice, two types of semitrailer dominate the highways:

- Euro-standard semitrailer with a coupling height of 1100 mm for up to 95 m<sup>3</sup> load volume.
- High-capacity semitrailer with a coupling height of 930 mm for up to 3 m load loading height.

## MAN semitrailer tractors for all purposes

With practice-oriented concepts, MAN meets all requirements:

- Long-haul semitrailer tractors as 4x2 or 6x2 for Euro-standard semitrailers, for example semitrailer with box or tarpaulin body (up to 2.80 m loading height) or for ISO container (up to 2.90 m external height).
- Semitrailer tractors for high-capacity semitrailers. With the extremely low semitrailer top edge, the MAN TGX and TGS Ultra have the ideal dimensions many customers want to allow for a loading height of approx. 3 m for 100 m<sup>3</sup> load volume in the semitrailer.
- Semitrailer tractors for tanker and silo semitrailers. Due to its extremely low weight, the MAN TGS-TS maximises payload.
- Semitrailer tractors for specific requirements of the MAN TGL and TGM series for short-haul and distribution transport.

## DIN ISO angle of inclination

Frame overhang is short, so there is ample clearance for the semitrailer. The DIN-ISO values for the front and rear angles of inclination are met.



# CHAMPIONS IN THE EUROPEAN LEAGUE.

Euro-standard semitrailers for 90 m³ to 95 m³ volume.

With the help of different tyre sizes, fifth-wheel couplings and plates, MAN TGX and TGS with air suspension allow for chassis heights ranging from 1047 to 1281 mm.

Chassis heights depending on equipment configuration <sup>1)</sup>											
Tyres		295/60 R 22.5		305/60 R 22.5		315/60 R 22.5		275/70 R 22.5		305/70 R 22.5	
Fifth-wheel coupling height	Fifth-wheel pick-up plate	Laden	Unladen	Laden	Unladen	Laden	Unladen	Laden	Unladen	Laden	Unladen
150 mm	12 mm	1 055	1 080	1 060	1 085	1 065	1 090	1 065	1 095	1 083	1 113
	40 mm	1 083	1 108	1 088	1 113	1 093	1 118	1 093	1 123	1 111	1 141
185 mm	12 mm	1 090	1 115	1 095	1 120	1 100	1 125	1 100	1 130	1 118	1 148
	40 mm	1 118	1 143	1 123	1 148	1 128	1 153	1 128	1 158	1 146	1 176
250 mm	12 mm	1 155	1 180	1 160	1 185	1 165	1 190	1 165	1 195	1 183	1 213
	40 mm	1 183	1 208	1 188	1 213	1 193	1 218	1 193	1 223	1 211	1 241
162 mm <sup>1)</sup>	–	1 055	1 080	1 060	1 085	1 065	1 090	1 065	1 095	1 083	1 113

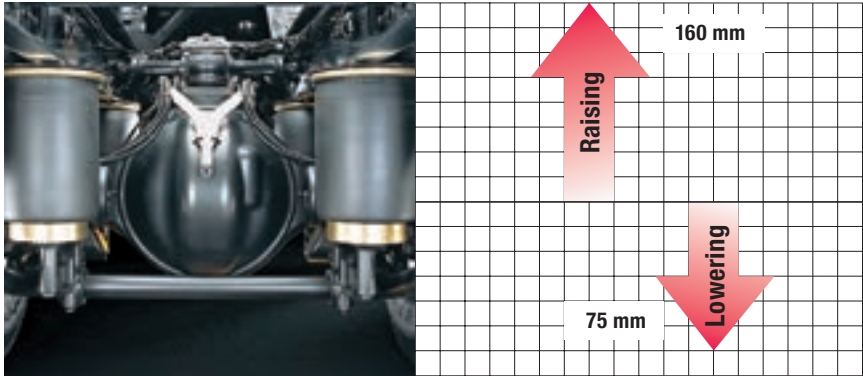
1) Weight-optimised fifth-wheel coupling with integrated 22 mm fifth-wheel pick-up plate (weight saving up to 25 kg).

Information on coupling height always refers to loaded vehicle. Attention should be paid, however, to the coupling height of the unladen vehicle, which is determined by tyre rebound. Rebound depends on the tyre's aspect ratio and can vary from manufacturer to manufacturer, so only approximate values are stated here.

60% tyre (e.g. 305/60 R 22.5) 25 mm

70% tyre (e.g. 315/70 R 22.5) 30 mm

80% tyre (e.g. 315/80 R 22.5) 35 mm



Easy coupling and uncoupling due to long air-suspension travel of 235 mm

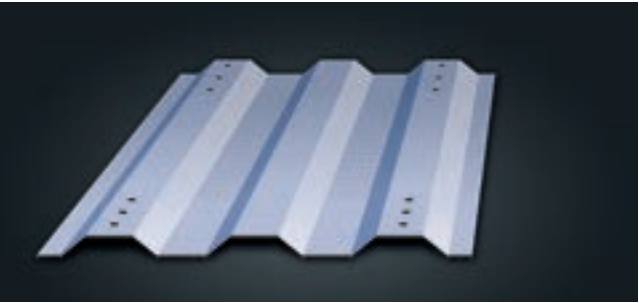
315/70 R 22.5		295/80 R 22.5		315/80 R 22.5	
Laden	Unladen	Laden	Unladen	Laden	Unladen
1 088	1 118	1 107	1 142	1 120	1 155
1 116	1 146	1 135	1 170	1 148	1 183
1 123	1 153	1 142	1 177	1 155	1 190
1 151	1 181	1 170	1 205	1 183	1 218
1 188	1 218	1 207	1 242	1 220	1 255
1 216	1 246	1 235	1 270	1 248	1 283
1 088	1 118	1 107	1 142	1 120	1 155



Tyres



Fifth-wheel coupling



Fifth-wheel pick-up plate



# MAXIMUM VOLUME. OPTIMUM SOLUTION.

## 100 m³ volume in semitrailer

With a coupling height of approx. 930 mm, the MAN TGX and TGS allow for a semitrailer load volume of up to 100 m³ with a loading height of approx. 3 m. The low frame concept is made possible due to the narrowed frame at the rear axle.

## Low semitrailer top edge, high ride comfort

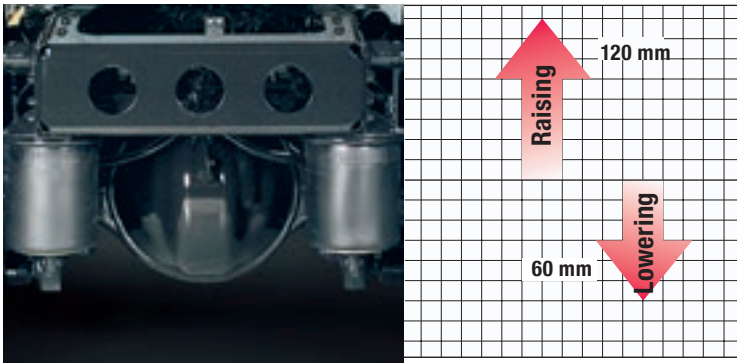
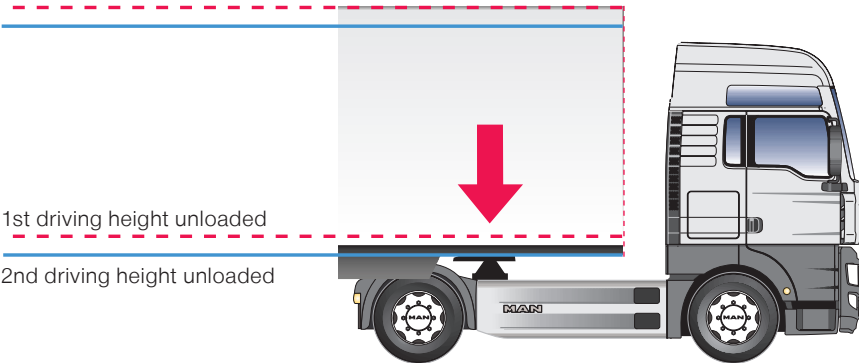
The air suspension guarantees a comfortable ride and safe driving characteristics. The air suspension travel of 180 mm (120 mm raising, 60 mm lowering) allows for fast coupling and uncoupling.

## Two driving heights

A switch on the dashboard enables the driver to switch between two driving heights even while the vehicle is in motion. This means that the same driving height can always be maintained – loaded or unloaded with tyres at full rebound. The permissible overall height limit of 4 m can be observed.

## Adjustable lifting fifth-wheel coupling with integrated lubrication.

Elevating semitrailer coupling with two pneumatically adjustable accommodation heights for Euro-standard and high-capacity semitrailers. From MAN with integrated lubrication. Of course, MAN also offers conventional fifth-wheel couplings.



The air suspension travel of 180 mm allows for fast pick-up and disconnection.





Coupling heights depending on equipment configuration <sup>1)</sup>										
Tyres	295/55 R 22.5		295/60 R 22.5		305/60 R 22.5		315/45 R 22,5		315/60 R 22.5	
	Laden	Unladen <sup>2)</sup>	Laden	Unladen <sup>2)</sup>	Laden	Unladen <sup>2)</sup>	Laden	Unladen <sup>2)</sup>	Laden	Unladen <sup>2)</sup>
Fifth-wheel coupling height										
150 mm with 12 mm fifth-wheel pick-up plate	947	967	964	989	971	996	930	960	970	995
167 mm elevating semitrailer coupling <sup>3)</sup> , normal position	952	972	969	994	976	1 001	935	965	975	1 000
162 mm fifth-wheel coupling with integrated fifth-wheel plate	947	967	964	989	971	996	930	960	970	995

<sup>1)</sup> Based on tyres which currently have the lowest static radius.

<sup>2)</sup> Second driving height minus 25 mm during unladen journeys

<sup>3)</sup> Lifting fifth-wheel coupling has two mounting heights: normal position and stroke 148 mm

<sup>4)</sup> Lifting fifth-wheel coupling has two mounting heights: normal position and stroke 198 mm can only be obtained through a MAN service outlet.  
Operation of Euro-standard and high-capacity semitrailers with one vehicle is thus possible.

Tyre aspect ratio/rebound. Information on chassis height always refers to loaded vehicle and the tyre brand with the currently smallest static radius. Attention should be paid, however, to the coupling height of the unladen vehicle, which is determined by tyre rebound:

55% tyre (e.g. 295/55 R 22.5) 20 mm

60% tyre (e.g. 305/60 R 22.5) 25 mm

70% tyre (e.g. 315/70 R 22.5) 30 mm







# MAN SOLUTIONS FOR REAL-LIFE SITUATIONS.

## Almost anything is possible

MAN supplies your vehicle just the way you want it, perfectly matched to your requirements. Here are a few examples of the practical equipment we offer: spotlight on the rear right of the cab, manoeuvring light at step unit, ladder on rear wall of driver's cab, extended working platform, different variants for brake and electrical connections, configuration for maximum tank volume with compressed-air tanks at the rear of the frame and compact battery box.

If you have very special requirements, MAN Modification offers you custom solutions. The extensive portfolio of modifications meets virtually all customer requirements. The most important modules are "driver's cab", "chassis" "driveline", "electronics" and "body". The result is a tailor-made concept every time, such as the semitrailer tractors of the MAN TGL and TGM series.



Compressed-air tank at the rear of the frame



Manoeuvring light at the co-driver's step unit





# WE BRING YOUR WISHES TO LIFE.

**Solo vehicles and articulated trains** are key players in long-haul transport. In addition to the vehicles with fixed bodies, swap-body platforms play an important role in today's transport industry due to their logistic advantages and multi-use options. MAN trucks take the lead in this sector. Whether it be the lightweight MAN TGL series, the middleweight MAN TGM series or the big boys of the heavyweight MAN TGX and TGS series: high flexibility, high cost-effectiveness and exemplary reliability are always on board.

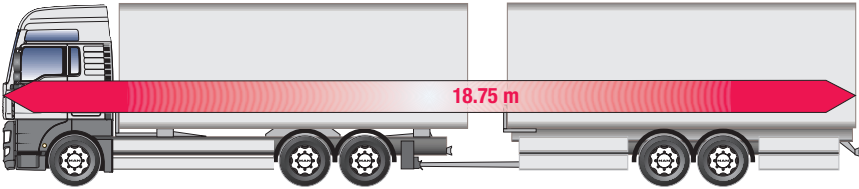
A new feature is the variable axle load ratio for vehicles with a leading or trailing axle. With variable axle load ratio, the drive axle always has optimal traction, regardless of loading height. The drive axle is fully loaded until it reaches the prescribed axle load. Afterwards, the additional load 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 in any loading condition. The system does not have to be switched on separately; it is always active.



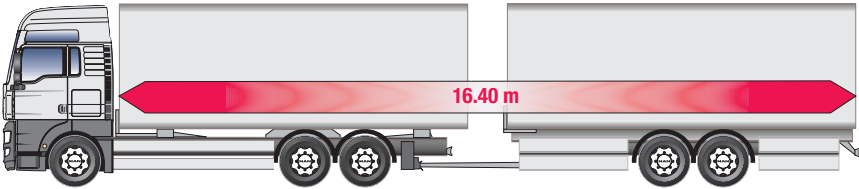
# THE MEASURE OF ALL THINGS.

**Directive 85/3/EEC defines permissible dimensions for articulated trains.** It limits total train length to 18 750 mm, and stipulates a maximum system length of 16 400 mm and an overall loading length of 15 650 mm. In accordance with this regulation and in consequence of the diverse transport tasks, a number of different swap containers are available for freight forwarding. They differ firstly in container length, ranging from 20' container to 7 820 mm swap body platform, and secondly in set-down height, ranging from 970 mm to 1 320 mm. MAN swap-body platform chassis can transport both (marine) containers and swap containers, which are particularly common in Germany.

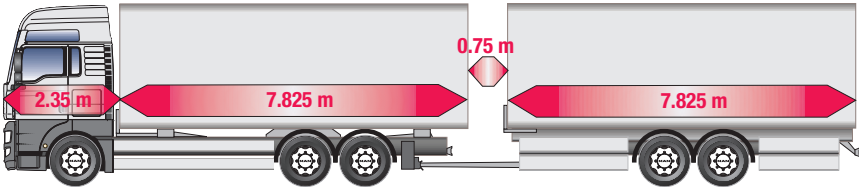
EU dimensions for articulated trains



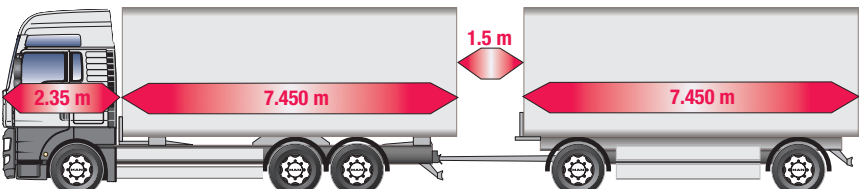
Total train length



System length



Derivative dimensions for rigid drawbar trailers with an overall loading length of 15.65 m



Derivative dimensions for pivot plate trailers with an overall loading length of 14.90 m





# ROOM FOR A FULL LOAD.

## MAN chassis with fixed body

Today, optimum load volume is essential for competitiveness and success in the haulage industry. A cargo-hold height of three metres is the accepted standard for volume transport. The basis is a chassis with an extremely low top frame edge. After all, each centimetre shaved off chassis height adds additional usable height to the body and increases capacity accordingly. The ex-works MAN chassis for high-capacity transporters are indeed superb – from the two-axle MAN TGL to the three-axle MAN TGX and TGS with lifting trailing axle.

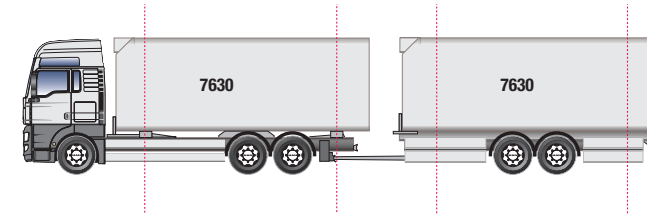




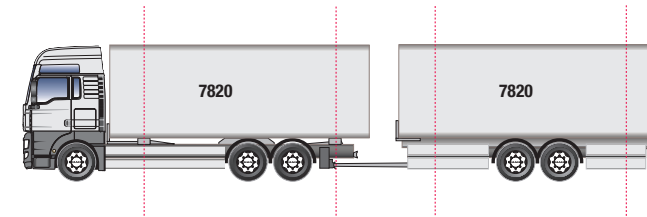
# A CLEVER SOLUTION.

## MAN chassis for swap bodies

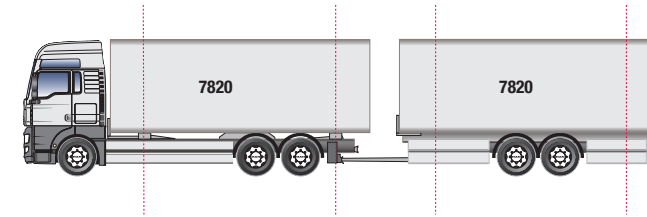
With only three different wheelbases and overhangs, the MAN TGX and TGS chassis cover all swap container sizes and the various articulated train combinations within the 40- to 44-tonne class. The C-745 swap-body platforms are very popular and there are large numbers of these units on the road. The C-782 swap-body platforms have established themselves as the new standard. They all pose a challenge to the versatility of the tractor. MAN stays abreast of this challenge with the help of an adjustable stop. This allows different swap containers to be transported by the same vehicle. Loading and unloading times are minimised while transport throughput is increased. Increased flexibility and effectiveness are the result.



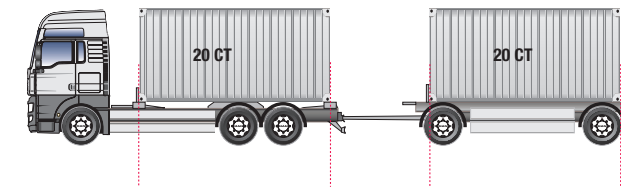
Wheelbase/overhang: 4 800 + 1 350/2 150 mm



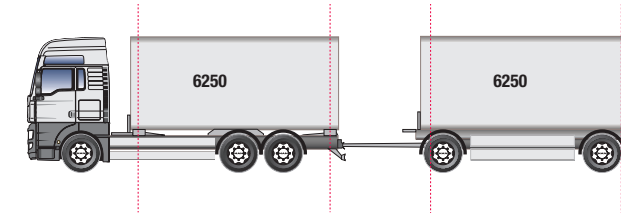
Wheelbase/overhang: 4 800 + 1 350/2 150 mm  
for solo operation and operation with trailer



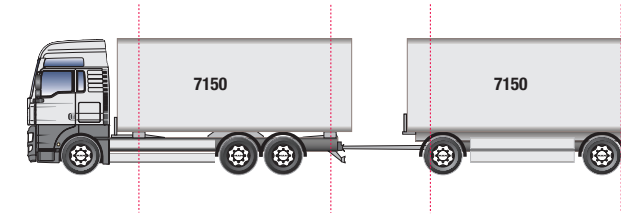
Wheelbase/overhang: 5 100 + 1 350/1 850 mm  
for permanent operation with trailer



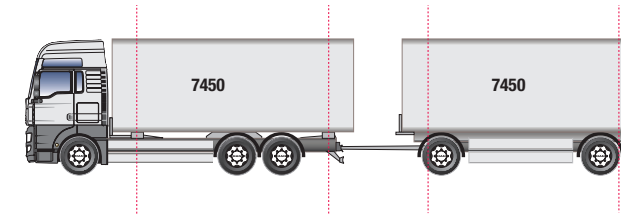
Wheelbase/overhang: 4 500 + 1 350/2 050 mm



Wheelbase/overhang: 4 500 + 1 350/2 050 mm



Wheelbase/overhang: 4 500 + 1 350/2 050 mm



Wheelbase/overhang: 4 500 + 1 350/2 050 mm



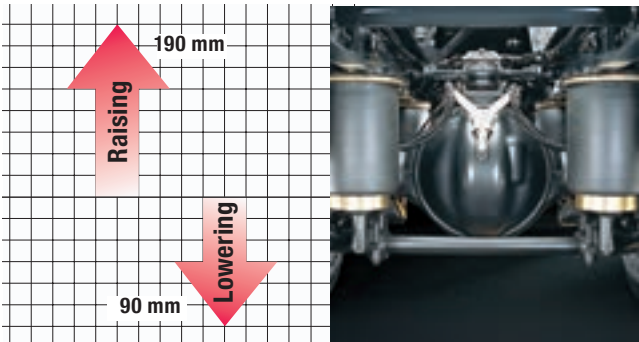


# STRONG STANDARDS FOR SWAP BODIES.

Practical mounts for swap-body platforms

[mm] Tyres	295/60 R 22.5		305/60 R 22.5		315/60 R 22.5		275/70 R 22.5		305/70 R 22.5		315/70 R 22.5	
	Max.	Max.	Max.	Max.	Max.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
	clearance retraction <sup>1)</sup>		clearance retraction <sup>1)</sup>		clearance retraction <sup>1)</sup>		clearance retraction <sup>1)</sup>		clearance retraction <sup>1)</sup>		clearance retraction <sup>1)</sup>	
Set-down height: 1120 mm												
Rack height: 160 mm	120	135	115	140	110	145	105	145	87	163	82	168
Set-down height: 1220 mm												
Rack height: 160 mm	–	–	215	40	210	45	205	45	187	63	182	68
Set-down height: 1220 mm												
Rack height: 260 mm	120	135	115	140	110	145	105	145	87	163	82	168
Set-down height: 1320 mm												
Rack height: 260 mm	–	–	215	40	210	45	205	45	187	63	182	68

1) Calculation with fully loaded swap container  
Additional tyre sizes available ex works on request



Air suspension: the long air suspension travel of 280 mm allows for quick and easy pick-up of very different kinds of standard swap-body containers.



Spotlights for optimum vision when picking up container bodies.



Optimised side guard for vehicle for swap bodies

295/80 R 22.5		315/80 R 22.5	
Max.	Max.	Max.	Max.
clearance retraction <sup>1)</sup>		clearance retraction <sup>1)</sup>	
–	–	–	–
–	–	–	–
58	187	45	200
158	87	145	100





# ROOM FOR A GOOD DEAL MORE.

## MAN swap body vehicles for maximum volume.

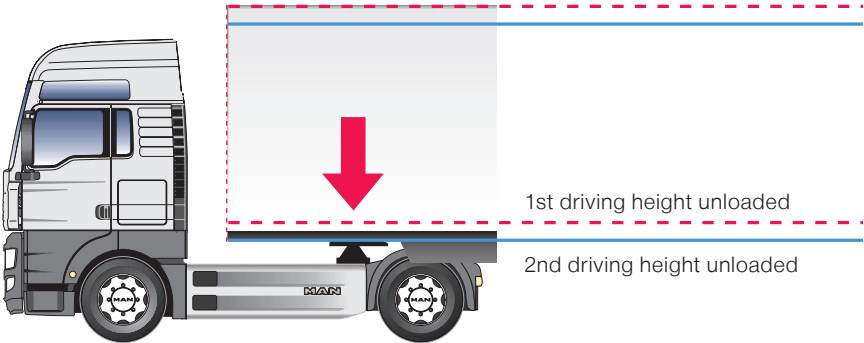
Small tyres plus low top frame edge equals maximum load volume with 3 m loading height inside the swap body container. As a 4x2 with 18 t or a 6x2 with 25 or 26 t and a trailing axle, a MAN TGX or TGS is perfect for swap-body systems for volume transport.

## Feeder in volume transport.

With set-down heights of 970 mm and 1020 mm, the swap body platforms C 745 and C 782 are the benchmark. Just like the MAN TGX and TGS chassis with the matching wheelbases and overhangs.

## Two driving heights.

A switch on the dashboard enables the driver to switch between two driving heights even while the vehicle is in motion. This means that the same driving height can always be maintained – loaded or unloaded with tyres at full rebound. The permissible overall height limit of 4 m is not exceeded.



## Adapters for volume swap body platforms<sup>1)</sup>

### Height-optimised series chassis for volume bodies

Height-optimised series chassis	Tyres	Max. gross weight
TGX/S 18.XXX 4x2 LL	315/70 R 22.5	18 000
TGX/S 18.XXX 4x2 LL	295/60 R 22.5	18 000
TGX/S 18.XXX 4x2 LL	315/60 R 22.5	18 000
TGX/S 26.XXX 6x2 LL	315/70 R 22.5	26 000
TGX/S 26.XXX 6x2 LL	295/60 R 22.5	24 900
TGX/S 26.XXX 6x2 LL	315/60 R 22.5	25 700

### Ultra chassis with lateral rack for volume bodies

	Tyres	Max. gross weight
TGX/S 18.XXX 4x2 .LL-u	295/55 R 22.5	18 000
TGX/S 18.XXX 4x2 .LL-u	295/60 R 22.5	18 000
TGX/S 18.XXX 4x2 .LL-u	315/60 R 22.5	18 000
TGX/S 26.XXX 6x2 .LL-u	295/55 R 22.5	25 000
TGX/S 26.XXX 6x2 .LL-u	295/60 R 22.5	25 000
TGX/S 26.XXX 6x2 .LL-u	315/60 R 22.5	25 000

				Adapters for volume swap body platforms [mm] <sup>3)</sup>				
Top frame edge [mm]		Wheelbase/overhang for body overall length [mm]		Air suspension lowering travel [mm]	Set-down height 970 mm		Set-down height 1020 mm	
Laden	Unladen	7150/7450	7 820		Max. clearance [mm]	Max. retraction [mm]	Max. clearance [mm]	Max. retraction [mm]
938	968	5 500/2 400	5 900/2 400	90	–	–	137	68
875	900	5 500/2 400	5 900/2 400	60 <sup>2)</sup>	125	55	80 <sup>4)</sup>	145 <sup>4)</sup>
885	910	5 500/2 400	5 900/2 400	60 <sup>2)</sup>	115	65	70 <sup>4)</sup>	155 <sup>4)</sup>
938	968	4 500 + 1 350/2 050	4 800 + 1 350/2 150	90	–	–	137	68
875	900	4 500 + 1 350/2 050	4 800 + 1 350/2 150	60 <sup>2)</sup>	125	55	80 <sup>4)</sup>	145 <sup>4)</sup>
885	910	4 500 + 1 350/2 050	4 800 + 1 350/2 150	60 <sup>2)</sup>	115	65	70 <sup>4)</sup>	155 <sup>4)</sup>

Top frame edge [mm]		Wheelbase/overhang for body overall length [mm]	Air suspension lowering travel [mm]	Set-down height 970 mm		Set-down height 1020 mm	
Laden	Unladen			Max. clearance [mm]	Max. retraction [mm]	Max. clearance [mm]	Max. retraction [mm]
844	864	5 300/2 600	5 900/2 400	151	69	–	–
861	886	5 300/2 600	5 900/2 400	129	86	–	–
867	892	5 300/2 600	5 900/2 400	123	92	173	42
844	864	4 500 + 1 350/2 050	4 800 + 1 350/2 150	151	69	–	–
861	886	4 500 + 1 350/2 050	4 800 + 1 350/2 150	129	86	–	–
867	892	4 500 + 1 350/2 050	4 800 + 1 350/2 150	123	92	173	42

1) All values refer to unloaded swap containers

2) Equipped with 2nd driving height or after reprogramming of driving height in MAN service outlets

3) Possible with lateral bearer frame for swap-body platforms (swap-body platforms sit level with frame edge), mounted by MAN service outlets or body manufacturer, shock absorbers for volume bodies on rear axle. For volume chassis including 5 mm anti-wear protective covering and rack ex works

4) Possible with rack for swap body platforms with 100 mm height, mounted by MAN service outlets or body manufacturer, standard shock absorbers on rear axle

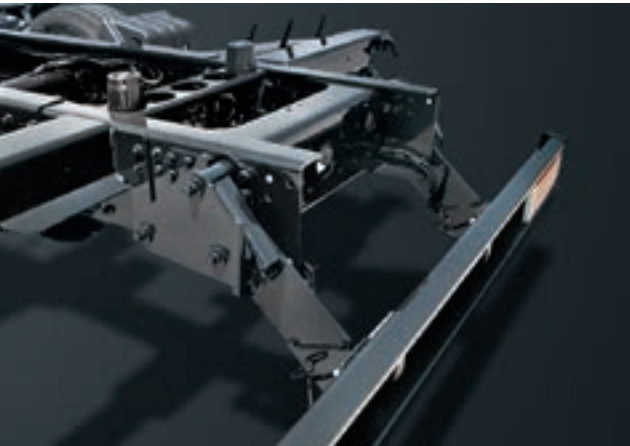


# SPECIALITIES À LA CARTE.

## Concept for standard swap body platforms



Standard rack with 160 mm or 260 mm



Easily operated swing-back under-ride protection with an operating lever at each side with low trailer coupling

## Concept for volume swap body platforms

### → Equipment for volume swap body platforms:

- Lateral rack, front locks. Battery box and air tanks located at the rear, space for lateral rack, reduced load on front axle.
- End stop, spotlight at frame level, guide rollers
- Tank located at the rear, space for lateral rack, reduced load on front axle
- 5 mm anti-wear protective covers

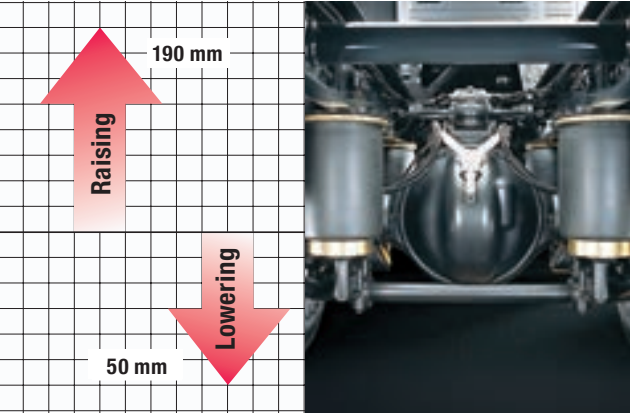
## Preparation for liftgate

MAN offers various options for easy and convenient liftgate attachment:

- Electrical preparation. Purposely restricted to the electrical parts required in the driver's cab, so the body manufacturer has full latitude to respond to different customer requirements.
- The wiring harness for the liftgate terminates in a generous loop at the end of the frame. The defined interface (seven-pole receptacle) ensures a secure connection. Five-chamber tail light unit. It allows for the movement of the hydraulic cylinder of the liftgate.
- Power supply for batteries in trailer with liftgate. Three-pole socket at end of frame, battery charge 24 V.
- Heavy-duty batteries and uprated alternator. For fail-safe operation when liftgate is frequently lifted and lowered on short-run trips with multiple stops.

## Switch and wiring for load space lighting for additional spotlights

The preparation consists of a switch in the driver's cab, the electrical installation in the on-board network and a cable harness. Since all electrical elements are pre-mounted on the chassis, the body manufacturer does not have to intervene in the vehicle electrical system. The cable harness only has to be adapted to the body. Maximum consumer power draw: 150 W.



Luftfederung mit großem Hebe- und Senkweg von 240 mm.



Tiefkuppelbock mit Anhängerkupplung (mit pneumatischer Öffnung). Rücksprungmaß 1 400 mm (Standard) und 1 600 mm (Volumen). Brems- und Elektroanschlüsse je nach Wunsch fahrer- oder beifahrerseitig hinter der Nachlaufachse.





# AS INDIVIDUAL AS YOUR REQUIREMENTS.

Special requirements require special solutions. MAN Modification® delivers customers' special requests that cannot be implemented in series production.

MAN Modification® takes individual customer 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 Modification®, 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.

## → Example modifications for local passenger and long-haul transport:

- MAN individual cab interior fittings
- Exterior style package
- Individual cab adhesions
- Hydraulic, height-adjustable BDF (Federal association of German long-distance haulage) interchangeable frames
- Wheelbase alterations
- Assembly of front and trailing axles
- Fuel tank conversions
- Seating benches as well as seating/bunk arrangements



# MAN ASSISTANCE EQUIPMENT.



ESP compensatory braking when vehicle is oversteered.



ESP compensatory braking when vehicle is understeered.

## Electronic stability program (ESP)

ESP protects you from unpleasant surprises. ESP sensors constantly monitor the driving dynamics. If there is a risk of imminent skidding or tipping over, the 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.

## 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 conversely. 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.

## 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.

## Brake assistant

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

## Emergency Brake Assist (EBA)

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

## MAN EasyStart

With MAN EasyStart on the MAN TipMatic®, difficulties with hill starts become a thing of the past. 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, with low wear and without rolling back.

## 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.

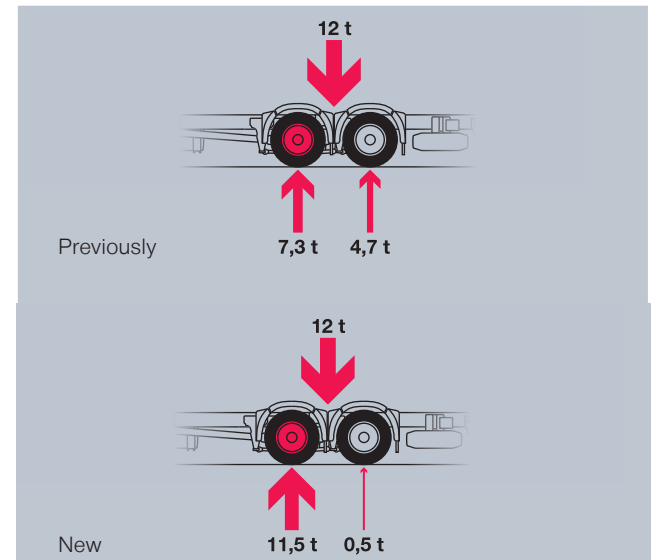
A new feature is the stop-and-go function in conjunction with the MAN TipMatic® 12+2 gearbox. In slow-moving traffic, congestion or when driving in city traffic, the truck automatically brakes to a stop behind the vehicle in front, and either moves off again independently (when the truck is stopped for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

## 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.

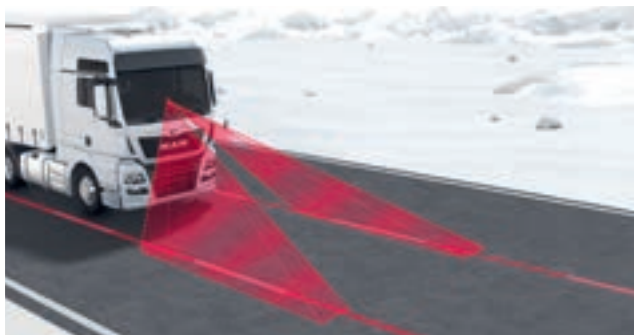


Functional principle EBA: advanced traffic monitoring by using two independent sensor systems (radar and video)



Variable axle load ratio





LGS for staying in the lane



Vehicle behaviour with CDC



Vehicle behaviour without CDC

#### Lane Guard System (LGS)

The electronic lane guard system (LGS) constantly monitors the vehicle's position in the lane. If the driver strays from the lane without activating the indicator, an acoustic warning sounds. Depending on the direction in which the driver has strayed, the loudspeaker on the left- or right-hand side emits a rumble-strip noise, which the driver intuitively understands. LGS increases the driver's awareness of staying in the lane, thereby preventing certain hazardous situations.

#### 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.

#### 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.

#### Automatic low-beam headlights and automatic wiper system with sensors

The automatic low-beam headlights with light sensors activate and deactivate the front, side and rear lights as needed. Dawn and dusk, tunnels and bridges are also detected and the lighting is regulated accordingly. The automatic wipers with rain sensor are activated as soon as visibility is affected by water or dirt. The optimum wiper speed is then set automatically depending on the situation. The control system can detect all kinds of visibility conditions such as rain, splashes, streaks or dirt.

#### Cornering light

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

#### LED daytime driving lights

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

#### LED rear lights

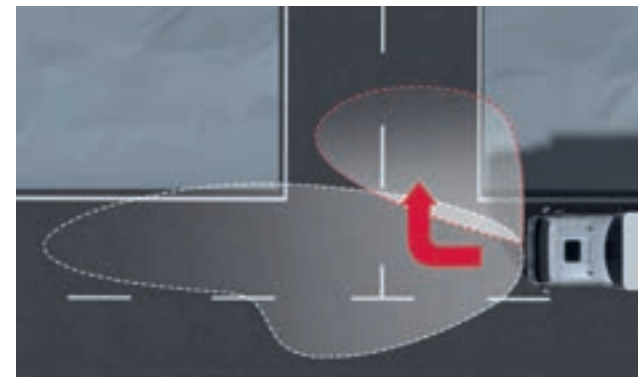
With tail lights in an LED design, burnt-out lightbulbs and the associated compromised safety and maintenance costs can be avoided. LED lights have a longer service life with lower energy consumption than conventional lightbulbs.

#### Manoeuvring light

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

#### Turning camera

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



Cornering light for better visibility



LED daytime driving lights



LED rear lights



# EFFICIENCY AT FULL THROTTLE.

Vehicles in short-haul and long-haul transport ideally have lots of torque on the one hand and low fuel consumption on the other: MAN engines offer both.

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. 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. 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%. New, simplified exhaust gas cleaning without exhaust gas recirculation also makes the engine lighter and less complex.

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 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 turbo charger configuration, but offers more payload. Even at low speeds, the maximum torque is available.

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
D1556*	R6	9.0 l	243 kW (330 hp)	1 600 Nm
	R6	9.0 l	265 kW (360 hp)	1 700 Nm
	R6	9.0 l	294 kW (400 hp)	1 800 Nm
D2066	R6	10.5 l	235 kW (320 hp)	1 600 Nm
	R6	10.5 l	265 kW (360 hp)	1 800 Nm
	R6	12.4 l	309 kW (420 hp)	2 100 Nm
D2676	R6	12.4 l	338 kW (460 hp)	2 300 Nm
	R6	12.4 l	368 kW (500 hp)	2 500 Nm
	R6	15.2 l	397 kW (540 hp)	2 700 Nm
D3876	R6	15.2 l	427 kW (580 hp)	2 900 Nm
	R6	15.2 l	471 kW (640 hp)	3 000 Nm

\* MAN D15 engine available from the middle of 2019

# DIVERSE SOLUTIONS FOR WIDE-RANGING NEEDS.

MAN semitrailer tractors for Euro-standard semitrailers				
Type				Wheel base [mm]
TGX/TGS	18.XXX	4x2	BLS	3 600
TGX/TGS	18.XXX	4x2	LLS	3 600
TGX/TGS	18.XXX	4x2	BLS	3 900
TGX/TGS	18.XXX	4x2	LLS	3 900
TGX/TGS	24.XXX	6X2/2	BLS	2 800, VLA 19,5"
TGX/TGS	26.XXX	6X2/2	BLS	2 600
TGX/TGS	26.XXX	6X2/4	BLS	2 600

MAN semitrailer tractors for high-capacity semitrailers				
Type				Wheel base [mm]
TGL <sup>1)</sup>	8.XXX <sup>2)</sup>	4x2	BL	3 050 <sup>3)</sup> , 3 600, 3 900
TGL <sup>1)</sup>	10.XXX	4x2	BL	3 050 <sup>3)</sup> , 3 600, 3 900
TGL <sup>1)</sup>	12.XXX	4x2	BL	3 050 <sup>3)</sup> , 3 600, 3 900
TGM <sup>1)</sup>	12.XXX	4x2	BL	2 975 <sup>3)</sup> , 3 525
TGM <sup>1)</sup>	15.XXX	4x2	BL	2 975 <sup>3)</sup> , 3 525
TGM <sup>1)</sup>	18.XXX	4x2	BL	3 575
TGX/TGS	18.XXX	4x2	LLS-u	3 600

- 1) MAN Modification  
2) Can be reduced to 7.49 t  
3) Only with C cab

MAN chassis for volume swap bodies				
Type				Wheel base [mm]
TGX/TGS	18.XXX	4x2	LL-u	5 300, 5 500, 5 900
TGX/TGS	24.XXX	6x2-2	LL-u	4 500, 4 800

MAN chassis for volume fixed bodies				
Type				Wheel base [mm]
TGL	8.XXX2)	4x2	BL	5 200, 5 550
TGL	10.XXX	4x2	BL	5 200, 5 550
TGL	12.XXX	4x2	BL	5 200, 5 550
TGM	12.XXX	4x2	BL	5 125, 5 475
TGM	15.XXX	4x2	BL	5 125, 5 475, 6 175
TGM	15.XXX	4x2	BL	5 125, 5 475, 6 175
TGM	26.XXX	6x2-4	BL	4 125, 4 425, 4 725, 5 075, 5 425, 5 775
TGX/TGS	18.XXX	4x2	BL, LL	5 500, 5 900
TGX/TGS	26.XXX	6x2-2	BL, LL	4 800, 5 100
TGX/TGS	18.XXX	4x2	LL-u	5 500, 5 900
TGX/TGS	24.XXX	6x2-2	LL-u	4 500, 4 800

MAN chassis for standard fixed bodies				
Type				Wheel base [mm]
TGL	8.XXX2)	4x2	BL	4 200, 4 500, 4 850, 5 200, 5 550
TGL	10.XXX	4x2	BL	4 200, 4 500, 4 850, 5 200, 5 550, 6 700
TGL	12.XXX	4x2	BL	4 200, 4 500, 4 850, 5 200, 5 550, 6 700
TGM	12.XXX	4x2	BL	4 425, 4 775, 5 125, 5 475
TGM	15.XXX	4x2	BL	4 425, 4 775, 5 125, 5 475, 6 175, 6 575
TGM	18.XXX	4x2	BL	5 075, 5 425, 5 775, 6 175, 6 575
TGX/TGS	18.XXX	4x2	BL, LL	5 500, 5 900, 6 300, 6 700
TGX/TGS	26.XXX	6x2-2	BL, LL	4 500, 4 800, 5 100, 5 500, 5 900

MAN chassis for standard swap bodies				
Type				Wheel base [mm]
TGX/TGS	18.XXX	4x2	LL	5 500, 5 900
TGX/TGS	24.XXX	6x2-2	LL	4 500, 4 800, 5 100



# 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 safety, of course. All cabs meet the crash safety requirements, comply with the ECE-R29 Directive and offer optimum passenger protection. Many useful details such as washable interior door cladding, easy-care fittings, a compressed-air connection that turns cleaning into such a simple job and an optional headlight washer unit make it clear: nothing has been forgotten. This also includes optimum all around visibility, for example.

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

C cab



M cab



L cab



LX cab



XL cab



XLX cab



XXL cab





# GREAT VIEWS.

**MAN vehicles can expect numerous new equipment highlights to make the interior even more driver-friendly and to optimise operation.**

The warm sand and graphite tones of the interior panelling, grained plastic surfaces, satin-chromeplated door handles and the new seat covers have already been lending the cab a comfortable and 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 (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 reduction in interior noise by 1.5 dB compared to the previous series.

“Urban Concrete” colour







# EVERYTHING INSIDE, ALL AT A GLANCE!

It is the driver who puts efficiency into motion. 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 combined 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 displays on the air-conditioning panel feature a white background, making them considerably easier to read thanks to the better contrast.

## MAN infotainment system.

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.



# OPTIMISING USE DOWN TO A TEE.

**Whether in urban distribution transport or interurban deliveries, efficiency and productivity are the key to success in domestic and global competitive markets.**

For over a century we have been manufacturers of trucks and buses and technological leaders in the transport business. Digitalisation now also offers this sector great new opportunities. With MAN DigitalServices, we ensure that you are able to use MAN services smarter and with even less complexity. Our offers aim to optimise functional and business processes and all have one thing in common: they make your transport business simpler and more efficient – and thus more profitable. The digitalisation of transport and logistics results in a significant increase of efficiency by networking the entire value chain. To achieve this we work closely with our partner RIO, the open, manufacturer-independent and cloud-based digital platform from TB Digital Services GmbH, a company of the TRATON GROUP. This makes it especially easy to start using digital services in the transport and logistics sector.

The prerequisite for using the digital services is that vehicles are equipped with the RIO Box. With MAN DigitalServices, you can optimise your vehicle analysis and performance, maintenance management and driver performance. After registration and vehicle registration, the RIO Box and the basic service MAN Essentials are automatically activated free of charge. This gives you access to a world of tailor-made, vehicle-related digital solutions from MAN exclusively for MAN vehicles, as well as logistics services from our partner RIO; you can use a range of services from one of the biggest specialists in road maps, traffic and weather information and you can rely on efficient driver management support that can be adapted to your needs. An extensive vehicle-related deployment analysis is included in the basic service. Continuous status messages from the vehicle to the RIO platform enable unique recommendations for action tailored to the individual customer as well as holistic vehicle monitoring.

**The following services are included in the MAN Essentials basic service:**

- Fleet monitoring: overview of all vehicle positions and traffic information on a modern map view.
- Transfer of important vehicle information: vehicle position in the form of the nearest address and GPS coordinates including direction of travel and current mileage.
- Transfer of important driver information: driver card ID and residual time at wheel; other data about the driver can be entered manually.
- Performance analysis (vehicle-based): transfer of average fuel consumption, speed, gross combination weight and route based on data analysed over the last ten days of use.







# YOUR TRUCK IN THE BEST HANDS.

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

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

**The quickest way to find out more: [www.truck.man](http://www.truck.man)**

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

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

## MAN ProfiDrive®

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

## MAN | Financial Services

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

- **MAN Card**  
Europe-wide non-cash payments
- **Financing**  
Acquisition of property through flexible financing solutions
- **Insurance**  
Insurance solutions for commercial vehicles
- **Leasing**  
Budget-friendly leasing models
- **Rental**  
Vehicle rental with a flexible contract term

## MAN | Service

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

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



## MAN | TopUsed

- **Top used vehicles:** large selection of high-quality used vehicles of all truck types
- **Service promise:** top quality, top advisory service, top selection, top financing, top service
- **Top services:** including used vehicle guarantee, financing

## MAN | Rental

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

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



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