TGA 33.360 6x4 BB

6 x 4 Freight Carrier
Day Cab
D20 Common Rail Engine
Steel Suspension Hub Reduction Rear Axles
High Ground Clearance for On/Off Road Applications

100% Trucknology®

MAN

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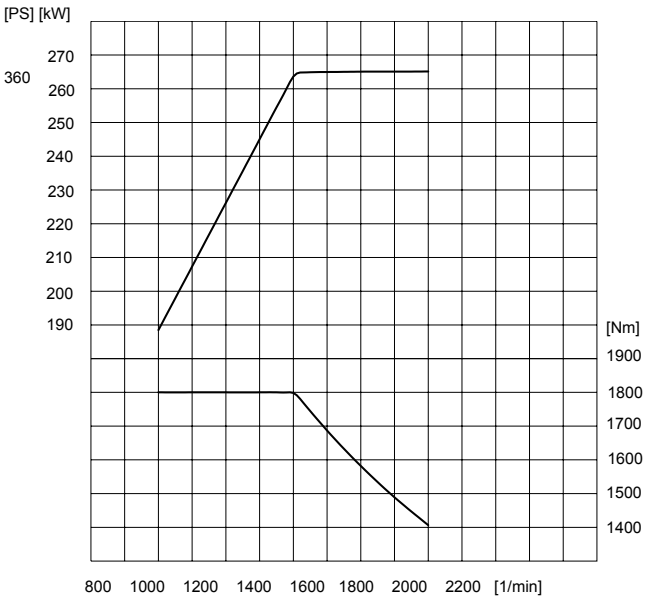
Engine



Engine Model	D2066LF07 (Euro 2)
Configuration	6-cylinder in-line
Displacement	10.518 litre
Output	360 hp/265 kW at 1800 rpm
Torque Nm	1800Nm, at 1000 – 1400 rpm
Green Band	1200 – 1500 r/min
Fuel System	Common Rail EDC (Electronic Diesel Control) Twin fuel filter with Separ water separator
Cooling System	Radiator & intercooler for over 35ºC ambient temperature Visco fan with high cooling output Stone protection grill in front of radiator
Engine Air Supply System	Mann Ø 268 mm, 470 mm long filter Safety filter element Pre-cleaner integrated in air intake duct Turbo charger with intercooler
Engine Brake	EVB exhaust valve brake
Air Compressor	Single cylinder 360cc

Intake System

Raised air intake in cab rear wall. Dry air filter with safety element and pre-cleaner for heavy-duty operation. The intake duct contains a pre-silencer (Helmholz resonator) for the intake air

Clutch

Model:
- F&S MFZ 430

Description:
- Single-plate controlled electro-pneumatically
- Friction Area 2 000 cm²

Steering

Model:
- ZF power steering type 8098

Operation:
- Lock to Lock = 4.8 turns
- Pneumatic steering wheel adjustment for height and inclination
- Steering wheel lock with immobilizer

Automated Gearbox Without Clutch Pedal

Model:
- ZF ASTRONIC 12 AS 2301 OD TipMatic gearbox
- 12 forward speeds, 2 reverse. Ratios 12.33 – 0.78
- Suitable for gross combination mass up to 65 tons

Description:
- Automated constant-mesh gearbox with twin layshaft & one planetary gearset

Operation:
- MAN TipMatic: shifting and clutching are controlled electro-pneumatic (no clutch pedal)
- Automatic or manual shifting with fingertip lever, simple operation, no operator error possible
- Outstanding shifting quality with reduced wear on driveline and relief for driver
- Driving with engaged PTO only in gears 2, 4, 6
- For off-road driving, shifting in manual (TipMatic) mode

Propeller Shafts

Operation:
- Maintenance free

Speed Table – with 315/80R22.5 tyres at 1800 r/min

Forward gears	1	2	3	4	5	6	7	8	9	10	11	12
Transmission ratio	12.33	9.59	7.44	5.78	4.57	3.55	2.70	2.10	1.63	1.27	1.00	0.78
Speed (km/h) with 4.83 axle ratio	6	8	10	13	16	21	27	35	45	58	74	94

Top gear grade-ability on paved road at 80 km/h

Axle Ratio	Tyre Size	Engine r/min	Tipper with 33 000 kg GVM	With Drawbar Trailer to 50 000 kg GCM
4.83	315/80R22.5	1520	2.50 %	1.4 %

Moving off behaviour 25 % (Skid point on dry tar with 18 000 kg on driving axles, 50 000 kg GCM)

PTO

Model:
- ZF NH/4C PTO, clutch dependant

Operation:
- Output speed = 1.22 x engine speed
- Anti-clockwise rotation (same as engine)
- Maximum output torque 430Nm
- Suitable for prolonged operation up to 60 minutes
- Situated on right hand side of gearbox
- Direct pump connection

Front Axle & Suspension

Model:
- MAN VO-09 Straight front axle with Drum Brake

Description:
- Axle rating 9 200 kg
- Parabolic front springs rating 9 000 kg
- Progressive spring characteristics
- Shock absorbers and stabiliser fitted as standard

Rear Axle & Suspension

Model:
- MAN AP HPD-1382/HP-1352 hub reduction axles

Description:
- Axle rating: 13 000 kg per axle
- Multi-leaf suspension: 13 000 kg x 2
- Axle ratio: standard 4.83
- Inter-axle and inter-wheel differential lock
- Stabilizers and shock absorbers on both rear axles
- Trapezoidal springs with high load capacity. Suitable for use in difficult terrain

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Brake System

Description:
- The MAN BrakeMatic electronic brake system regulates the pressure in the brake cylinders of the individual wheels. The electronic modules are permanently linked to the central control unit via the CAN data bus. In the control unit a host of actual inputs are evaluated and the optimum brake pressures calculated. Systems such as trailer control, brake pad wear regulation, ABS and constant braking function (triggering of continuous brake functions) are integrated in the control unit. Automated engagement of the engine brake by continuous brake management system
- ABS & anti-jacknife (trailer) brake
- Air dryer included as standard
- Electrically and pneumatically prepared for towing

Configuration:
- Front axle: Drum brakes Ø 410 mm
- Rear axle: Drum brakes Ø 410 mm (extra wide 220 mm)

Aux. brakes:
- EVB (Engine Valve Brake), maximum output 270 kW at 2500 r/min

Wheels

Tyres:
- Standard Size: 315/80R22.5 Tubeless Radial
  Front: Bridgestone M 840, tyre capacity 7 500 kg
  Rear: Bridgestone M 840, tyre capacity 13 000 kg

Rims:
- Steel disc wheels 10-hole 9.00-22.5

Electrical System
- 24 Volt

Batteries:
- 2 x 12V 175Ah

Alternator:
- 28V 80A 2240 W

Battery Isolation:
- Mechanical battery main switch

MAN Tronic
- CAN (Controller Area data Network) serial bus system, connecting computer systems, sensors & actuator units, without the need for complex wiring harness. High operational reliability with double contact security, fewer sensors, less wire length (10 % shorter than on F2000), and fewer plug connections (170 less than in F2000).
- Computers optimize driveline & brake efficiency, fuel economy, vehicle reliability, ease of use, and safety
- Comprehensive diagnostic functions resulting in reduced maintenance & repair times

Fuel Tank

Size:
- 400 litre steel fuel tank

Position:
- Right hand side of chassis

Additional:
- Guard plate mounted under tank
- Fuel strainer & lockable cap included

Customer-specific control module for external data exchange (KSM)
- Provision for information on operational status of vehicle
- Setting and saving variable intermediate speeds from outside the vehicle
- Communication with a CAN-capable control unit in the body

Chassis Frame

Material:
- U section main members of high strength TM500 tempered steel with riveted & bolted cross members

Dimensions:
- 270 x 85 x 8 mm

Chassis Design:
- Medium height design with straight front axle and high bogie

Features:
- Hub reduction drive axles with extra ground clearance

Standard M Day Cab

Width:
- 2240mm

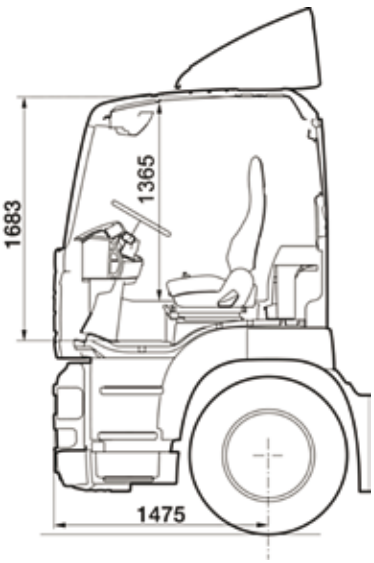
Length:
- 1880mm

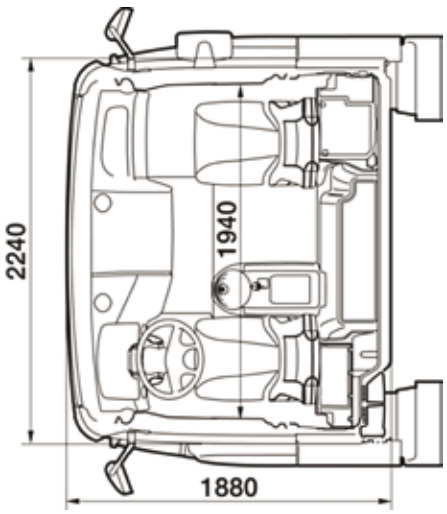
Suspension:
- Heavy duty coil suspension

Features:
- Mechanical sliding roof
- Mechanical door window lifters
- Mechanical adjustable rear-view mirrors electrically adjustable
- Air conditioning system
- 24V Radio/Tape player
- Air sprung high-comfort drivers seat
- Tinted windscreens all-round
- Sun shade in front of windscreen

Corrosion Protect:
- Extensive protection against corrosion. Panels fully galvanized, GFRP elements, plastic cladding for areas subject to stone impact

Bumper:
- Steel bumper
- 3 piece with radiator guard and metal fly-screen in front of radiator





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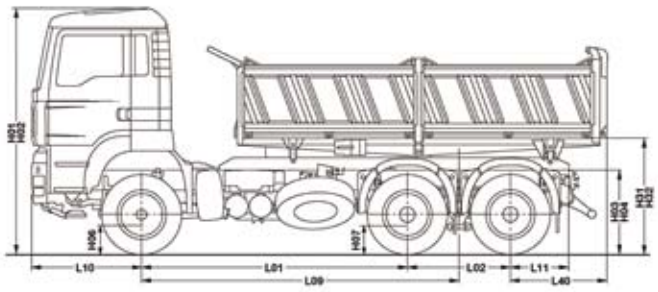

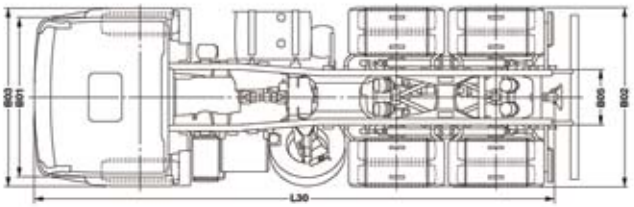

Vehicle	MAN Chassis Type	TGA 6x4	33.360 BB
	Cab Type	**M-Cab**	**Day Cab**
Mass Data Combination Mass	GCM	G60	50 000 kg
	D/T		50 000 kg
C.C.C.	Permissible Chassis Carrying Capacity	G53	16 150 kg
Tare Mass	Tare Mass incl. spare wheel, excluding Driver & Fuel:		8 853 kg
	– Front Axle		4 589 kg
	– Rear Axle		4 278 kg
	Tare Mass including Spare wheel, Driver & 400 litre Fuel:	G50	9 264 kg
	– Front Axle	G51	4 832 kg
	– Rear Axle	G52	4 446 kg
Manufacturer's Gross Vehicle Mass	GA Front	G01	8 000 kg
	GAU Rear	G02	26 000 kg
	GVM	G09	33 000 kg
Legal Gross Vehicle Mass	A Front		7 500 kg
	AU Rear		18 000 kg
	V – Rating		25 500 kg
Lengths	Wheelbase From 1st to 2nd Axle	L01	3 200 mm
	Rear Axle Spacing	L02	1 400 mm
	Front Overhang	L10	1 475 mm
	Rear Overhang	L11	800 mm
	Chassis Length Behind Cab	L14	4 920 mm
	Overall Length	L42	6 907 mm
	Foremost Point of Body From Front Axle	L50	560 mm
	Cab to Rear Axle Centreline	C/A	3 470 mm
Heights	Overall Height Unladen	H01	3 236 mm
	Overall Height Laden	H02	3 154 mm
	Chassis Frame Height Unladen	H03	1 159 mm
	Chassis Frame Height Laden	H04	1 070 mm
	Ground Clearance Front	H06	364 mm
	Ground Clearance Rear	H07	305 mm
	Front Bumper Height with 9t Front Spring & Steel Bumper Angle of Approach = 30 degrees (480 mm Under Belly Plate)	empty loaded	670 mm 630 mm
	Minimum Body Floor Height – Unladen	H25	1 300 mm
Width	Chassis Cab Width	B01	2 240 mm
	Width Across Rear Tyres	B02	2 466 mm
Turning Circle	Kerb to Kerb (m)	K01	14,1 m
	Swept Circle (m)	K02	15,8 m

No spare wheel carrier holder bracket on chassis & weight of spare wheel thus not included.