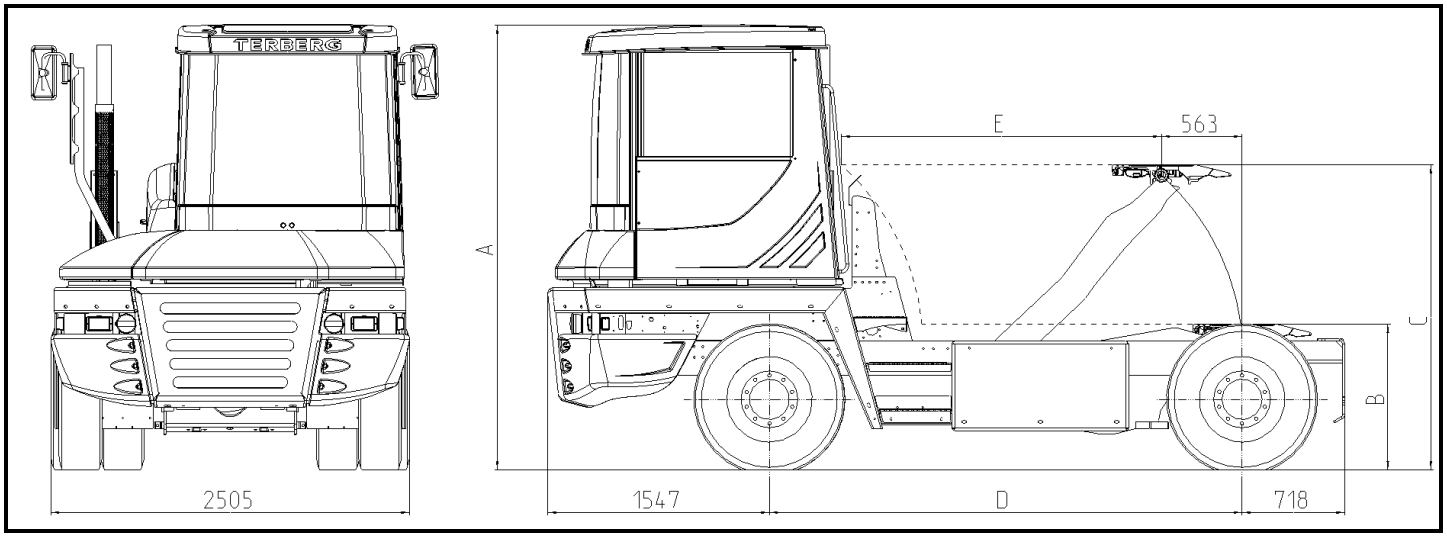
TERBERG BENSCHOP
Manufacturer of special vehicles

RT283, 4x4

Technical specification



Tyres	A ±15mm	A ±15mm	B ±15mm	C ±15mm	Wheel base D	E (mm)
295/60R22.5	3107	*note*: for Mercedes Tier3/Tier4i, deduct 60mm	962	2035	3100	2040
11R22.5 295/80R22.5	3170		1078	2098	3200	2140
13R22.5	3208		1146	2136	3300	2240

ENGINE

Volvo TAD872VE (Tier 4f / Stage 4)
Six-cylinder four-stroke direct-injection diesel engine with turbo charging and intercooler.
Engine equipped with engine brake.
Engine equipped with Volvo Penta (AdBlue) system including SCR-catalyst.
Displacement: .....7,7 dm^3
Bore: .....110 mm
Stroke: .....135 mm
Compression ratio: 17,5:1
Output:.....210 kW (286 hp) at 2200 rpm
Torque: .....1225 Nm at 1100-1700 rpm
Acc. to ISO 3046

Mercedes OM936LA (Tier 4f / Stage 4)
Six-cylinder four-stroke direct-injection diesel engine with turbo charging and intercooler.
Engine equipped with engine brake.
Engine equipped with Mercedes (AdBlue) system including SCR-catalyst.
Displacement: .....7,7 dm^3
Bore: .....110 mm
Stroke: .....135 mm
Compression ratio: 17,6:1
Output:..... 210 kW (286 hp) at 2200 rpm
Torque: .....1150 Nm at 1200-1600 rpm
Acc. to ECE R120

Only for use outside EU/US/Canada:

Mercedes OM906LA (Tier 3 / Stage 3A)
Six-cylinder four-stroke direct-injection diesel engine with turbo charging and intercooler.
Engine equipped with engine brake.
Displacement: .....6,4 dm^3
Bore: .....102 mm
Stroke: ..... 130 mm
Compression ratio: 18,0:1
Output: ..... 210 kW (286 hp) at 2200 rpm
Torque: .....1100 Nm at 1200-1600 rpm
Acc. to ECE R24
[See table for *note* about dimension "A"]

Volvo TAD852VE (Tier 3/Stage 3A)
Six-cylinder four-stroke direct-injection diesel engine with turbo charging and intercooler.
Engine equipped with engine brake.
Engine equipped with normal silencer.
Displacement: ..... 7,7 dm^3
Bore: ..... 110 mm
Stroke: ..... 135 mm
Compression ratio: 17,5:1
Output: .....210 kW (286 hp) at 2200 rpm
Torque: .....1225 Nm at 1100-1700 rpm
Acc. to ISO 3046

GEARBOX

ZF, type 6WG211

- Powershift transmission with standard Lock-Up clutch ensuring the lowest possible fuel consumption with 6 speeds forward and 3 gears reverse.

Gear ratio's	*theoretical speed (km/h)*	
5.683F+5.041R	4+4	(F+R)
3.702F	6	(F)
2.304F+2.044R	10+11	(F+R)
1.501F	15	(F)
0.963F+0.854R	23+26	(F+R)
0.627	35	(F)

(Tyre size 13R22.5, axle ratio 16,36)

TRANSFER CASE

Kessler, type W1000
Transfer case with permanent front-wheel drive and integrated pneumatically lockable longitudinal differential with 1/3 front, 2/3 rear torque split. Reduction ratio 1,371:1

FRONT AXLE

Kessler
Front axle with planetary wheel ends
Capacity 16.000 kg (20 km/h)*
Reduction ratio 16,3:1

Optional:

- Axle ratio 12,99:1

* Actual axle load capacity depending on tyre load rating.

REAR AXLE

Kessler
Rear axle with planetary wheel ends
Capacity 38.000 kg (20 km/h)*
Reduction ratio 16,36:1
Differential lock : Automatic limited slip 25%

Optional:

- Axle ratio 13,2:1

* Actual axle load capacity depending on tyre load rating.

SUSPENSION

Front: Parabolic leaf springs in rubber mountings with 2 telescopic shock absorbers and additional rubber stops. Maintenance-free system.

Rear: Directly bolted to chassis frame.

Optional:

- Air suspension with rubber stops

Terberg Benschop B.V.

P.O. Box 2, 3405 ZG Benschop, Holland
Tel.(31)-348-459211 - Fax (31)-348-451934 - e-mail: info@terbergbenschop.nl - Internet: http://www.terbergbenschop.nl

RIMS AND TYRES

Tyres: 13R22.5 (6 pieces)
Rims: 10 stud disc wheels 22.5 x 9.0

STEERING SYSTEM

Fully hydrostatic orbitrol steering system with priority valve and double acting steering cylinders.
Emergency steering property.
Steering wheel fully adjustable in height and angle.
Steering wheel diameter 350 mm

Turning circle over front bumper* (m)

Wheelbase [mm]	Driver side	Non driver side
3100	13.190	12.750
3200	13.460	13.020
3300	13.730	13.290
3500	14.270	13.830

* Tyres 13R22.5

5th WHEEL

2" Terberg cast steel plate
Technical capacity 36.000 kg.
Lifting capacity 35.000 kg*.
Pneumatic unlocking of 5th wheel, operated from cabin.
Indicator light for positive locking inside the cabin.
Fully welded extremely strong and stable lifting frame construction.
All rotating points equipped with generously sized oscillating bearings.

Optional:

- 3,5" 5th wheel
- Cardanic mounted 5th wheel (2" or 3,5")

*Actual lifting capacity depending on tyre load ratings, vehicle speeds and 5th wheel height.

HYDRAULIC SYSTEM

Engine driven load sensing hydraulic pump for steering and lifting 5th wheel plate, directly mounted to gearbox, with priority valve for the steering system.
Hydraulic oil tank protected mounted inside the chassis frame.
Tank capacity 105 dm^3.
Working pressure 230 bar.
2 heavy-duty hydraulic single stage, double acting lift rams

CHASSIS

Heavy Duty, torsional stiff, fully welded construction.
Air reservoirs and fuel tank protected mounted inside the chassis, fully bolted access steps with anti-slip surface integrated in chassis.
Towing pin for 40 and 50 mm tow hitches at front and rear of chassis.

BRAKE SYSTEM

Full air brake system with split front- and rear axle circuits.
Front axle with Simplex wedge-drum brake system. Rear axle with high capacity twin jaw dry disc brake system.
Automatic slack adjusters front and rear.
Air reservoirs: 2 x 40 dm^3, 1 x 30 dm^3. Total 110 dm^3.

2 Line trailer brake system mounted on rear side of cabin, with yellow and red spiral hoses with gladhands.
Air dryer with integrated air pressure regulator.

Brake cylinders: Front axle diaphragm only. Spring brake cylinders on rear axle.
Brake pressure: 7,8 – 8,5 bar.

FUEL TANK

Capacity 200 dm^3 and integrated with hydraulic tank.

COOLING SYSTEM

Fin and tube type radiator of heavy-duty construction mounted on rubber silent blocks with separate air to air transmission oil cooler and engine intercooler all mounted side by side.

EXHAUST

Silencer with vertical pipe.
Exhaust system in critical area protected with steel grille.

ELECTRICAL SYSTEM

24 Volt negative earth.
Alternator (T4f) :28V/100A (110A Volvo)
Batteries :2 x 12 Volt / 140 Ah
Starter motor :5.5 kW (T4f)
Fuses and relays mounted in central electrical box.
Can-Bus system allowing multiple options/flexibility and easy fault tracing. All wiring with code numbers and easy readable/visible mounted in easily accessible electrical box.
7 pin SAE socket at rear of cab for trailer connection (DIN ISO 1185).

LIGHTING

H4 head lights with dipped and main beam and direction indicators.
LED rear lights on rear of chassis, with direction indicators and brake lights.
5th wheel floodlight behind cabin.
Mounting for rotating beacon light.
Interior light in cabin with integrated spotlight.

CABIN

1 person - left hand drive position.
With 180º swivelling seat.

Dimensions inside:

- width : 1520 mm
- length : 1670 mm
- height : 1660 mm

Cabin construction of overdimensioned strong steel profiles to comply to latest Rops/Fops regulations.
Cab comfortable mounted on 3 anti-vibration mounts.
Entrance to cab by rear sliding door with rubber mounted window pane.

Vertical electric sliding window at driver's side with "Comfort" control.
Cabin can be tilted with hydraulic hand pump to 73º

Large windows for excellent visibility.
All window panes safety glass and tinted.
Front windowpane layered with a total thickness of 6,76 mm
Noise insulation exceeds international standards.

ISRI driver's seat with air suspension and fully adjustable, mounted on a 180° swivelling seat assembly for easy entrance/exit to/from driver's position.
Swivelling seat assembly equipped with 2 brake pedals and 1 accelerator pedal.

Demister/heater with 3 speed blower, recirculation system and all around demisting including 4 adjustable outlet louvers.

Side dashboard:

- Parking brake lever.
- Heater controls.
- Switches for:
  - Ignition
  - Wiper rear
  - Differential lock transfer case
  - Work light(s)
  - Hazard lights
  - Lighting

Steering console:

- Steering wheel fully adjustable in height and angle.
- Combi switch for:
  - Direction indicators
  - Wiper front 2 speed
  - High/low beam + head lights flasher
  - Horn
- Gearbox selector
- Switches for:
  - 5th wheel high/low
  - 5th wheel unlocking
  - Unlocking swivelling seat
  - Electrically operated driver side window with "Comfort" control.
- Terberg Driver Information Module connected to the CAN-Bus system incorporating main indicator lights, gauges and vehicle information.