



ENGINE

Cummins B4.5-173 (Tier 4f/Stage V)

Four-cylinder four-stroke direct injection diesel engine with variable geometry turbo charging and intercooler.

Engine equipped with Cummins single module exhaust system including DOC, DPF and SCR-catalyst with AdBlue injection.

Displacement:4,5 dm³
 Bore:107 mm
 Stroke:124 mm
 Output: 129 kW (173 hp) at 1900 rpm
 Torque:780 Nm at 1500 rpm
 Maximum speed2200 rpm

Acc. to ECE R120

GEARBOX

ZF Powershift transmission, Type 3WG161

Automatic shift transmission with 3 gears forward and 3 gears reverse. Equipped with converter and separate oil cooler for transmission oil.

Theoretical speed at 2200 rpm

Gear 1 F+R8,5 km/h
 Gear 2 F+R16,3 km/h
 Gear 3 F+R39,2 km/h

tyre size 295/60R22.5
 Axle ratio 9,49:1

FRONT AXLE

Volvo, Type FA 8.2

Heavy-duty Volvo FA 8.2 steering axle

Capacity: 11.000 kg at 20 km/h
 15.000 kg at 0 km/h

REAR AXLE

TTA, Type 70-21

Heavy-duty drive axle with manual differential lock and hub reduction.

Ratio9,49 :1

Capacity: 20.000 kg at 20 km/h
 25.000 kg at 0 km/h

SUSPENSION

Front: ½ parabolic leaf springs, air suspension and telescopic shock absorbers. Axle mounting with integrated roll reduction.

Rear: Directly bolted to chassis frame.

Optional:

- Air suspension with dump valve in combination with telescopic shock absorbers and stabiliser. This allows the vehicle to lower approximately 50 mm.

TYRES AND RIMS

Front – Single tyres

295/60R22.5 16 PR (2x)

Rear – Dual tyres

295/60R22.5 16 PR (4x)

Steel rims

10-hole-size 22.5x9.00
 front / rear interchangeable

Optional:

- Wheel nut protection rings on front axle.

STEERING SYSTEM

Full hydrostatic orbitrol steering with emergency feature and double-acting steering cylinder.

Steering wheel diameter350 mm
 Turning radius Left / Right9.550 mm

HYDRAULIC SYSTEM

Hydraulic load sensing pump for steering and swap body lifting directly mounted to the transmission, with priority valve for steering system. Oil tank mounted to the right side of chassis frame.

Oil tank capacity 120 liter
 Pump capacity: 60 dm³-1000 rpm
 Working pressure:200 bar
 Lifting speed frame: 8 seconds (at 2.200 rpm)

Hydraulic valve

The hydraulic valve is electrical / pneumatically operated with a multifunctional joystick inside the cabin. This type of operation is also used for lifting the optional 2" 5th wheel.

BRAKE SYSTEM

Full air brake system with split front and rear axle and parking brake circuits. Parking brake working on rear axle. Front and rear axle equipped with automatic slack adjusters.

Air supply by engine mounted compressor and air dryer with integrated pressure regulator.

Brake cylinders

Front axle 2 diaphragm cylinders
 Rear axle 2 x spring brake cylinders
 Air tank capacity 3x37 dm³
 Brake pressure7,8-8,5 bar

FUEL TANK

400 liter steel tank integrated with the hydraulic tank and mounted to the right side of the chassis frame.

ADBLUE TANK

Capacity 35 liter and protected mounted on the right.

CHASSIS

Welded rigid chassis frame consisting of steel box profiles.

Front construction with strong drawbar connection integrated in the front bumper. Rear side is equipped with bumper construction mounted on the swap body lifting frame. Easy and practical entrance of the cabin thanks to cabin integrated set of steps on the right side.

Optional:

- Package for TÜV approval up to 40 km/h on public road.
- 2nd 5th wheel construction with hydraulic height adjusting controlled from within the cabin. Lifting frame capacity.....15.000 kg The 5th wheel construction is mounted on the chassis frame. This isolation from the swap body lifting frame assures very stable vehicle / trailer operation. 2 line trailer brake system, mounted in the chassis, with yellow and red spiral hoses with glad-hands. Easy to access from the cabin plateau.
- An additional side step at the left side of the swap body lifting frame is available when the vehicle is equipped with a 5th wheel.

SWAP BODY LIFTING FRAME

Rigid swap body lifting frame consisting of steel box profiles, rear side of the frame with sloping sides.

Swap body lifting frame:

Width 2310 mm
Capacity25.000 kg

The swap body is restricted at the front of the frame by two adjustable positioning profiles.

Four double-acting lift rams with hard chrome rods and stabile vertical profiles, all four equipped with a safety valve.

Electronically operated oil flow divider assures parallel lifting. Frame is additional fixated by two stabiliser construction mounted at the front and the rear of the swap body lifting frame.

Optional:

- Wearing plates mounted on the swap body lifting frame.
- Pneumatic adjustable stops.
- Different container locking systems available.
- A drawbar trailer coupling of 40 and / or 50 mm mounted at the rear side of the swap body lifting frame.
- Weight indicator of container and/or frame.

EXHAUST

Silencer protected mounted on the rear side of the cabin, outlet in the middle of the chassis.

ELECTRICAL SYSTEM

Starter4,8 kW - 24 V
Alternator 70 A / 28 V
Battery..... 2 x 12 V / 140 Ah

- CAN-Bus system allowing multiple options/flexibility and easy fault tracing.
- Headlights with high / low beam
- 2 LED rear lights with combined brake and direction indicator lights
- 2 direction indicator lights front
- 5 LED work lights for lighting during reversing under swap body
- 1 interior light in cabin
- 1 rotating warning light on cabin
- Instrument lights
- Wiring with code numbers easy readable / visible / accessible. Wiring, fuses and relays mounted in central electrical box.

CABIN

High comfort – 1 person – left hand or right hand drive position. Forward facing driver's position.

Dimensions outside:

- width : 1420 mm
- length : 1625 mm
- height : 1860 mm

Cabin construction of strong steel profiles to comply to latest Rops/Fops regulations while still offering optimum visibility all around.

Cab mounted on 2 anti-vibration mounts at the front and 2 coil-spring suspension/shock absorber units at the rear. Cabin can be tilted with hydraulic hand pump to 72°. Double hydraulic cabin lock.

Entrance to cab by inboard door for safe and easy entrance/exit to/from driver's position.

Double horizontal sliding window at driver's side

Large windows to provide excellent all around visibility.

All window panes tinted hardened safety glass except front window which is layered. Noise insulation exceeds international standards.

Driver's seat with air suspension and fully adjustable, mounted on console with generous storage space. Demister/heater with variable speed blower and well positioned air outlets. Fixed steering column with 1 brake pedal and 1 accelerator pedal, mounted at right side of column.

Dashboard switches:

- Ignition
- Hazard lights
- Lighting

Right side of driver's seat:

Multifunctional joystick to operate the following functions:

- Drive direction
- Operation of swap body lifting frame
- Operation 5th wheel (optional)
- (un)Locking 5th wheel (optional)
- (un)Locking swap body (optional)

Driver Information Module:

Multifunctional 5" full colour CAN-bus display (DIM) with:

Great readability.

Latest generation HMI with very intuitive menu navigation.

Easy possibility to read out running hrs and mileage.

Indicator lights, visual warnings and adjustable audio warnings.

Very extensive and fully integrated and easy to use diagnostic functionality and SW update facility.

Vehicle history storage which can be shown on the screen and downloaded via USB.

Steering column:

- Combi switch for:
- Direction indicators
- Wiper front
- High/Low beam
- Horn

PAINTING

Chassis frame: Black RAL 9005

Cabin: 1 colour conform RAL code number.

DOCUMENTATION

1 set consisting of: Operation-, Spare Parts- and Maintenance manual.

Additional documentation available upon request.