



# **TRACTION MOTOR**

### **ZF CeTrax**

Asynchronous oil cooled E-motor with planetary reduction (ratio 3.36:1) combined with well-matched Inverter + dedicated control-ECU.

Peak power (max. 1min)	150 kW
Peak torque (max. 1 min)	4500 Nm
Power (max. 30.min)	150 kW
Torque (max. 30 min)	2170 Nm

# **BATTERY PACKS**

Terberg designed battery pack using NMC cells and equipped with fluid operated temperature conditioning system to allow operation in all climates.

Battery packs certified to ECE R100.2

## Standard battery pack setup:

Capacity	:	2x 48	kWh =	96 kWh
Nominal	Voltage:			654 V

## Optional: Large battery pack setup:

Capacity:	2x 74  kWh = 148  kWh
Nominal Voltage:	666 V

# **BATTERY CHARGER**

Charging the vehicle is possible with every charger that fulfils the CCS2.0 charging standard with an output power of 800VDC. Detailed charger requirement information can be provided.

Charger	capacity:	24-150 kW*
Charger	type:	CCS2.0

\* Depending on installed battery capacity

# **FRONT AXLE**

# Volvo, Type FA 8.2

Heavy-duty Volvo FA 8.2 steering axle Capacity: 11.000 kg at 20 km/h

\* Actual axle load capacity depending on tyre load rating.

# **REAR AXLE**

## TTA, Type 70-21

\* Actual axle load capacity depending on tyre load rating.

## SUSPENSION

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

**Rear:** 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 diameter	350	mm
Turning radius Left / Right9	9.550	mm

## **HYDRAULIC SYSTEM**

Brushless E-motor driven fixed displacement pump for steering and swap body lifting, with priority valve for steering system. Oil tank mounted to the right side of chassis frame.

Oil tank capacity	60 liter
Pump capacity:	0-80ltr/min
Working pressure:	200 bar

# 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**

EBS air brake system offering maximum retardation energy recuperation. Parking brake working on rear axle.

Front and rear axle equipped with automatic slack adjusters.

Air supply by E-motor driven 2-cyinder compressor and air dryer with integrated pressure regulator.

## **Brake cylinders**

Front axle	2x diaphragm cylinders
Rear axle	2x spring brake cylinders
Air tank capacity	/3x60 dm <sup>3</sup>
Brake pressure	7.8-8.5 bar

# Terberg Benschop B.V.

P.O. Box 2, 3405 ZG Benschop, The Netherlands
Tel. +31 0348 459211 – info@terbergbenschop.nl – www.terbergbenschop.nl

# **COOLING SYSTEM**

2-section plate and bar type radiator of heavy-duty construction mounted on rubber silent blocks. Thermal Management System (TMS) for optimized energy usage.

### **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.
- 2" 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 5<sup>th</sup> 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:

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.
- 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.

### **ELECTRICAL SYSTEM**

- CAN-Bus system allowing multiple options/flexibility and easy fault tracing.
- Headlights LED with high / low beam
- 2 LED rear lights with combined brake and direction indicator lights
- 2 LED 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 LED
- Wiring with code numbers easy readable / visible / accessible. Wiring, fuses and relays mounted in central electrical box.

### **CABIN**

1 person – left-hand drive position. Forward facing driver's position.

## Dimensions outside:

width: 1400 mmlength: 1593 mmheight: 1821 mm

Cabin construction of over dimensioned strong steel profiles to comply to latest Rops/Fops regulations.

Cab mounted on 3 anti-vibration mounts in combination with shock absorber.

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

Horizontal sliding window at driver's side Large windows with excellent visibility. All window panes tinted hardened safety glass except front window which is layered.

Noise insulation exceeds international standards.

Cabin can be tilted with hydraulic hand pump to  $65^{\circ}$ 

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. Steering column with 1 brake pedal and 1

accelerator pedal, mounted at right side of column.

# Dashboard:

- Start-/Stop-ignition
- Differential lock

- Wiper rear (optional)
- Wiper washer (optional)
- LED work lights
- Hazard light
- Interior light

#### **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.

### Right hand 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)

### Steering console:

- · Combined switch for:
- \* Direction indicators
- \* Wiper front
- \* High/Low beam
- \* Horn

### **Optional:**

- Air-conditioning
- Co-driver foldaway seat

### **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.