

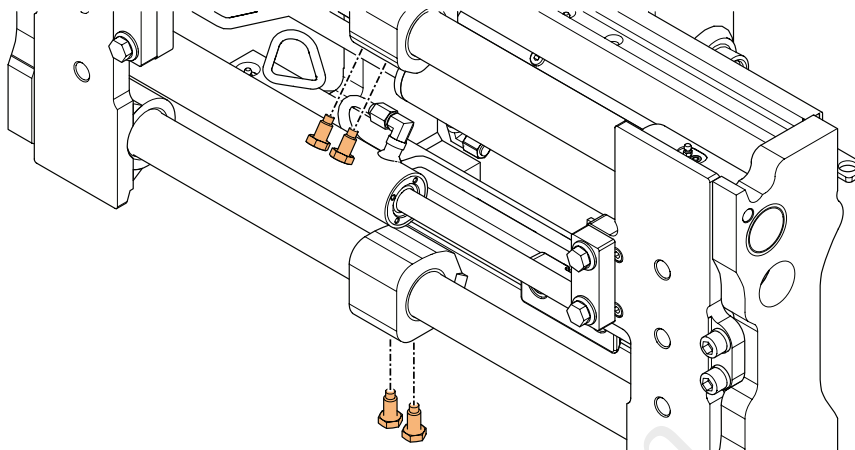


SERVICE MANUAL

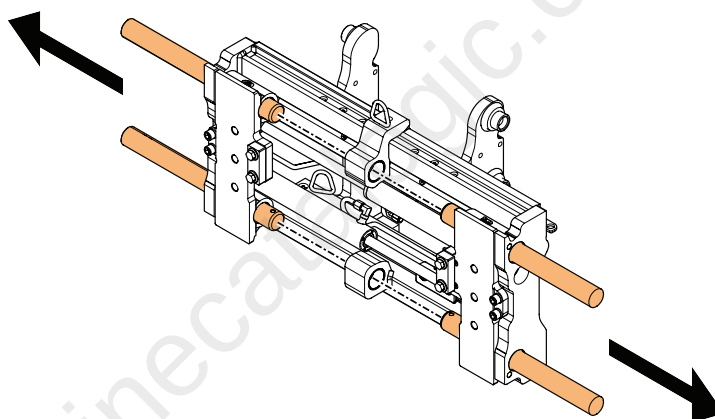
EP14-20A(C)NT
EP16-20A(C)N



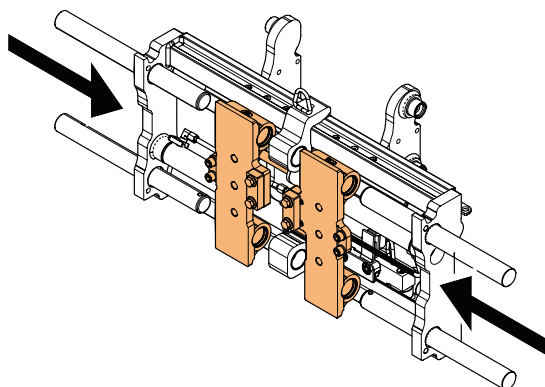
3. Remove the screws using a 6 mm Allen key.



4. Hold the support and slide out one of the chromed bars half way.



5. Remove the support from the chromed bar carefully.



11 TruckTool Diagnostics

11.1 Overview

Software maintenance can be performed with a diagnostics application called TruckTool. This program runs on a laptop PC and connects to the data bus of the truck (CAN) via a special adapter.

TruckTool can be used to receive, display and modify settings, update (flash) controller firmware, reset settings to hardware defaults, review and clear alarms, perform calibrations, execute a quick truck setup and monitor digital and analog inputs and outputs.

Additional training is required to use the program.



Figure 188: TruckTool Diagnostics

For more information, see <https://www.trucktool-online.com/>

11.2 Location of the service socket

Figure 189: Location of the service socket shows the location of the service socket for connecting TruckTool to the truck.

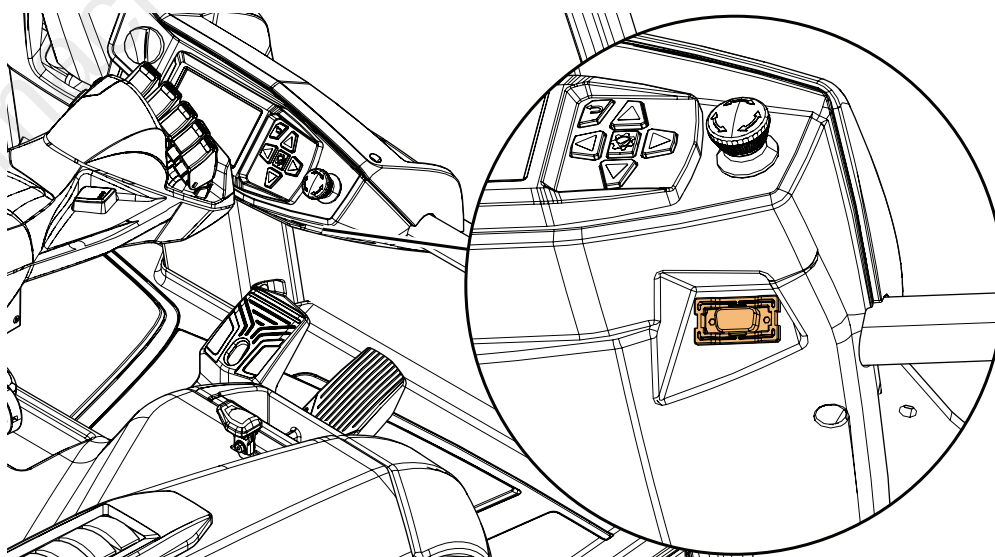


Figure 189: Location of the service socket

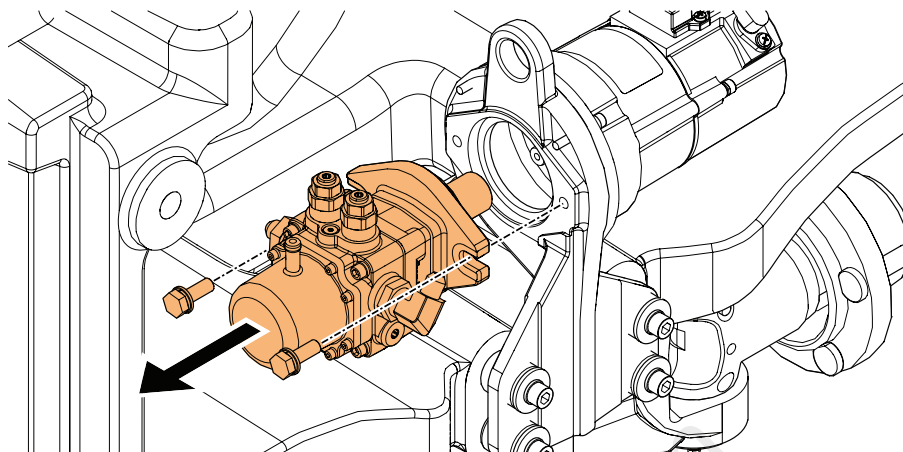


Figure 228: Lifting point

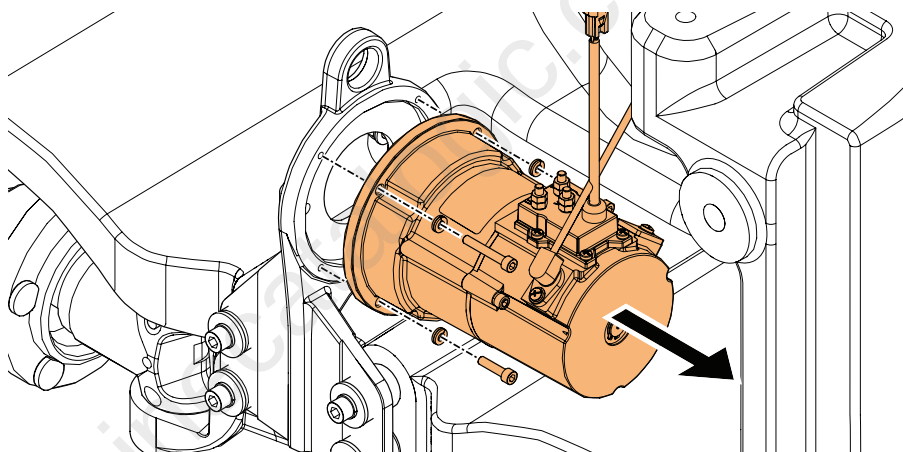


Figure 229: Passenger warning sticker

4. Remove the two bolts and the pump.



5. Remove the screws and the pump motor.



8.5.3 Steering controller

This forklift truck is equipped with the EPS AC-0 AMPSEAL Controller, which performs the steering functions that are usually present in walkie and ride-on pallet trucks, stackers and low level order pickers.

The controller can perform the following functions:

- Steering controller for AC asynchronous 3-phase motors
- Digital control using two microprocessors
- CAN bus interface
- Both microprocessors CAN bus connected
- Encoder interface
- Stepper motor or twin pot interface
- Analogue feedback pot interface (1,024 steps resolution)
- Analogue PT1000 temperature sensor input
- Analogue input with 1,024 steps resolution (one input)
- Analogue input with 4,096 steps resolution (one input)
- Two digital inputs
- Double safety relay inside

	Before daily use (Operator)	Monthly (Owner)	1,000 h or every year (Service)
Examine the truck frame and the fork carriage	C	C	C
Examine the overhead guard for deformation, cracking and damage			C
Examine the gas springs	C	C	C
Make sure that the type plate is in the correct position and not damaged.	C	C	C
Examine the covers, see <i>Section 5.6 Truck covers overview</i> .	C	C	C
Safety functions • Brake • Operator presence pedal (if applicable) • Battery cover lock • Warning stickers • Emergency switch • Key switch	C	C	C
Examine the fastening of the steering wheel			C
Test the functionality of the door and battery cover mounting and lock	C		
Examine the functionality and mounting of the arm rest	C		
Examine the mounting and functionality of the seat	C		
Options (CSM)			
Accessory clamp	C	C	C
Examine the functionality of the options, see <i>Section 14.1 Options</i> .			C
With the cabin, examine all the installed options	C		

13.4 Oils and lubricants

NOTE: Make sure that you do not mix different lubricants. It is possible that different brands of lubricants are not compatible with each other.

Table 41: Oils and lubricants

Hydraulic oil	
Ambient temperatures -40...+0°C	ISO VG 15
Ambient temperatures -10...+30°C	ISO VG 32
Ambient temperatures +10...+50°C	ISO VG 46

The display images in this manual have English messages as examples. The display language can be changed via TruckTool. Contact the service personnel. See APPENDIX B: Truck display languages.

[illegible]

- Accelerator pedal and brake pedal
- Accelerator pedal, operator presence pedal and brake pedal
- Dual pedal and brake pedal

	Before daily use (Operator)	Monthly (Owner)	1,000 h or every year (Service)
Examine the rollers, roller pins and welds for cracking and damage			C
Apply grease to the lubrication points of the tilt cylinder			C
Maintain the additional equipment according to the instructions of the manufacturers	See the instructions of the manufacturers		
Fork carriage			
Examine the fork carriage welding for cracking			C
Examine the mounting, wear and damage of the forks and the load handling device			C
Fork thickness and locking			C
Load backrest	C	C	C
Rear axle			
Apply grease to the lubrication points of the rear axle, see <i>Section 13.4 Oils and lubricants</i> .			C
Examine the operating condition of the bearings, check for looseness of the bearings			C
Examine the welds for cracks			C
Examine the mounting of the rear axle			C
Examine the condition of the rubber spring			C
Examine the mounting of the wheels		C	
Wheels			
Damage and wear in the wheels			C
Measure the pressure of the pneumatic wheels		C	
Battery			
Battery water level, see <i>Section 7.3 Battery maintenance</i> .	C	C	C
Clean the battery if necessary			C
Battery cable and connector, see <i>Section 7.3 Battery maintenance</i> .	C	C	C
Battery cell voltage and specific gravity, see <i>Section 7.3 Battery maintenance</i> .			C

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