

Service Manual

High level order picker

NOH10N, NOH10NH

Date:
30.09.2008

Revision: 0

NOTE *Do not turn the steering wheel unnecessarily when the truck is not moving.*

Safety

The steering system performs a self-test every time the truck's power is turned on. The test lasts for less than a second, after which the truck is ready for operation.

If a fault is detected, the steering system's control unit stops the truck and engages the magnetic brake.

Malfunctions in the steering system are reported on the truck's display. If there is a malfunction notification on the display, the truck cannot be operated.

NOTE *In case of malfunction, turn off power. Wait for three seconds before turning the power back on. If the malfunction persists, contact service personnel.*

General driving instructions

Practice steering and controlling the truck carefully in a safe area.

- Drive slowly at intersections and when turning.
- Handle the truck responsibly and always keep it under control.
- Avoid sudden starts and stops.
- Steer and brake smoothly.
- Decrease the speed if the floor is slippery, e.g. because of humidity.
- Take great care when driving on a slanted surface.
- Do not drive over any loose objects on the floor.
- Keep the load lowered and, if possible, tilted backwards.
- Do not lift the load except when stacking (this does not apply to trucks designed to be driven with the load raised).
- Always drive with the lift cabin lowered when not operating within the aisles (applies only to order picker trucks).

When driving, keep the load lowered and, if possible, tilted backwards. Do not lift the load except when stacking. This does not apply to trucks designed to be driven with the load raised.

Be especially careful

- when there are other people or objects in the working area.
- when the load reduces visibility.
- when driving in narrow aisles. Make sure that there is enough space for the truck and the load.

Driving position

Always drive the truck from the operator's position, foot on the safety pedal. Keep your left hand on the steering wheel and the right on the control panel handle. When driving, always keep your body completely within the outlines of the truck and both safety gates closed. Make your driving position ergonomic; adjust the arm rest correctly (if available).

Use the two-hand control device button with your left hand to activate right hand control devices when the truck is used guided in aisles. Similarly use the button to activate hydraulic functions when the truck is used outside the aisles.

Speed

Control the speed according to the situation. Take into consideration the load, visibility, people in the working area and the working environment. Slow down at cross aisles and whenever vision is obstructed. If the visibility is inadequate, use an assistant to help guide you.

Uncontrolled acceleration or braking, excessive speed at turning points, and fast and sudden turning may overturn the load and cause an accident. In all conditions, drive the truck at a speed that enables you to stop it safely.

Travel speed limits

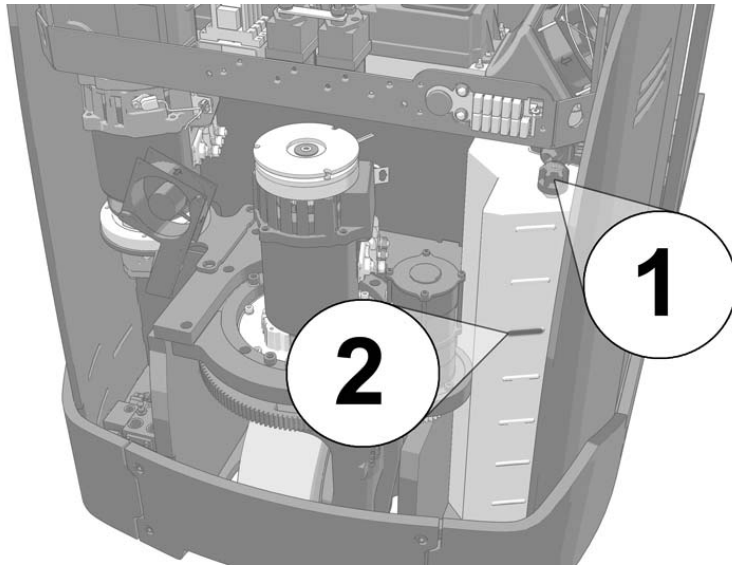
Travel speed is related to the lifting height.

1. Travel speed limits outside the aisles:

- lifting height 0 - 1200 mm - maximum travel speed 9 km/h

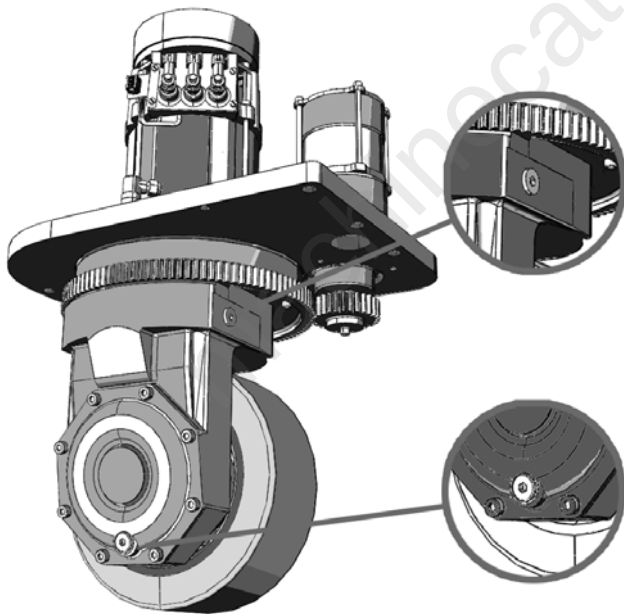
Lubricant recommendation

- Hydraulic oil ISO VG 32
- In cold storage: ISO VG 15
- In hot temperatures: ISO VG 46



Filling hole (1) for hydraulic oil with maximum filling level (2).

- Transmission oil: SAE 80W/90, API: GL-4 Fill to the volume of 2.9 l.
- Lubricating grease: NLGI No. 2, containing molybdenumdisulphide.
- In cold storage: NLGI No. 1 or No. 0

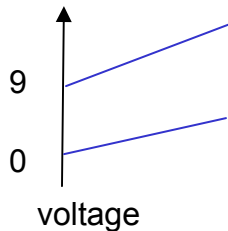


Truck Parameters

BDI Curve

Range/value: 0-9

Battery discharge curve select.



BDI Timer

Range/value: Default 310s, do not change

Battery discharge indicator level change timer

BDI Reset

Range/value: Default 50.5V, do not change

Voltage level to reset BDI reading to 100%

Low Battery Level

Range/value: 0-20%

Empty battery warning level.

Lift Battery Level

Range/value: 0-20%

Empty battery lift cut-out level.

Safety Switch Timeout

Range/value: 1-5sec

Delay to de-activate two hand control device.

Maintenance Period

Range/value: 0-1000h

Parameter to adjust default maintenance period. If set to zero, maintenance warning disabled.

Maintenance Warning

Range/value: 0-50h

1-50 is maintenance warning time in hours

0 (zero) = no maintenance warning.

Stand-By Timer

Range/value: 0/30/60sec

Delay to truck sleeping mode. Line contactor (K2) opens.

0/30/60 is delay time in seconds

0 (zero) = sleep mode is disabled.

Mast Height

Range/value: 0-10000mm

Maximum cabin floor lifting height.

After recharging

1. Switch off the charger.
2. Disconnect the recharging plug from the charger. Grab the handle; do not pull the cables.
3. Check the battery according to the battery manufacturer's maintenance instructions.
4. Fasten the recharging plug.
5. Close the battery cover.

WARNING! When closing the cover, do not hold the cover from the sides to avoid injury to your fingers.

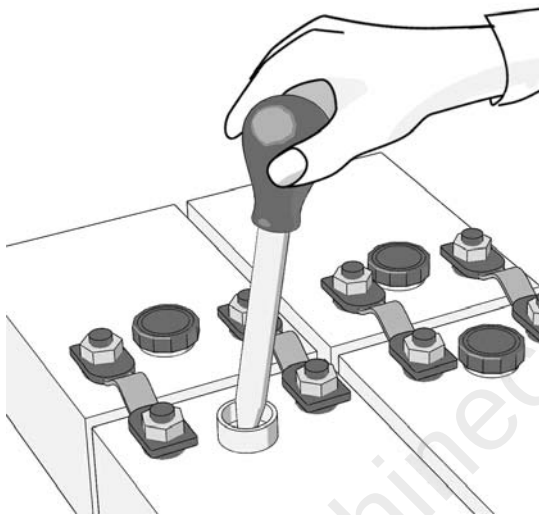
6. Make sure that the battery cables remain completely safe within the frame of the truck.

WARNING! Battery cables may get damaged and cause serious burning hazard if they are left outside of the truck!

NOTE If welding needs to be performed on the truck body, do the following before welding:

- Disconnect the battery.
- Disconnect the plugs of the electronic devices.

Measuring the battery's specific gravity



Measure the specific gravity of the battery according to the manufacturer's instructions. The specific gravity of a fully charged battery is 1.28 to 1.30 at +30°C. The gravity is

- 1.24 when the battery is 3/4 charged.
- 1.20 when the battery is 1/2 charged.
- 1.16 when the battery is 1/4 charged.
- 1.15 when the battery is empty. Charge the battery immediately.

Replacing the battery

Replace the battery according to the manufacturer's instructions. When reinstalling batteries, use the appropriate tools for moving, connecting and fastening the battery securely. Do not keep the tools and other metal implements on top of uncovered batteries.

When replacing the battery, use one with similar dimensions and weight so that the stability or braking properties of the truck do not decrease. The minimum weight of the battery is indicated on the identification plate of the truck.

Symptom	Fault	Action
	The steering control circuit fuse has blown.	Check the connections and cables and replace the fuse. Contact maintenance personnel.
	Short voltage break (less than 5 seconds).	Switch off the power and wait at least 5 seconds, then switch the power back on.

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Full Version Available

Caterpillar NOH10N Order Picker Service and Operator Manual (WHSM0007)

Caterpillar NOH10N Order Picker service manual, covers mast, hydraulics, drive, wiring, and diagnostics. Searchable PDF download.

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