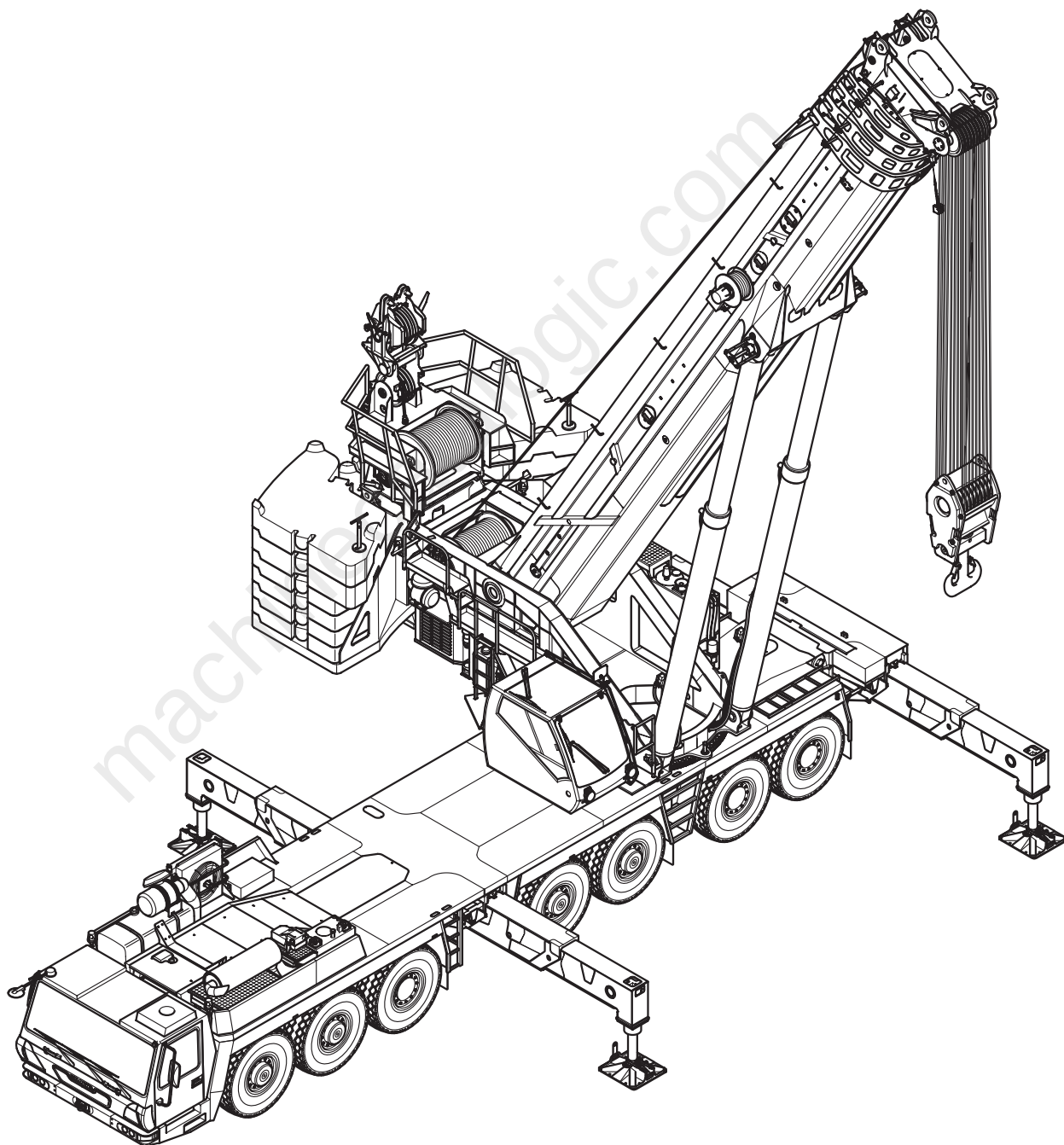


GROVE®

GMK 7450



Maintenance manual



Manitowoc®
Crane Group

Vehicle serial number

3 112 400 en
10.09.2007

A **Manitowoc** Company

W12918

One of the load spectrums listed above should be selected on the basis of the actual operating conditions and entered in the crane logbook for the respective testing interval.

Note for truck cranes:

The load spectrum L1 and the load spectrum factor $K_m = 0.125$ are generally applied to truck cranes in assembly mode.

Determination of the effective operating hours T_i

The effective operating hours of the winches need to be entered in the crane logbook for the respective inspection interval.

- The effective operating hours T_i of the winches are displayed in the *Operating hours submenu*;  *Operating instructions*.

Determining the proportion of theoretical service life used

For an inspection interval i (max. 1 year according to ISO 9927-1 or BGV D 6 (VBG 9)/BGV D 8 (VBG 8)), the proportion of theoretical service life used S_i is calculated using the formula:

$$S_i = \frac{K_{m_i}}{K_m} \times T_i$$

K_m = Load spectrum factor established during winch calculation. This factor is given in the operating instructions.

K_{m_i} = Load spectrum factor in inspection interval i in accordance with the section "Determining the operating conditions (collective load)"

T_i = Effective operating hours in the testing interval i as described in the "Determining the actual operating hours T_i " section

This used proportion is subtracted from the remaining theoretical service life D_i after every testing interval (see example in the appendix to this chapter).

If the remaining theoretical service life is not sufficient for the next operating period, then a general overhaul of the winch must be performed.

If theoretical service life D has been reached ( *Theoretical service life*, p. 5 - 21), the winch must not be operated until after a general overhaul has been performed.

A general overhaul must be performed at least once every 10 years after commissioning the truck crane.

Changing the oil



Risk of burning yourself

Do not let the gear oil at operating temperature escape unchecked.

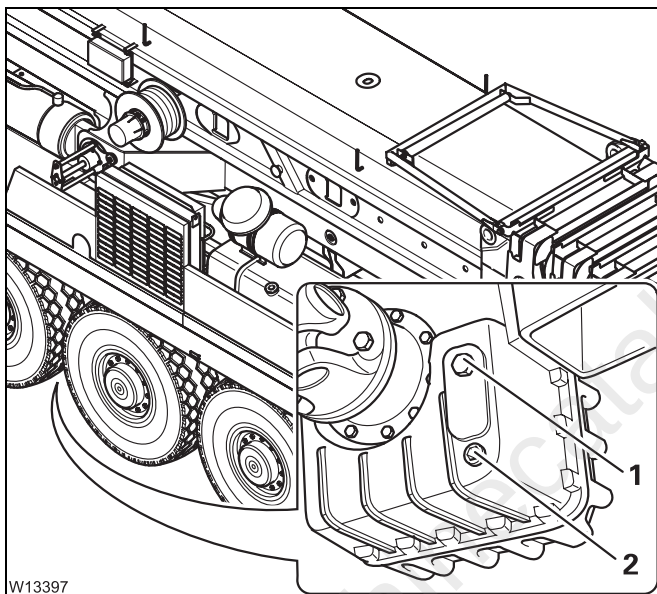


Risk of environmental damage due to leaking consumables

Always let consumables drain into suitable receptacles. Wipe up any consumables that have leaked.

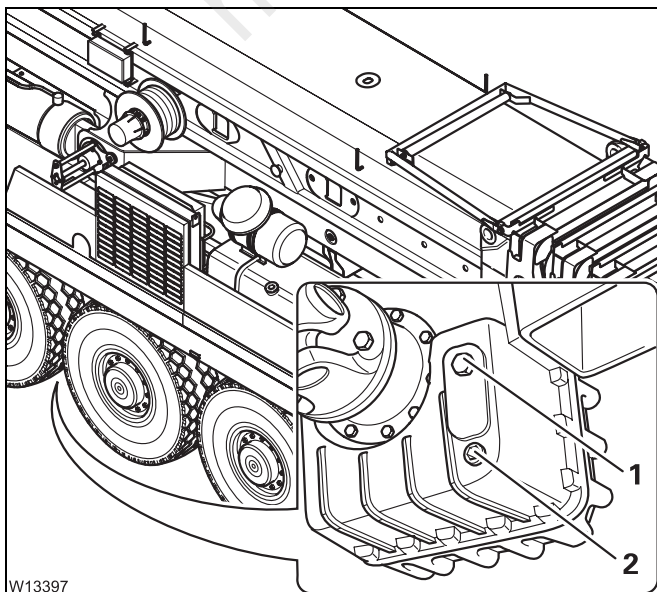
Store/dispose of consumables and any soaked equipment properly.

Ask about the applicable regulations.



- Place a receptacle under the bolt (2).
- Unscrew the bolts (1) and (2) and let the oil drain off.
- Fit a new gasket and tighten the bolt (2).
- Fill the oil up to the lower edge of the opening.
- Fit a new gasket and tighten the bolt (1).

Inspections after an oil change



- Go for a test drive.
- Switch the engine off and wait for about 5 minutes.
- Check the oil level;  p. 7 - 25
- Check the bolts (1) and (2) for leaks.

7.13

Hydraulic system



Risk of environmental damage due to leaking consumables

Always let consumables drain into suitable receptacles. Wipe up any consumables that have leaked.

Store/dispose of consumables and any soaked equipment properly.

Ask about the applicable regulations.

7.13.1

Checking the oil level

D

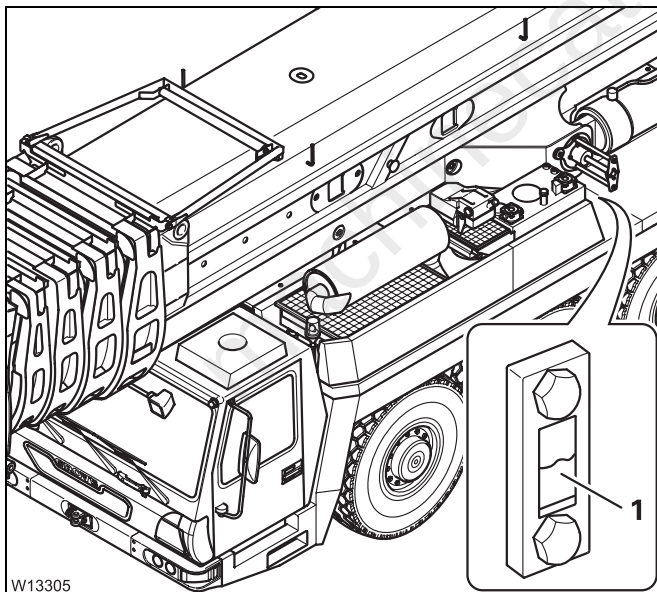
Prerequisites

- The truck crane is aligned horizontally at on-road driving level;
 ▮▮▮▮ *Operating instructions.*
- The outriggers are retracted; ▮▮▮▮ *Operating instructions.*
- The engine is not running and is secured against unauthorised use;
 ▮▮▮▮ p. 2 - 3.



Risk of damage to the hydraulic system

When working with hydraulic oil, you must make sure that it is clean. Even new oil should be filtered.



- Check whether oil is visible in the middle of the inspection glass (1) before starting work.

If the oil level is too low:

- Add more oil; ▮▮▮▮ p. 7 - 65.

8.6

Slewing gear

8.6.1

Checking the oil level

W

Spare parts and tools

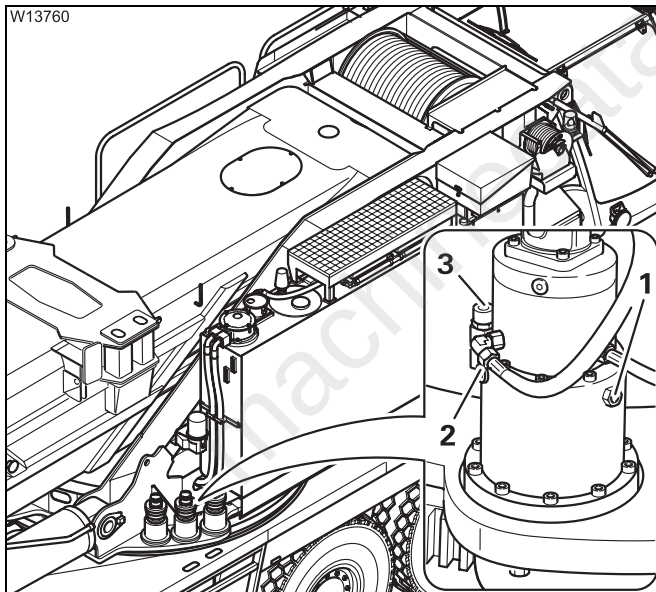
Designation	Quantity	GROVE part no.
Gasket 10 x 14 Cu DIN 7603	3	00117125

Prerequisites

- The truck crane is horizontal and is in on-road mode;  *Operating instructions*.
- The engine is not running and is secured against unauthorised use;  p. 2 - 3.

Checking the oil level

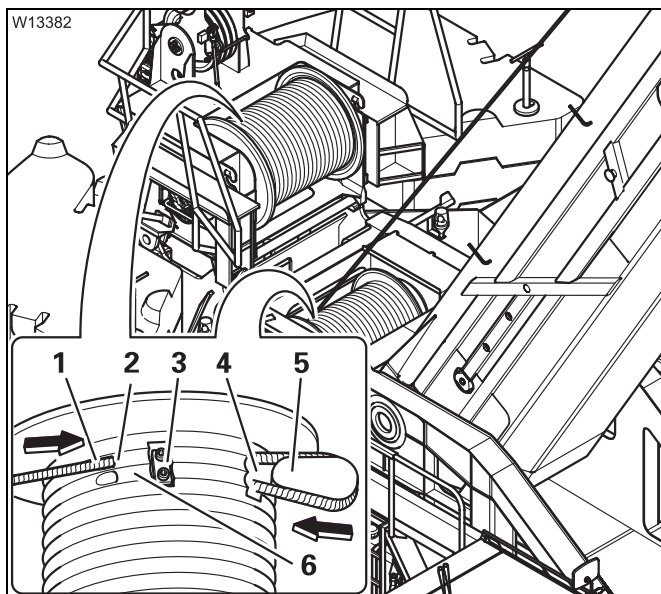
Always check the oil level prior to using the crane.



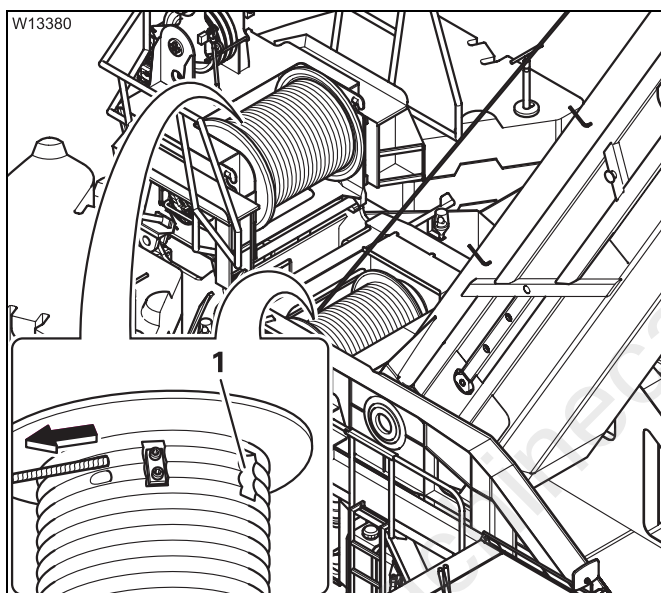
- Check whether oil is visible in the inspection glass (1).
- Always check the oil level for all the slewing gears.

If the oil level is too low:

- Unscrew the filter (3) and the screw (2).
- Add oil through the filler neck (3) until oil is visible in the inspection glass (1).
- Replace the seal and screw in the plug (2) and the filter (3).



- Push the rope (1) through the bore (2) until it protrudes approx. 1.5 m out of the pocket (4).
- Feed the free end of the rope back through the pouch into the hole (6).
- The rope end must not protrude out of the bore hole (6).
- Secure the clamp (3) and tighten it – torque 80 Nm.
- Place the rope wedge (5) in the loop.



- Push the rope back until rope wedge slips fully into the pouch (1).

- Start the engine; *Operating instructions*.
- Hold the rope taut and wind up the rope slowly.
- Reeve a hook block in – the reeve for the main hoist must have at least six lines, and at least eleven lines for the auxiliary hoist; *Operating instructions*.
- Raise the main boom to a steep position and extend it fully.
- Unwind the rope out until only five turns remain on the rope drum.

Full Version Available

Grove GMK 7450 All Terrain Crane Maintenance Manual

Grove GMK 7450 all terrain crane maintenance manual covering intervals, lubricants, fluids, filters and inspections. 276-page English PDF.

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