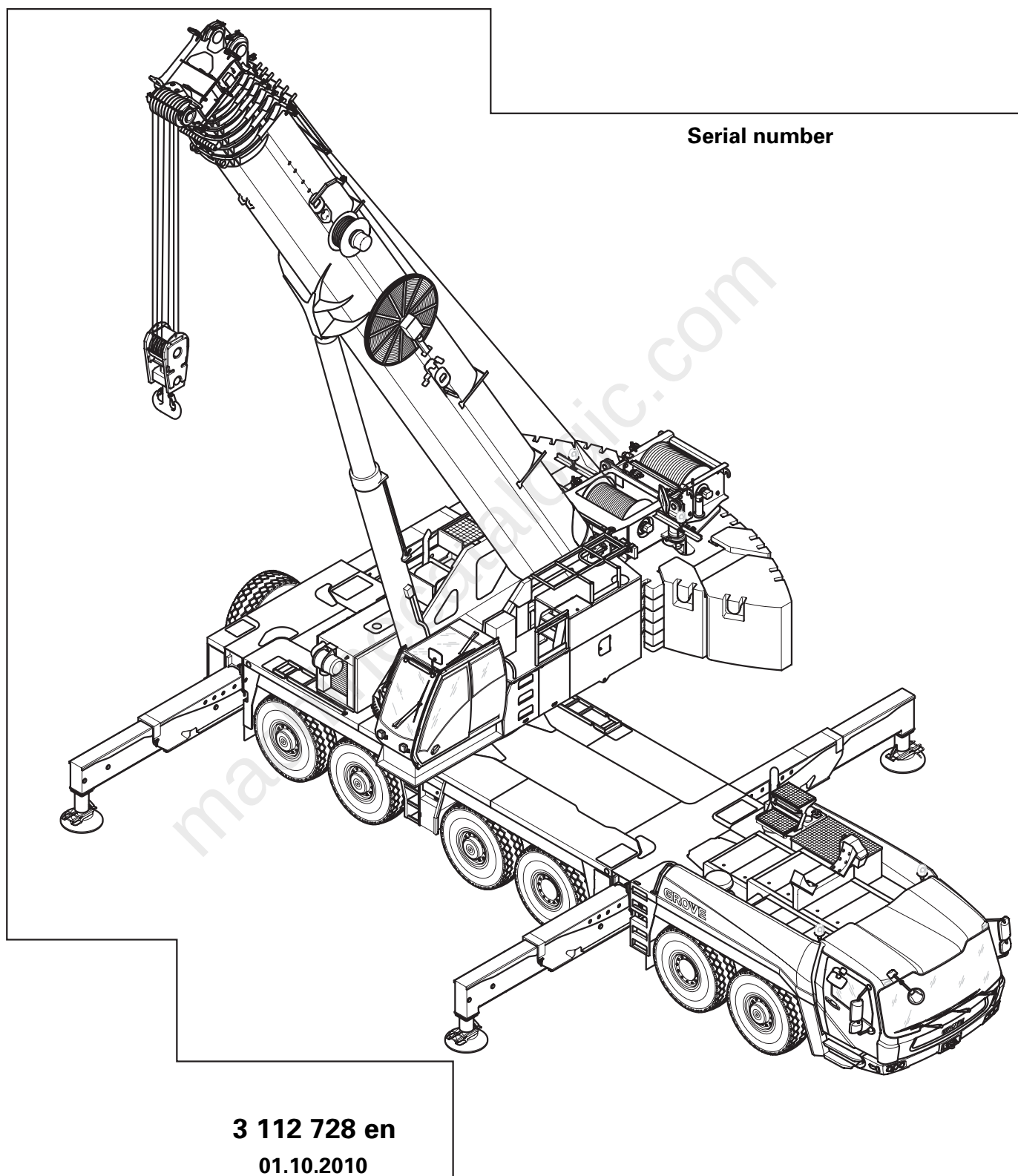


# GROVE **GMK 6300L**

## Maintenance manual



Grove

Manitowoc

National Crane

Potain

**Manitowoc**  
Crane Care

**M 12**

|                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Maintenance work on the SUPERSTRUCTURE:<br/>every twelve months/after 1 000 oper. hrs.</b>                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Engine</b><br>– Notes;  <i>Engine manufacturer's documentation</i>                                                                                                          |  p. 8 - 9                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Fuel system</b><br>– Changing fuel filters 2 and 3                                                                                                                                                                                                           |  p. 8 - 21                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Hoists</b><br>– Changing the oil/checking the oil                                                                                                                                                                                                            |  p. 8 - 28                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Slewing gear</b><br>– Changing the oil/checking the oil                                                                                                                                                                                                      |  p. 8 - 34                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Ball slewing bearing</b><br>– Measuring tilting play                                                                                                                                                                                                         |  p. 8 - 39                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Hydraulic system</b><br>– Changing the ventilation filter<br>– Pressure accumulator – checking the gas pressure<br>– Taking oil samples:<br>depending on the oil sample test results:<br>– Changing the hydraulic oil<br>– Changing the hydraulic oil filter |  p. 8 - 46<br> p. 8 - 47<br> p. 8 - 48<br> p. 8 - 52<br> p. 8 - 49 |
| <b>Main boom</b><br>– Checking the locking system                                                                                                                                                                                                               |  p. 8 - 61                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Hose drum</b><br>– Check bolted joints                                                                                                                                                                                                                       |  p. 8 - 82                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Hook blocks</b><br>– Lubricating                                                                                                                                                                                                                             |  p. 8 - 84                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Air-conditioning system</b><br>– Checking the entire air-conditioning system                                                                                                                                                                                 |  p. 8 - 88                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Other maintenance work</b><br>– Lubricating the crane cab door<br>– Lubricating the connecting and socket pins                                                                                                                                               |  p. 8 - 91<br> p. 8 - 92                                                                                                                                                                                                                                                                                                       |

### 7.7.3

## Axle centre drives – changing the oil

**M 12**

Oil, spare parts,  
tools

| Gear oil in litres                                                                                              | Designation according to DIN 51502 | Specification Classification                                         | GROVE part no. |
|-----------------------------------------------------------------------------------------------------------------|------------------------------------|----------------------------------------------------------------------|----------------|
| Axle line 1+5/6:<br><b>13.0 each</b><br>Axle line 5 <sup>1)</sup> :<br><b>14</b><br>Axle line 4:<br><b>16.5</b> | C - LPF                            | MIL-L 2105 B<br>API-GL-5<br>Viscosity:<br>Hyp SAE 90<br>ISO - VG 220 | 00552891       |

| for drive                 | Designation                | Quantity | GROVE part no. |
|---------------------------|----------------------------|----------|----------------|
| 12 x 6 x 12               | Gasket 30 x 36 Cu DIN 7603 | 3        | 00117151       |
|                           | Gasket 24 x 29 Cu DIN 7603 | 2        | 00117145       |
|                           | Gasket 36 x 42 Cu DIN 7603 | 3        | 01371208       |
| 12 x 8 x 12 <sup>1)</sup> | Gasket 30 x 36 Cu DIN 7603 | 4        | 00117151       |
|                           | Gasket 24 x 29 Cu DIN 7603 | 2        | 00117145       |
|                           | Gasket 36 x 42 Cu DIN 7603 | 4        | 01371208       |

<sup>1)</sup> Additional equipment (6th driven axle line)

– Receptacle, approx. 20 l; ■■■► p. 2 - 4.

### Prerequisites

- The truck crane is raised on outriggers or parked over an inspection pit.
- The engine is switched off and is secured against unauthorised use;  
■■■► p. 2 - 3.



#### Risk of environmental damage due to leaking consumables

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

Store/dispose of consumables and any soaked equipment properly.

Get information about the applicable regulations.

## 7.11

## Steering

### 7.11.1

### Checking for leaks

D

- Check the hydraulic system of the steering (steering cylinders, pipes and hose lines and their connections) for leaks.



#### **Risk of accidents from hydraulic oil spraying out**

Never tighten leaking connections when the system is under pressure. Only change pipes and hose lines when the system is depressurised.

- Top up oil if necessary; ➡ *Checking the oil level*, p. 7 - 67.

#### **After changing pipes and hose lines:**

- Bleed the hydraulic system; ➡ *Bleeding the hydraulic system*, p. 7 - 77.

#### **If damage cannot be rectified immediately or if further damage is likely:**

- notify **Manitowoc Crane Care** or an authorised GROVE dealer or your qualified repair personnel.

## 8.5

## Hoists

### 8.5.1

### Checking the oil level

W

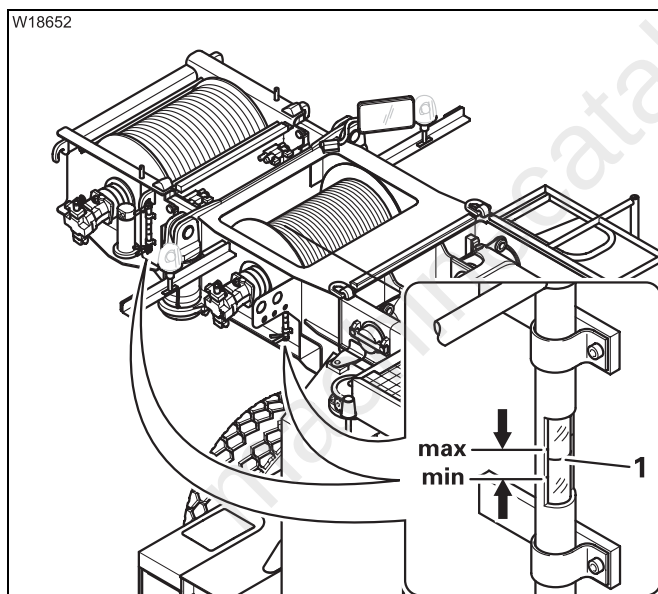
#### Spare parts and tools

| Designation                | Quantity | GROVE part no. |
|----------------------------|----------|----------------|
| Gasket 18 x 24 Cu DIN 7603 | 4        | 01377793       |

#### Prerequisites

- The truck crane is horizontal and is in on-road mode;  *Operating manual*.
- The engine is switched off and is secured against unauthorised use;  
 p. 2 - 3.

#### Checking the oil level



- Check whether the oil level is visible between the **min.** and the **max.** marks (1).

#### If the oil level is too low:

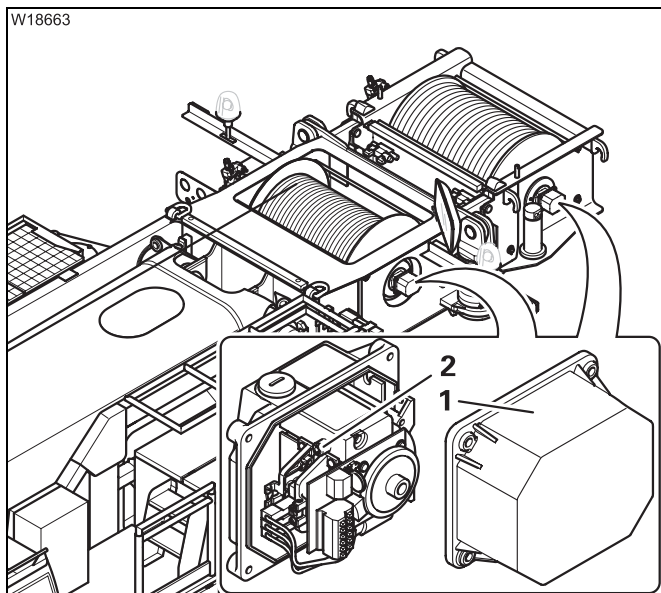
- Top up the oil;  p. 8 - 28.

### Setting the lowering limit switch



#### **Risk of accidents due to rope end fitting being overloaded**

The lowering limit switch must always be reset after repair work to the hoist and after rope replacement. A faulty lowering limit switch must always be replaced.



- Remove the cap (1).
- Turn the screw (2) until you hear the switch activate.
- Screw the cap on again.  
Replace the gasket if necessary.
- Check whether the lowering limit switch switches off the hoist correctly.

### Checking switch-off

- Raise the hook block until there are about 10 turns on the hoist drum.
- Lower the hook block and check whether the lowering limit switch switches off properly.

The lowering limit switch must switch off the hoist while five rope turns are still on the hoist drum.

- Correct the setting of the lowering limit switch if necessary.

## Full Version Available

### Grove GMK 6300L All Terrain Crane Maintenance Manual

Grove GMK 6300L all terrain crane maintenance manual, with intervals, lubrication, fluids, filters and inspections. 306-page English PDF.

**VIEW THE FULL MANUAL**

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