

<p><b>GMK 7450 (Tier 3a Mercedes Engine)</b> <b>1000-hour Maintenance Kit</b> <b>Part Number 04163129</b></p>
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Manitowoc Crane Care congratulates you for making the purchase of this maintenance kit. Good maintenance at the right time will make a difference in the daily reliability and long-term life of your GMK.

We offer this guide to help you utilize this kit efficiently.

Should you have any feedback or questions regarding this maintenance kit, please contact Manitowoc Crane Care.

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The 1000-hour kit basically follows the 12-month maintenance plan (M12) as shown in chapter 5 of the Maintenance manual. Please refer to the given Maintenance manual (**3 112 912**) for specific details and requirements.

Please note that there may appear to be some discrepancies with the part numbers given in the Maintenance manual compared to those in the kit. The kit contains the latest recommendations, where any discrepancies are a function of our continuous improvement program. For example, superseded part numbers may be for Engineering Design changes, improved technology, more cost-effective solutions or a different supply chain.

Consider additional maintenance items when completing, Y2, Y3, Y5, Y6 or Y10 intervals, such as transmission oil and filter, hoist inspection, slewing sensor, cable drums etc. – please refer to the Maintenance manual for more details.

## 5.2.6

## Maintenance plan M 12

## M 12

Maintenance work on the CARRIER: every twelve months/after 20 000 - 25 000 km (12 430 - 15 530 mi)	Lubricant	
	►►► p. 6 - 1	in litres (gal)
<b>Engine</b> – Notes; ►►► <i>Engine manufacturer's documentation.</i> – Notes on the maintenance group and FAME-based operation; ►►► p. 7 - 3.		
<b>Fuel system</b> – Changing the fuel filter; ►►► p. 7 - 13.		
<b>Axle lines</b> – Axle centre drives – changing the oil; ►►► p. 7 - 31. <sup>2)</sup> 1. and 5th axle lines 2. and 4th axle lines – Final drives – changing the oil; ►►► p. 7 - 34. <sup>2)</sup>	E 3  E 3  E 3	13.0 (3.5) each 16.5 (4.4) each 4.1 (1.0) each
<b>Suspension</b> – Pressure accumulator – checking the gas pressure; ►►► p. 7 - 48. <sup>1)</sup>		
<b>Compressed air system</b> – Replacing the filter cartridge of the compressed air drier; ►►► p. 7 - 53.		
<b>Hydraulic system</b> – Changing the ventilation filter; ►►► p. 7 - 60. <sup>4)</sup> – Taking oil samples; ►►► p. 7 - 61 <sup>3)</sup> (change oil, depending on the oil sample test results; p. 7 - 64). – Changing the hydraulic oil filter; ►►► p. 7 - 68. <sup>3)</sup>	G 2	200 (52.8)
<b>Air-conditioning system</b> – Checking the entire air conditioning system; ►►► p. 7 - 83.	R	
<b>Other maintenance work</b> – Lubricate the door hinges. – Lubricate the connecting and socket pins.	J J/A	

<sup>1)</sup> every 3000 oper. hrs or every 12 months at the latest

<sup>2)</sup> after the first 100 oper. hrs or 1000 km

<sup>3)</sup> operation under difficult conditions:  
– in extremely sandy or dusty areas, change the venting filters earlier, if necessary.  
– oil change intervals are to be halved if the crane is used in tropical or very warm climates.

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Maintenance work on the SUPERSTRUCTURE: every 12 months/after 1000 oper. hrs	Lubricant	
	■ p. 6 - 1	in litres (gal)
<b>Engine</b> – Notes; ■ <i>Engine manufacturer's documentation.</i> – Notes on the maintenance group and FAME-based operation; ■ p. 8 - 5.		
<b>Fuel system</b> – Changing fuel filters 1 and 3; ■ p. 8 - 15.		
<b>Hoists</b> – Changing the oil/Checking the oil; ■ p. 8 - 24 <sup>2)</sup> .	E 6	11.5 (3)
<b>Slewing gear</b> – Changing the oil; ■ p. 8 - 28.	E 6	0.9 (0.24) each
<b>Ball slewing bearing</b> – Measuring tilting play; ■ p. 8 - 33.		
<b>Pump transfer case</b> – Changing the oil; ■ p. 8 - 36.	E 3	3.3 (0.87)
<b>Hydraulic system</b> – Ventilation filter – changing the filter; ■ p. 8 - 43. – Taking oil samples; ■ p. 8 - 44 <sup>2)</sup> . – Changing the oil filter; ■ p. 8 - 45. – Changing the oil; ■ p. 8 - 49 (without Megalift).  – Changing the oil; ■ p. 8 - 49 (with Megalift) <sup>1)</sup> .	G 2   G 2	1570 (415)  1665 (440)
<b>Main boom</b> – Checking the locking system; ■ p. 8 - 60.		
<b>Hook blocks</b> – Lubricating; ■ p. 8 - 79 <sup>3)</sup> .	J	
<b>Air-conditioning system</b> – Checking the entire air conditioning system; ■ p. 8 - 85.	R	
<b>Other maintenance work</b> – Lubricate cabin door track rollers. – Lubricate the connecting and socket pins.	A J/A	

1) additional equipment

2) first oil change after 200 oper.hrs, the second after 1000 oper. hrs

3) first time after 100 oper. hrs

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## 1. What's in the box?



### List of contents

01576026	Breather	1
03045809	Oil filter element	1
03046526	Filter element pressure	1
03317083	Filter element, hydraulic	1
03319602	Ventilation filter element	1
03319653	Fuel filter element	1
03322865	Filter element	1
03322877	Filter, water separator	2
03325700	Filter element	1
03328262	Air filter cartridge	1
03328365	Engine oil filter	1
03328573	Filter insert, fuel	1
03329152	Filter element, hydraulic	2
04157569	Filter element complete	1
04158009	Filter, air dryer	1

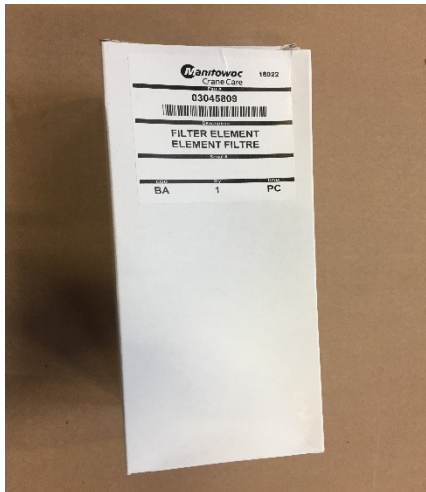
00117125	Sealing ring (slewing gear)	3
00117131	Seal (hoist oil)	2
00117132	Sealing ring (slewing gear)	3
00117134	Seal (transfer case)	1
00117137	Seal (hoist oil)	4
00117145	Seal (axle center drives, final drives, hoist oil)	16
00117151	Seal (transfer case, axle center drives)	5
01370144	Seal (super hydraulic oil filter 3)	1
01371208	Seal (axle center drives)	4
01372280	Gasket set (super hydraulic oil filter 2)	1
03043651	Sealing ring (super pump transfer case)	1
03045826	Seal (chassis engine fuel filter 2)	1
03135778	Gasket set complete (chassis hydraulic oil filters)	2
03137065	Gasket set (super hydraulic oil filter 3)	1
03135853	Gasket set (super hydraulic oil filter 1)	1

## 2. The Filters

1x 01576026 Chassis hydraulic tank breather



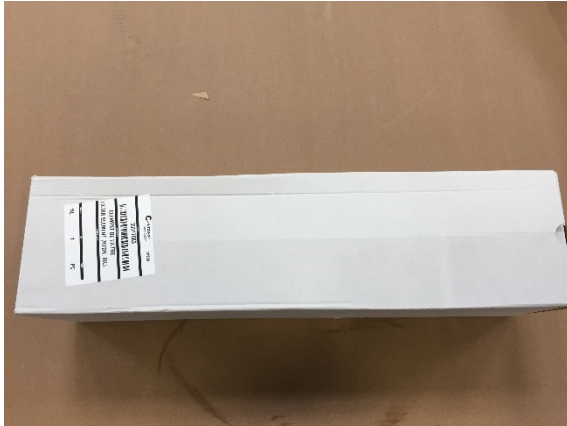
1x 03045809 Super engine oil filter



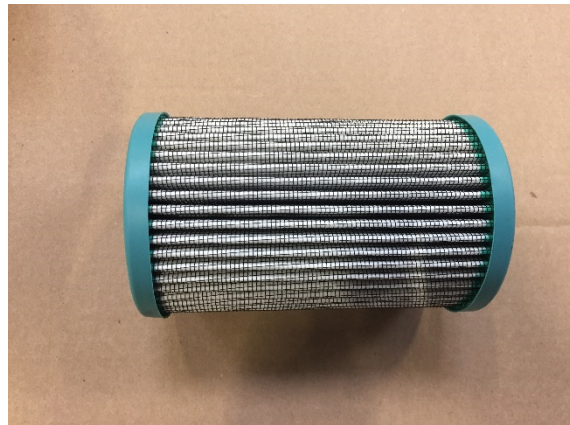
1x 03046526 Super hydraulic oil filter 3



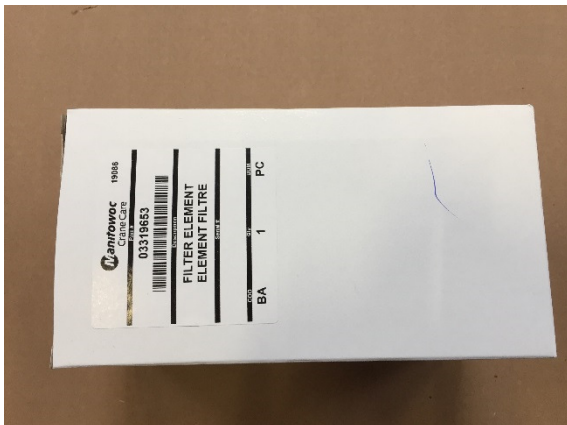
1x 03317083 Super hydraulic oil filter 2



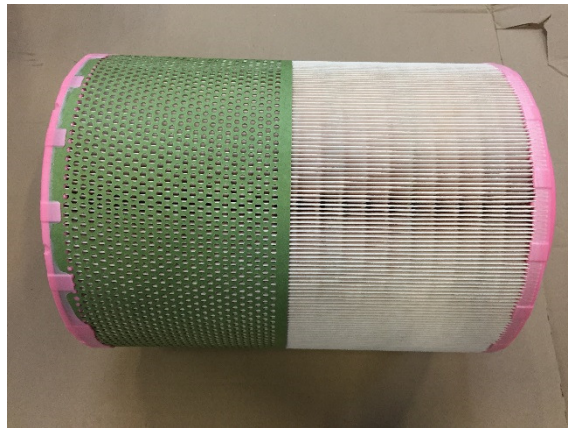
1x 03319602 Super hydraulic tank breather



1x 03319653 Chassis engine fuel filter 2



1 x 03322865 Super engine air filter



2x 03322877 Chassis engine fuel filter 1 & Super engine fuel filter 2



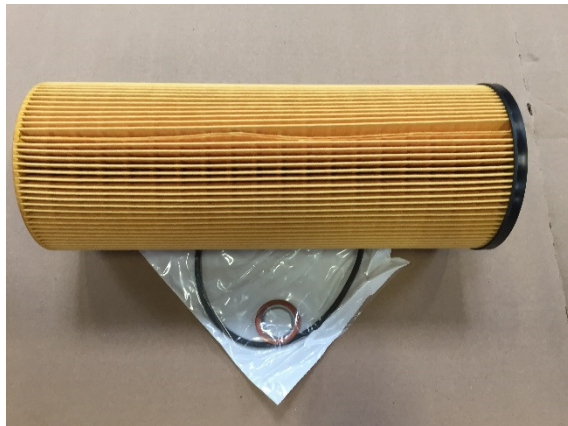
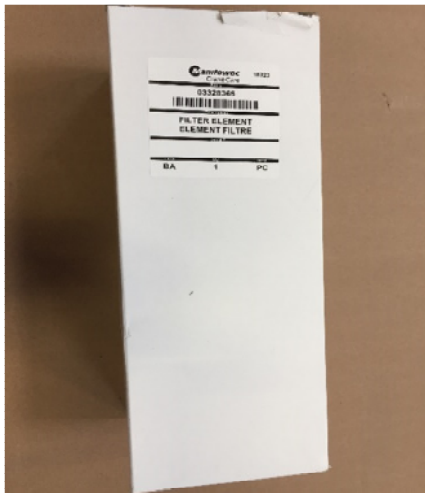
1x 03325700 Super hydraulic oil filter 1



1x 03328262 Chassis engine air filter



1x 03328365 Chassis engine oil filter



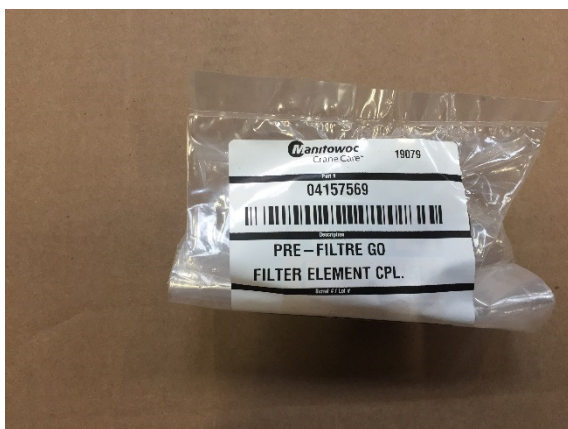
1x 03328573 Super engine fuel filter 1



2x 03329152 Chassis hydraulic oil filter 1 & 2



1x 04157569 Super engine fuel filter 3



1x 04158009 Air Dryer filter



### 3. The Seals

(see contents list for usage)



### 4. Additional maintenance items (not in the kit)

#### Oil condition analysis:

As part of the annual maintenance, you should take a sample from the hydraulic system (7.13.6 and 8.9.7) to determine the condition of the hydraulic oil.

We recommend our oil analysis kit, which is available under part number 03141012. The kit contains: an oil sample bottle, oil description form (to be completed) and return envelope. The price of this kit includes laboratory analysis of the sample and report that will be sent to your email address.



#### Oils and Greases

Many oils and greases will be available locally to you, we strongly recommend that the specifications given in chapter 6 of the Maintenance manual be followed when selecting any local equivalents.

These oils and greases have no equivalent and should be ordered from Manitowoc Crane Care as required:

- Sliding surface boom grease
  - 400 gr. cartridge for spray gun 03329071
  - 10 kg can 01373458
  - 25 kg bucket 02314698
- Cylinder rod corrosion protection (400ml spray) 01929824
- Boom pinning bolt grease (400g cartridge) 03313195
- Suspension lubricant (1-liter bottle) 02310863

## Suspension pressure accumulators

To perform the check of nitrogen pressure in the accumulators as explained in 7.10.4 and 7.12.2 of the Maintenance manual, Manitowoc Crane Care offers a test kit P/No 02257617 (gas bottle adapter and pressure regulator also required). Reference service bulletin SB D15-022 GMK suspension hydraulic accumulators.

## Maintenance video

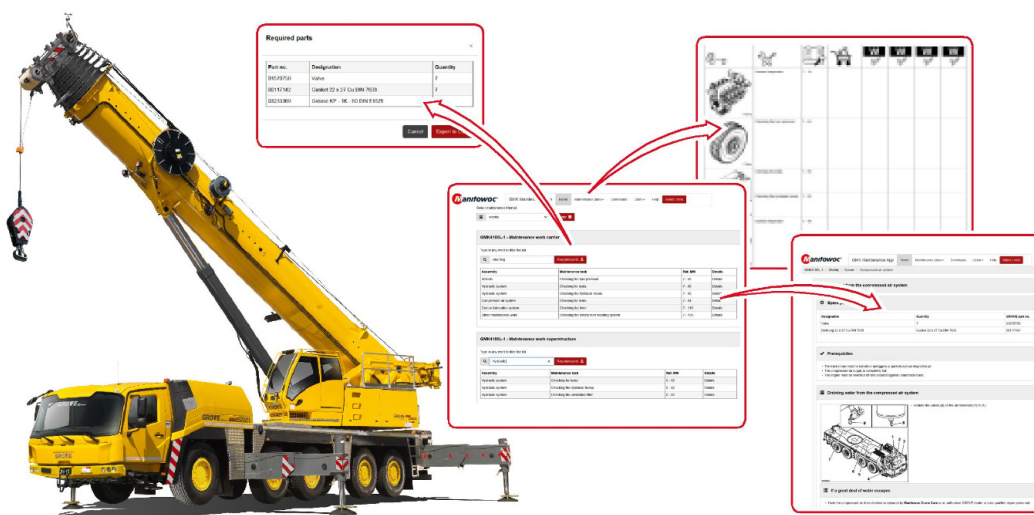
You may also find our video outlining some simple maintenance procedures useful, under the following link:

<https://www.manitowoccranes.com/en/Resources/videos/2016/Grove-GMKpreventive-maintenance>

## Maintenance App

When planning routine crane maintenance, consider utilizing our GMK Maintenance App.

- Freely accessible giving all details for current GMK production models
- Individual maintenance plans by interval or engine hours / mileage
- Including a description of the relevant tasks from the maintenance manual



Visit our dedicated website: <https://eu100.manitowoc.com/GMKMaintenance/>

Read the Quick Start Guide for using the App:

