

<p><b>GMK 6400</b> <b>1000-hour Maintenance Kit</b> <b>Part Number 04182195</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 (**3 302 756**) 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 For example, superseded part numbers may be for Engineering Design changes, improved technology, more cost-effective solutions or a different supply chain.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

<b>Maintenance work on the CARRIER:</b> Every twelve months/after 20,000 – 25,000 km (12,430 – 15,530 mi)	
<b>Engine</b> – Notes;  <i>Engine manufacturer's documentation</i> – Have the radiator checked/cleaned	 p. 7 - 13  p. 7 - 20
<b>Fuel system</b> – Changing fuel filter 2	 p. 7 - 31
<b>Exhaust system with exhaust emission control <sup>1)</sup></b> – Having the AdBlue system checked <sup>1)</sup>	 p. 7 - 39
<b>Transmission</b> – Checking the transmission oil level – Checking the oil level – power take-off	 p. 7 - 43  p. 7 - 44
<b>Axle lines</b> – Axle centre drives – changing the oil – Final drives – Changing the oil	 p. 7 - 61  p. 7 - 64
<b>Suspension</b> – Pressure accumulator – checking the gas pressure	 p. 7 - 82
<b>Steering</b> – Pressure accumulator – checking the gas pressure	 p. 7 - 84
<b>Compressed air system</b> – Replacing the compressed air dryer filter cartridge	 p. 7 - 87
<b>Hydraulic system</b> – Changing the ventilation filters – Taking oil samples: depending on the oil sample test results: – Changing the hydraulic oil – Changing the hydraulic oil filter	 p. 7 - 93  p. 7 - 94  p. 7 - 99  p. 7 - 103
<b>Air-conditioning system</b> – Cleaning the condenser fins – Checking the entire air-conditioning system – Changing the pollen filter	 p. 7 - 120  p. 7 - 120  p. 7 - 122
<b>Other maintenance work</b> – Lubricating the cab door – Lubricating the connecting pins and socket pins – Renewing the corrosion protection	 p. 7 - 133  p. 7 - 134  p. 7 - 135

<sup>1)</sup> *AdBlue system* additional equipment

**M 12**

<b>Maintenance work on the SUPERSTRUCTURE:</b> Every twelve months/after 1,000 oper. hrs.	
<b>Holsts</b> – Changing the oil/checking the oil – Checking the multiple-disk brake for water penetration – Checking the hoist brake under load	<p>➡ p. 8 - 14</p> <p>➡ p. 8 - 16</p> <p>➡ p. 8 - 18</p>
<b>Slewing gear</b> – Changing the oil/checking the oil	➡ p. 8 - 24
<b>Slewing bearing</b> – Lubricating the turntable lock	➡ p. 8 - 36
<b>Pump transfer case</b> – Changing the oil – Changing the oil filter	<p>➡ p. 8 - 41</p> <p>➡ p. 8 - 45</p>
<b>Hydraulic system</b> – Changing the ventilation filters – Taking oil samples: depending on the oil sample test results: – Changing the hydraulic oil – Changing the hydraulic oil filter – Have the radiator checked/cleaned	<p>➡ p. 8 - 53</p> <p>➡ p. 8 - 55</p> <p>➡ p. 8 - 61</p> <p>➡ p. 8 - 57</p> <p>➡ p. 8 - 64</p>
<b>Main boom</b> – Checking the locking system	➡ p. 8 - 74
<b>Hook blocks</b> – Lubricating	➡ p. 8 - 95
<b>Air-conditioning system</b> – Checking the entire air-conditioning system	➡ p. 8 - 101
<b>Other maintenance work</b> – Lubricating the crane cab door – Lubricating the step <sup>1)</sup> – Lubricating the connecting pins and socket pins – Renewing the corrosion protection	<p>➡ p. 8 - 106</p> <p>➡ p. 8 - 107</p> <p>➡ p. 8 - 108</p> <p>➡ p. 8 - 109</p>

<sup>1)</sup> Additional equipment

11.07.2019

## 1. What's in the box?



### List of contents

01576026	Breather	1
03046526	Filter element pressure	1
03134932	Breather	2
03135866	Pipe filter	1
03140253	Filter element, pressure	2
03317083	Filter element, hydraulic	1
03319653	Fuel filter element	1
03322877	Filter, water separator	1
03325700	Filter element	1
03328262	Air filter cartridge	1
03328365	Engine oil filter	1
03329152	Filter element, hydraulic	2
04157573	Pollen filter	1
04286260	Filter, air dryer	1
04286320	Filter element	2

00117125	Sealing ring (slewing gear)	3
00117132	Sealing ring (slewing gear)	3
00117134	Seal (transfer case)	1
00117141	Seal (super pump transfer case)	1
00117145	Seal (axle drives, final drives)	10
00117147	Seal (engine oil drain, PTO oil level, hoist oil level)	6
00117151	Seal (transfer case, axle drives)	7
01371208	Seal (axle drives)	2
01372280	O ring (super hydraulic oil filter 2)	1



01927403	Gasket (hoists oil level & brakes)	6
03043733	Sealing ring (hoists)	2
03045826	Seal (engine fuel filter 2)	1
03135778	Gasket set complete (chassis hydraulic oil filter 1 & 2)	2
03135853	Gasket set (super hydraulic oil filter 1)	1
03135867	Gasket set complete (chassis hydraulic oil filter 3 & 4)	2
03137065	Gasket set (super hydraulic oil filter 3)	1
03142532	O ring (chassis hydraulic oil filter 5 & 6)	2
03329824	Sealing ring (engine oil drain plug option 1)	1
03329825	Sealing ring (engine oil drain plug option 2)	1
04155708	O ring (transmission oil level)	2
04161645	Gasket set (super pump transfer case oil filter)	1

## 2. The Filters

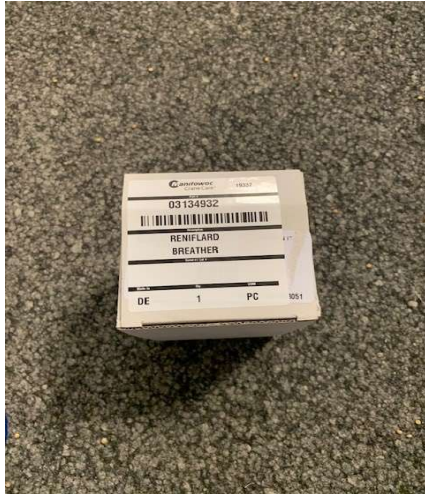
1x 01576026 Chassis hydraulic tank breather



1x 03046526 Super hydraulic oil filter 3



2x 03134932 Super hydraulic oil tank breather



1x 03135866 Super pump transfer case oil filter



2x 03140253 Chassis hydraulic oil filter 3 & 4



1x 03317083 Super hydraulic oil filter 2



1x 03319653 Engine fuel filter 2

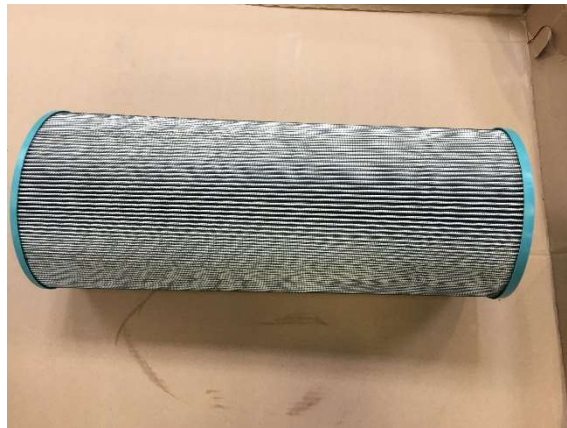


1x 03322877 Engine fuel filter 1





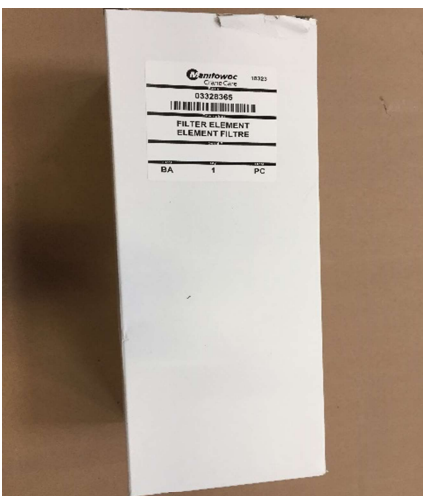
1x 03325700 Super hydraulic oil filter 1



1x 03328262 Engine air filter



1x 03328365 Engine oil filter





2x 03329152 Chassis hydraulic oil filter 1 & 2



1x 04157573 Chassis cab pollen filter



1x 04286260 Air Dryer filter with oil coalescer



## 2x 04286320 Chassis hydraulic oil filter 5 & 6



## 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 (7.14.6 and 8.7.7) 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.



**DEF (Ad-Blue) Filter:**  
GMK 6400: 1x 04157650



**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 Maniowoc 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**
- Turntable bearing gear teeth adhesive grease (400ml spray) **S-01032-63**
- Central lub. system, cardan shafts etc. high graphite, wide temperature Universal grease (1kg can) **04163374**

**Suspension pressure accumulators**

To perform the check of nitrogen pressure in the accumulators as explained in 7.11.4 and 7.12.2 of the Maintenance manual, Maniowoc 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**

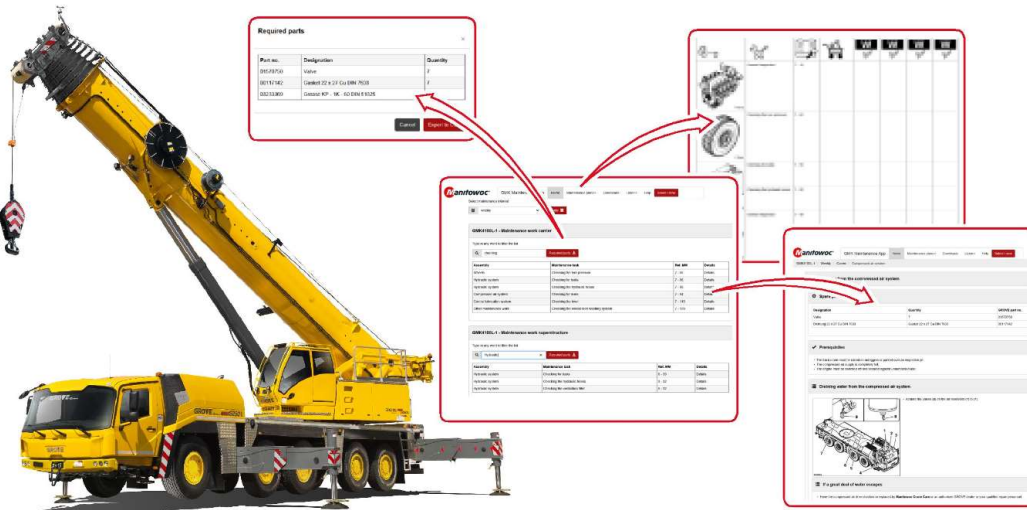
You may also find our video outlining some simple maintenance procedures useful, under the following link:

<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:

