

**GMK 7450 (Tier 4F Cummins Engine)  
1000-hour Maintenance Kit  
Part Number 04299638**



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 (**3 302 577**) 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 For example, superseded part numbers may be for Engineering Design changes, improved technology, more cost-effective solutions or a different supply chain.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 12 months / after 20,000 - 25,000 km (12 430 - 15 530 mi)	
<b>Engine</b> – Notes;  Engine manufacturer's documentation – Have the radiator checked/cleaned – Changing the coolant – Changing the coolant cartridge	 P. 7 - 11  P. 7 - 19  P. 7 - 23  P. 7 - 25
<b>Exhaust system with exhaust emission control</b> – Having the AdBlue system checked – Having the soot particle filter system checked	 P. 7 - 39  P. 7 - 40
<b>Axle lines</b> – Axle centre drives – changing the oil – Final drives – Changing the oil	 P. 7 - 57  P. 7 - 60
<b>Suspension</b> – Pressure accumulator – checking the gas pressure	 P. 7 - 80
<b>Compressed air system</b> – Replacing the filter cartridge of the compressed air drier	 P. 7 - 85
<b>Hydraulic system</b> – Changing the ventilation filter – Taking oil samples: depending on the oil sample test results: – Changing the hydraulic oil – Changing the hydraulic oil filter	 P. 7 - 91  P. 7 - 92  P. 7 - 97  P. 7 - 101
<b>Air-conditioning system</b> – Cleaning the condenser fins – Checking the entire air-conditioning system – Changing the pollen filter	 P. 7 - 114  P. 7 - 114  P. 7 - 116
<b>Other maintenance work</b> – Lubricating the cab door – Lubricating the connecting and socket pins – Renewing the corrosion protection	 P. 7 - 121  P. 7 - 122  P. 7 - 123

**M 12**

<b>Maintenance work on the SUPERSTRUCTURE: every 12 months/after 1,000 operating hours</b>	
<b>Engine</b> – Notes;  <i>Engine manufacturer's documentation</i> – Have the radiator checked/cleaned – Changing the coolant	 P. 8 - 13  P. 8 - 21  P. 8 - 25
<b>Exhaust system with exhaust emission control</b> – Having the AdBlue system checked – Having the soot particle filter system checked	 P. 8 - 39  P. 8 - 40
<b>Hoists</b> – Changing the oil/checking the oil – Checking the multiple-disk brake for water penetration – Checking the hoist brake under load	 P. 8 - 46  P. 8 - 48  P. 8 - 50
<b>Slewing gear</b> – Changing the oil/checking the oil	 P. 8 - 56
<b>Slewing bearing</b> – Lubricating the locking of turntable	 P. 8 - 68
<b>Pump transfer case</b> – Changing the oil	 P. 8 - 70
<b>Hydraulic system</b> – Changing the ventilation filter – Pressure accumulator – checking the gas pressure – Taking oil samples: depending on the oil sample test results: – Changing the hydraulic oil – Changing the hydraulic oil filter	 P. 8 - 79  P. 8 - 80  P. 8 - 80  P. 8 - 86  P. 8 - 82
<b>Main boom</b> – Checking the locking system	 P. 8 - 99
<b>Hook blocks</b> – Greasing	 P. 8 - 119
<b>Air-conditioning system</b> – Cleaning the condenser fins – Checking the entire air-conditioning system	 P. 8 - 126  P. 8 - 126
<b>Other maintenance work</b> – Lubricating the crane cab door – Lubricating the connecting and socket pins – Renewing the corrosion protection	 P. 8 - 131  P. 8 - 132  P. 8 - 133

11.07.2019

## 1. What's in the box?



### List of contents

#### Filters

01576026	Breather	1
02212145	Filter	1
03317083	Filter element, hydraulic	1
03319602	Ventilation filter element	1
03325700	Filter element	1
03329152	Filter element, hydraulic	2
04241344	oil filter	1
04241506	coolant cartridge	1
04256761	air filter	1
04256762	air filter	1
04257232	Filter element	1
04286260	Filter, air dryer	1
90000924	fuel filter	1
90024700	fuel filter	1
90025830	air filter	1
90025831	air filter	1
90026681	fuel filter	1
90039607	fuel filter	1
9414101679	oil filter	1

#### Seals

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



00117147	Seal (hoist oil)	4
00117151	Seal (transfer case, axle center drives)	5
01371208	Seal (axle centre drives)	4
01372280	Gasket set (super hydraulic oil filter 2)	1
01927403	Gasket (hoist brakes)	2
03043651	Sealing ring (super pump transfer case)	2
03135778	Gasket set (chassis hydraulic oil filters)	2
03135853	Gasket set (super hydraulic oil filter 1)	1
04241329	o ring (chassis engine oil filter drain)	1
9414101344	o ring (super engine oil filter drain)	1

## 2. The Filters

1x 01576026 Chassis hydraulic tank breather



1x 02212145 Chassis cab filter



1x 03317083 Super hydraulic oil filter 2



1x 03319602 Super hydraulic tank breather



1x 03325700 Super hydraulic oil filter 1



2x 03329152 Chassis hydraulic oil filter 1 & 2



1x 04241344 Chassis engine oil filter



1x 04241506 Chassis engine coolant filter

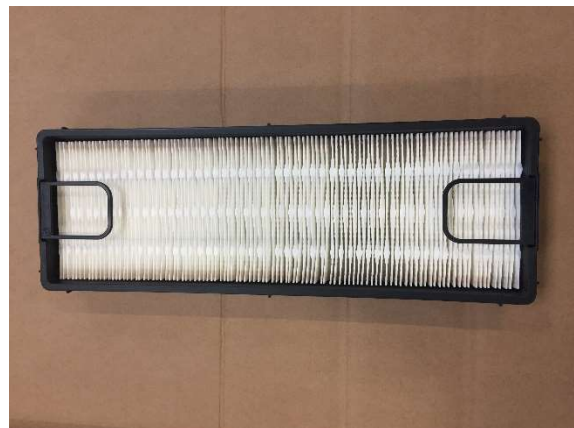




1x 04256761 Super engine main air filter



1x 04256762 Super engine back-up air filter



1x 04257232 Super hydraulic filter 3





1x 04286260 Air Dryer filter with oil coalescer



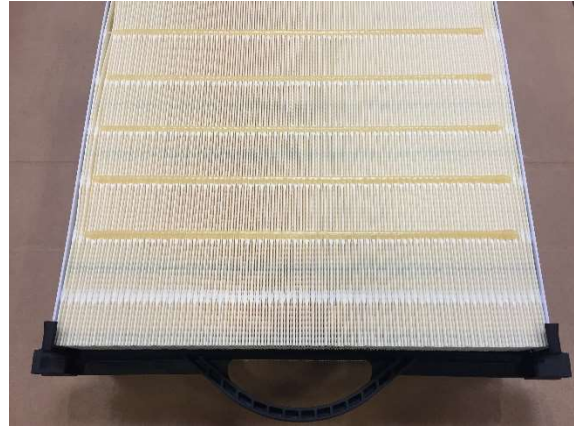
1x 90000924 Chassis engine fuel filter 1



1x 90024700 Super engine fuel filter 2



1x 90025830 Chassis engine main air filter



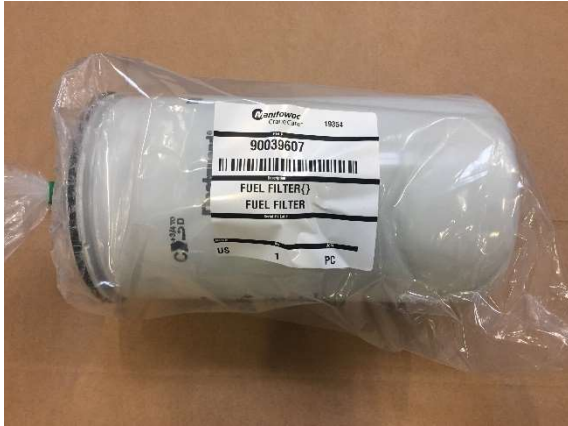
1x 90025831 Chassis engine back-up air filter



1x 90026681 Super engine fuel filter 1



1x 90039607 Chassis engine fuel filter 2



1x 9414101679 Super engine oil 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 (7.14.6 and 8.10.8) 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 7450 T4f: 2x 940020446 (1x Chassis, 1x Super)



##### 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**
- 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 8.10.7 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

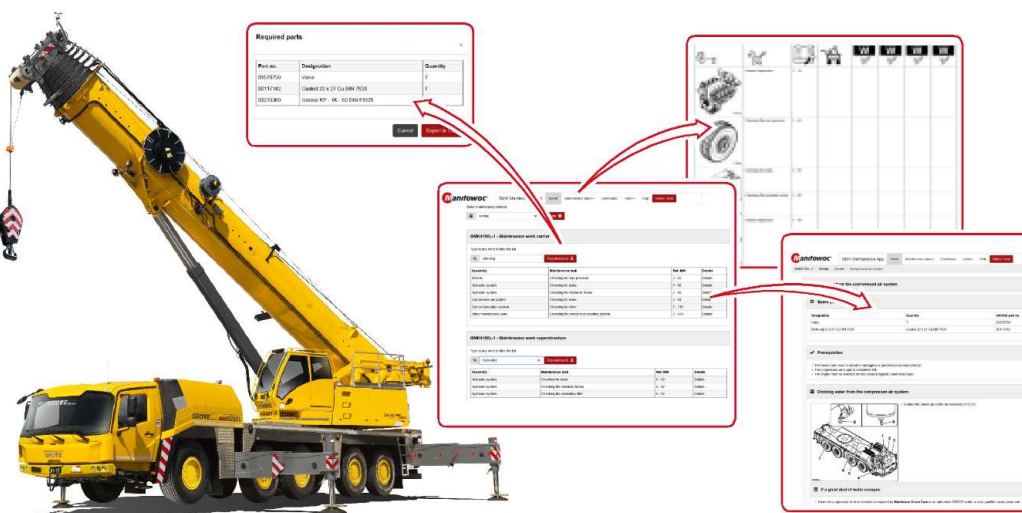
You may also find our video outlining some simple maintenance procedures useful, under the following link:

<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:

