

**GMK 3050-1, 3055, 3060
1000-hour Maintenance Kit
Mercedes E3b / T4i engine
Part Number 03065749**



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.

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 (**3 112 740, GMK 3050-1 & 3055; 3 302 477, GMK 3060**) 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 For example, superseded part numbers may be for Engineering Design changes, improved technology, more cost-effective solutions or a different supply chain.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)	
Engine – Notes; ➡ <i>Engine manufacturer's documentation</i>	➡ p. 7 - 13
Fuel system – Replacing fuel filter 2	➡ p. 7 - 27
Exhaust system with exhaust emission control¹⁾ – Having the urea system checked ¹⁾	➡ p. 7 - 33
Transmission – Checking the oil level	➡ p. 7 - 35
Axle lines – Axle centre drives – changing the oil – Final drives – Changing the oil	➡ p. 7 - 41 ➡ p. 7 - 44
Suspension – Pressure accumulator – checking the gas pressure	➡ p. 7 - 60
Steering – Pressure accumulator – checking the gas pressure	➡ p. 7 - 60
Compressed air system – Replacing the filter cartridge of the compressed air drier	➡ p. 7 - 65
Hydraulic system – 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 - 70 ➡ p. 7 - 72 ➡ p. 7 - 77 ➡ p. 7 - 82
Air-conditioning system – Checking the entire air-conditioning system – Changing the pollen filter	➡ p. 7 - 96 ➡ p. 7 - 98
Other maintenance work – Lubricating the cab door – Lubricating the connecting and socket pins	➡ p. 7 - 109 ➡ p. 7 - 110

¹⁾ Additional equipment *Urea system*

M 12

Maintenance work on the SUPERSTRUCTURE: every twelve months/after 1 000 oper. hrs.	
Hoists – Changing the oil/checking the oil	➡ p. 8 - 12
Slewing gear – Changing the oil/checking the oil – Slewing gear transmission – Changing the oil/checking the oil – Slewing gear brake	➡ p. 8 - 19 ➡ p. 8 - 21
Ball slewing bearing – Have tilting play measured	➡ p. 8 - 25
Hydraulic system – Pressure accumulator – checking the gas pressure – Changing oil filter 3	➡ p. 8 - 28 ➡ p. 8 - 29
Main boom GMK 3055 – Checking the locking system	➡ p. 8 - 36
Hook blocks – Lubricating	➡ p. 8 - 71
Air-conditioning system – Checking the entire air-conditioning system	➡ p. 8 - 75
Other maintenance work – Lubricating the crane cab door – Lubricating the connecting and socket pins	➡ p. 8 - 79 ➡ p. 8 - 80

1. What's in the box?



List of contents

03134850	Hydraulic oil filter 1 & 2	4
03142356	Hydraulic oil filter 3	1
03142357	Hydraulic oil filter 4	1
03142360	Hydraulic tank breather	2
03319653	Engine fuel filter 2	1
03322877	Engine fuel filter 1	1
03324183	Engine air filter	1
03326193	Cab pollen filter	1
03328365	Engine oil filter	1
04157570	Engine fuel pre-filter	1
04286260	Air dryer filter	1

00117125	Seal - slew unit oil level	1
00117132	Seal - slew unit oil drain	1
00117134	Seal - axle centre drives level	2
00117142	Seal -transmission oil drain	1
00117145	Seal – transm oil level, axle centre & final drives level	8
00117151	Seal - axle centre drives level	3
01371208	Seal - axle centre drives drain	3
01377793	Seal - main & aux hoist level, hoist drain	10
03046046	Seal - slew brake oil level	1
03135629	Engine cylinder cover gasket	5
03319661	Engine cylinder cover seal	1
03326049	Seal kit - hydraulic oil filter 3 & 4	2
03329824	Seal - engine oil drain	1

2. The Filters

4x 03134850 Hydraulic oil filter 1 and 2



1x 03142356 Hydraulic oil filter 3



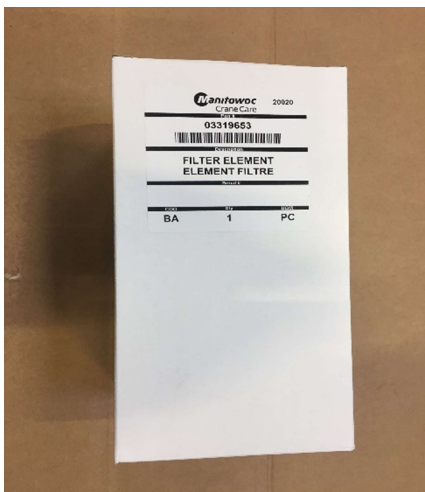
1x 03142357 Hydraulic oil filter 4



2x 03142360 hydraulic oil tank ventilation filter



1x 03319653 Engine fuel filter 2



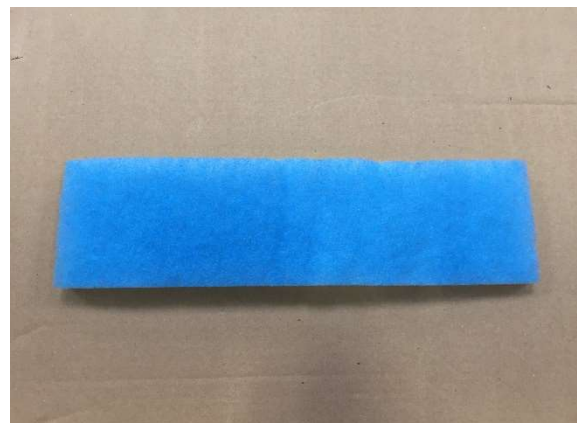
1x 03322877 Engine fuel filter 1



1x 03324183 Engine air filter



1x 03326193 Chassis cab pollen filter



1x 03328365 Engine oil filter



1x 04157570 Engine fuel pre-filter



1x 04286260 Air Dryer filter with oil coalescer



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 (7.13.5) 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 3050-1, 3055, 3060: 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 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 7.5.4, 7.10.4 and 8.6.3 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

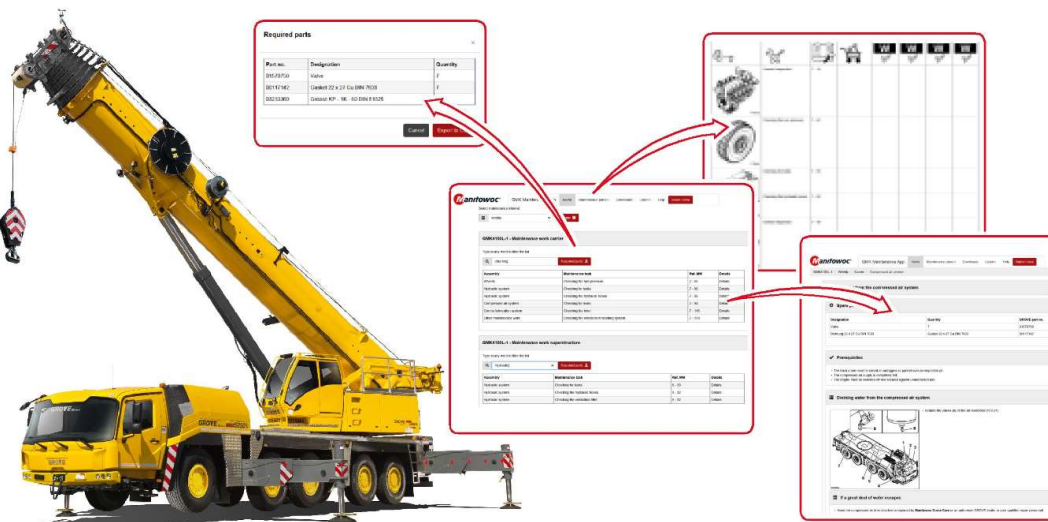
You may also find our video outlining some simple maintenance procedures useful, under the following link:

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

Maintenance App

When planning your 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:

