

SERVICE MANUAL

9040L / 9040M / 9060L H / 9060L / 9080L H
9080L / 9090L GE / 9090L H / 9090L
Grape Harvester

Part number 84490331C
English
April 2014





SERVICE MANUAL



9040L
9040M
9060L
9080L
9090L

Link Product / Engine

Product	Market Product	Engine
9040L	Europe	F4HE9484
9040L	International Region	F4HE9484
null [HAG00690K00002 -]	Europe	F4HE9687
null [HAG00690K00002 -]	International Region	F4HE9687
9080L	International Region	F4HE9687
9080L	Europe	F4HE9687
9090L	Europe	F4HE9687
9090L	International Region	F4HE9687
9040M	Europe	F4HE9484
9040M	International Region	F4HE9484

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INTRODUCTION

Foreword

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IMPORTANT INFORMATION

All repair and maintenance operations described in this manual must be carried out exclusively by the New Holland Service network, strictly complying with the instructions provided and using specific tools as required.

Any operator who carries out the operations specified in this document without complying strictly with the instructions provided shall be personally liable for the damages that may result.

The manufacturer and all organizations in its distribution chain, including, without limitation, national, regional, and local dealers, do not accept any liability for damages resulting from a malfunction of parts and/or components not approved by the manufacturer and used for maintenance operations and/or repair of products manufactured or marketed by the manufacturer. In no case is a warranty granted to the product manufactured or marketed by the manufacturer in case of damage caused by improper operation of parts and/or components not approved by the manufacturer.

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Foreword

Technical Information

This information in this manual has been structured using a unique coding environment. This is the way in which technical information is created, stored and retrieved in the Technical Information Database. The location (on the machine) has been coded using SAP coding to align locations with the warranty system.

The coding classifies all information in three ways.

The first category is the Location, the second category is the Information Type and the third category is the Product:

- LOCATION - is the component or function on the machine, that the piece of technical information is going to describe e.g., Fuel tank.
- INFORMATION TYPE - is the piece of technical information that has been written for a particular component or function on the machine e.g. Capacity would be a type of Technical Data that would describe the amount of fuel held by the Fuel tank.
- PRODUCT - is the model that the piece of technical information is written for.

Every piece of technical information will have those 3 categories attached to it. You will be able to use any combination of those categories to find the right piece of technical information you need to resolve that customers concern on his machine.

That information could be:

- the description of how to remove the cylinder head
- a table of specifications for a hydraulic pump
- a fault code
- a troubleshooting table
- a special tool

How to Use this Manual

This manual is divided into Sections. Each Section is then divided into Chapters. Contents pages are included at the beginning of the manual, then inside every Section and inside every Chapter. An alphabetical Index is included at the end of a Chapter. Page number references are included for every piece of technical information listed in the Chapter Contents or Chapter Index.

Each Chapter is divided into four Information types:

- Technical Data (specifications) for all the mechanical, electrical or hydraulic devices, components and, assemblies.
- Functional Data (how it works) for all the mechanical, electrical or hydraulic devices, components and assemblies.
- Diagnostic Data (fault codes, electrical and hydraulic troubleshooting) for all the mechanical, electrical or hydraulic devices, components and assemblies.
- Service data (remove disassembly, assemble, install) for all the mechanical, electrical or hydraulic devices, components and assemblies.

Basic instructions

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SHIMMING

For each adjustment operation, select adjusting shims, individually measure using a micrometer, then add up the recorded values. Do not rely on measuring the entire shimming set, which may be incorrect, and do not rely on the rated value indicated on each shim.

ROTATING SHAFT SEALS

For correct rotating shaft seal installation, proceed as follows:

- Before assembly, allow the seal to soak for at least thirty minutes in the oil it will be sealing.
- Thoroughly clean the shaft, and check that the working surface on the shaft is undamaged.
- Fit the lip seal toward the fluid. If you are fitting a hydrodynamic lip seal, the grooves should be oriented so that the fluid is directed toward the inner side of the seal (take the shaft direction of rotation into consideration).
- Coat the lip seal with a thin layer of lubricant (use oil rather than grease), then fill the gap between the lip seal and the dust lip seal of the double-lip seals with grease.
- Insert the seal into its seat and press down using a flat punch. Do not tap the seal with a hammer or mallet.
- During assembly, make sure that the seal is fitted perpendicularly to its seat. Once this operation is completed, check to make sure that the seal is in contact with the bearing stop, if required.
- To prevent damaging the lip seal on the shaft, fit an appropriate protective guard during installation.

"O" RINGS

Lubricate the "O" rings before fitting them into the seats. This prevents them from overturning and twisting, which would make them ineffective.

SEALING COMPOUNDS

Apply one of the following sealing compounds to the mating surfaces marked with an X: Silmate RTV, Rhodorsil CAF 1, or Loctite Plastic Gasket. Before applying the sealing compound, prepare the surfaces as follows:

- Remove any dirt using a metal brush.
- Thoroughly degrease the surfaces using one of the following cleaning agents: trichloroethylene, gasoline, or a water and soda solution.

SPLIT PINS

When fitting split pins, make sure that the pin notch is positioned in the direction of the force required to stress the pin. Spiral split pins do not require special positioning.

PROTECTING THE ELECTRONIC/ELECTRICAL SYSTEMS DURING CHARGING OR WELDING

To avoid damaging the electronic/electrical systems, always follow the safety instructions below:

1. Never make or break any of the charging circuit connections, including the battery connections, when the engine is running.
2. Never short any of the charging components to ground.
3. Always disconnect the ground cable from the battery before arc welding on the machine or any header attached to the machine.
 - Position the welder ground clamp as close to the welding area as possible.
 - If welding in close proximity to a computer module, the module should be removed from the machine.
 - Never allow welding cables to lay on, near, or across any electrical wiring or electronic component while welding is in progress.
4. Always disconnect the negative cable from the battery when using a battery charger to carry out charging procedures on the machine.

NOTICE: *If welding has to be carried out on the machine or the header (if it is attached), disconnect the battery ground cable from the machine battery. The electronic monitoring system and charging system will be damaged if this is not done.*

Remove the battery ground cable. Reconnect the cable when welding is completed.



WARNING



Battery acid causes severe burns. Batteries contain sulfuric acid. Avoid contact with skin, eyes or clothing. Antidote - EXTERNAL: flush with water. INTERNAL: drink large quantities of water or milk. Follow with milk of magnesia, beaten egg or vegetables oil. Call physician immediately. EYES: flush with water for 15 minutes and get prompt medical attention.



SERVICE MANUAL

Rear axle system



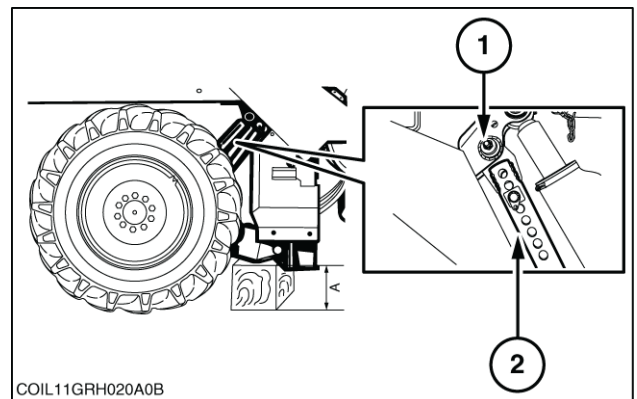
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Rear axle - Transform - Changing the rear track -

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NOTE: To change the rear track of the machine by **160 mm (6.3 in)**, you must turn over the wheel arm fastening bearings. The bearings are moved by **40 mm (1.6 in)**.

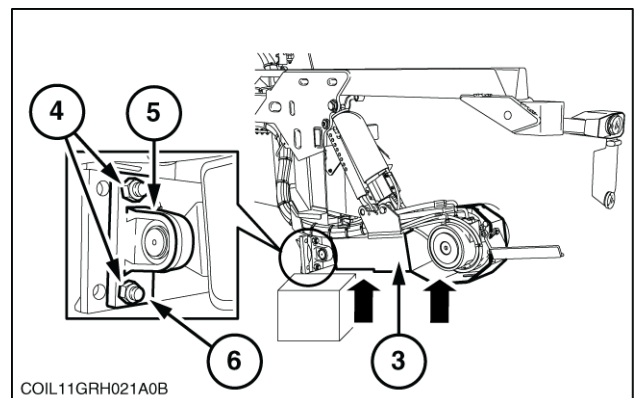
1. Remove the corresponding rear wheel. To do this:
 - Apply the parking brake.
 - Lift the machine using its standalone system.
 - Place a cubed wooden block measuring **A = 450 mm (17.7 in)** under the rear wheel arm pivot.
 - Lower the machine using its standalone system until the wheel is just off the ground.
 - Shut down the engine.
 - Remove the wheel.
2. Remove the pin (1) of the height stop telescopic tube (2).



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3. Place a mobile lifting device under the wheel arm (3).
4. Remove the 4 fixing screws (4) from the 2 fastening bearings (5).



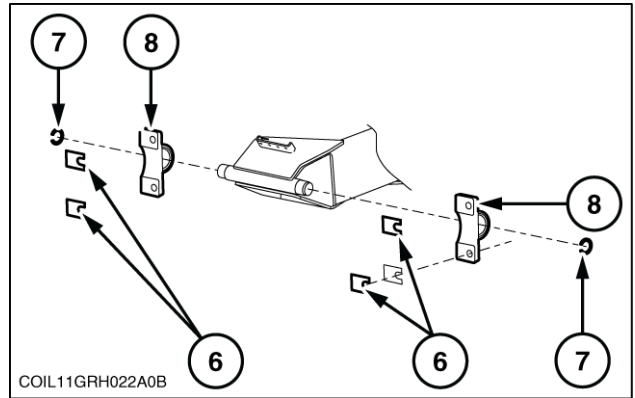
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5. Mark the position of the spacer rings (6).

ATTENTION: When reassembling, you must put spacer rings of the same thickness under each bearing.

6. Remove the spring retaining rings (7) and pull out the bearings (5).



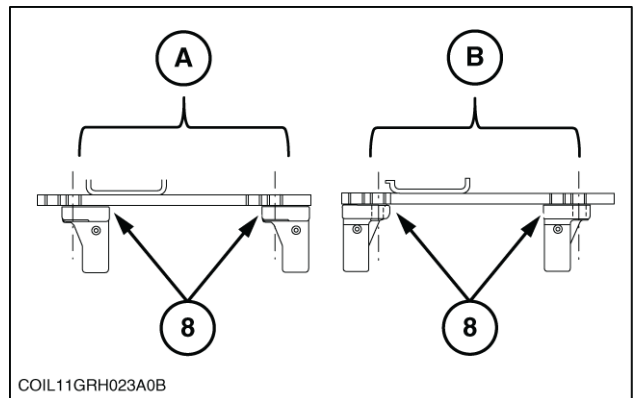
COIL11GRH022A0B 3

7. Fit the bearings (8) onto the wheel arms at the required track width.

- Position A = wide track.
- Position B = narrow track.

8. Replace the spring retaining rings (7).

9. Replace the screws (4), inserting the corresponding spacer rings. The tightening torque of the screws (4) is **650 N·m (5753.0 lb in)**.

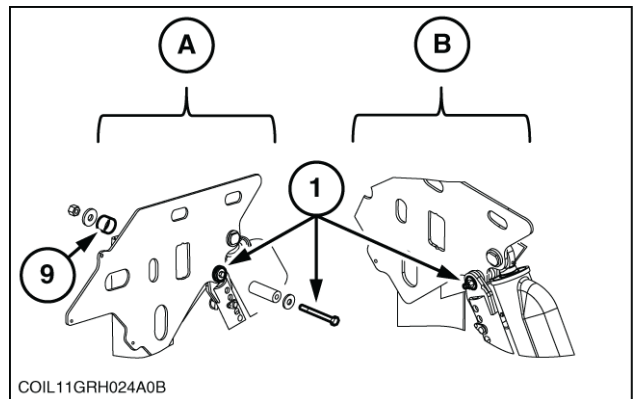


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NOTE: The diagrams show the positions of the right-hand wheel arm. The bearings are always fitted in the same holes located towards the outside of the machine. To change the track width, the bearings are simply turned over. For information, the other holes are not used.

10. Replace the pin (1) of the height stop tube according to the desired track width.

- Position A = wide track, the spacer (9) will be on the outside of the chassis.
- Position B = narrow track, the spacer (9) will be on the inside of the chassis.

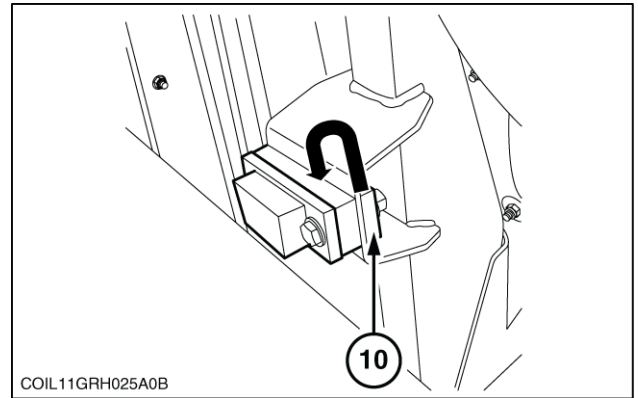


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11. Remove the mobile lifting device.
12. Replace the wheel. The tightening torque of the wheel is **700 N·m (6195.5 lb in)**.
13. Start the engine and raise the machine using its hydraulic system. Remove the wooden wedge.

14. Adjust the side stops of the harvesting equipment.

- The diagram shows how the stop is fitted when the machine track is in the wide position. The spacer ring (10) is fitted inside the bracket.
- When the machine track is in the narrow position, this spacer ring (10) must be fitted on the outside of the bracket. The 2 spacer rings are both on the outside of the bracket.



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NOTE: The swinging of the harvesting machine will therefore be reduced.

Pump - Remove - Forward control pump-

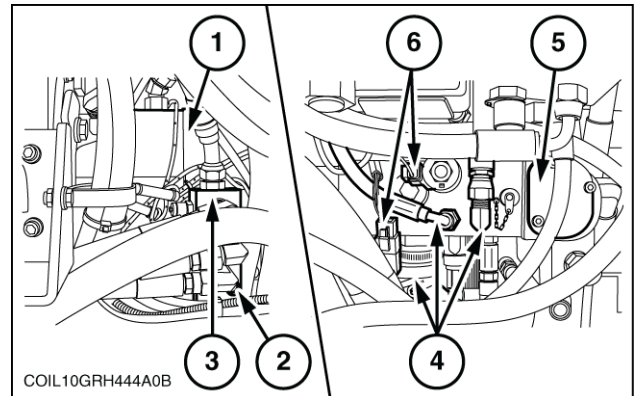
NOTE: When removing the hydraulic piping, have a suitable container readily available to capture any residual hydraulic oil.

1. Remove the shaker control pump. (see instructions)
Hydraulic systems - Remove - Shaker control pump - (35.000).
2. Remove the cleaning control pump. (see instructions)
Hydraulic systems - Remove - Cleaning control pump - (35.000).
3. Unscrew the four screws (2) from the inside of the machine to remove the connection block (3). This block will remain at the end of the hoses.

NOTE: Recover the O-rings located between the block (3) and the HP block (5).

4. Disconnect all the hoses (4) from the HP block (5).
5. Disconnect all the electrical cables (6) from the HP block (5).
6. Take out the HP block (5) by removing the four fixing screws.

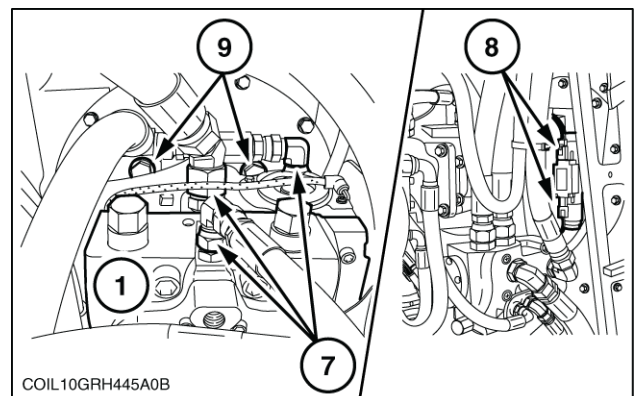
ATTENTION: The component weighs approximately **45 kg (99.2 lb)**. Install a suitable lifting device.



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7. Disconnect all the hoses (7) from the pump (1).
8. Disconnect the two electrical cables (8) from the servo-control unit.
9. Remove the four screws (9) and pull the pump (1) out.

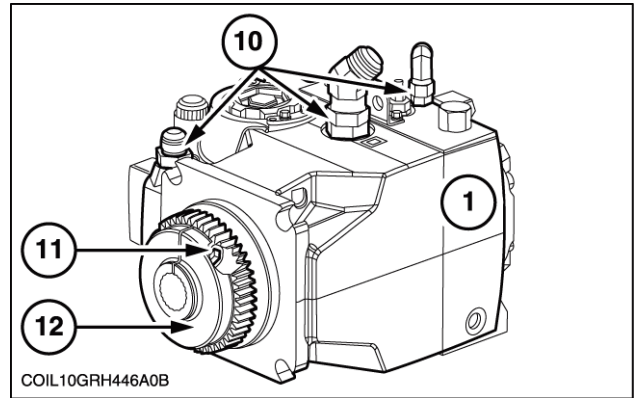
ATTENTION: The component weighs approximately **83 kg (183.0 lb)**. Install a suitable lifting device.



COIL10GRH445A0B 2

10. Remove the union installations (10) and plug the pump ports.

11. Unscrew the screw **(11)** and remove the sleeve **(12)**.



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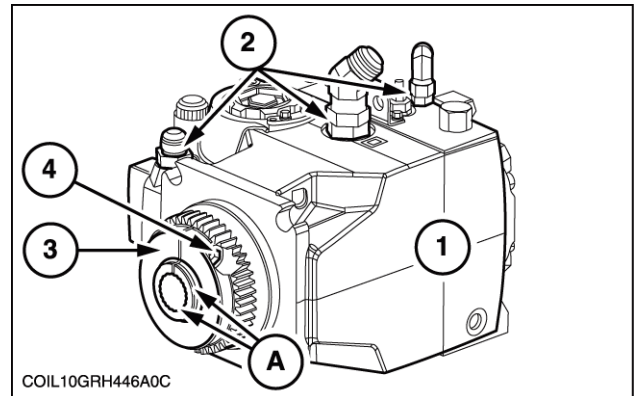
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Pump - Install - Forward control pump-

NOTE: The component weighs approximately **83 kg (183.0 lb)**. Install a suitable lifting device.

1. Unplug the pump ports to fit the union installations (2).
2. Fit the drive shaft (3)sleeve. To do this:
 - Slide the sleeve (3) onto the pump shaft (1) until the external side is aligned with the end of the shaft.
 - Tighten the screw (4) to a torque of **210 N·m (1858.7 lb in)**.

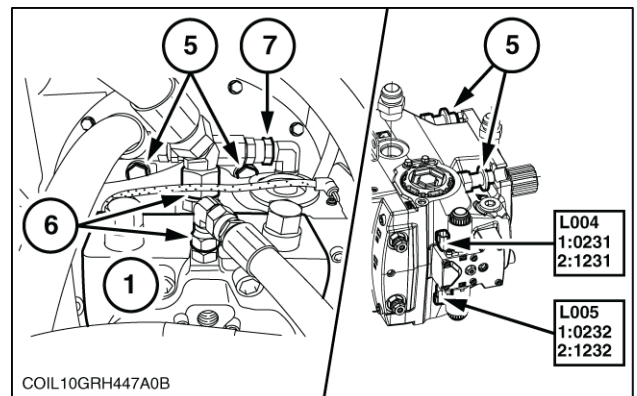


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3. Slide the pump (1) onto the motor output and secure it using the four screws (5).

NOTE: The screws (5) are screwed down with normal thread lock fluid and tightened to a torque of **200 N·m (1770.1 lb in)**.

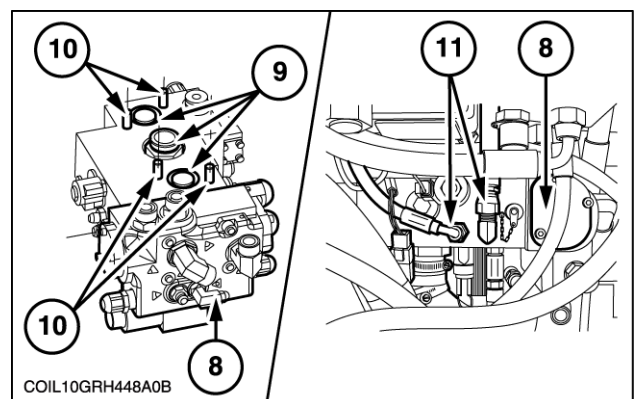
4. Connect all the hoses (5) to the pump, except the drainage hose (7).



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5. Connect the pump servo-control electrical cables.

NOTE: The forward motion circuit will not function correctly unless the electrical connections correspond to those in the diagram below.



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6. Position the hydraulic HP block (8) under the pump (1) and secure it using four screws (10) tightened to a torque of **120 N·m (1062.1 lb in)**.

NOTE: Check the condition and position of the O-rings between the HP block and the pump.

7. Connect all the hoses (11) to the HP block (8).

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