

SERVICE MANUAL

9050L / 9050L High / 9050LL
9070L / 9070L High / 9070LL
9070M / 9090L High / 9090LL
Grape Harvester

Part number 51697894

English

November 2019





SERVICE MANUAL

**9050L High, 9050LL, 9050L, 9070L High, 9070LL, 9070L, 9070M, 9090L High,
9090LL**

Link Product / Engine

Product	Market Product	Engine
9050L Grape harvester for large vineyard - High capacity range [750079001 -]	Europe	F4HFE413X*B001
9050L High	Europe	F4HFE413X*B001
9050LL T4B - MY18 [750091001 -]	Europe	F4HFE413X*B001
9070L Grape harvester for large vineyard - High capacity range [750091015 - 750091018]	Europe	F4HFE413W*B001
9070L Grape harvester for large vineyard - High capacity range [750098003 - 750098004]	Europe	F4HFE413W*B001
9070L Grape harvester for large vineyard - High capacity range [750076001 - 750076015]	Europe	F4HFE413W*B001
9070L Grape harvester for large vineyard - High capacity range [750088001 - 750088015]	Europe	F4HFE413W*B001
9070L Grape harvester for large vineyard - High capacity range [750095001 - 750095002]	Europe	F4HFE413W*B001
9070L Grape harvester for large vineyard - High capacity range [750095024 - 750095025]	Europe	F4HFE413W*B001
9070L Grape harvester for large vineyard - High capacity range [750079001 - 750079020]	Europe	F4HFE413W*B001
9070L Grape harvester for large vineyard - High capacity range [750098011 - 750098015]	Europe	F4HFE413W*B001
9070L Grape harvester for large vineyard - High capacity range [750098018 - 750098022]	Europe	F4HFE413W*B001
9070L Grape harvester for large vineyard - High capacity range [750102001 -]	Europe	F4HFE413W*B001
9070L Grape harvester for large vineyard - High capacity range [750091008 - 750091011]	Europe	F4HFE413W*B001
9070L High	Europe	F4HFE413W*B001
9070LL T4B - MY18 [750091001 -]	Europe	F4HFE413W*B001
9070M Grape harvester for medium vineyard - High capacity range [740076001 -]	Europe	F4HFE413W*B001
9090L High T4B - MY18	Europe	F4HFE6139*B004
9090LL T4B - MY18 [760091001 -]	Europe	F4HFE6139*B004

<https://www.ebooklibonline.com>

Hello dear friend!

Thank you very much for reading.

Enter the link into your browser.

The full manual is available for immediate download.

<https://www.ebooklibonline.com>

Contents

INTRODUCTION

Engine.....	10
[10.001] Engine and crankcase	10.1
[10.216] Fuel tanks	10.2
[10.310] Aftercooler.....	10.3
[10.400] Engine cooling system	10.4
[10.500] Selective Catalytic Reduction (SCR) exhaust treatment.....	10.5
[10.254] Intake and exhaust manifolds and muffler	10.6
[10.414] Fan and drive	10.7
[10.304] Engine lubrication system.....	10.8
[10.206] Fuel filters	10.9
[10.400] Engine cooling system	10.10
[10.202] Air cleaners and lines	10.11
[10.304] Engine lubrication system.....	10.12
Hydrostatic drive.....	29
[29.218] Pump and motor components.....	29.1
[29.202] Hydrostatic transmission	29.2
[29.204] Reservoir, cooler, and lines	29.3
Brakes and controls	33
[33.202] Hydraulic service brakes	33.1
Hydraulic systems.....	35
[35.000] Hydraulic systems.....	35.1
[35.104] Fixed displacement pump.....	35.2
[35.300] Reservoir, cooler, and filters.....	35.3
[35.610] Machine leveling control system	35.4
[35.946] Frame positioning lifting	35.5

[35.707] Sorting table system	35.6
[35.706] Fruit repartition system.....	35.7
[35.902] Harvesting hopper hydraulic system	35.8
[35.903] Shaking hydraulic system	35.9
[35.904] Cleaning hydraulic system	35.10
[35.952] Destemmer system	35.11
[35.930] Conveyor receiver system	35.12
[35.310] Distributor and lines	35.13
[35.106] Variable displacement pump	35.14
[35.204] Remote control valves	35.15
Frames and ballasting	39
[39.100] Frame	39.1
Steering.....	41
[41.101] Steering control	41.1
Wheels	44
[44.000] Wheels	44.1
Cab climate control	50
[50.100] Heating.....	50.1
[50.200] Air conditioning.....	50.2
[50.300] Cab pressurizing system.....	50.3
Electrical systems.....	55
[55.000] Electrical system	55.1
[55.050] Heating, Ventilation, and Air-Conditioning (HVAC) control system.....	55.2
[55.100] Harnesses and connectors.....	55.3
[55.640] Electronic modules.....	55.4
[55.019] Hydrostatic drive control system	55.5
[55.512] Cab controls.....	55.6
[55.924] Cab fruit harvesting controls	55.7

[55.927] Shaking control system	55.8
[55.404] External lighting	55.9
[55.408] Warning indicators, alarms, and instruments	55.10
[55.988] Selective Catalytic Reduction (SCR) electrical system	55.11
[55.302] Battery.....	55.12
[55.101] Chassis harness	55.13
[55.201] Engine starting system.....	55.14
[55.DTC] FAULT CODES.....	55.15
Fruit harvester shaking	56
[56.300] Shaking frame.....	56.1
[56.301] Shaking control.....	56.2
[56.304] Connecting rods, front plates, and shakers	56.3
[56.305] Adjustable width system	56.4
Product feeding	60
[60.320] Fruit harvester conveyor belts.....	60.1
[60.324] Fruit harvester conveyor frame	60.2
[60.304] Noria	60.3
[60.308] Noria frame and guides	60.4
Cleaning	74
[74.200] Upper extractors	74.1
[74.204] Lower extractors	74.2
Secondary cleaning/Destemmer	76
[76.200] Sorting table (Opti-grape™).....	76.1
[76.660] Destemmer.....	76.2
Crop storage / Unloading	80
[80.300] Fruit conveying system.....	80.1
Accessories	88
[88.100] Accessories	88.1

[88.740] Fruit harvester telescopic arm.....	88.2
Tools	89
[89.165] Water kit.....	89.1
Platform, cab, bodywork, and decals	90
[90.105] Machine shields and guards	90.1
Residue handling.....	73
[73.500] Stalk chopper	73.1



INTRODUCTION

Foreword - Important notice regarding equipment servicing

All repair and maintenance work listed in this manual must be carried out only by qualified dealership personnel, strictly complying with the instructions given, and using, whenever possible, the special tools.

Anyone who performs repair and maintenance operations without complying with the procedures provided herein shall be responsible for any subsequent damages.

The manufacturer and all the organizations of its distribution chain, including - without limitation - national, regional, or local dealers, reject any responsibility for damages caused by parts and/or components not approved by the manufacturer, including those used for the servicing or repair of the product manufactured or marketed by the manufacturer. In any case, no warranty is given or attributed on the product manufactured or marketed by the manufacturer in case of damages caused by parts and/or components not approved by the manufacturer.

The manufacturer reserves the right to make improvements in design and changes in specifications at any time without notice and without incurring any obligation to install them on units previously sold. Specifications, descriptions, and illustrative material herein are as accurate as known at time of publication but are subject to change without notice.

In case of questions, refer to your NEW HOLLAND Sales and Service Networks.

Foreword

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.

No reproduction, partial or complete, of the text or illustrations is permitted.

Safety rules

Personal safety



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible death or injury.

Throughout this manual you will find the signal words DANGER, WARNING, and CAUTION followed by special instructions. These precautions are intended for the personal safety of you and those working with you.

Read and understand all the safety messages in this manual before you operate or service the machine.

 DANGER indicates a hazardous situation that, if not avoided, will result in death or serious injury.

 WARNING indicates a hazardous situation that, if not avoided, could result in death or serious injury.

 CAUTION indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

FAILURE TO FOLLOW DANGER, WARNING, AND CAUTION MESSAGES COULD RESULT IN DEATH OR SERIOUS INJURY.

Machine safety

NOTICE: Notice indicates a situation that, if not avoided, could result in machine or property damage.

Throughout this manual you will find the signal word Notice followed by special instructions to prevent machine or property damage. The word Notice is used to address practices not related to personal safety.

Information

NOTE: Note indicates additional information that clarifies steps, procedures, or other information in this manual.

Throughout this manual you will find the word Note followed by additional information about a step, procedure, or other information in the manual. The word Note is not intended to address personal safety or property damage.

Safety rules - Ecology and the environment

Soil, air, and water quality is important for all industries and life in general. When legislation does not yet rule the treatment of some of the substances that advanced technology requires, sound judgment should govern the use and disposal of products of a chemical and petrochemical nature.

Familiarize yourself with the relative legislation applicable to your country, and make sure that you understand this legislation. Where no legislation exists, obtain information from suppliers of oils, filters, batteries, fuels, anti-freeze, cleaning agents, etc., with regard to the effect of these substances on man and nature and how to safely store, use, and dispose of these substances.

Helpful hints

- Avoid the use of cans or other inappropriate pressurized fuel delivery systems to fill tanks. Such delivery systems may cause considerable spillage.
- In general, avoid skin contact with all fuels, oils, acids, solvents, etc. Most of these products contain substances that may be harmful to your health.
- Modern oils contain additives. Do not burn contaminated fuels and or waste oils in ordinary heating systems.
- Avoid spillage when you drain fluids such as used engine coolant mixtures, engine oil, hydraulic fluid, brake fluid, etc. Do not mix drained brake fluids or fuels with lubricants. Store all drained fluids safely until you can dispose of the fluids in a proper way that complies with all local legislation and available resources.
- Do not allow coolant mixtures to get into the soil. Collect and dispose of coolant mixtures properly.
- The air-conditioning system contains gases that should not be released into the atmosphere. Consult an air-conditioning specialist or use a special extractor to recharge the system properly.
- Repair any leaks or defects in the engine cooling system or hydraulic system immediately.
- Do not increase the pressure in a pressurized circuit as this may lead to a component failure.
- Protect hoses during welding. Penetrating weld splatter may burn a hole or weaken hoses, allowing the loss of oils, coolant, etc.

Battery recycling

Batteries and electric accumulators contain several substances that can have a harmful effect on the environment if the batteries are not properly recycled after use. Improper disposal of batteries can contaminate the soil, groundwater, and waterways. NEW HOLLAND strongly recommends that you return all used batteries to a NEW HOLLAND dealer, who will dispose of the used batteries or recycle the used batteries properly. In some countries, this is a legal requirement.



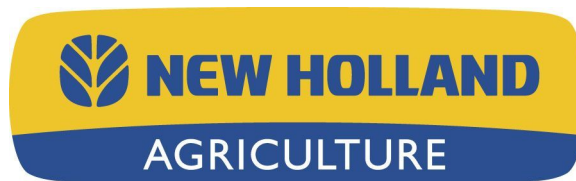
Mandatory battery recycling

NOTE: The following requirements are mandatory in Brazil.

Batteries are made of lead plates and a sulfuric acid solution. Because batteries contain heavy metals such as lead, CONAMA Resolution 401/2008 requires you to return all used batteries to the battery dealer when you replace any batteries. Do not dispose of batteries in your household garbage.

Points of sale are obliged to:

- Accept the return of your used batteries
- Store the returned batteries in a suitable location
- Send the returned batteries to the battery manufacturer for recycling



SERVICE MANUAL

Engine

**9050L High, 9050LL, 9050L, 9070L High, 9070LL, 9070L, 9070M, 9090L High,
9090LL**

Engine - Remove

⚠ WARNING

Hot surface possible!
Wait for all components to cool before performing any operation.
Failure to comply could result in death or serious injury.

W0251A

Prior operation:

Recover the air conditioning system, see **Air conditioning - Recover (50.200)**.

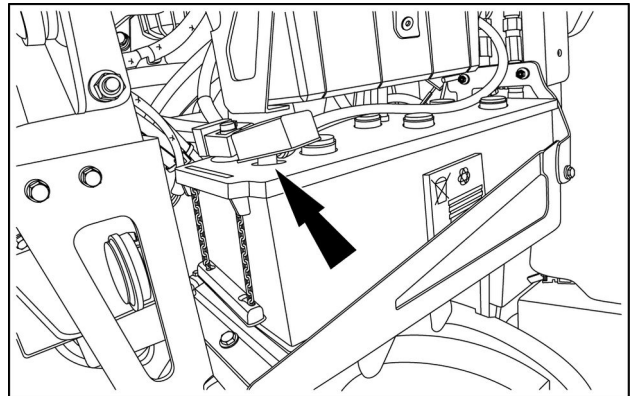
Prior operation:

Remove the cooling pack assembly, see **Engine cooling system - Remove (10.400)**.

NOTICE: Emissions sensors mounted in the exhaust stream are sensitive to extreme vibrations. Use of tools that generate extreme vibrations, such as impact wrenches and hammers, will result in damage to emission sensors. Avoid using these tools during any service procedure in close proximity of emission sensors. If the use of these tools cannot be avoided, remove the sensors using extreme caution prior to performing any service procedure.

7030M and 8030L models

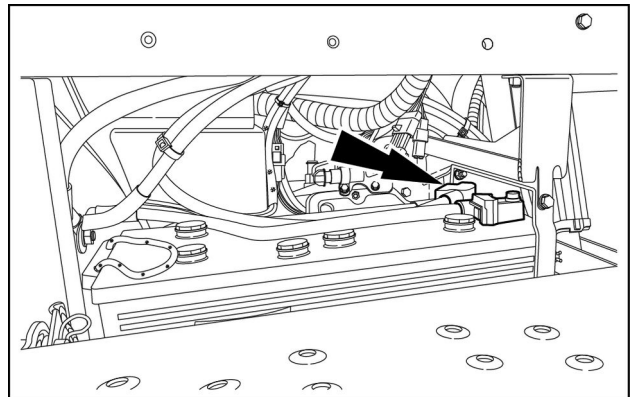
1. Disconnect the negative (–) terminal from machine's battery.



COIL15GR00843AA 1

9070L model

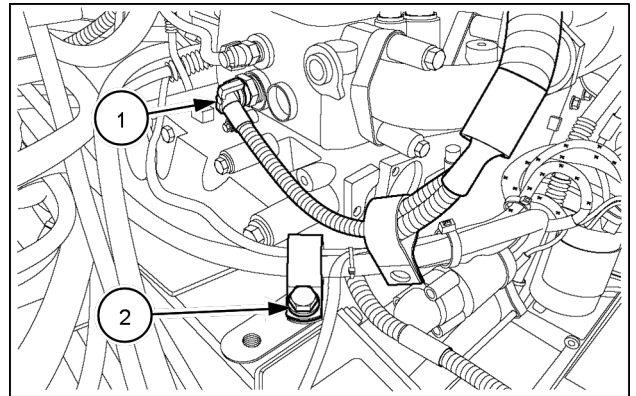
2. Disconnect the negative (–) terminal from machine's battery.



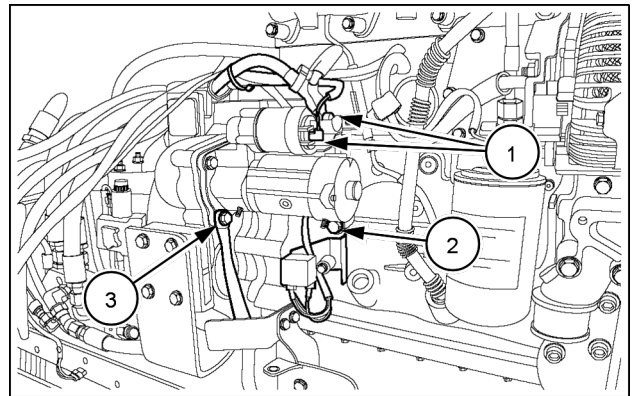
COIL16GR01309AA 2

All models

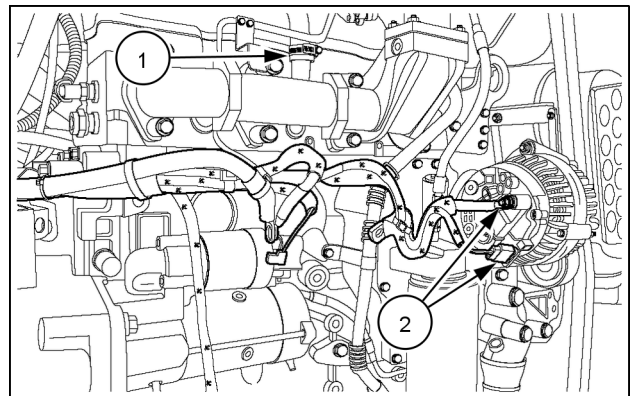
3. 1. Detach the clamp **(2)**.
2. Remove the cooling pipe **(1)**.



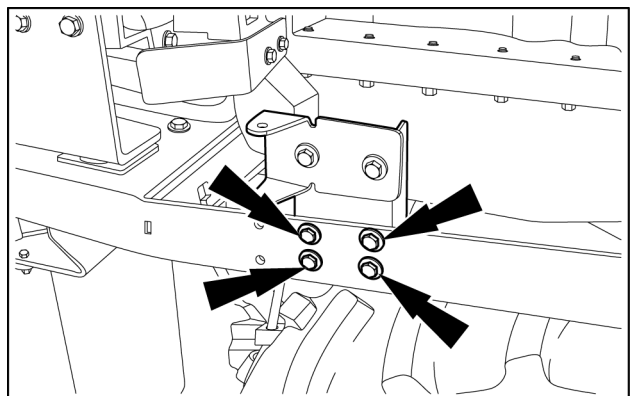
4. 1. Disconnect the starter motor electrical connectors **(1)**.
2. Detach the relay bracket **(2)**.
3. Disconnect the earth strap **(3)**.



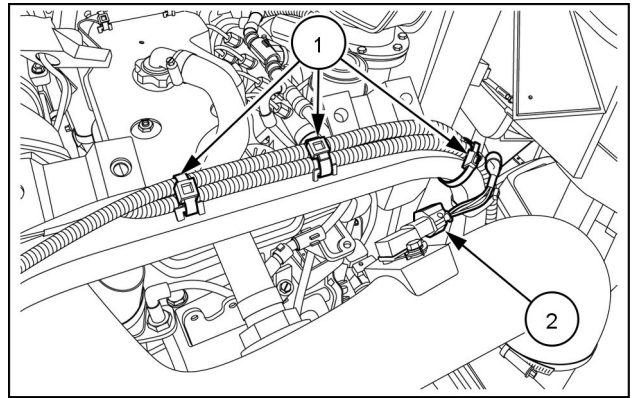
5. 1. Disconnect the alternator electrical connectors **(2)**.
2. Reposition the wiring harness to one side.
3. Disconnect the coolant hose **(1)**.



6. Remove the engine side panel retaining bracket.

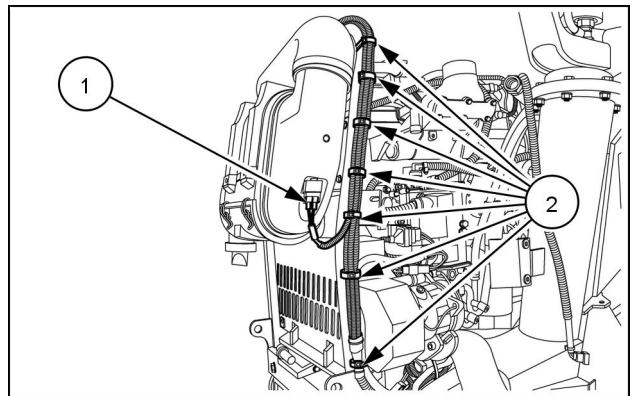


7. 1. Detach the wiring harness (1).
2. Disconnect the electrical connector (2).



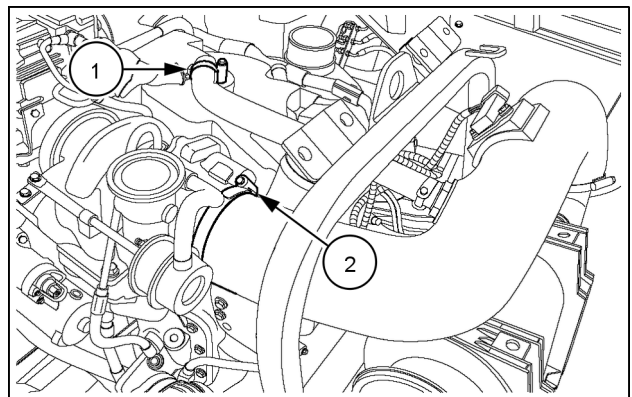
COIL16GR01455AA 7

8. 1. Disconnect the electrical connector (1).
2. Detach the wiring harness (2).



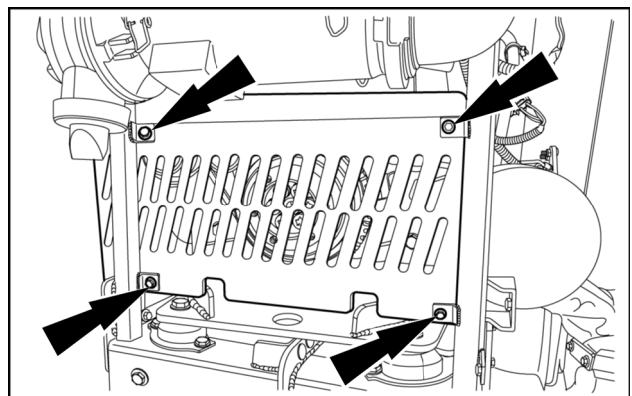
COIL16GR01456AA 8

9. 1. Disconnect the engine breather hose (1).
2. Disconnect the turbo supply hose (2).



COIL14GR00227AC 9

10. Remove the drive belt guard.



COIL15GR00427AA 10



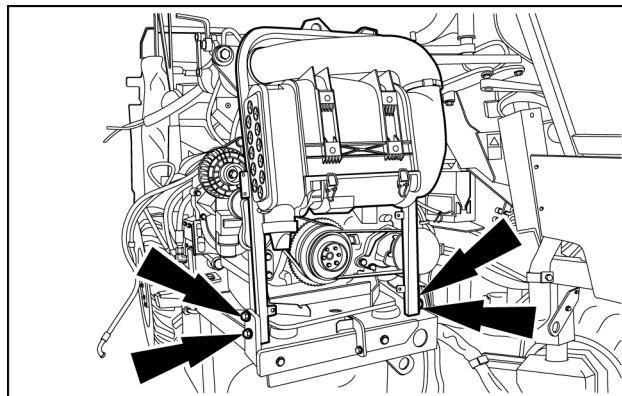
Suggest:

If the above button click is invalid.

**Please download this document
first, and then click the above link
to download the complete manual.**

Thank you so much for reading

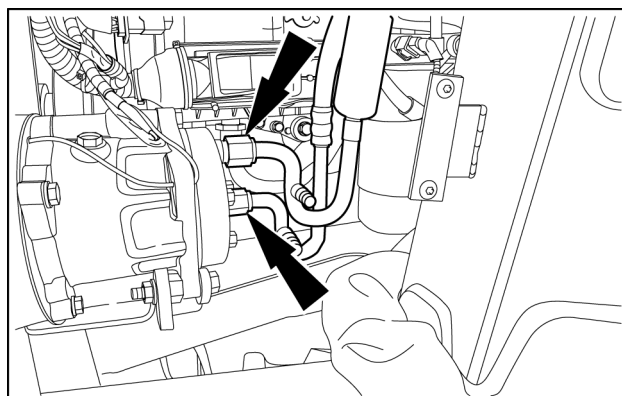
11. 1. With the aid of another person, support the air filter and frame assembly.
2. Remove the air filter and frame assembly.



COIL14GR00230AB 11

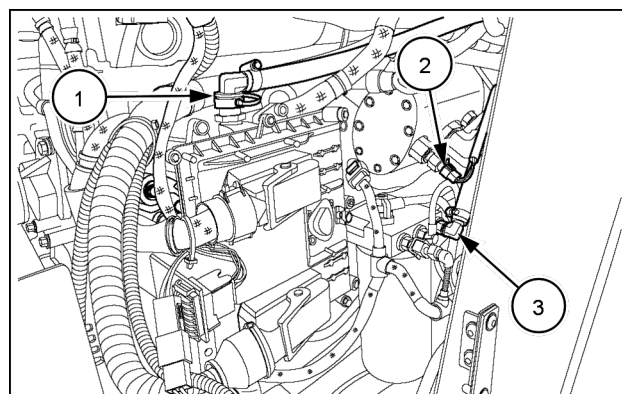
12. Disconnect the air conditioning compressor pipes.

NOTICE: Seal all open air conditioning connections with clean blanking caps.



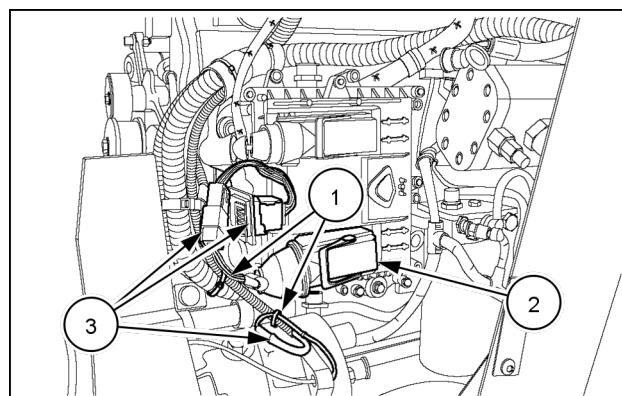
COIL14GR00231AB 12

13. 1. Disconnect the Engine Control Unit (ECU) fuel/cooling pipe (1).
2. Disconnect the electrical connector (2).
3. Disconnect the fuel filter housing fuel hose (3).



COIL14GR00232AC 13

14. 1. Cut the cable ties (1).
2. Disconnect the ECU lower connector (2).
3. Disconnect the electrical connectors (3).
4. Position the wiring harness to one side.



COIL14GR00233AC 14

<https://www.ebooklibonline.com>

Hello dear friend!

Thank you very much for reading.

Enter the link into your browser.

The full manual is available for immediate download.

<https://www.ebooklibonline.com>