

SERVICE MANUAL

9090X Olive Side Conveyor TIER 3

9090X Olive TIER 3

9090X Side Conveyor TIER 3

9090X TIER 3

Grape Harvester

Part number 51697770

English

November 2019





SERVICE MANUAL

Extra High Capacity TIER 3

Link Product / Engine

Product	Market Product	Engine
9090X Side Conveyor TIER 3	Asia Pacific	F4HE9687
9090X Olive TIER 3	Asia Pacific	F4HE9687
9090X TIER 3	Asia Pacific	F4HE9687
9090X Olive Side Conveyor TIER 3	Asia Pacific	F4HE9687

Contents

INTRODUCTION

Engine.....	10
[10.001] Engine and crankcase	10.1
[10.216] Fuel tanks	10.2
[10.206] Fuel filters	10.3
[10.218] Fuel injection system.....	10.4
[10.202] Air cleaners and lines	10.5
[10.254] Intake and exhaust manifolds and muffler	10.6
[10.400] Engine cooling system	10.7
[10.414] Fan and drive	10.8
[10.310] Aftercooler.....	10.9
[10.304] Engine lubrication system.....	10.10
Hydrostatic drive.....	29
[29.204] Reservoir, cooler, and lines	29.1
[29.218] Pump and motor components.....	29.2
[29.202] Hydrostatic transmission	29.3
Brakes and controls	33
[33.202] Hydraulic service brakes	33.1
Hydraulic systems.....	35
[35.000] Hydraulic systems.....	35.1
[35.300] Reservoir, cooler, and filters.....	35.2
[35.104] Fixed displacement pump.....	35.3
[35.106] Variable displacement pump	35.4
[35.204] Remote control valves	35.5
[35.610] Machine leveling control system	35.6
[35.946] Frame positioning lifting	35.7

[35.948] Frame positioning extending	35.8
[35.903] Shaking hydraulic system	35.9
[35.904] Cleaning hydraulic system	35.10
[35.902] Harvesting hopper hydraulic system	35.11
[35.706] Fruit repartition system.....	35.12
[35.310] Distributor and lines	35.13
Frames and ballasting	39
[39.100] Frame	39.1
[39.110] Drawbar and hitch assembly	39.2
Steering.....	41
[41.101] Steering control	41.1
Wheels	44
[44.511] Front wheels.....	44.1
[44.520] Rear wheels	44.2
[44.000] Wheels	44.3
Cab climate control	50
[50.200] Air conditioning	50.1
[50.300] Cab pressurizing system	50.2
Electrical systems	55
[55.000] Electrical system	55.1
[55.100] Harnesses and connectors.....	55.2
[55.101] Chassis harness	55.3
[55.988] Selective Catalytic Reduction (SCR) electrical system	55.4
[55.640] Electronic modules	55.5
[55.019] Hydrostatic drive control system	55.6
[55.512] Cab controls.....	55.7
[55.924] Cab fruit harvesting controls	55.8
[55.408] Warning indicators, alarms, and instruments	55.9

[55.DTC] FAULT CODES	55.10
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
Product feeding	60
[60.304] Noria	60.1
[60.308] Noria frame and guides	60.2
[60.320] Fruit harvester conveyor belts	60.3
[60.324] Fruit harvester conveyor frame	60.4
Residue handling	73
[73.500] Stalk chopper	73.1
Cleaning	74
[74.200] Upper extractors	74.1
[74.204] Lower extractors	74.2
Secondary cleaning/Destemmer	76
[76.660] Destemmer	76.1
[76.200] Sorting table (Opti-grape™)	76.2
Crop storage / Unloading	80
[80.300] Fruit conveying system	80.1
Accessories	88
[88.100] Accessories	88.1
Tools	89
[89.165] Water kit	89.1



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.

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.



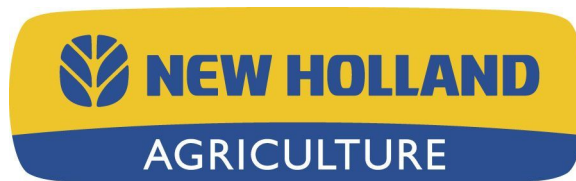
Mandatory battery recycling

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

Extra High Capacity TIER 3

Fuel tank - Remove

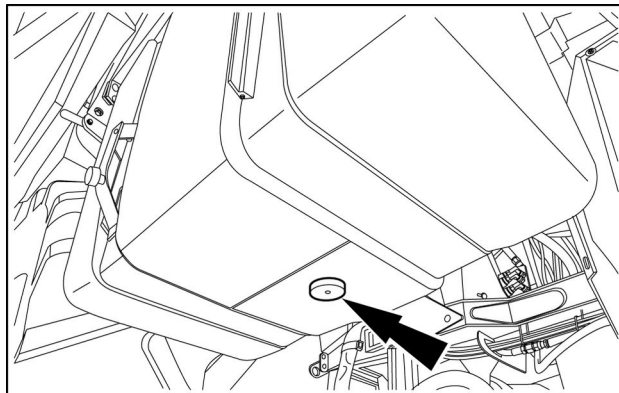
⚠ WARNING

Fuel vapors are explosive and flammable.

Do not smoke while handling fuel. Keep fuel away from flames or sparks. Shut off engine and remove key before servicing. Always work in a well-ventilated area. Clean up spilled fuel immediately. Failure to comply could result in death or serious injury.

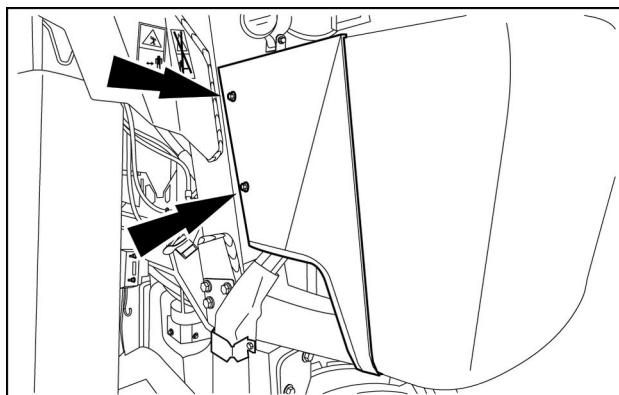
W0904A

1. Drain the fuel tank:
 - A. Remove the fuel tank drain plug.
 - B. Drain the fuel into a suitable container.
 - C. Install the drain plug.



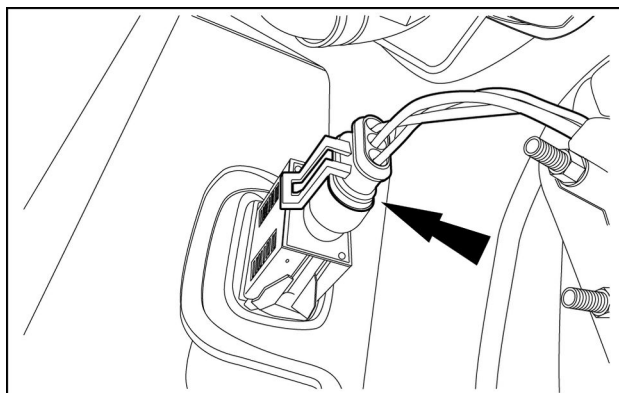
COIL16GR01524AA 1

2. Remove the cab lower right-hand side panel.



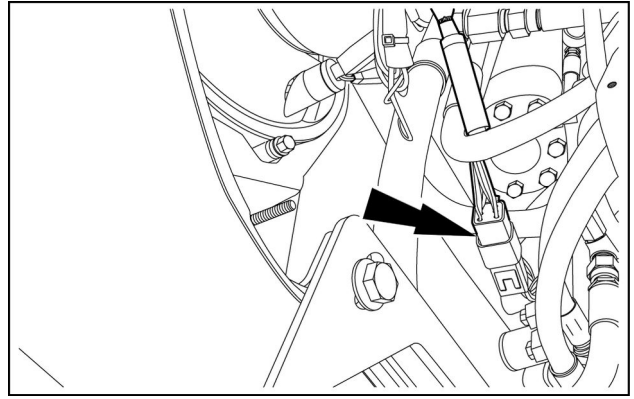
COIL15GR00867AA 2

3. Disconnect the cab access platform switch electrical connector.



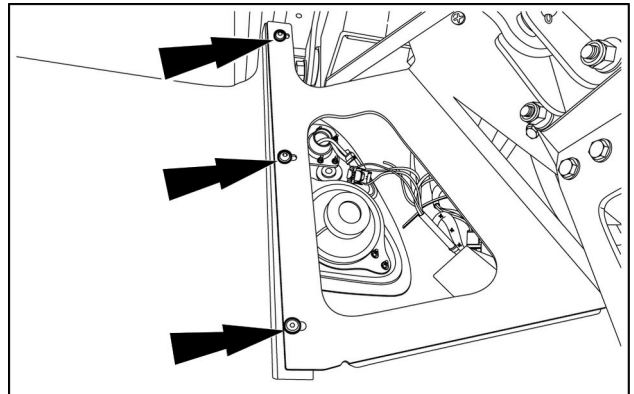
COIL16GR01459AA 3

4. Disconnect the lighting harness electrical connector.



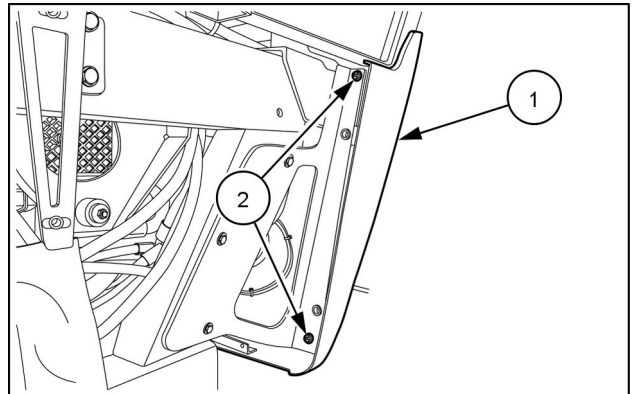
COIL16GR01458AA 4

5. Remove the cab lower front panel left-hand retaining bolts.



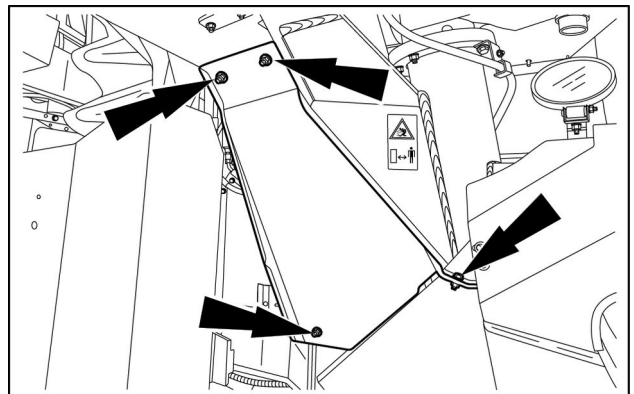
COIL15GR00986AA 5

6. 1. Remove the cab lower front panel right-hand retaining bolts (2).
2. With the aid of another person remove the cab lower front panel (1).



COIL15GR00987AA 6

7. Remove the left-hand inner shield.



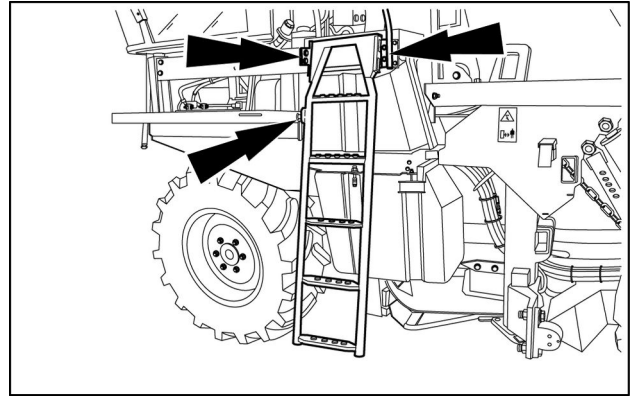
COIL16GR01311AA 7

8. **⚠ WARNING**

Heavy object!
ALWAYS use a hoist or get assistance to lift the component.
Failure to comply could result in death or serious injury.

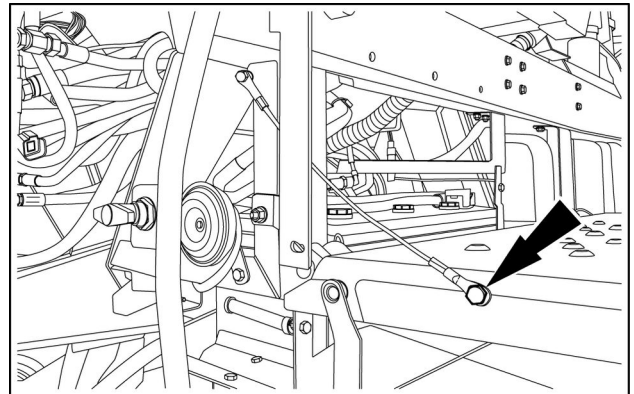
W0086A

Remove the access ladder.



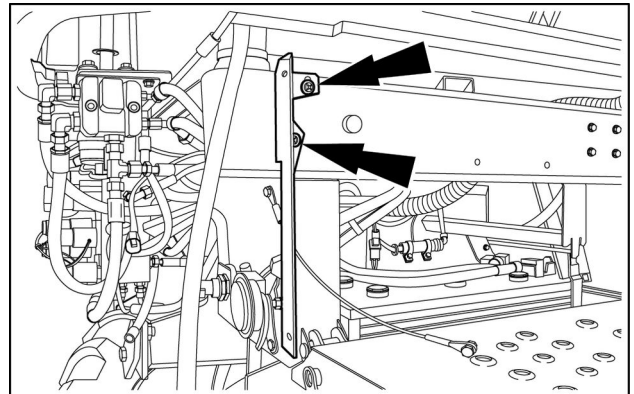
COIL16GR01504AA 8

9. Detach the cab access platform safety cable.



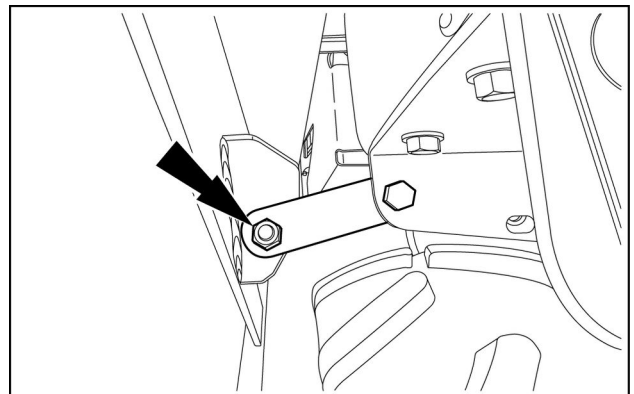
COIL16GR01503AA 9

10. Remove the cab lower front panel retaining bracket.



COIL16GR01502AA 10

11. Detach the cab access platform inner bracket.



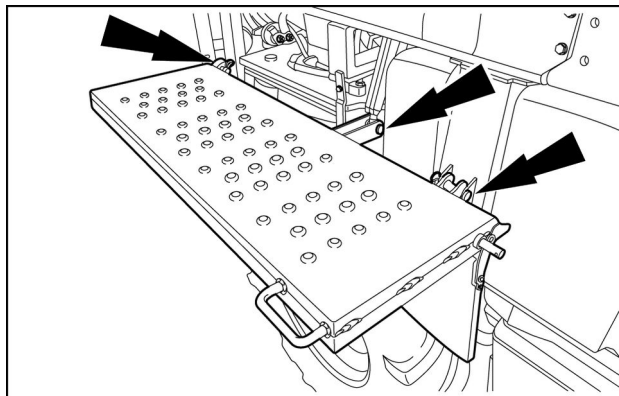
COIL16GR01501AA 11

12. **⚠ WARNING**

Heavy object!
ALWAYS use a hoist or get assistance to lift the component.
Failure to comply could result in death or serious injury.

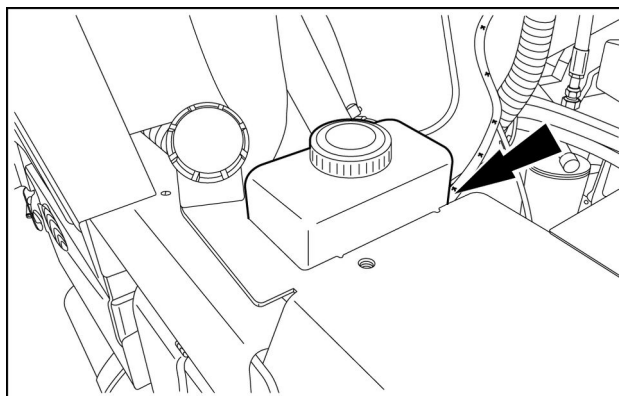
W0086A

Remove the cab access platform.



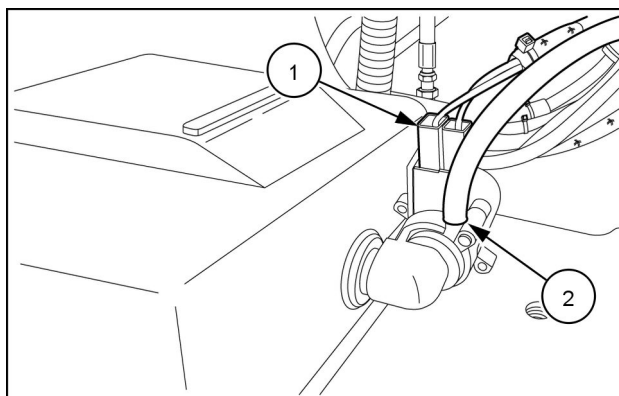
COIL16GR01500AA 12

13. Detach the windscreen washer reservoir.



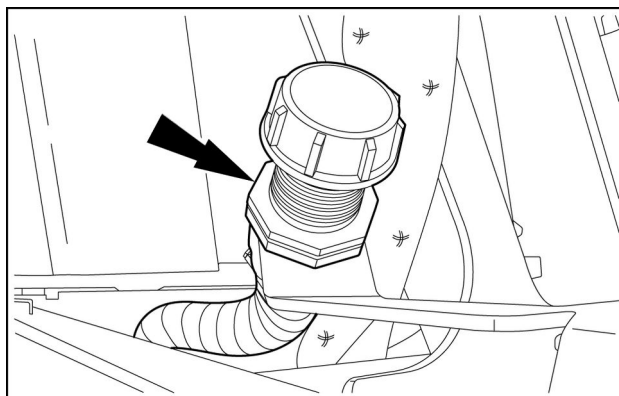
COIL16GR01499AA 13

14. 1. Disconnect the windscreen washer pump electrical connector **(1)**.
2. Disconnect the windscreen washer hose **(2)**.



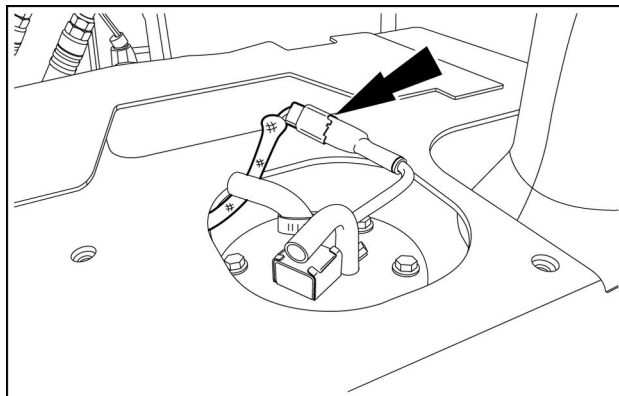
COIL16GR01498AA 14

15. Detach the hand washing tank filler hose.



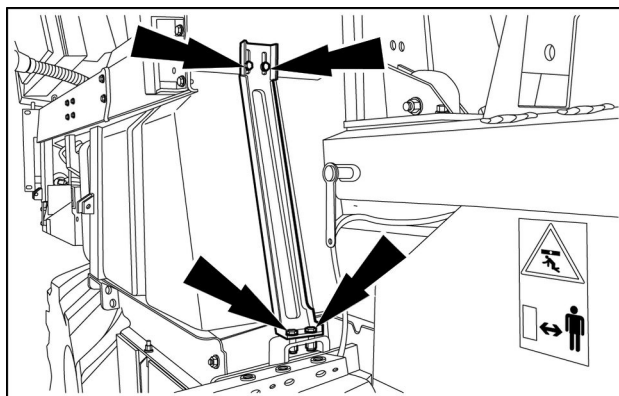
COIL16GR01497AA 15

16. Disconnect the fuel level sender electrical connector.



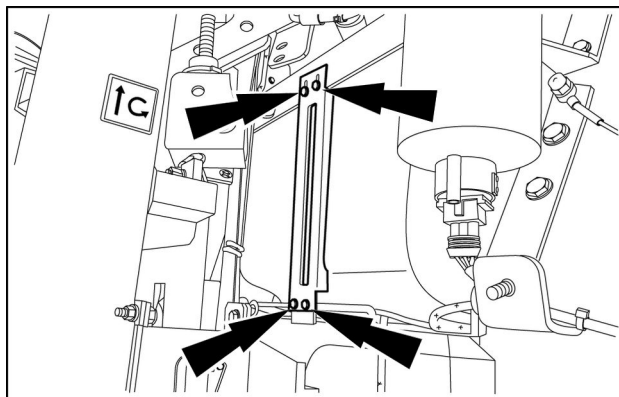
COIL16GR01496AA 16

17. Remove the fuel tank top cover rear support bracket.



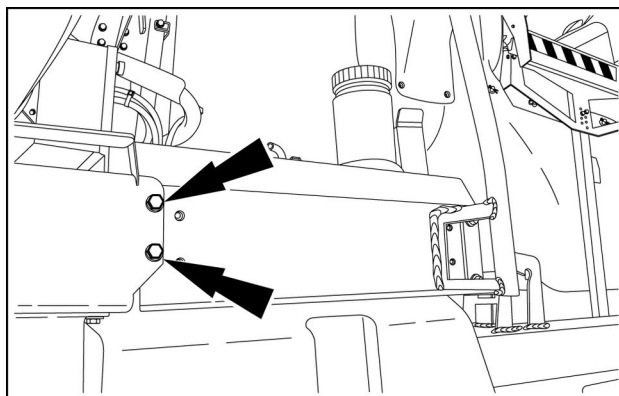
COIL16GR01494AA 17

18. Remove the fuel tank top cover inner support bracket.



COIL16GR01495AA 18

19. Remove the fuel tank top bracket front retaining bolts.



COIL16GR01493AA 19

Download this document.

Click the link below.

**You can download the most perfect
and complete manual in the world
immediately.**



Click Link Below

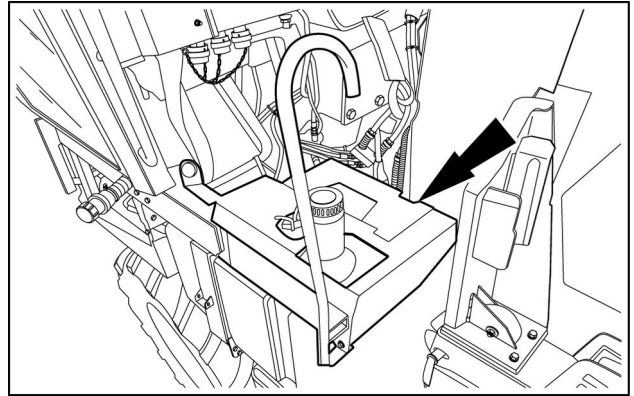


Download Now!

[Click Here To Get Instant Access](#)

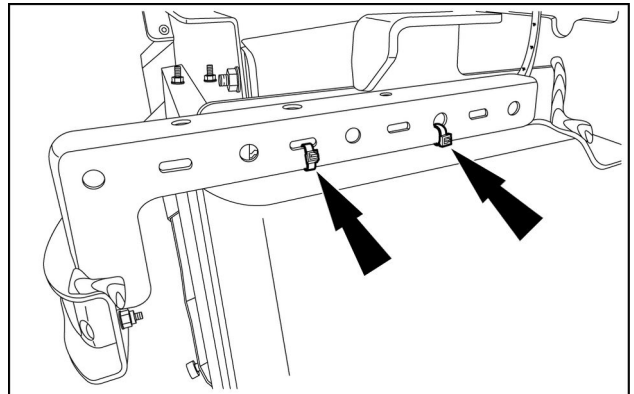
Thank you so much for reading.

20. Remove the fuel tank top bracket.



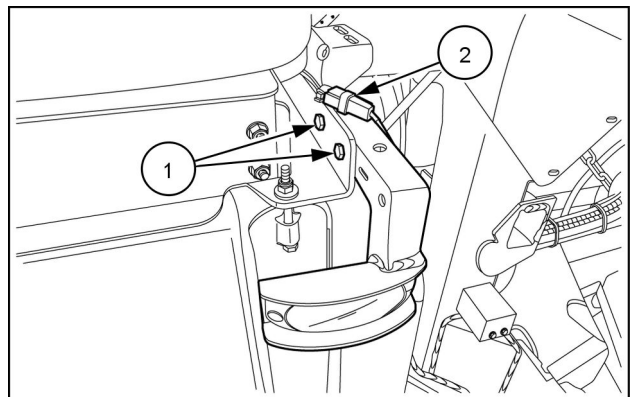
COIL16GR01492AA 20

21. Cut the side marker wiring harness cable ties.



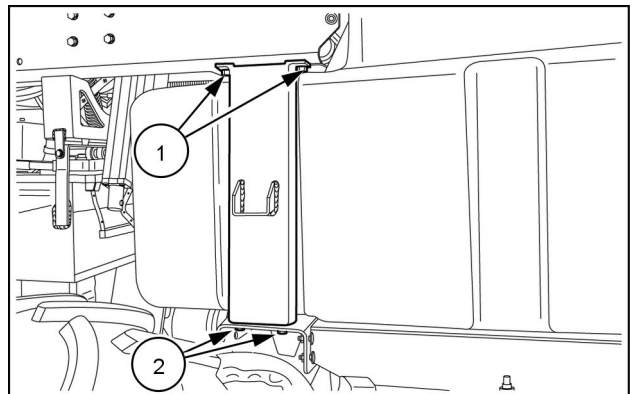
COIL16GR01491AA 21

22. 1. Disconnect the side marker electrical connector (2).
2. Remove the side marker (1).



COIL16GR01490AA 22

23. Remove the fuel tank front retaining bracket:
A. Loosen the upper retaining bolts (1).
B. Remove the lower retaining bolts (2).



COIL16GR01489AA 23