

Patriot® 3240
Patriot® 3340
Tier 4B (final)
Sprayer

PIN YGT044001 and above

SERVICE MANUAL

Part number 48068911

1st edition English

October 2016



Link Product / Engine

Product	Market Product	Engine
Patriot® 3240 TIER 4B (FINAL) sprayer [YGT044001 -]	North America	F4HFE613F*B004
Patriot® 3340 TIER 4B (FINAL) sprayer [YGT044001 -]	North America	F4HFE613U*B002

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INTRODUCTION

Safety rules

Patriot® 3240	NA
Patriot® 3340	NA


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.

Personal safety - Do not operate tag

Patriot® 3240	NA
Patriot® 3340	NA

⚠ WARNING

Maintenance hazard!
Before you start servicing the machine, attach a DO NOT OPERATE warning tag to the machine in a visible area.
Failure to comply could result in death or serious injury.

W0004A

Attach a DO NOT OPERATE (TAG) to the machine in an area that is clearly visible whenever the machine is not operating properly and/or requires service.
 Complete the tag information for the "REASON" the tag is attached by describing the malfunction or service required. Validate the reason for attaching the tag by signing your name in the designated area on the tag.
 The tag should only be removed by the person who signed and attached the tag, after validating the repairs or services have been completed.



Tag Components

- A. DO NOT REMOVE THIS TAG! - (Warning) The tag should only be removed by the person who signed and attached the tag, after validating the repairs or services have been completed.
- B. See Other Side - (Reference to additional information on opposite side of the tag.)
- C. CNH Part Number - (Request this part number from you Service Parts Dealer to obtain this DO NOT OPERATE tag.)
- D. DO NOT OPERATE - (Warning!)
- E. REASON - (Area for describing malfunction or service required before operation.)
- F. Signed by - (Signature area - to be signed by the person validating the reason for installation of the tag.)

Safety rules

Patriot® 3240	NA
Patriot® 3340	NA

General safety rules

Use caution when operating the machine on slopes. Raised equipment, full tanks and other loads will change the center of gravity of the machine. The machine can tip or roll over when near ditches and embankments or uneven surfaces.

Never permit anyone other than the operator to ride on the machine.

Never operate the machine under the influence of alcohol, drugs, or while otherwise impaired.

When digging or using ground engaging attachments be aware of buried cables. Contact local utilities to determine the locations of services.

Pay attention to overhead power lines and hanging obstacles. High voltage lines may require significant clearance for safety.

Hydraulic oil or diesel fuel leaking under pressure can penetrate the skin, causing serious injury or infection.

- DO NOT use your hand to check for leaks. Use a piece of cardboard or paper.
- Stop engine, remove key and relieve the pressure before connecting or disconnecting fluid lines.
- Make sure all components are in good condition and tighten all connections before starting the engine or pressurizing the system.
- If hydraulic fluid or diesel fuel penetrates the skin, seek medical attention immediately.
- Continuous long term contact with hydraulic fluid may cause skin cancer. Avoid long term contact and wash the skin promptly with soap and water.

Keep clear of moving parts. Loose clothing, jewelry, watches, long hair, and other loose or hanging items can become entangled in moving parts.

Wear protective equipment when appropriate.

DO NOT attempt to remove material from any part of the machine while it is being operated or components are in motion.

Make sure all guards and shields are in good condition and properly installed before operating the machine. Never operate the machine with shields removed. Always close access doors or panels before operating the machine.

Dirty or slippery steps, ladders, walkways, and platforms can cause falls. Make sure these surfaces remain clean and clear of debris.

A person or pet within the operating area of a machine can be struck or crushed by the machine or its equipment. DO NOT allow anyone to enter the work area.

Raised equipment and/or loads can fall unexpectedly and crush persons underneath. Never allow anyone to enter the area underneath raised equipment during operation.

Never operate engine in enclosed spaces as harmful exhaust gases may build up.

Before starting the machine, be sure that all controls are in neutral or park lock position.

Start the engine only from the operator's seat. If the safety start switch is bypassed, the engine can start with the transmission in gear. Do not connect or short across terminals on the starter solenoid. Attach jumper cables as described in the manual. Starting in gear may cause death or serious injury.

Always keep windows, mirrors, all lighting, and Slow Moving Vehicle (SMV) emblem clean to provide the best possible visibility while operating the machine.



SERVICE MANUAL

Engine

Patriot® 3240 TIER 4B (FINAL) sprayer [YGT044001 -]
Patriot® 3340 TIER 4B (FINAL) sprayer [YGT044001 -]

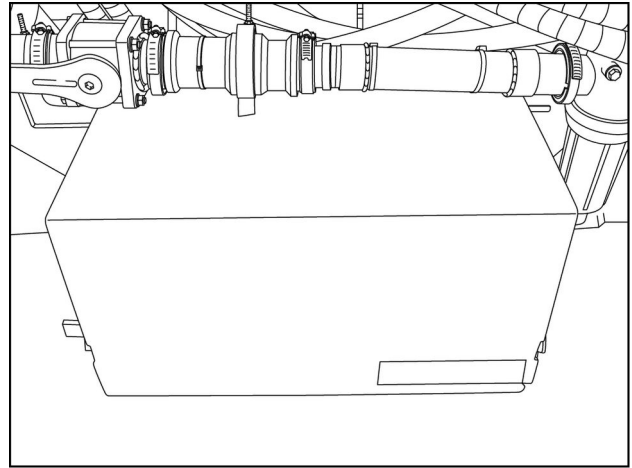
Engine - Remove

Patriot® 3240	NA
Patriot® 3340	NA

Prior operation:

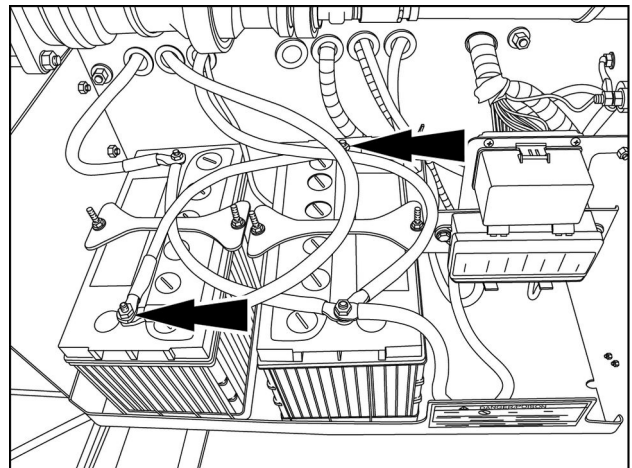
Gearbox - Remove - Pump drive (31.220)

1. Remove the battery cover.



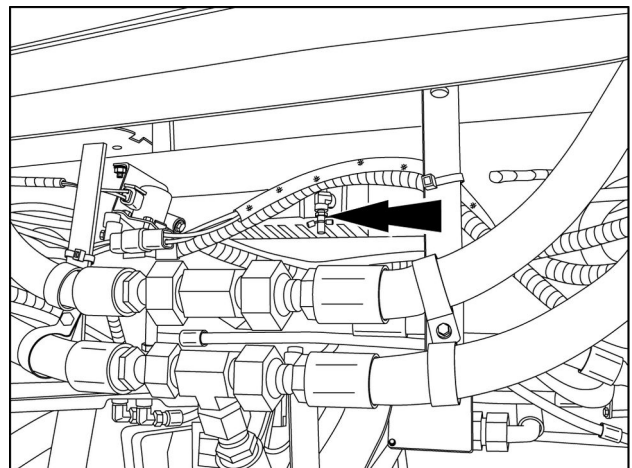
RAIL13SP04995AA 1

2. Disconnect the negative cables from the batteries.



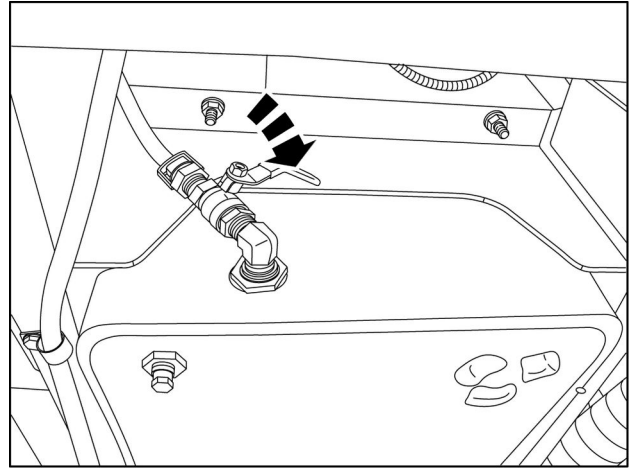
RAIL13SP04996AA 2

3. Attach an extension hose on the drain fitting for the radiator and drain the engine coolant into a proper size clean container.



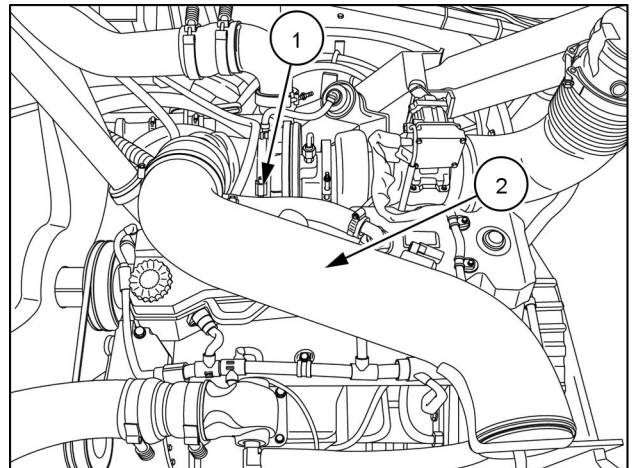
RAIL13SP04851AA 3

4. Shut off the fuel at the tank.



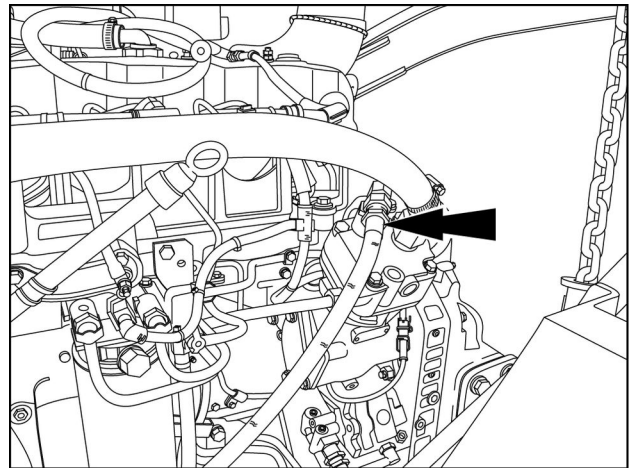
RAIL13SP04621AA 4

5. Loosen the hose clamp (1) at the turbo and remove the air intake tube (2).



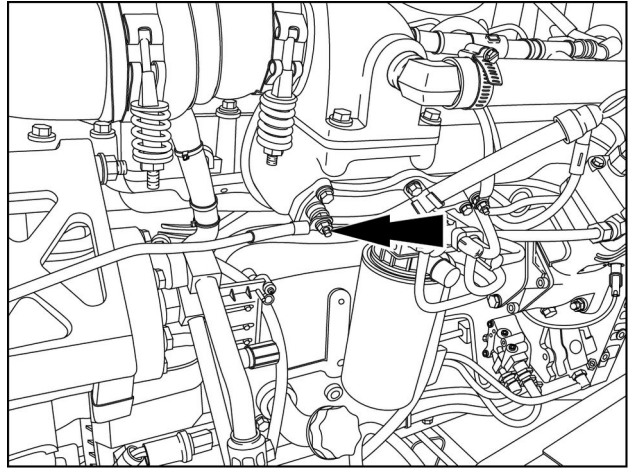
RAIL13SP04997AA 5

6. Disconnect the outlet hose from the air compressor.
NOTE: Plug and cap disconnected hoses and fittings.



RAIL13SP04998AA 6

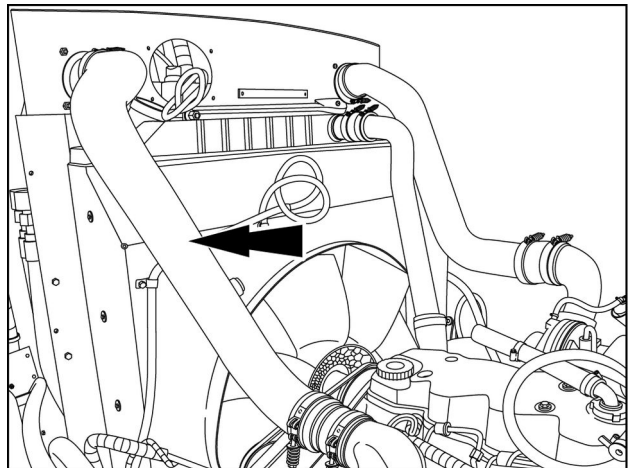
7. Disconnect the ground wire to the grid heater.



RAIL13SP04999AA 7

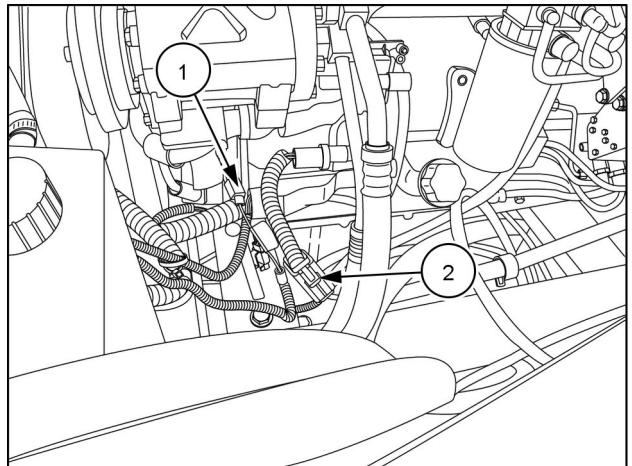
8. Remove the left hand charged air to air cooler tube.

NOTE: Cap disconnected tubes and ports.



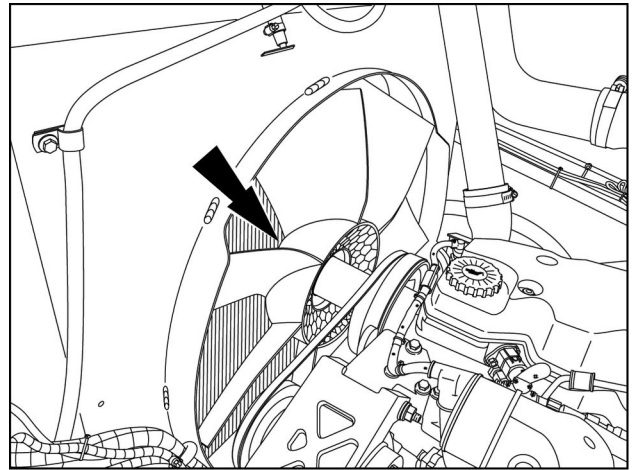
RAIL13SP05000AA 8

9. Disconnect the air conditioner clutch wire (1).
10. Disconnect the harness lead (2) from the high pressure switch.



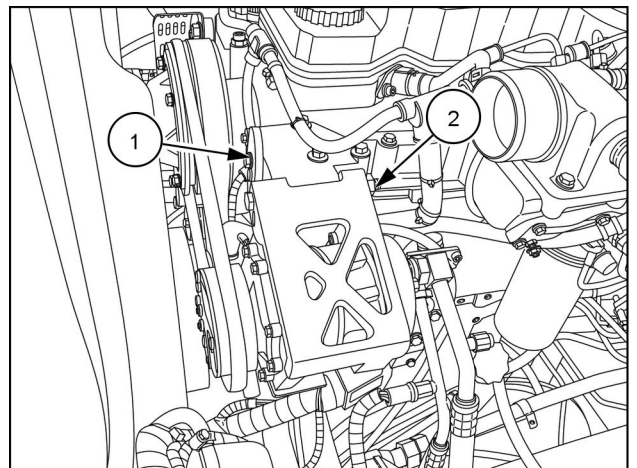
RAIL13SP05001AA 9

11. Loosen the fan mounting bolts.



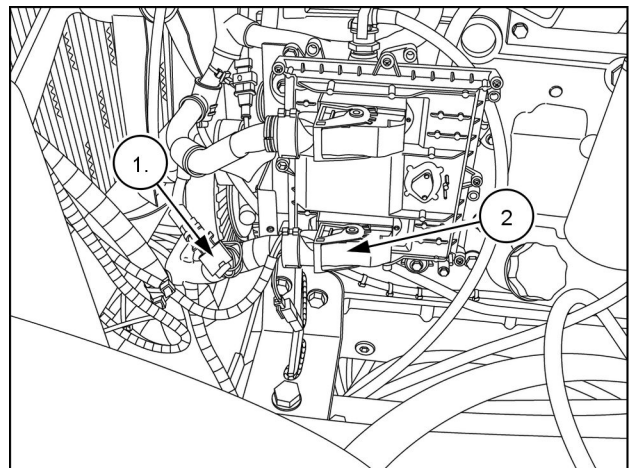
RAIL13SP05002AA 10

12. Remove the air conditioning compressor adjustment bolt (1).
13. Remove the air conditioning compressor pivot bolt (2) and set the compressor to the side on the frame near the cooling package.



RAIL13SP05004AA 11

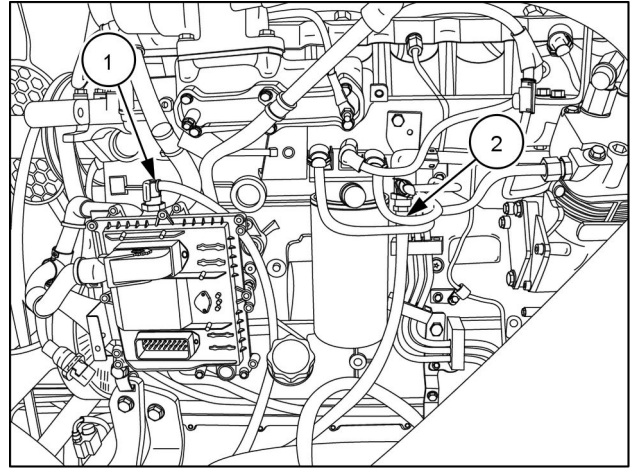
14. Disconnect the engine harness at the connector (1) and at the engine controller (2).



RAIL13SP05005AA 12

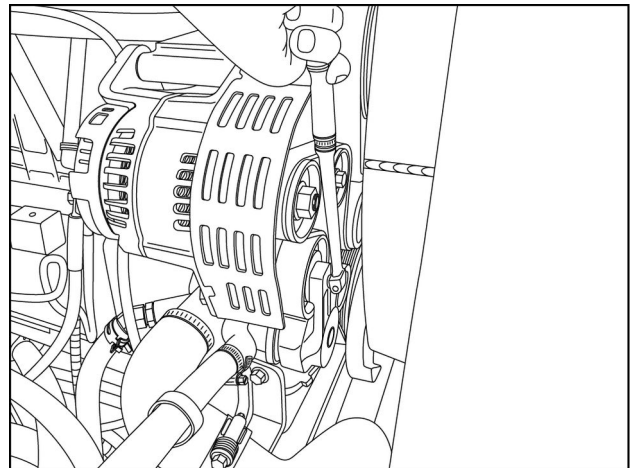
15. Disconnect the intake (1) and return (2) fuel lines.

NOTE: Plug and cap all disconnected lines and fittings.



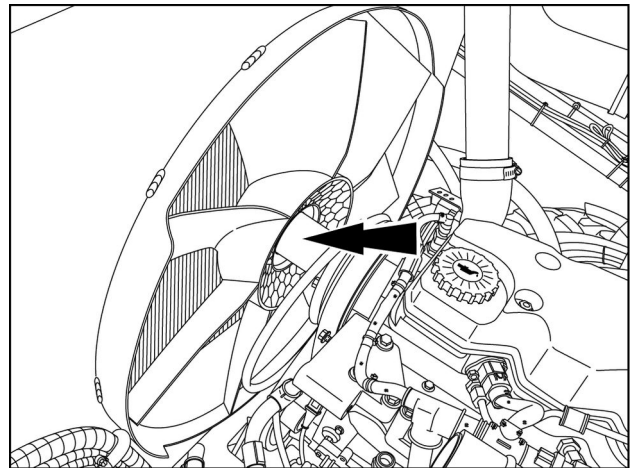
RAIL13SP05003AA 13

16. Remove the serpentine belt from the alternator pulley.



RAIL13SP05006AA 14

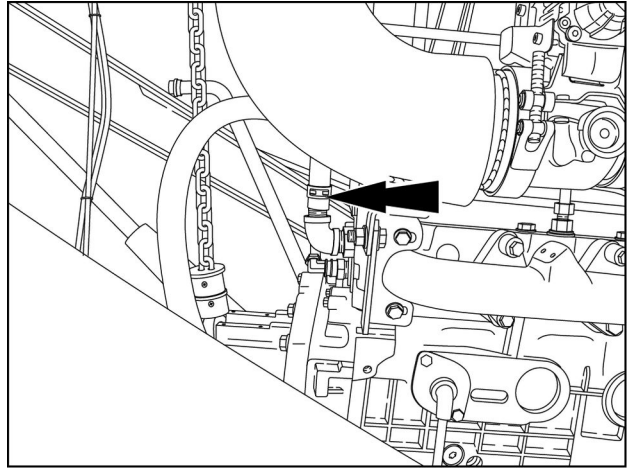
17. Remove the fan.



RAIL13SP05007AA 15

18. Disconnect the heater hose.

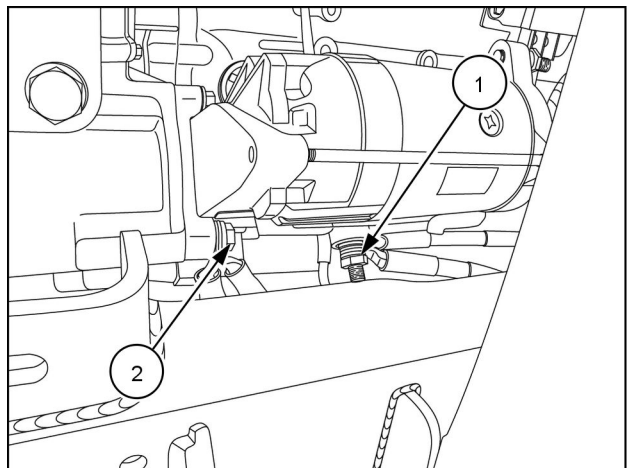
NOTE: Plug and cap all disconnected hoses and fittings.



RAIL13SP05008AA 16

19. Disconnect the positive cables (1) from the starter.

20. Disconnect the negative cables (2) from the starter motor mounting bolt.

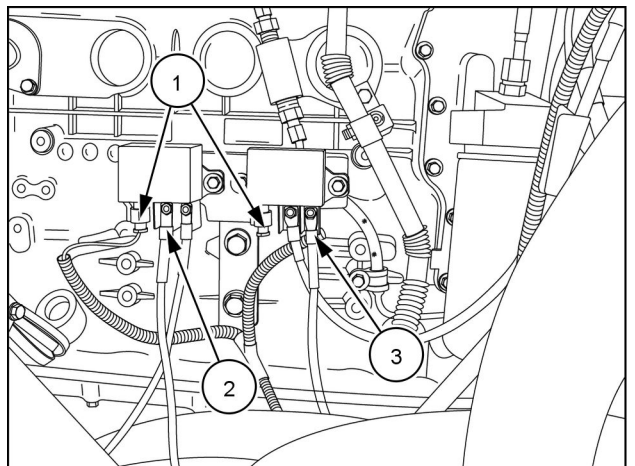


RAIL13SP05009AA 17

21. Label and disconnect the harness leads (1).

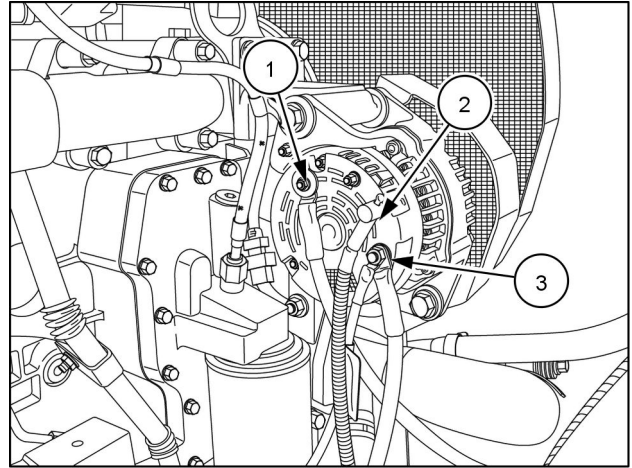
22. Disconnect the positive wire (2) as shown.

23. Disconnect the negative wire (3) as shown.



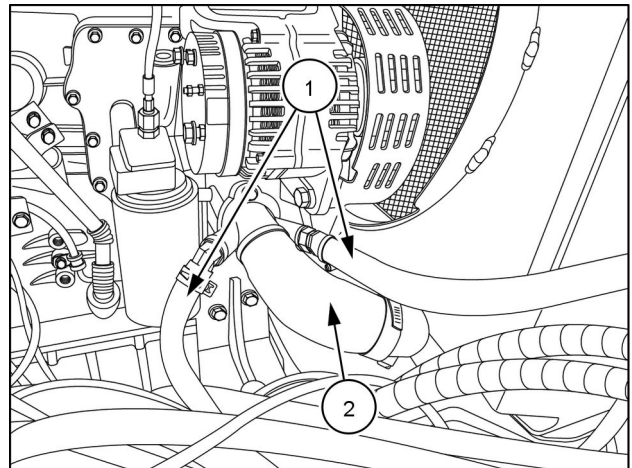
RAIL13SP05010AA 18

24. Disconnect the negative wire **(1)** as shown
25. Disconnect the exciter wire **(2)** as shown.
26. Disconnect the positive wires **(3)** as shown.



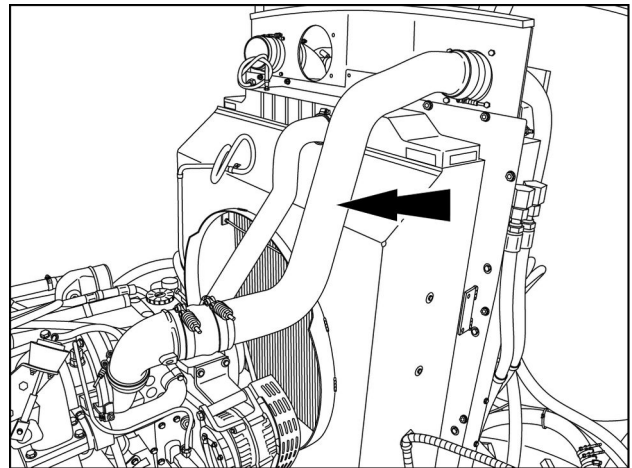
RAIL13SP05011AA 19

27. Label and disconnect the heater hoses **(1)**.
28. Disconnect the lower radiator hose **(2)**.



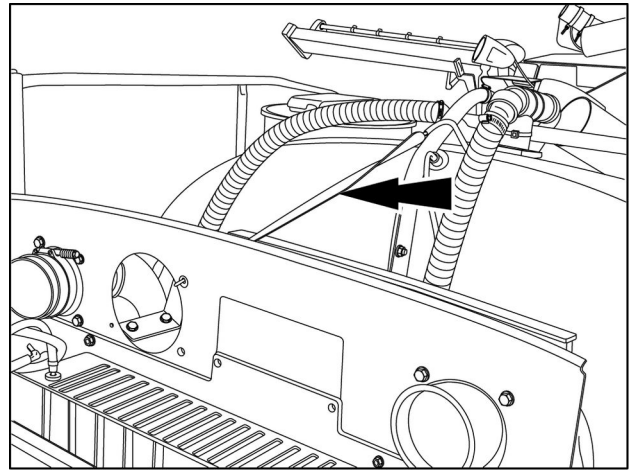
RAIL13SP05013AA 20

29. Remove the right hand charged air to air cooler tube.



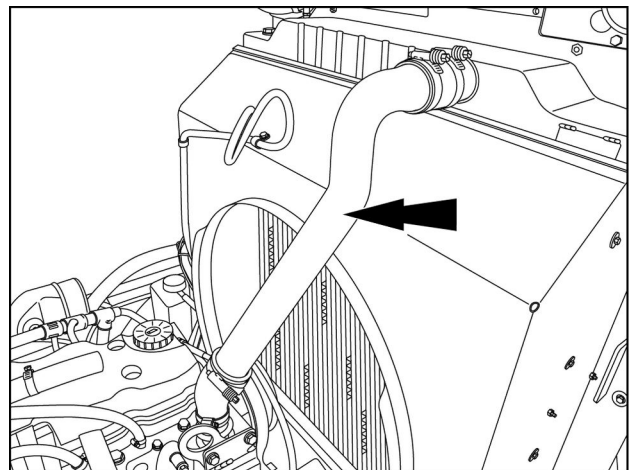
RAIL13SP05012AA 21

30. Attach a support strap from the cooling package frame to the product tank to support the cooling package.



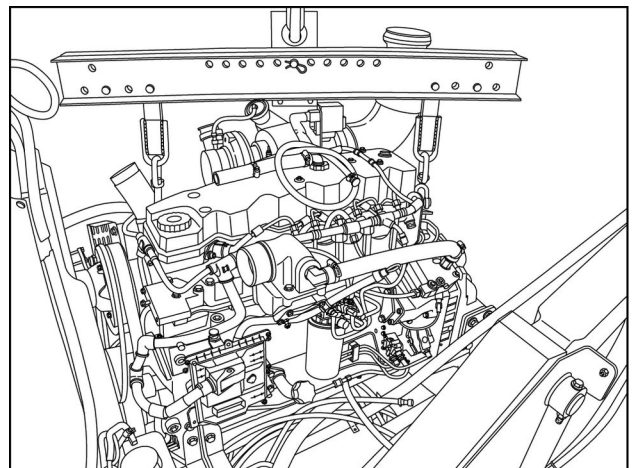
RAIL13SP05014AA 22

31. Remove the upper radiator tube.



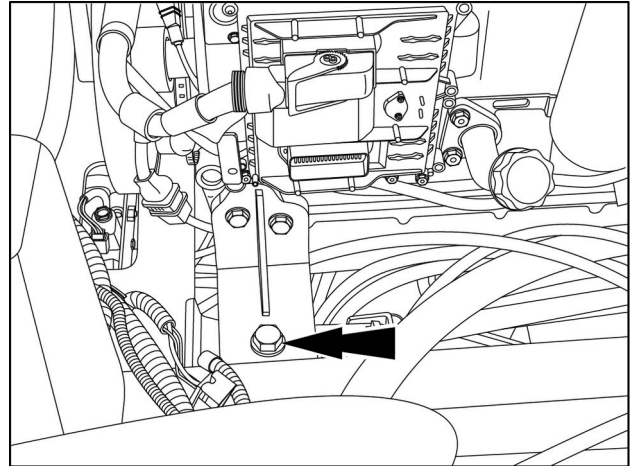
RAIL13SP05015AA 23

32. Attach an **OEM4130** engine lift or equivalent to the lifting brackets and an overhead crane.



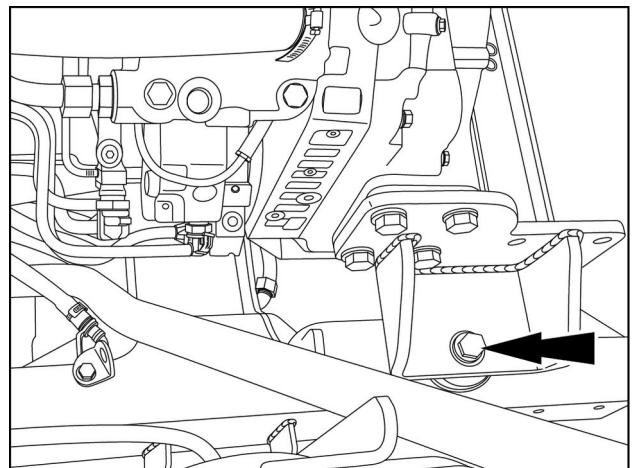
RAIL13SP05017AA 24

33. Remove the front engine mount to frame bolts.



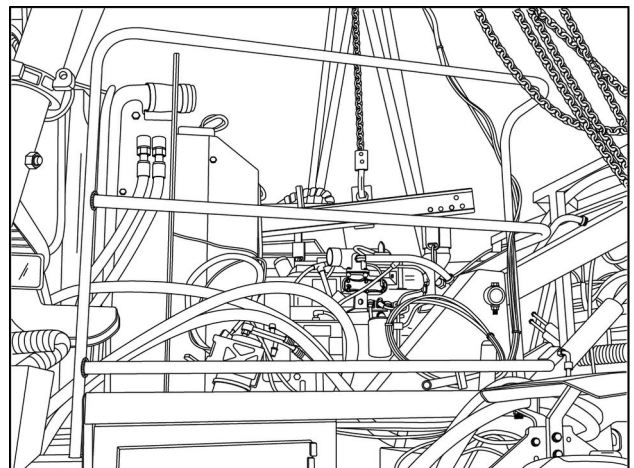
RAIL13SP05018AA 25

34. Remove the rear engine mount to frame bolts.



RAIL13SP05018AA 26

35. Remove the left hand guard railing and remove the engine out the left hand side of the machine.

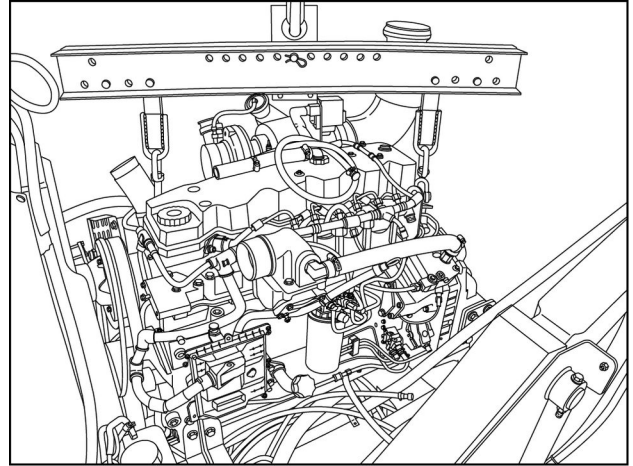


RAIL13SP05019AA 27

Engine - Install

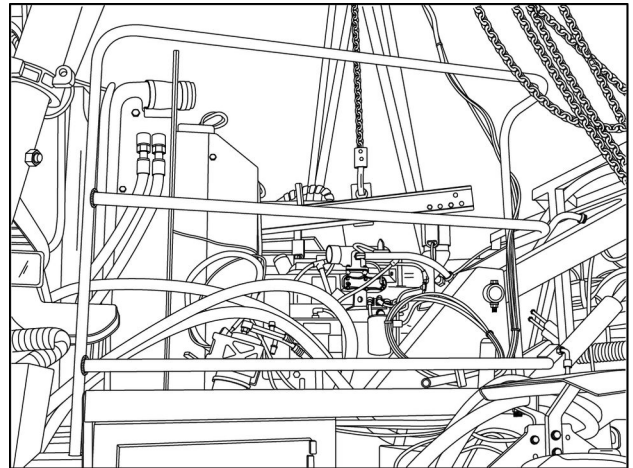
Patriot® 3240	NA
Patriot® 3340	NA

1. Attach an **OEM4130** engine lift or equivalent to the lifting brackets and an overhead crane. Set the engine in place on the machine.



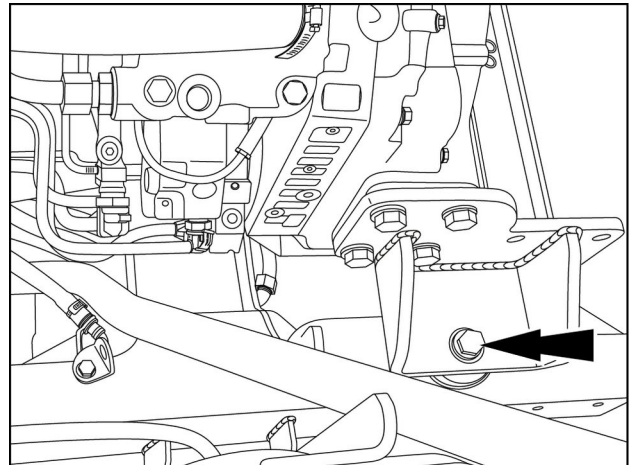
RAIL13SP05017AA 1

2. Install the left hand guard railing.



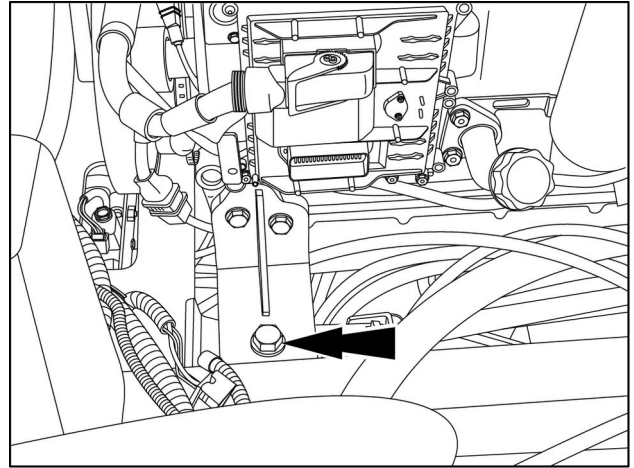
RAIL13SP05019AA 2

3. Loosely assemble the rear engine mount to frame bolts.



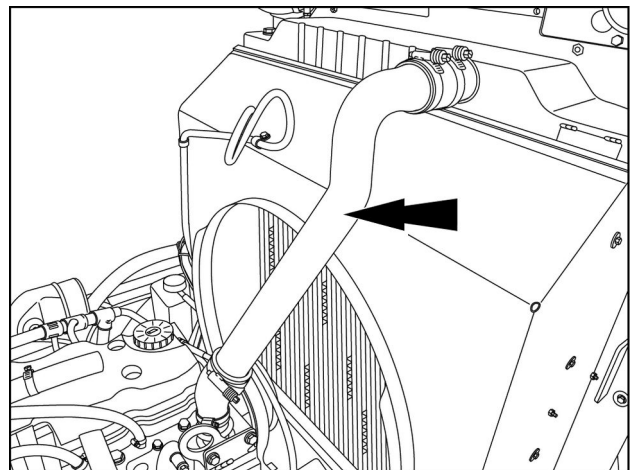
RAIL13SP05018AA 3

4. Loosen the front engine mount to frame bolts.



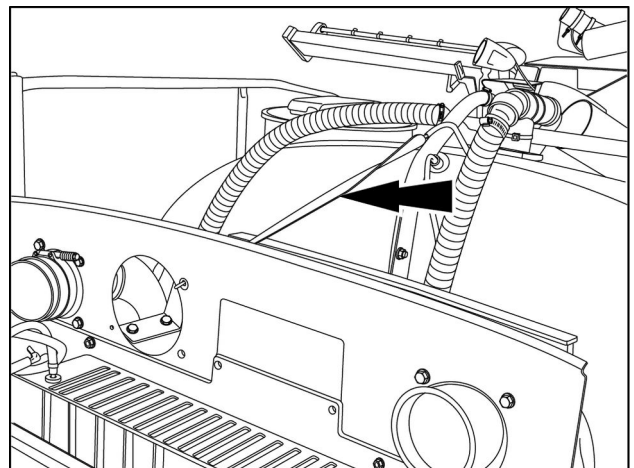
RAIL13SP05016AA 4

5. Install the upper radiator tube.



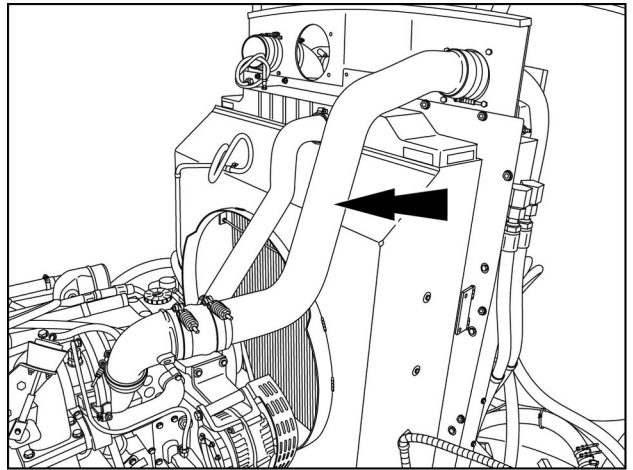
RAIL13SP05015AA 5

6. Remove the support strap from the cooling package frame to the product tank.



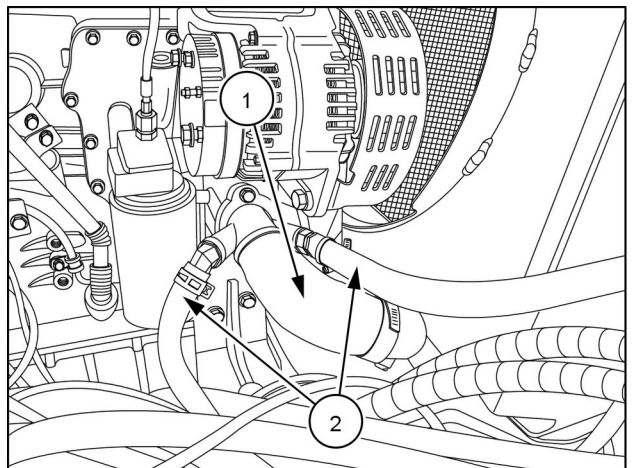
RAIL13SP05014AA 6

7. Install the right hand charged air to air cooler tube.



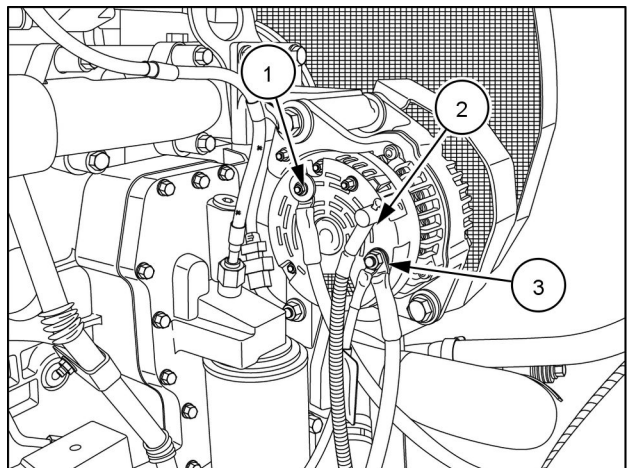
RAIL13SP05012AA 7

8. Connect the lower radiator hose (1).
9. Connect the heater hoses (2) as labeled during disassembly.



RAIL13SP05013AA 8

10. Connect the negative wire (1) as shown.
11. Connect the exciter wire (2) as shown.
12. Connect the positive wires (3) as shown.



RAIL13SP05011AA 9



Suggest:

If the above button click is invalid.

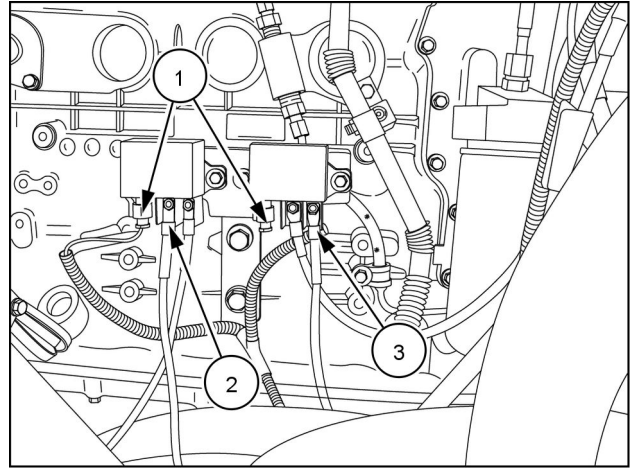
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first, and then click the above link

to download the complete manual.

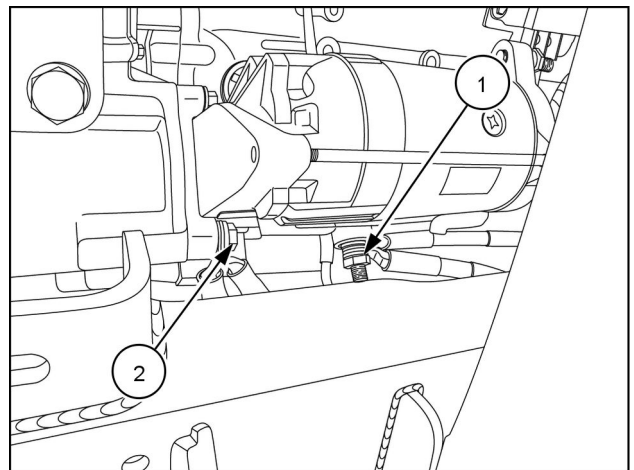
Thank you so much for reading

13. Connect the harness leads **(1)** as labeled during dis-assembly.
14. Connect the positive wire **(2)** as shown.
15. Connect the negative wire **(3)** as shown.



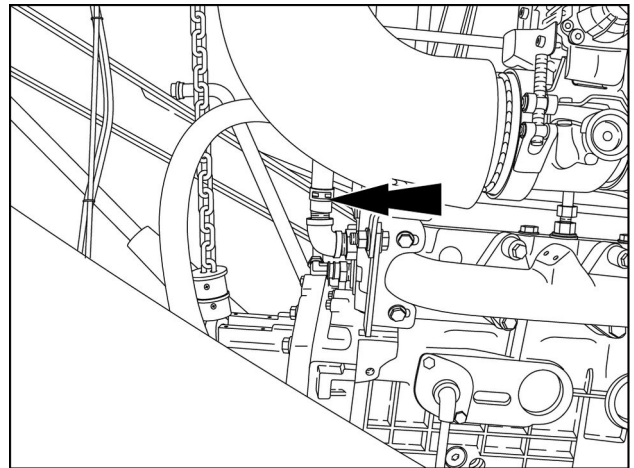
RAIL13SP05010AA 10

16. Connect the positive cables **(1)** from the starter.
17. Connect the negative cables **(2)** from the starter motor mounting bolt.



RAIL13SP05009AA 11

18. Connect the heater hose.



RAIL13SP05008AA 12

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