

SERVICE MANUAL

Boomer™ 35 **Boomer™ 40** **Tier 4B (final)** **Compact Tractor**

Boomer™ 35 ROPS - From PIN LSM0B35Rxx0010001 to LSM0B35RVH0010043

Boomer™ 40 Cab - From PIN LSM0B40Cxx0010001 to LSM0B40CAH0010053

Boomer™ 40 ROPS - From PIN LSM0B40Rxx0010001 to LSM0B40REH0010028

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SERVICE MANUAL

**Boomer™ 35 Tier 4B (final), ROPS [LSM0B35Rxx0010001 -
LSM0B35RVH0010043]**

**Boomer™ 40 Tier 4B (final), Cab [LSM0B40Cxx0010001 -
LSM0B40CAH0010053]**

**Boomer™ 40 Tier 4B (final), ROPS [LSM0B40Rxx0010001 -
LSM0B40REH0010028]**

Link Product / Engine

Product	Market Product	Engine
Boomer™ 35 Tier 4B (final), ROPS [LSM0B35Rxx0010001 - LSM0B35RVH0010043]	North America	L3C19-T5
Boomer™ 40 Tier 4B (final), ROPS [LSM0B40Rxx0010001 - LSM0B40REH0010028]	North America	L3C19-T4
Boomer™ 40 Tier 4B (final), Cab [LSM0B40Cxx0010001 - LSM0B40CAH0010053]	North America	L3C19-T4

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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

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LSM0B40REH0010028]**

Engine - Remove

Prior operation:

Drain fluid **Hydrostatic transmission - Change fluid (29.202)**

Prior operation:

Drain fluid **Mechanical transmission - Change fluid (21.114)**

Prior operation:

Hood - Remove (90.100)

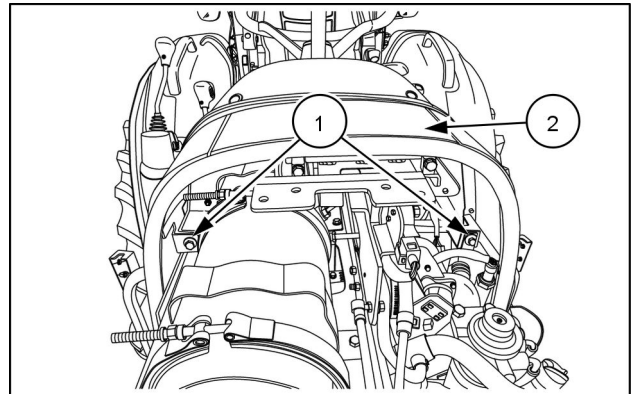
Prior operation:

Radiator - Remove (10.400)

NOTE: Cap off all hydraulic and fuel fittings or tubes to prevent contamination.

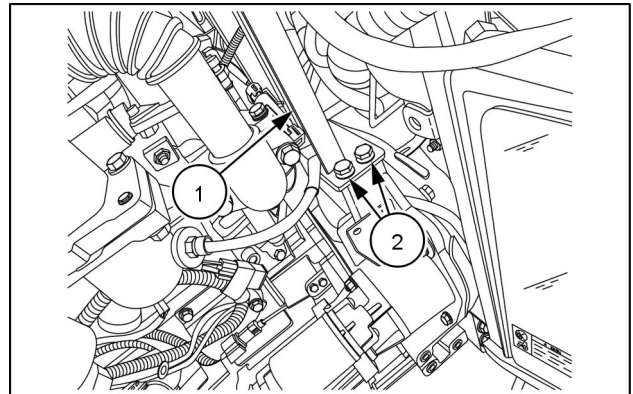
NOTE: Note the placement of cable ties for reassembly.

1. Remove the two M8 flange bolts (1) securing the rear cowling.
2. Remove the rear cowling (2).

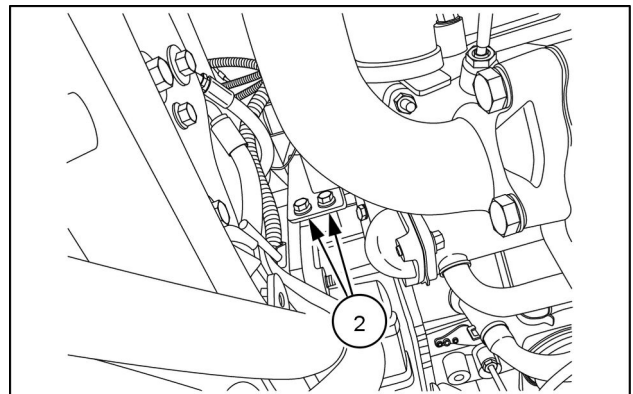


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3. Remove the four M10 bolts (2) that mount the hood support bracket (1) to the flywheel housing.

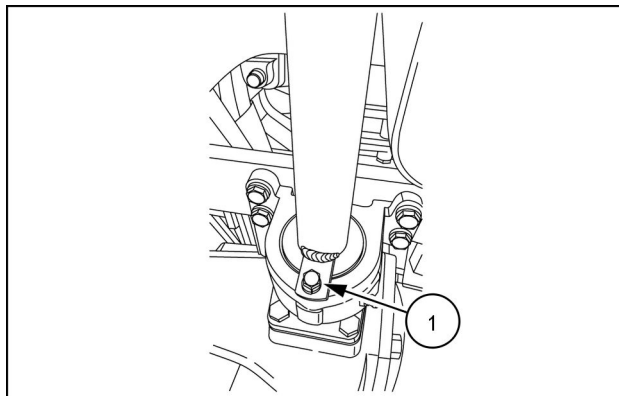


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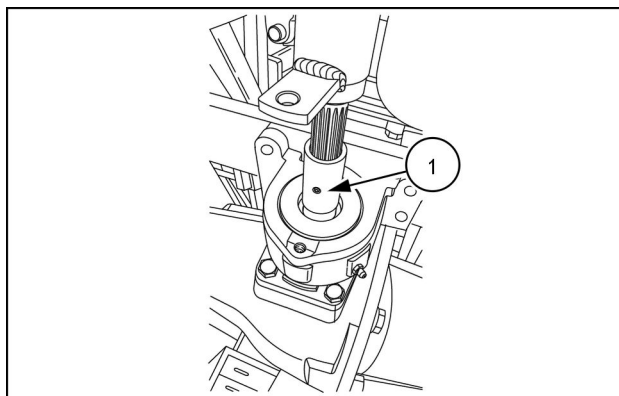
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4. Remove the M8 bolt **(1)** in the front of the Four Wheel Drive (FWD) guard tube.
5. Slide the guard tube rear-ward.



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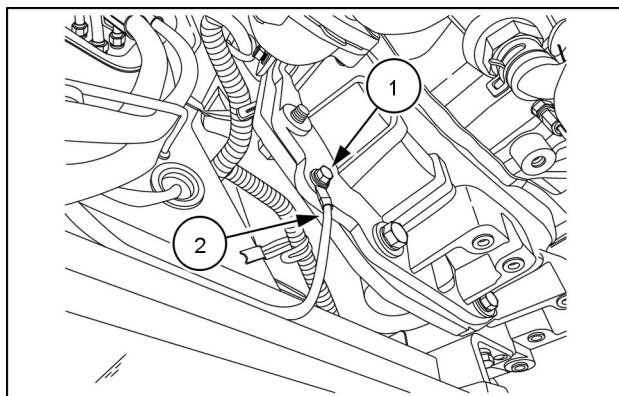
6. Use a roll pin punch and a hammer and drive the roll pin **(1)** through the coupler.
7. Slide the coupler rear-ward.



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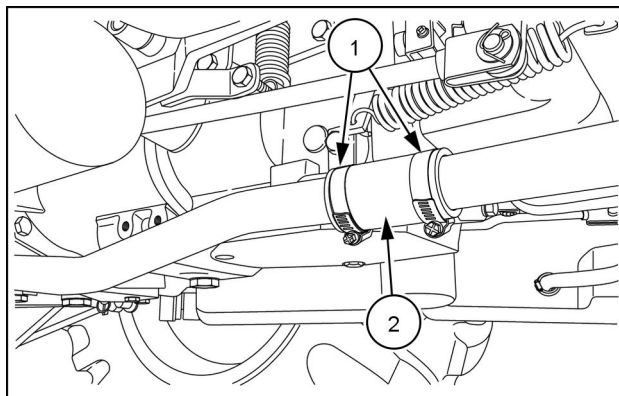
Right-hand side

8. Remove the M6 bolt **(1)** and remove the ground wire **(2)** from the bell housing.



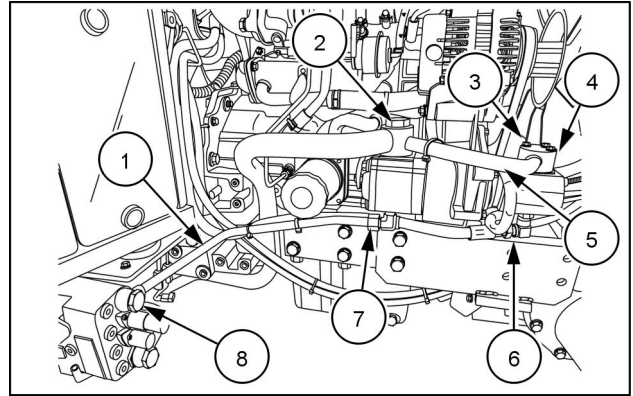
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9. Loosen the hose clamps **(1)** and slide the suction tube coupler **(2)** rear-ward.

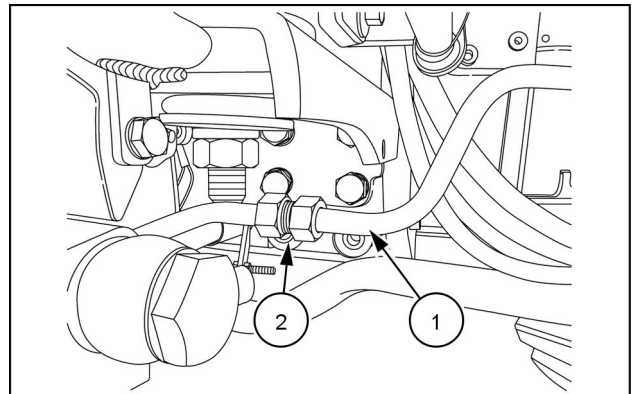


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10. Remove the banjo bolt **(2)** from the main hydraulic pump.
11. Remove the three M6 bolts **(3)** from the steering pump suction fitting **(4)**.
12. Remove the suction tube **(5)**.
13. Disconnect the main hydraulic pump outlet pipe **(7)**.
14. For Roll Over Protective Structure (ROPS) tractor:
 1. Disconnect the steering pump outlet hose **(6)**. Cap off the hose and route the hose away from the engine.
15. For mechanical transmissions:
 1. Remove the banjo bolt **(8)** from the Mid Mount Valve (MMV) pressure port.
 2. Remove the main hydraulic pump outlet pipe **(1)** from the MMV.
16. For Hydro-Static Transmissions (HST):
 1. Remove the main hydraulic pump outlet pipe **(1)** from the union fitting **(2)**.



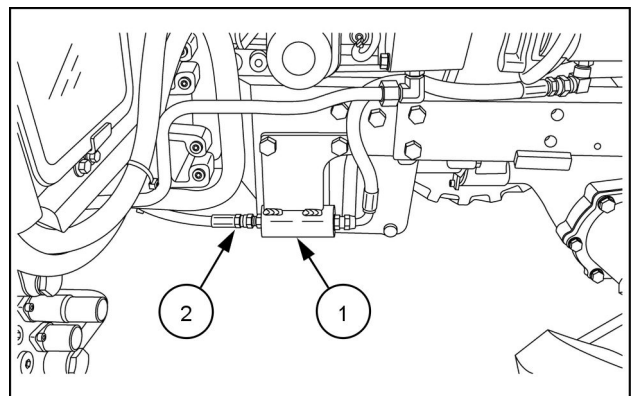
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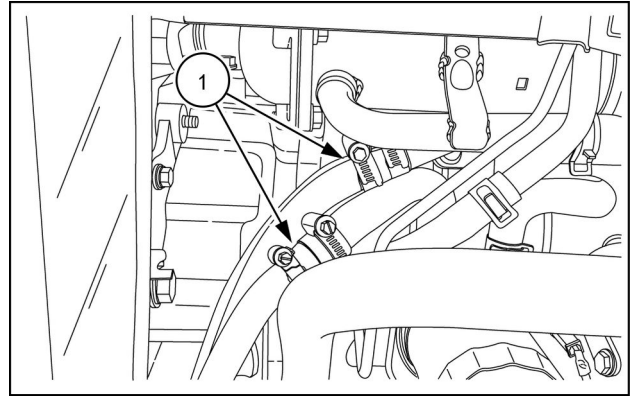
Cab tractor only

17. Disconnect the steering pressure hose **(2)** at the back side of the resonator **(1)**. Cap off the hose and route the hose away from the engine.



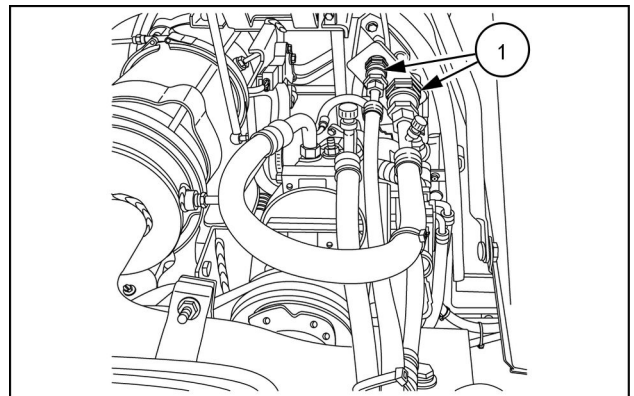
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18. Disconnect the two heater coolant hoses (1) on the right side of the machine.



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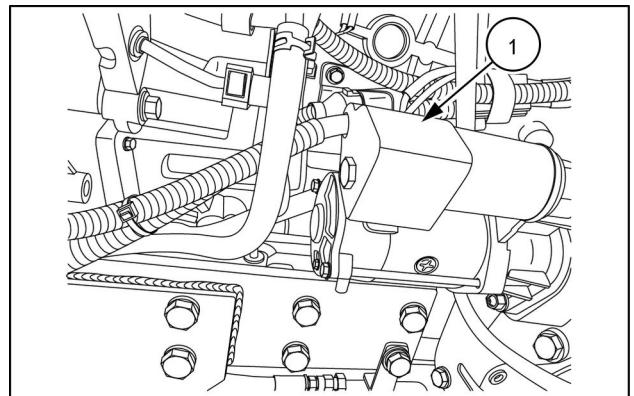
19. Disconnect the air conditioning lines at quick disconnects (1) on the left side of the machine.



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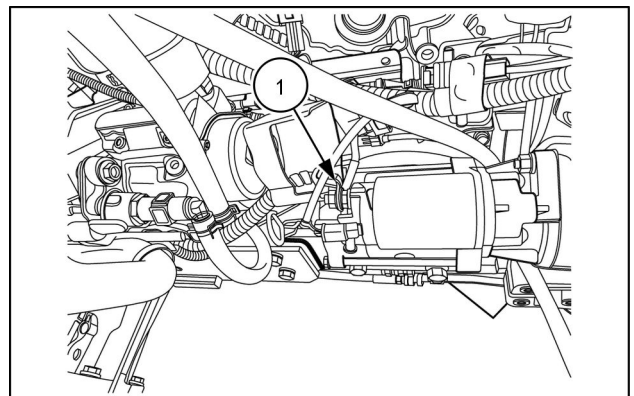
Left-hand side

20. Remove the coated nut and remove the shield (1) from the starter motor solenoid.



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21. Remove the M8 flange nut and remove the power cable (1) from the stud.



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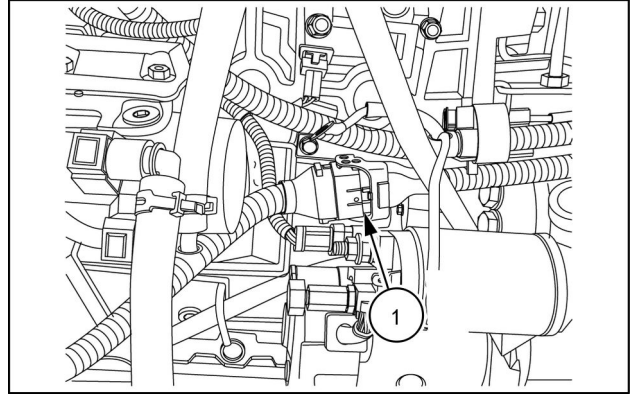


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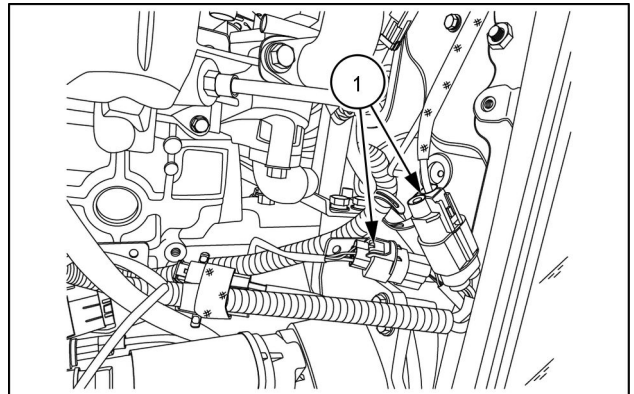
Thank you so much for reading.

22. Disconnect the Engine Control Unit (ECU) electrical connector **(1)** near the middle of the engine crankcase.



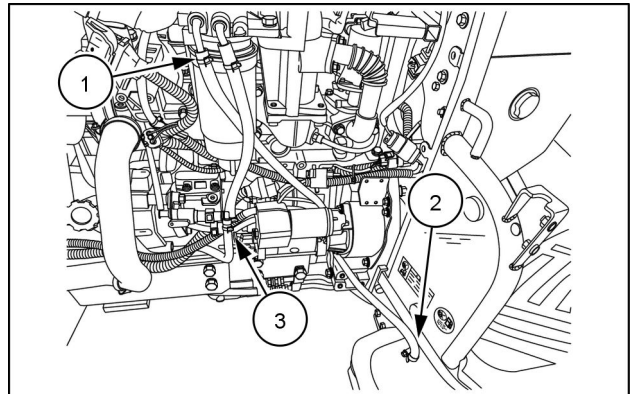
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23. Disconnect the power and ground electrical connectors **(1)** above the starter motor.



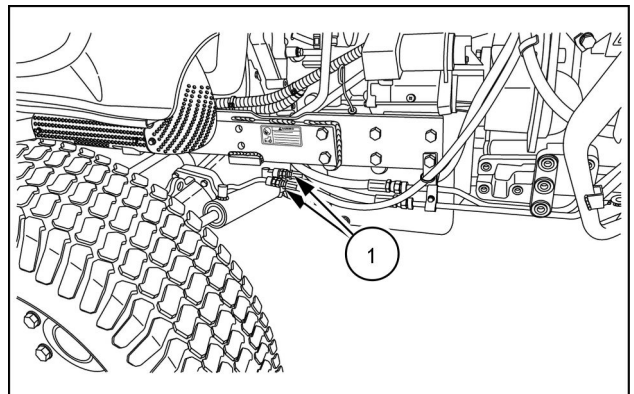
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24. Disconnect the fuel supply hose **(1)** from the fuel water separator filter to the fuel tank.
25. Disconnect the fuel return hose **(2)** from the high-pressure fuel pump to the right-hand fitting on the fuel cooler.
26. Disconnect the fuel return hose **(3)** from the fuel tank.



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27. Disconnect the right-hand and left-hand steering hoses **(1)** at the power steering cylinders.
28. Tie hoses back out of the way toward rear of the tractor.



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