

AXIAL-FLOW® 5130
AXIAL-FLOW® 6130
AXIAL-FLOW® 7130
Tier 4a
Combine

SERVICE MANUAL

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SERVICE MANUAL

**AXIAL-FLOW 5130 [YCG007403 -] , AXIAL-FLOW 5130 [YCG008901 -] ,
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INTRODUCTION

Safety rules Ecology and the Environment

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Soil, air, and water are vital factors of agriculture and life in general. When legislation does not yet rule the treatment of some of the substances which are required by advanced technology, common sense should govern the use and disposal of products of a chemical and petrochemical nature.

NOTICE: *The following are recommendations which may be of assistance:*

- Become acquainted with and ensure that you understand the relative legislation applicable to your country.
- Where no legislation exists, obtain information from suppliers of oils, filters, batteries, fuels, antifreeze, cleaning agents, etc., with regard to their effect on man and nature and how to safely store, use and dispose of these substances.
- Agricultural consultants will, in many cases, be able to help you as well.

HELPFUL HINTS

- Avoid filling tanks using cans or inappropriate pressurized fuel delivery systems which may cause considerable spillage.
- In general, avoid skin contact with all fuels, oils, acids, solvents, etc. Most of them contain substances which 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 draining off used engine coolant mixtures, engine, gearbox and hydraulic oils, brake fluids, etc. Do not mix drained brake fluids or fuels with lubricants. Store them safely until they can be disposed of in a proper way to comply with local legislation and available resources.
- Modern coolant mixtures, i.e. antifreeze and other additives, should be replaced every two years. They should not be allowed to get into the soil but should be collected and disposed of properly.
- Do not open the air-conditioning system yourself. It contains gases which should not be released into the atmosphere. Your CASE IH AGRICULTURE dealer or air conditioning specialist has a special extractor for this purpose and will have to recharge the system properly.
- Repair any leaks or defects in the engine cooling 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 as penetrating weld splatter may burn a hole or weaken them, allowing the loss of oils, coolant, etc.

Safety rules - Personal safety

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Carefully study these precautions, and those included in the external attachment operators manual, and insist that they be followed by those working with and for you.

1. Thoroughly read and understand this manual and the attachment Operator's Manual before operating this or any other equipment.
2. Be sure all people and pets are clear of the machine before starting. Sound the horn, if equipped, three times before starting engine.
3. Only the operator should be on the machine when in operation. Never allow anyone to climb on to the machine while it is in motion. If the machine is equipped with an Instructors Seat, this must only be used for training purposes. Passengers must not be allowed to use the Instructors Seat.
4. Keep all shields in place. Never work around the machine or any of the attachments while wearing loose clothing that might catch on moving parts.
5. Observe the following precautions whenever lubricating the machine or making adjustments.
 - Disengage all clutching levers or switches.
 - Lower the attachment, if equipped, to the ground or raise the attachment completely and engage the cylinder safety locks. Completing these actions will prevent the attachment from lowering unexpectedly.
 - Engage the parking brake.
 - Shut off the engine and remove the key.
 - Wait for all machine movement to stop before leaving the operators platform.
6. Always keep the machine in gear while travelling downhill.
7. The machine should always be equipped with sufficient front or rear axle weight for safe operation.
8. Under some field conditions, more weight may be required at the front or rear axle for adequate stability. This is especially important when operating in hilly conditions or/when using heavy attachments.
9. Always lower the attachment, shut off the engine, set the parking brake, engage the transmission gears, remove the key and wait for all machine movement to stop before leaving the operators platform.
10. If the attachment or machine should become obstructed or plugged; set the parking brake, shut off the engine and remove the key, engage the transmission gears, wait for all machine or attachment motion to come to a stop, before leaving the operators platform to removing the obstruction or plug.
11. Never disconnect or make any adjustments to the hydraulic system unless the machine and/or the attachment is lowered to the ground or the safety lock(s) is in the engaged position.
12. Use of the flashing lights is highly recommended when operating on a public road.
13. When transporting on a road or highway, use accessory lights and devices for adequate warning to the operators of other vehicles. In this regard, check local government regulations. Various safety lights and devices are available from your CASE IH AGRICULTURE dealer.
14. Practice safety 365 days a year.
15. Keep all your equipment in safe operating condition.
16. Keep all guards and safety devices in place.
17. Always set the parking brake, shut off the engine and remove the key, engage the transmission gears, wait for all machine or attachment motion to come to a stop, before leaving the operators platform to service the machine and attachment.
18. Remember: A careful operator is the best insurance against an accident.
19. Extreme care should be taken in keeping hands and clothing away from moving parts.



SERVICE MANUAL

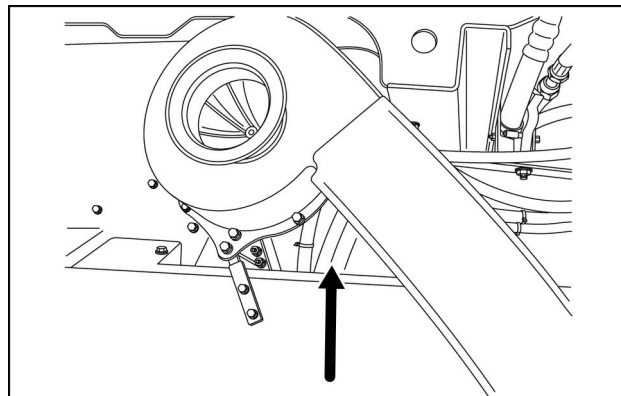
Engine

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Engine cooling system - Drain fluid

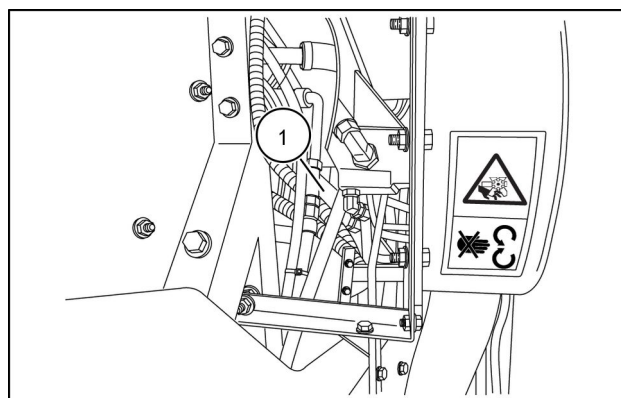
AXIAL-FLOW 5130, AXIAL-FLOW 6130, AXIAL-FLOW 7130

1. The drain tube to drain the coolant from the radiator is located behind the vacuum fan.



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2. The valve **(1)** is located at the bottom of the radiator.
3. Place a bucket at the bottom of the hose and turn the valve to the on position to drain the radiator.



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Next operation:

Engine cooling system - Filling (10.400)

Engine cooling system - Filling

AXIAL-FLOW 5130, AXIAL-FLOW 6130, AXIAL-FLOW 7130

Prior operation:

Engine cooling system - Drain fluid (10.400)

1. Close the valve (1) at the bottom of the radiator (2) and fill the cooling system with coolant **CASE IH AKCELA PREMIUM ANTI-FREEZE** as specified below.

NOTICE: Always fill the cooling system with an approved fully formulated antifreeze/water mixture. Check the freezing point of the coolant after each refill.

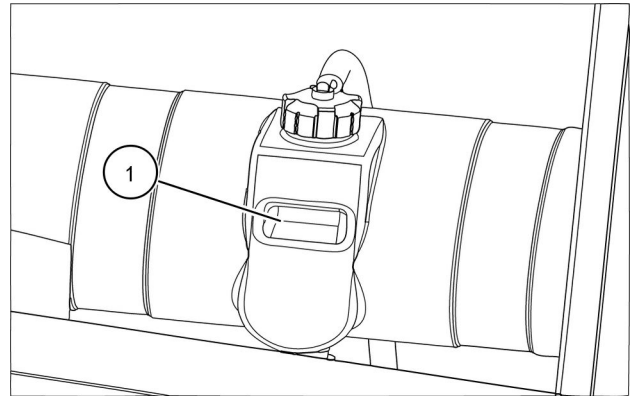
2. **⚠ CAUTION**

Burn hazard!

Take care if removing the filler cap while the system is hot. Before removing the cap: completely cover the cap using a thick cloth, and slowly open the filler cap to allow the pressure to escape. Do not add cold water to a hot coolant reservoir. Failure to comply could result in minor or moderate injury.

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Fill the deaeration tank until the coolant has leveled at the notch (1) in the tank. Start the engine and run it at low idle until the water temperature is at normal operating temperature. Re-check the deaeration tank to ensure proper level was maintained. If system is low add coolant until air pockets have been filled in the system. Do not fill past the notch in tank.



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Radiator - Remove

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Prior operation:

Engine cooling system - Drain fluid (10.400) and Aftercooler - Remove Intercooler Heat Exchanger (10.310)

1. Remove the deaeration tube **(1)** from the tank.
2. Loosen the front hose clamp **(1)** to the upper radiator hose **(2)**.
3. Loosen the front hose clamp **(1)** to the upper radiator tube at the engine.
4. Remove the upper radiator tube from the radiator and the engine.
5. Loosen the lower radiator hose clamp **(1)** and remove the tube **(2)** at the radiator.
6. Remove the four mounting bolts with washers **(1)**.

NOTE: Only one bolt being shown.

7. **DANGER**

Heavy objects!

Lift and handle all heavy components using lifting equipment with adequate capacity. Always support units or parts with suitable slings or hooks. Make sure the work area is clear of all bystanders.

Failure to comply will result in death or serious injury.

D0076A

Position the radiator **(1)** and install lifting device **(2)**.

8. Lower the radiator to the ground.

If replacing radiator

9. Remove the hardware **(1)** and remove the wiper assembly **(2)**.
10. Remove the mounting brackets **(1)**

Next operation:

Radiator - Remove (10.400)

Radiator - Install

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Prior operation:

Radiator - Remove (10.400)

NOTE: Steps 1 and 2 are only applied if the radiator was replaced.

1. Install the mounting brackets (1) and tighten the hardware to standard torque.
2. Install the wiper assembly (2) and install the hardware (1). Tighten hardware to standard torque.

3. **⚠ DANGER**

Heavy objects!

Lift and handle all heavy components using lifting equipment with adequate capacity. Always support units or parts with suitable slings or hooks. Make sure the work area is clear of all bystanders.

Failure to comply will result in death or serious injury.

D0076A

Install a lifting strap (1) to the radiator (2) and attach to a suitable lifting device.

4. Raise the radiator (1) into position and remove the lift strap (2).
5. Install the four mounting bolts with washers (1). Tighten all hardware to standard torque.

NOTE: Only one bolt being shown.

6. Connect the lower radiator tube (1) to the radiator. Position the lower radiator hose clamp (2) and tighten.
7. Install the upper radiator tube (1) to the upper radiator hose and to the hose (2) at engine
8. Position the clamps (3) and tighten.
9. Install the deaeration tube (1) to the tank.

Next operation:

Engine cooling system - Filling (10.400)

Deaeration tank - Remove

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⚠ CAUTION

Unexpected machine movement!

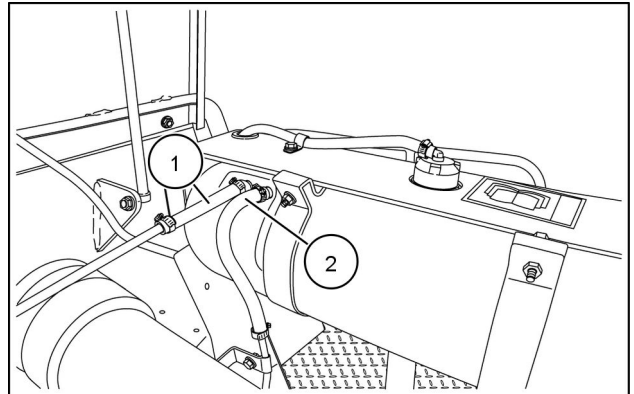
1. Disengage all drives.
 2. Engage parking brake.
 3. Lower all attachments to the ground, or raise and engage all safety locks.
 4. Shut off engine.
 5. Remove key from key switch.
 6. Switch off battery key, if installed.
 7. Wait for all machine movement to stop.
- Failure to comply could result in minor or moderate injury.

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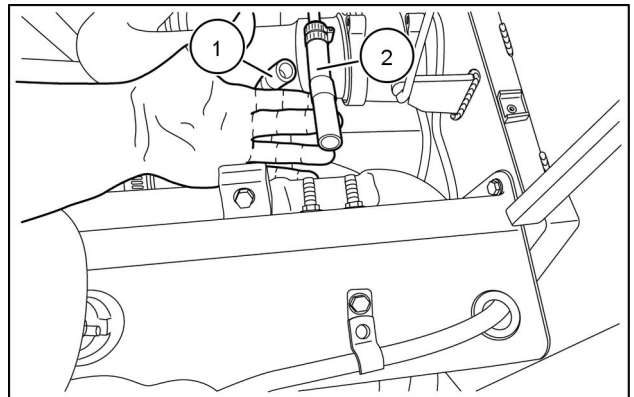
Prior operation:

Engine cooling system - Drain fluid (10.400)

1. Label and remove the coolant hoses (1) and (2).

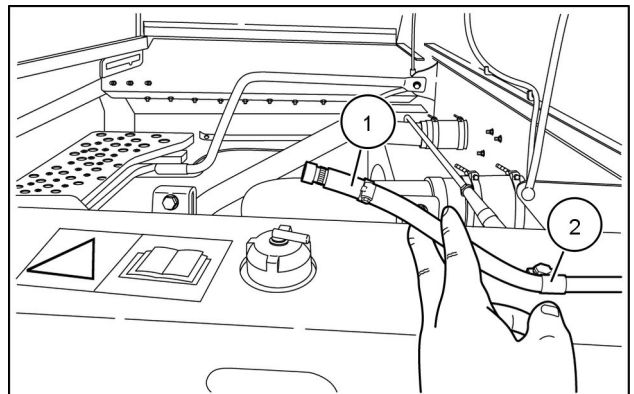


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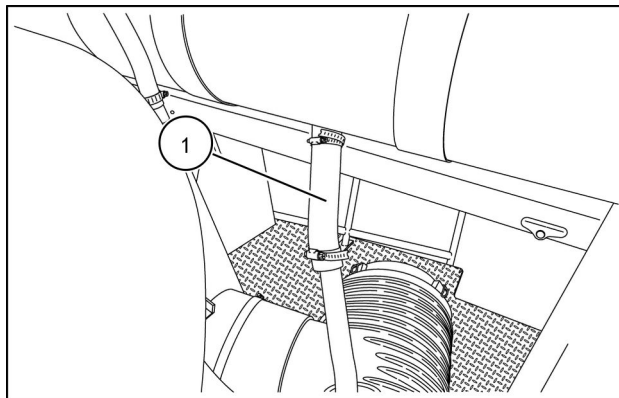
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2. Disconnect the hose to the overflow tank-cap (1). Remove the P-clamp (2) and remove the over flow hose.

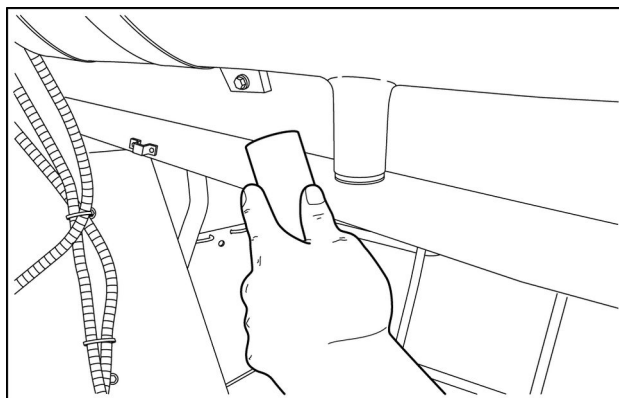


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3. Remove the drain hose **(1)**.

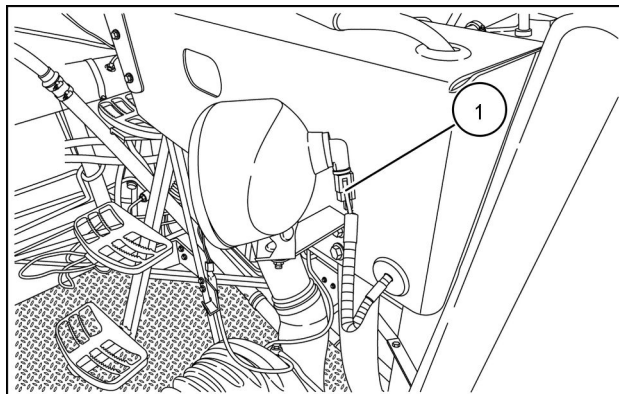


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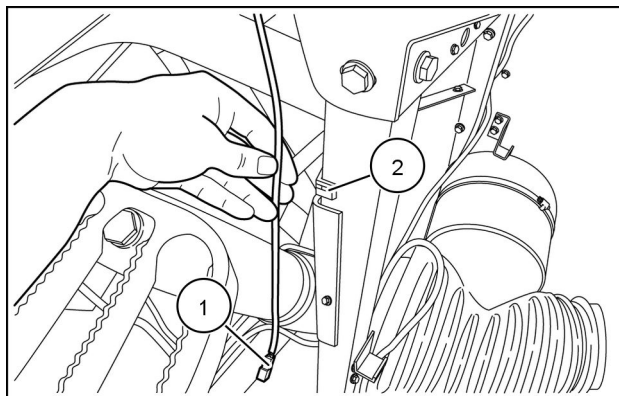
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4. Disconnect the electrical harness **(1)** at the rear platform deck light.



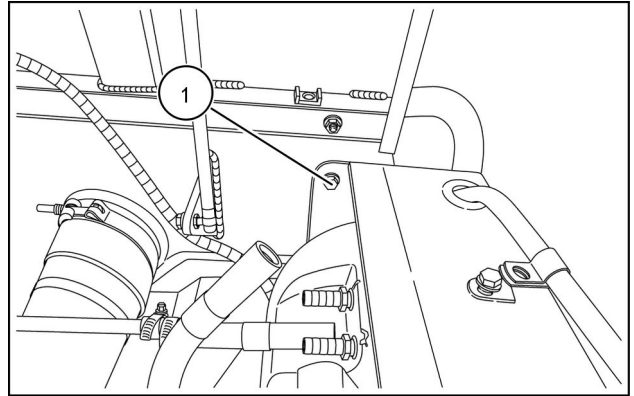
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5. Disconnect the electrical harness **(1)** to the beacon and remove the wire harness clamp **(2)** on the shield support.

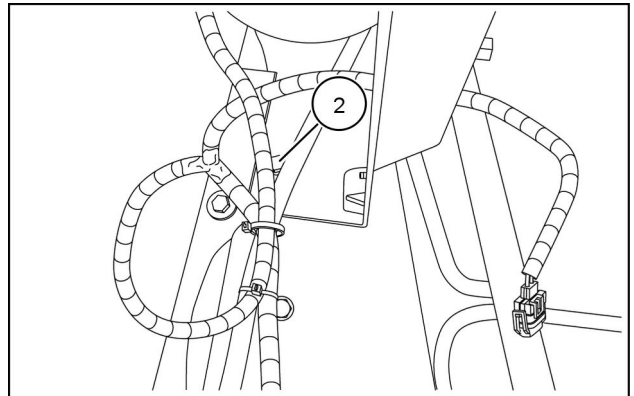


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6. Remove the mounting bolts **(1)** and **(2)** from the rear of the cooling shroud.

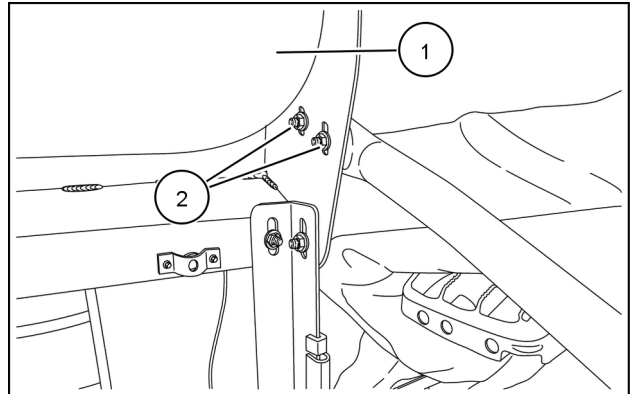


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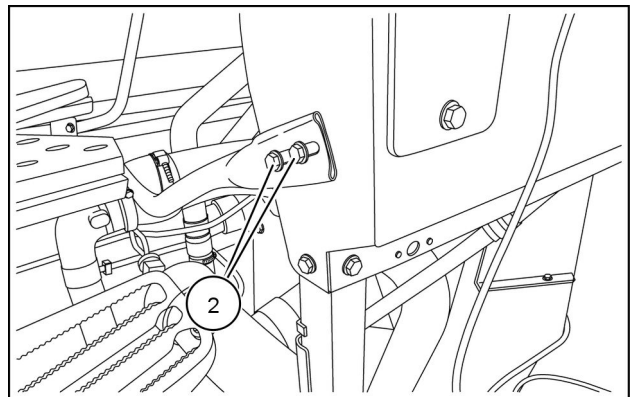


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7. Support the overflow tank **(1)** and remove the mount bolts **(2)** on the ladder side of the tank.



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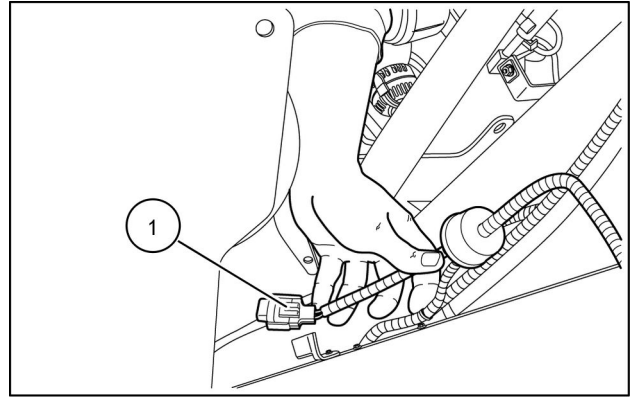
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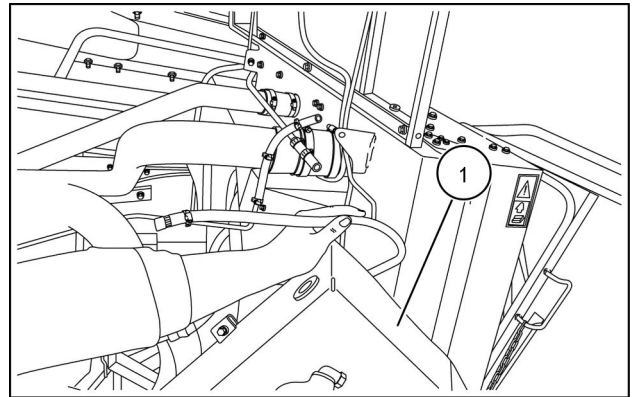
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8. The hose to tank and the wire harness (1) will need to be pulled through the tank mount bracket as the bracket is removed.



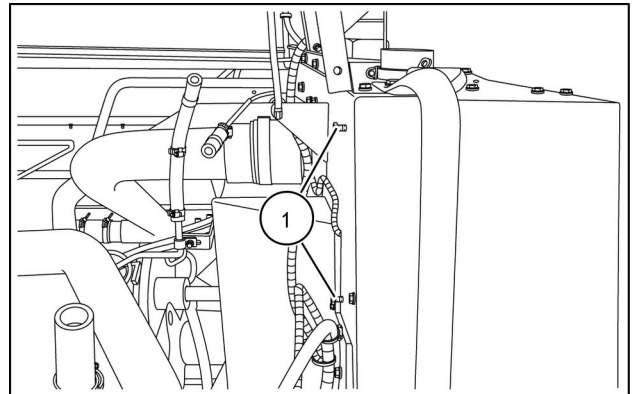
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9. Remove the tank (1).

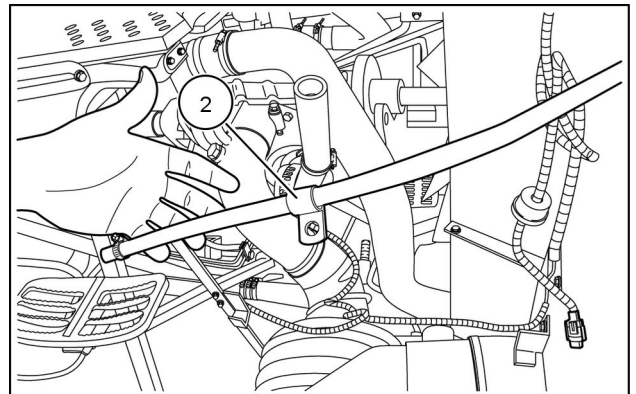


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10. Reinstall the tank mount bolts (1) and the P-clamp (2) for use at installation.



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