

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

SERVICE MANUAL

Part number 84564628

1st edition English

October 2012





SERVICE MANUAL

**AXIAL-FLOW 5130 [YCG007403 -] , AXIAL-FLOW 5130 [YCG008901 -] ,
AXIAL-FLOW 6130 [YCG007403 -] , AXIAL-FLOW 6130 [YCG008901 -] ,
AXIAL-FLOW 7130 [YCG007403 -] , AXIAL-FLOW 7130 [YCG008901 -]**

Contents

INTRODUCTION

Engine.....	10
Engine and crankcase.....	10.001
Air cleaners and lines.....	10.202
Aftercooler.....	10.310
Engine cooling system	10.400
Rotary screen.....	10.418
Main gearbox and drive	14
Main gearbox and drive	14.100
Transmission.....	21
Mechanical transmission	21.114
Gearbox internal components	21.145
Differential	21.182
Front axle system	25
Final drives	25.310
Rear axle system.....	27
Powered rear axle	27.100
Final drive hub, steering knuckles, and shafts	27.124
Hydrostatic drive.....	29
Transmission and steering hydrostatic control	29.100
Hydrostatic transmission	29.202
Reservoir, cooler, and lines.....	29.204
Pump and motor components	29.218
Brakes and controls	33
Parking brake / Parking lock.....	33.110
Hydraulic service brakes	33.202

<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>

Hydraulic systems.....	35
Hydraulic systems	35.000
Pump control valves	35.102
Variable displacement pump	35.106
Auxiliary hydraulic pump and lines	35.220
Reservoir, cooler, and filters	35.300
Regulated/Low pressure system	35.322
Main control valve	35.359
Header/Attachment height system	35.410
Grain tank unload system	35.440
Crop processor system.....	35.536
Header reverser drive	35.760
Chaff spreader control.....	35.796
Steering.....	41
Steering control.....	41.101
Tie rods	41.106
Hydraulic control components.....	41.200
Pump	41.206
Wheels.....	44
Front wheels.....	44.511
Cab climate control	50
Cab pressurizing system	50.300
Electrical systems	55
Electrical system	55.000
Fuel injection system	55.010
Engine cooling system	55.012
Engine oil system.....	55.013
Engine intake and exhaust system.....	55.014
Engine control system.....	55.015

Parking brake electrical system	55.031
Hydraulic system control	55.036
Heating, Ventilation, and Air-Conditioning (HVAC) control system	55.050
Harnesses and connectors	55.100
Engine starting system	55.201
Cold start aid	55.202
Alternator	55.301
Battery	55.302
External lighting switches and relays	55.405
Warning indicators, alarms, and instruments	55.408
Feeding control system	55.421
Cleaning control system	55.423
Harvest material flow control system	55.426
Cab controls	55.512
Wiper/Washer system	55.518
Cab harvesting controls	55.520
Ground speed control	55.610
Threshing electrical control	55.628
Electronic modules	55.640
Cab header controls	55.661
Header height control	55.662
Sieve electric control	55.834
Rotary separator control	55.836
Selective Catalytic Reduction (SCR) electrical system	55.988
FAULT CODES	55.DTC
Attachments/Headers	58
Attachment/Header reel control system	58.105
Product feeding	60
Floating roll, feed chain, and drive	60.105

Feeder housing	60.110
Length-of-cut gearbox	60.122
Feeder drive system	60.150
Threshing	66
Concave	66.105
Concave control system	66.110
Threshing mechanism drive system	66.260
Rotor	66.331
Separation	72
Rotary separator drive system	72.410
Rotary separator	72.420
Residue handling	73
Straw chopper drive system	73.210
Straw chopper	73.230
Chaff spreader	73.335
Cleaning	74
Cleaning	74.000
Cleaning drive systems	74.101
Upper shaker shoe	74.114
Lower shaker shoe	74.118
Fan housing	74.130
Tailings return system	74.140
Crop storage / Unloading	80
Clean grain elevator	80.101
Grain tank	80.150
Grain tank unload drive system	80.175
Grain tank unload	80.180
Platform, cab, bodywork, and decals	90

Machine shields and guards..... 90.105
Pneumatically-adjusted operator seat..... 90.124
Cab interior 90.151



INTRODUCTION

Safety rules Ecology and the Environment

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

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

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

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

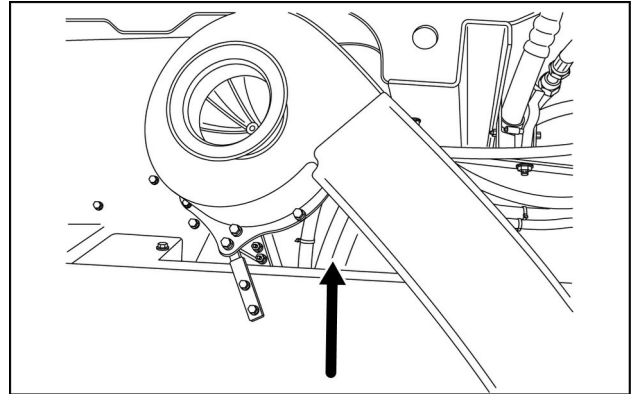
Engine

**AXIAL-FLOW 5130
AXIAL-FLOW 6130
AXIAL-FLOW 7130**

Engine cooling system - Drain fluid

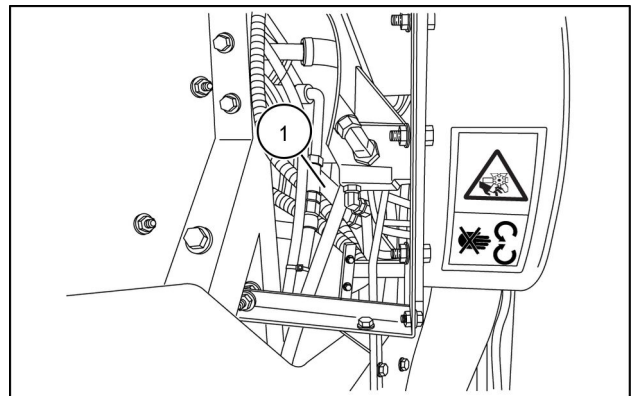
AXIAL-FLOW 5130, AXIAL-FLOW 6130, AXIAL-FLOW 7130

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



NH12AF001357A 1

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.



NH12AF001358A 2

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.

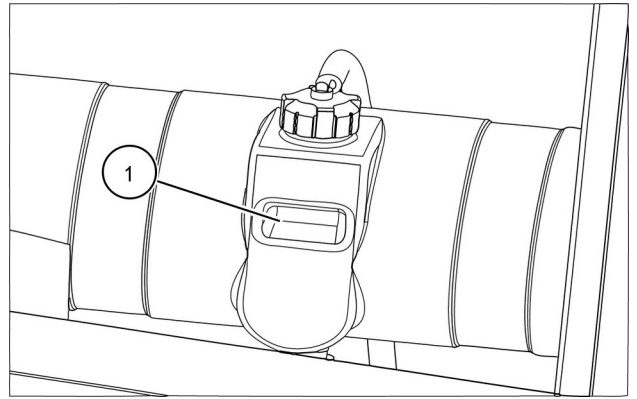
2. **⚠ CAUTION**

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.

C0031A

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.



20107339 1

Radiator - Remove

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

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

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

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

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

⚠ CAUTION

Unexpected machine movement!

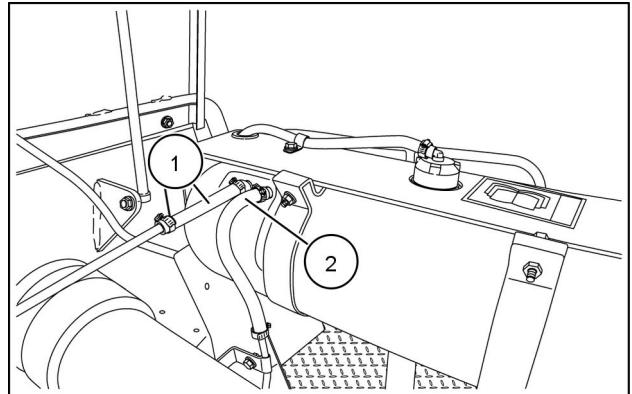
1. Disengage all drives.
 2. Engage parking brake.
 3. Lower all attachments to the ground, or raise and engage all safety locks.
 4. Shut off engine.
 5. Remove key from key switch.
 6. Switch off battery key, if installed.
 7. Wait for all machine movement to stop.
- Failure to comply could result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

C0038A

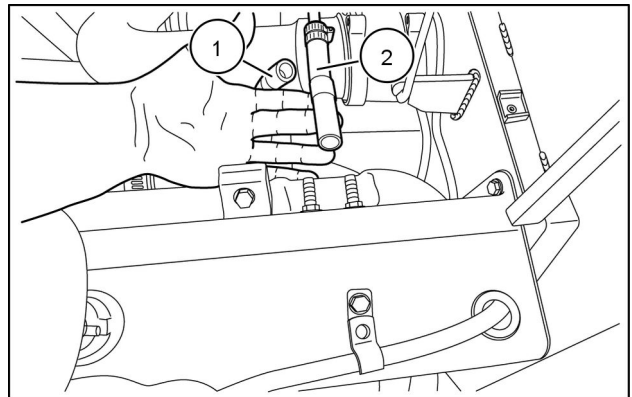
Prior operation:

Engine cooling system - Drain fluid (10.400)

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

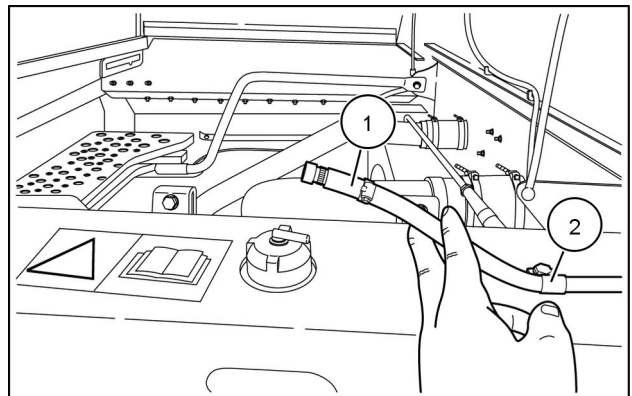


NH12AF00681A 1



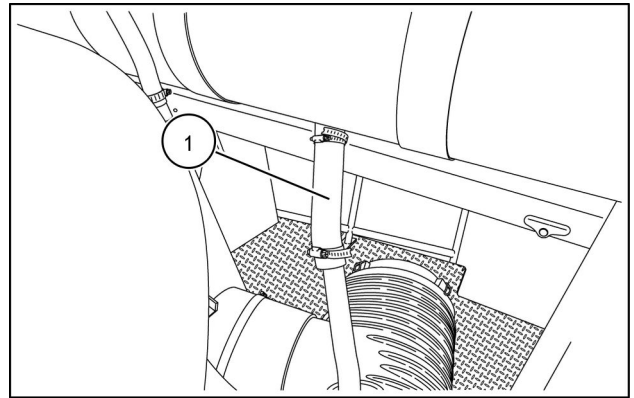
NH12AF00688A 2

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

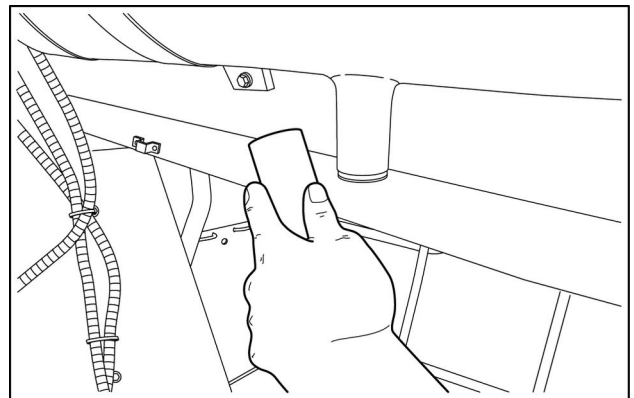


NH12AF00686A 3

3. Remove the drain hose (1).

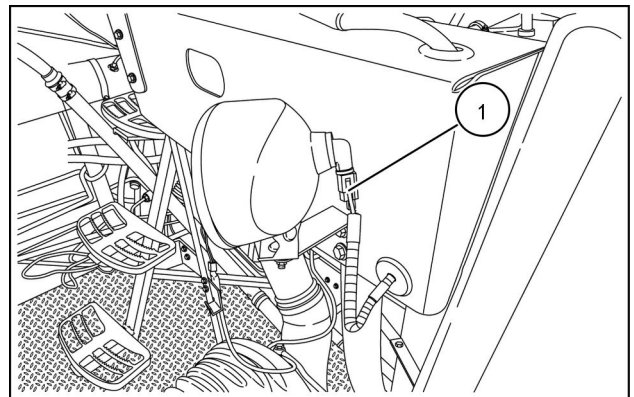


NH12AF00682A 4



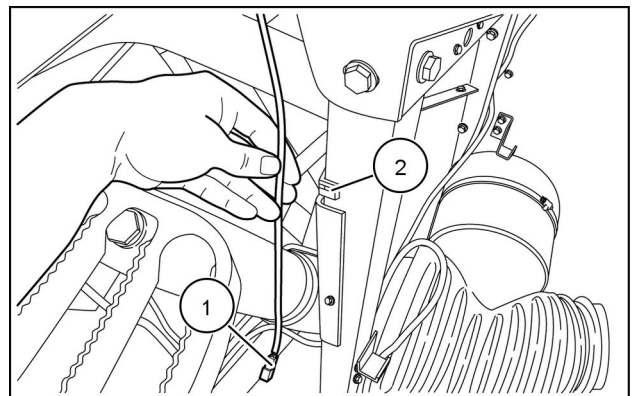
NH12AF00689A 5

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



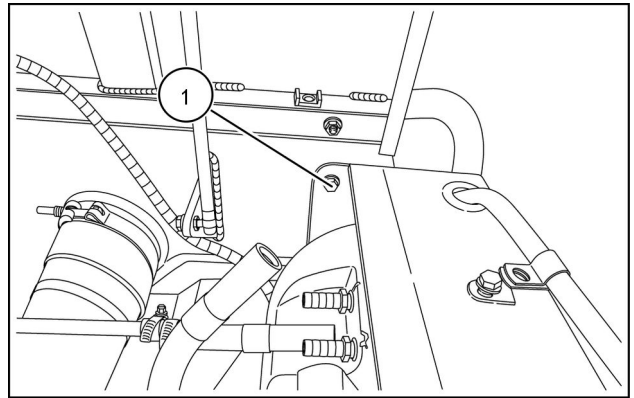
NH12AF00683A 6

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

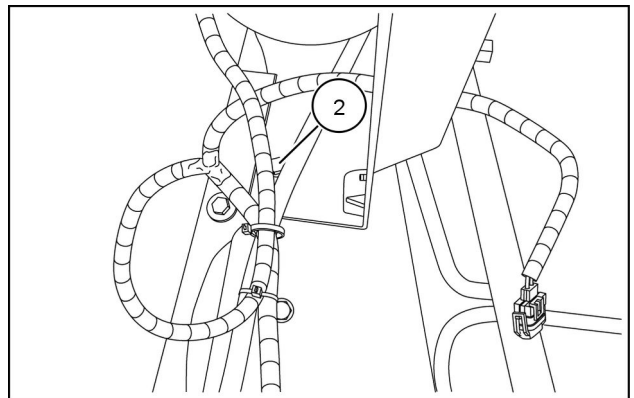


NH12AF00685A 7

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

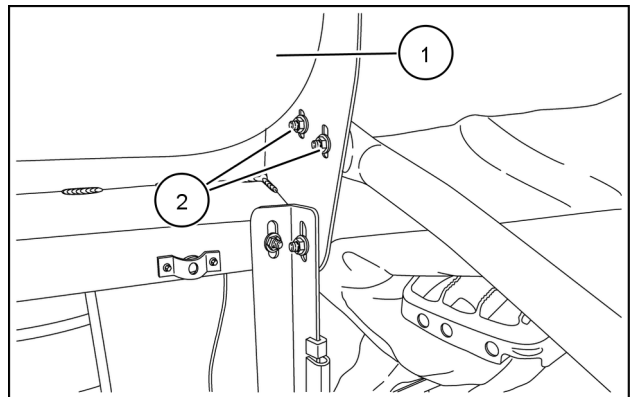


NH12AF00690A 8

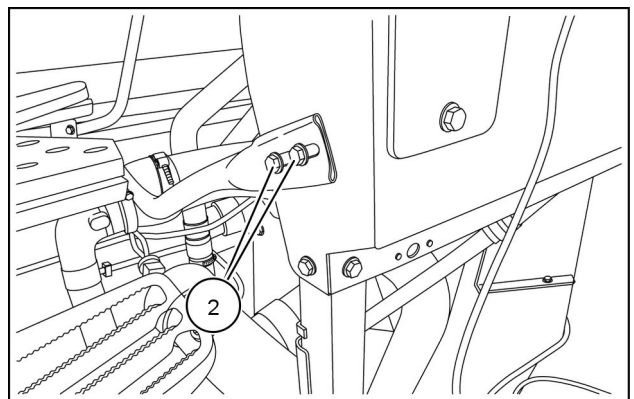


NH12AF00691A 9

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



NH12AF00692A 10



NH12AF00693A 11



Suggest:

If the above button click is invalid.

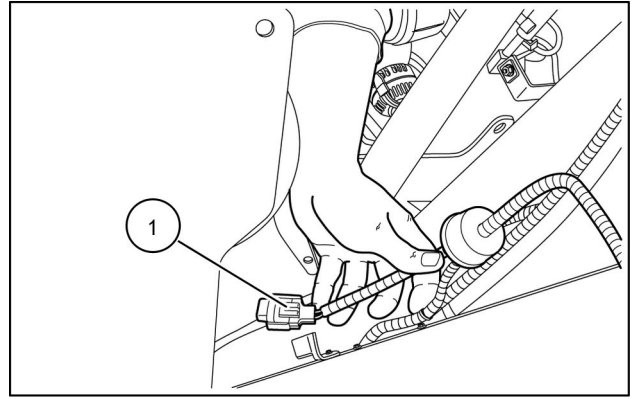
Please download this document

first, and then click the above link

to download the complete manual.

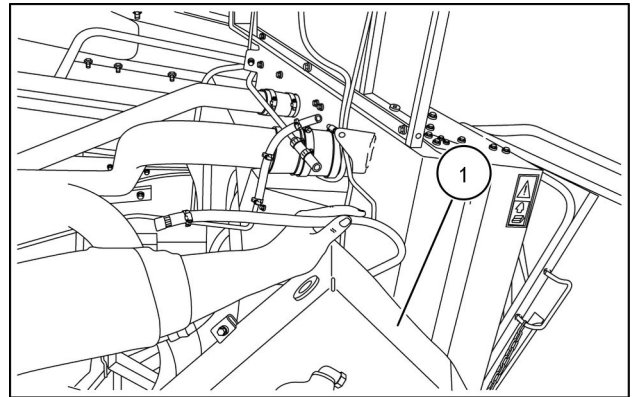
Thank you so much for reading

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.



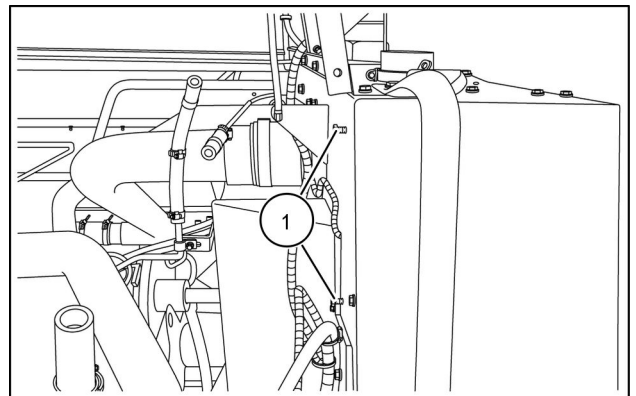
NH12AF00694A 12

9. Remove the tank (1).

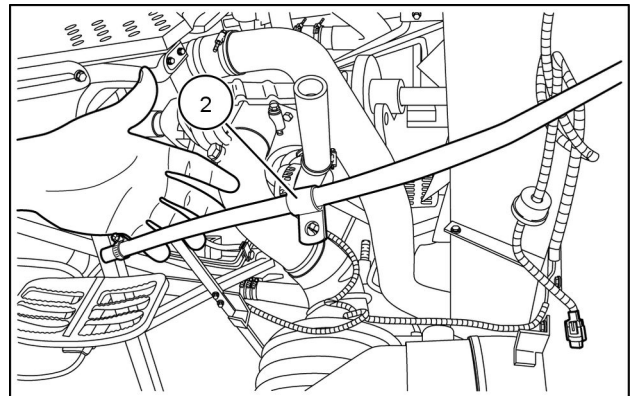


NH12AF00696A 13

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



NH12AF00697A 14



NH12AF00698A 15

<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>