

SERVICE MANUAL

Workmaster™ 35

Workmaster™ 40

Tier 4B (final)

Compact Tractor

Workmaster™ 35 ROPS - From PIN LSM0W35Rxx0010001 to LSM0W35RHH0010200

Workmaster™ 40 ROPS - From PIN LSM0W40Rxx0010001 to LSM0W40RKH0010198

Part number 48144024

1st edition English

June 2017





SERVICE MANUAL

**Workmaster™ 35 Tier 4B (final), ROPS [LSM0W35Rxx0010001 -
LSM0W35RHH0010200]**

**Workmaster™ 40 Tier 4B (final), ROPS [LSM0W40Rxx0010001 -
LSM0W40RKH0010198]**

Link Product / Engine

Product	Market Product	Engine
Workmaster™ 35 Tier 4B (final), ROPS [LSM0W35Rxx0010001 - LSM0W35RHH0010200]	North America	L3C19-T5
Workmaster™ 40 Tier 4B (final), ROPS [LSM0W40Rxx0010001 - LSM0W40RKH0010198]	North America	L3C19-T4

<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>

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
[10.501] Exhaust Gas Recirculation (EGR) exhaust treatment.....	10.7
[10.400] Engine cooling system	10.8
[10.414] Fan and drive	10.9
Clutch	18
[18.100] Clutch mechanical release control	18.1
[18.110] Clutch and components	18.2
Power coupling.....	19
[19.110] Flywheel damper	19.1
Transmission.....	21
[21.114] Mechanical transmission	21.1
[21.130] Mechanical transmission external controls.....	21.2
[21.140] Mechanical transmission internal components.....	21.3
[21.110] Master clutch housing	21.4
Four-Wheel Drive (4WD) system	23
[23.314] Drive shaft.....	23.1
[23.101] Mechanical control	23.2
Front axle system	25
[25.100] Powered front axle	25.1

[25.102] Front bevel gear set and differential	25.2
[25.108] Final drive hub, steering knuckles, and shafts	25.3
Rear axle system.....	27
[27.106] Rear bevel gear set and differential	27.1
[27.120] Planetary and final drives	27.2
Hydrostatic drive.....	29
[29.200] Mechanical control	29.1
[29.100] Transmission and steering hydrostatic control	29.2
[29.204] Reservoir, cooler, and lines	29.3
[29.218] Pump and motor components.....	29.4
[29.202] Hydrostatic transmission	29.5
Power Take-Off (PTO)	31
[31.101] Rear mechanical control	31.1
[31.104] Rear electro-hydraulic control.....	31.2
[31.110] One-speed rear Power Take-Off (PTO)	31.3
[31.120] Central Power Take-Off (PTO)	31.4
Brakes and controls	33
[33.110] Parking brake or parking lock	33.1
[33.120] Mechanical service brakes	33.2
Hydraulic systems.....	35
[35.000] Hydraulic systems.....	35.1
[35.300] Reservoir, cooler, and filters.....	35.2
[35.104] Fixed displacement pump.....	35.3
[35.350] Safety and main relief valves	35.4
[35.204] Remote control valves	35.5
[35.114] Three-point hitch control valve	35.6
[35.116] Three-point hitch cylinder	35.7
[35.724] Front loader hydraulic system control.....	35.8

Hitches, drawbars, and implement couplings.....	37
[37.100] Drawbars and towing hitches	37.1
[37.108] Rear three-point hitch external controls.....	37.2
[37.110] Rear three-point hitch	37.3
Steering.....	41
[41.101] Steering control	41.1
[41.106] Tie rods.....	41.2
[41.200] Hydraulic control components.....	41.3
[41.216] Cylinders	41.4
[41.206] Pump	41.5
Wheels	44
[44.511] Front wheels.....	44.1
[44.520] Rear wheels	44.2
Electrical systems	55
[55.000] Electrical system	55.1
[55.100] Harnesses and connectors.....	55.2
[55.525] Cab engine controls.....	55.3
[55.201] Engine starting system	55.4
[55.301] Alternator.....	55.5
[55.640] Electronic modules	55.6
[55.031] Parking brake electrical system	55.7
[55.512] Cab controls.....	55.8
[55.023] Transmission position sensors and switches	55.9
[55.052] Central or middle Power Take-Off (PTO) control system	55.10
[55.610] Ground speed control	55.11
[55.DTC] FAULT CODES.....	55.12
Platform, cab, bodywork, and decals	90
[90.110] Operator platform less cab	90.1

[90.114] Operator protections 90.2

[90.120] Mechanically-adjusted operator seat..... 90.3

[90.100] Engine hood and panels 90.4

[90.116] Fenders and guards..... 90.5



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.



SERVICE MANUAL

Engine

**Workmaster™ 35 Tier 4B (final), ROPS [LSM0W35Rxx0010001 -
LSM0W35RHH0010200]**

**Workmaster™ 40 Tier 4B (final), ROPS [LSM0W40Rxx0010001 -
LSM0W40RKH0010198]**

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)

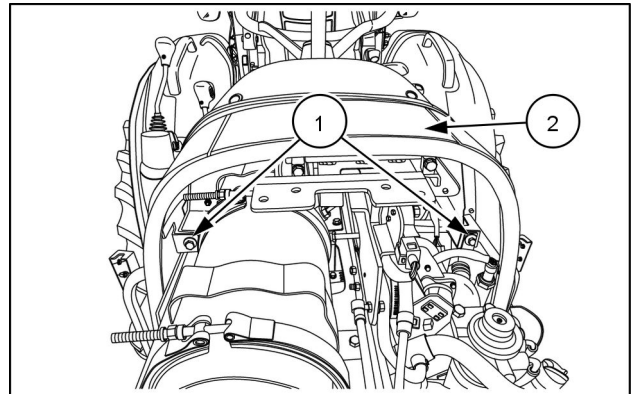
Prior operation:

Radiator - Remove (10.400)

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

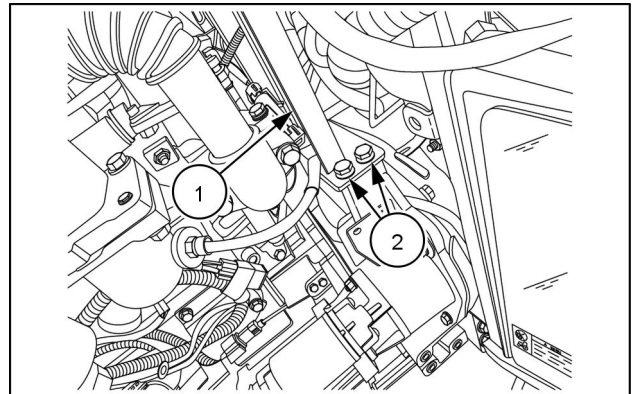
NOTE: Note the placement of cable ties for reassembly.

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

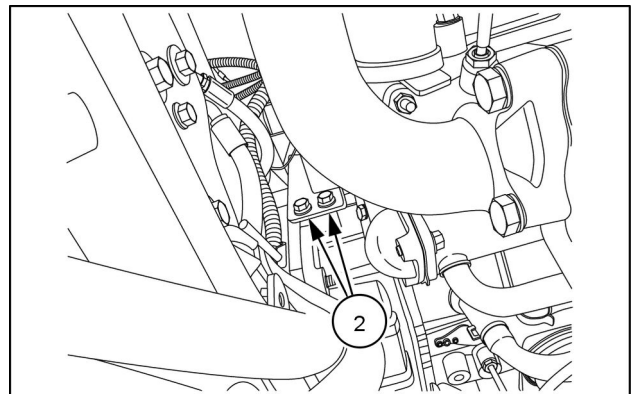


NHIL16CT01367AA 1

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

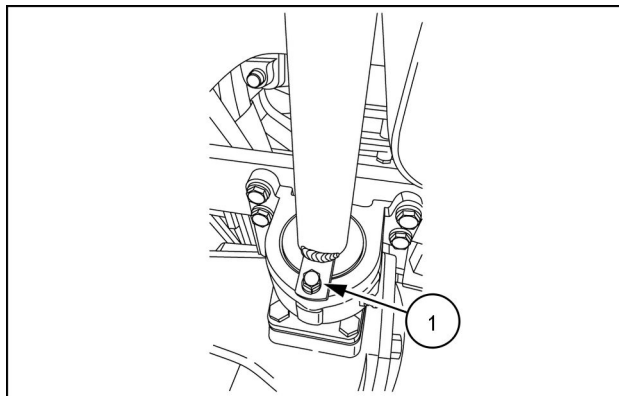


NHIL16CT01398AA 2



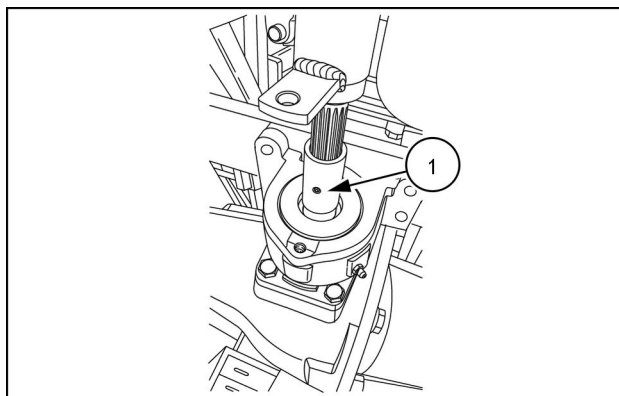
NHIL16CT01400AA 3

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



NHIL16CT01006AA 4

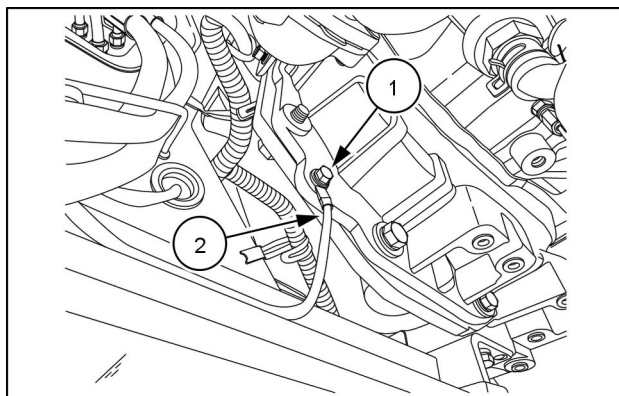
6. Use a roll pin punch and a hammer and drive the roll pin **(1)** through the coupler.
7. Slide the coupler rear-ward.



NHIL16CT00679AA 5

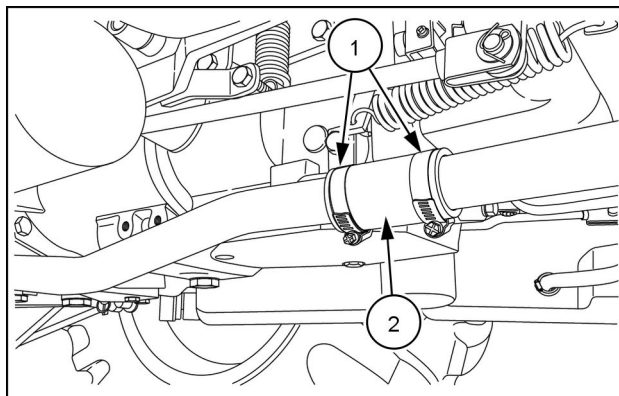
Right-hand side

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



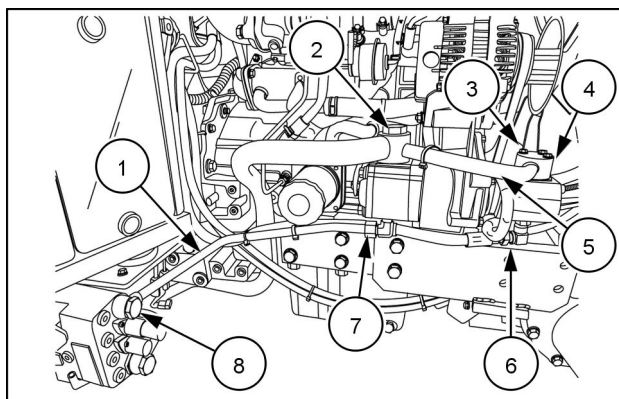
NHIL16CT01383AA 6

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

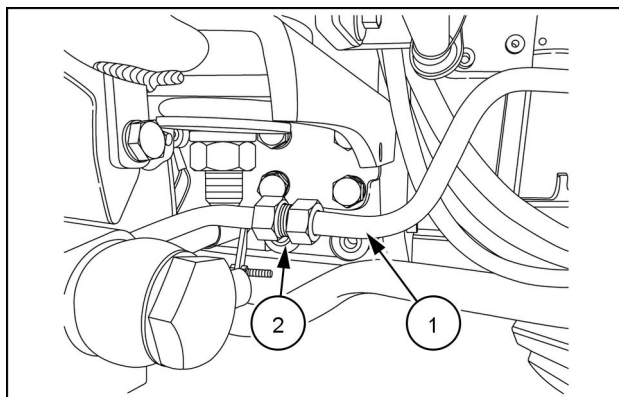


NHIL16CT00550AA 7

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)**.



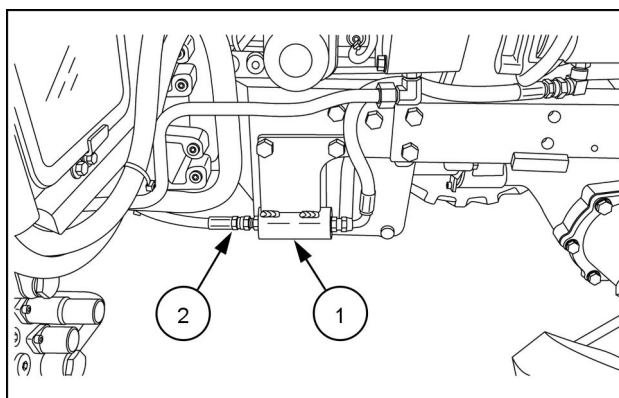
NHIL16CT01377AA 8



NHIL15CT00802AA 9

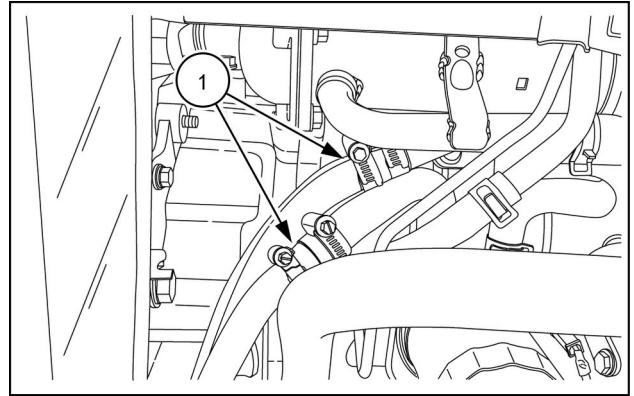
Cab tractor only

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.



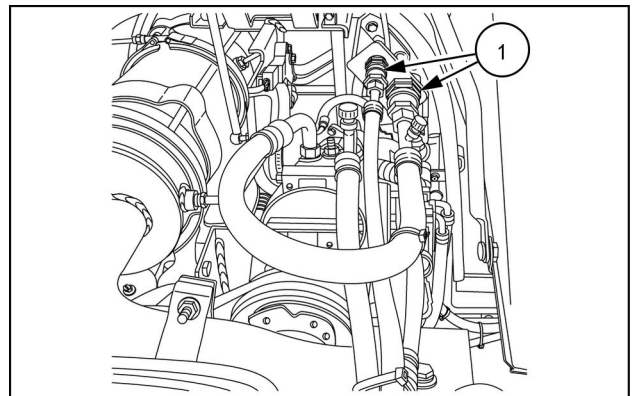
NHIL17CT00216AA 10

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



NHIL16CT01417AA 11

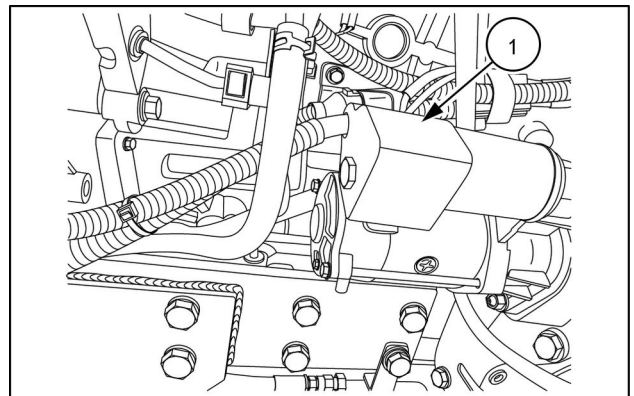
19. Disconnect the air conditioning lines at quick disconnects (1) on the left side of the machine.



NHIL16CT01488AA 12

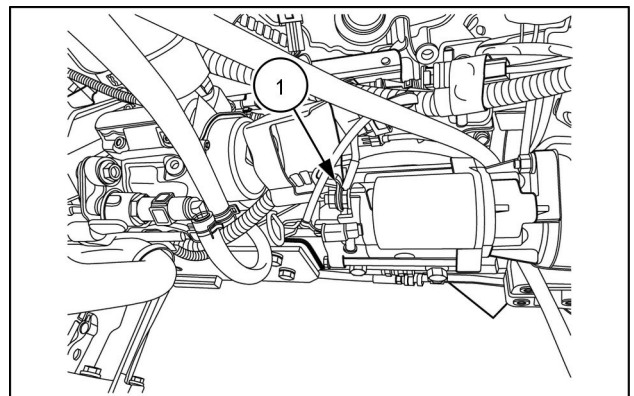
Left-hand side

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



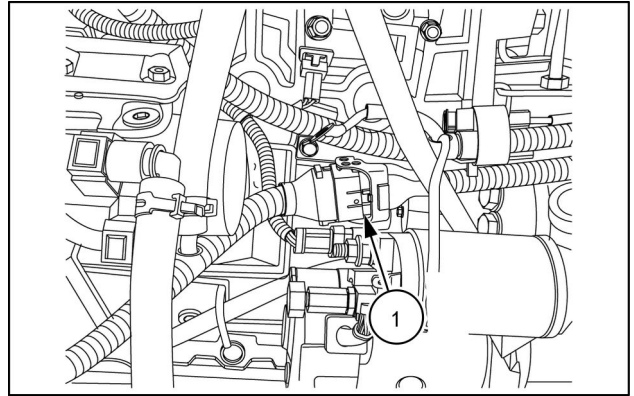
NHIL16CT01381AA 13

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



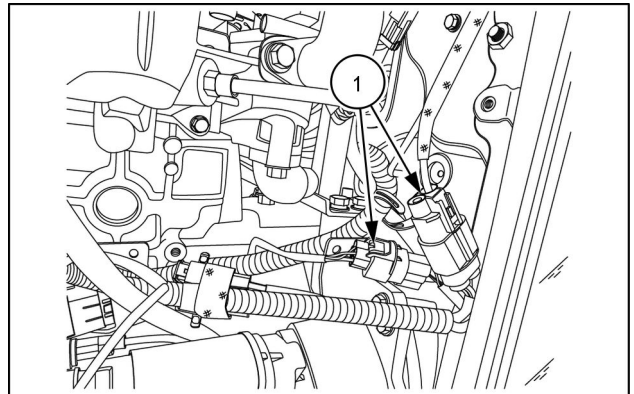
NHIL16CT01385AA 14

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



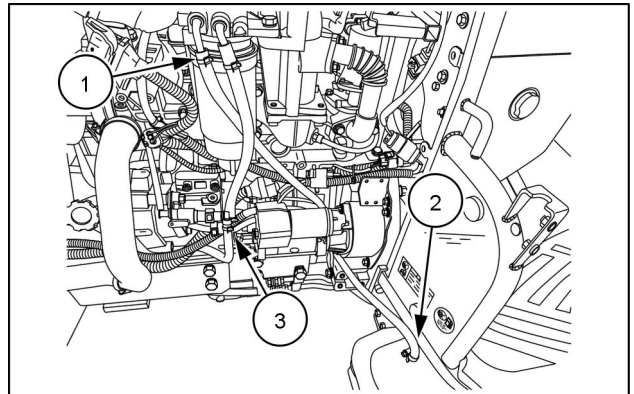
NHIL16CT01386AA 15

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



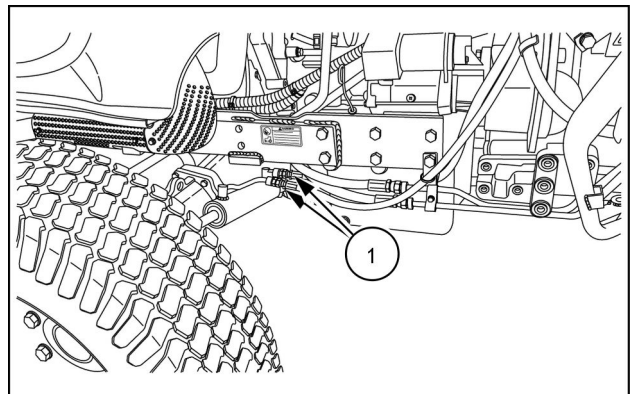
NHIL16CT01387AA 16

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.



NHIL16CT01379AA 17

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.



NHIL17CT00004AA 18



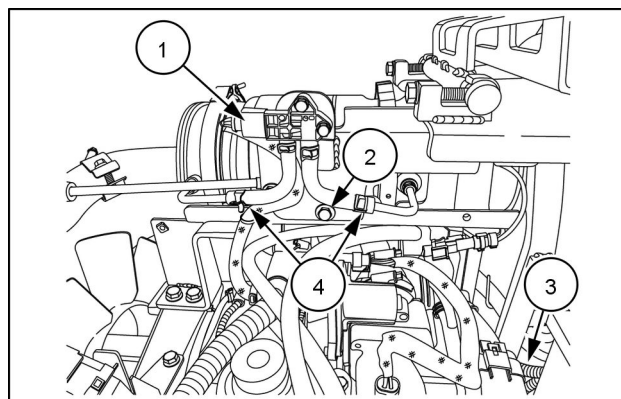
Suggest:

If the above button click is invalid.

**Please download this document
first, and then click the above link
to download the complete manual.**

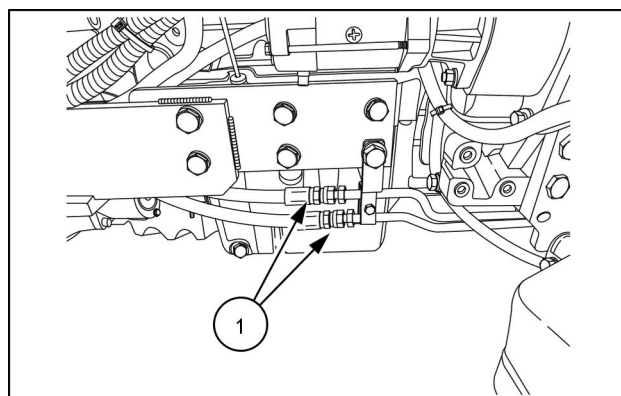
Thank you so much for reading

29. Disconnect the glow plug electrical connector **(3)**.
30. Remove the M8 bolt **(3)** from the Catalyzed Continuously Regenerating Trap (CCRT) bracket.
31. Disconnect the Differential Pressure Sensor (DPS) input hoses **(4)**.
32. Disconnect the DPS electrical connector **(1)**.



NHIL16CT01399AA 19

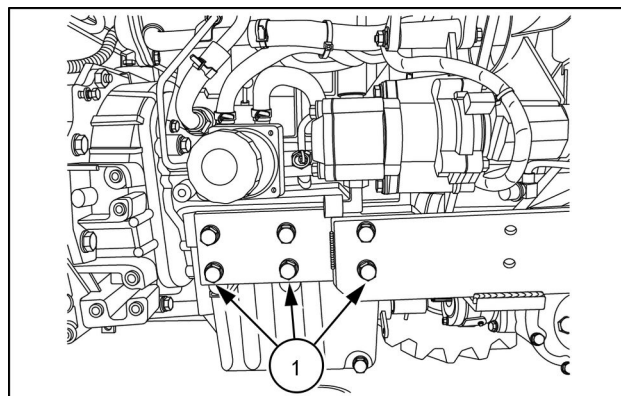
33. For HST transmissions:
 1. Disconnect the two hydraulic oil cooler lines **(1)**.
 2. Route the hydraulic oil cooler hoses toward the front of the tractor.



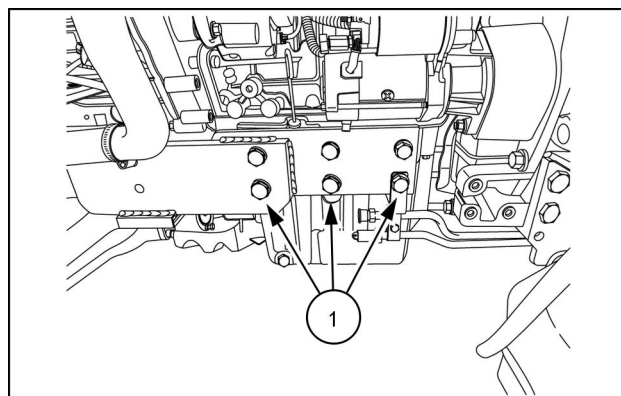
NHIL16CT01380AA 20

Front frame

34. Support the engine and transmission section of the tractor independent of the front frame.
35. Insert wooden wedge blocks between the front frame and front axle housing.
36. Remove the six M14 bolts **(1)** on the right-hand and left-hand sides of the front frame.



NHIL16CT01397AA 21



NHIL16CT01390AA 22

<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>