

# 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**

1<sup>st</sup> 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

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

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# INTRODUCTION

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## **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)**

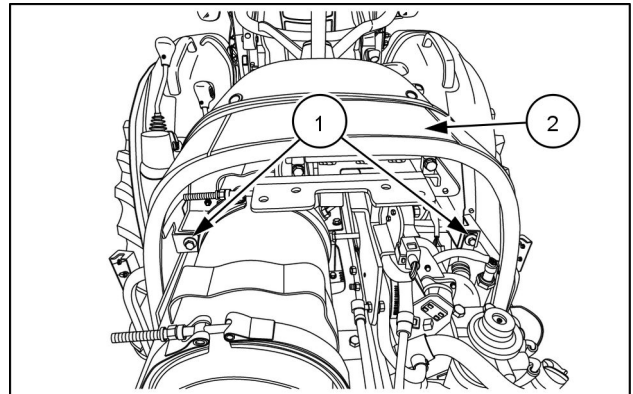
**Prior operation:**

**Radiator - Remove (10.400)**

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

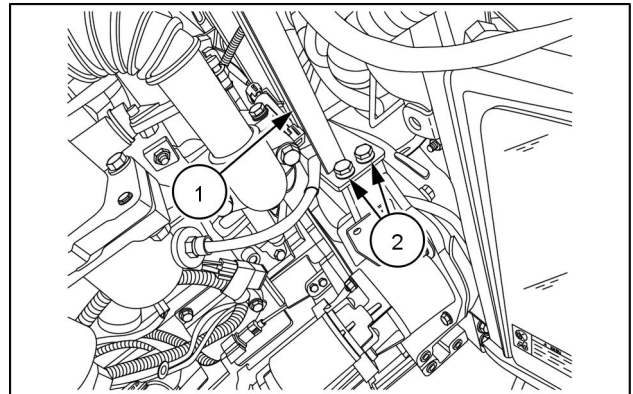
**NOTE:** Note the placement of cable ties for reassembly.

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

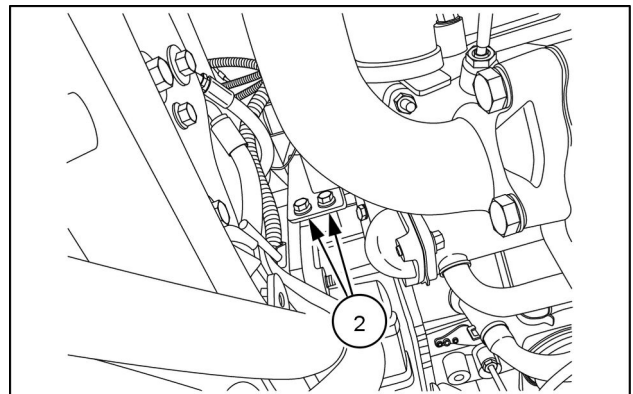


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3. Remove the four M10 bolts (2) that mount the hood support bracket (1) to the flywheel housing.

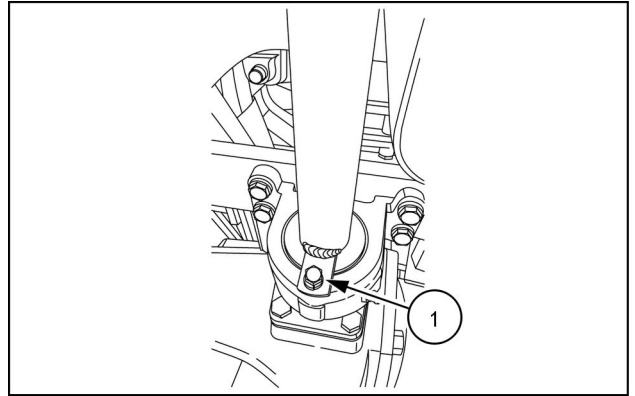


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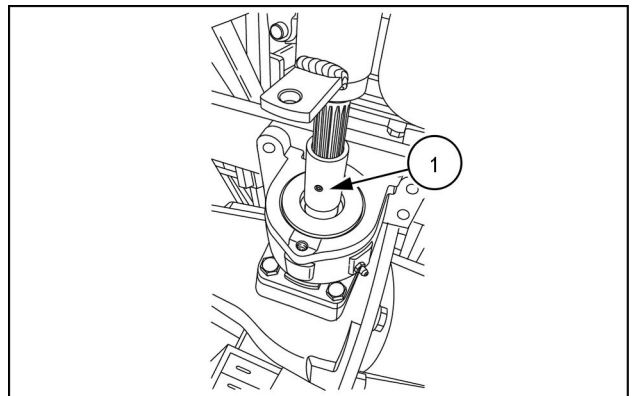
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4. Remove the M8 bolt (1) in the front of the Four Wheel Drive (FWD) guard tube.
5. Slide the guard tube rear-ward.



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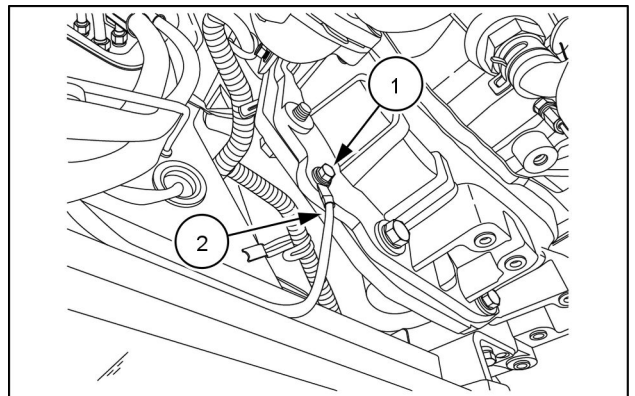
6. Use a roll pin punch and a hammer and drive the roll pin (1) through the coupler.
7. Slide the coupler rear-ward.



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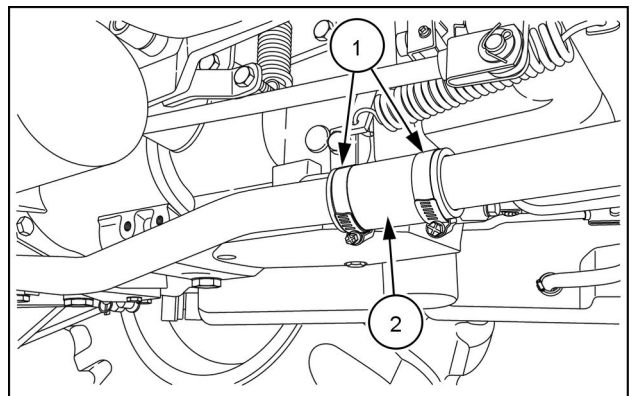
### Right-hand side

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



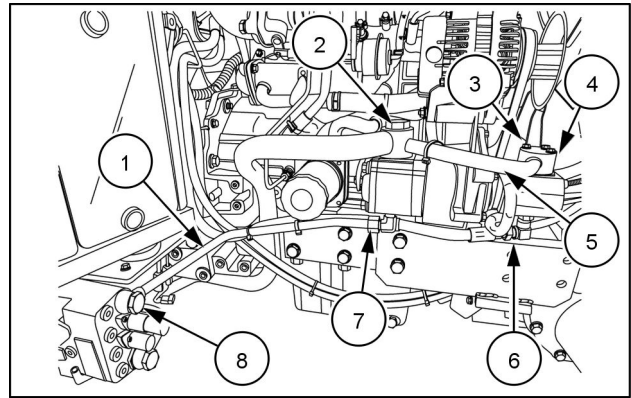
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9. Loosen the hose clamps (1) and slide the suction tube coupler (2) rear-ward.

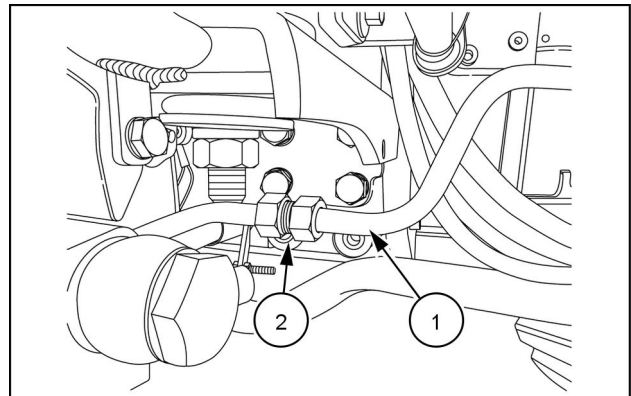


NHIL16CT00550AA 7

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)**.



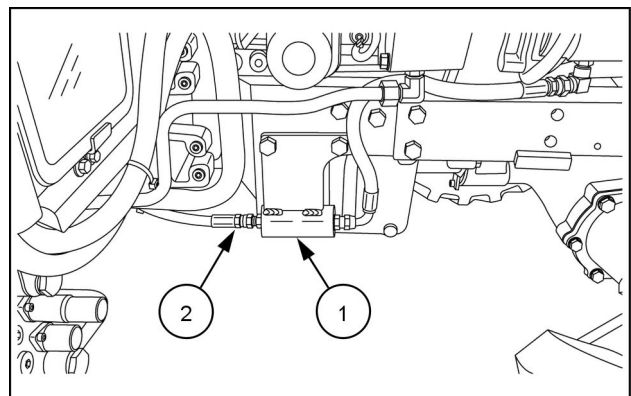
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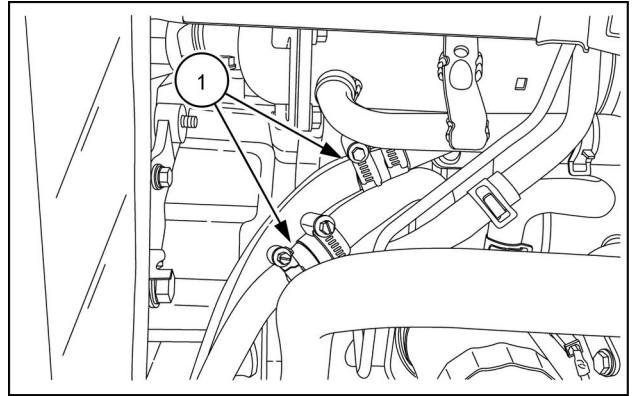
### Cab tractor only

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.



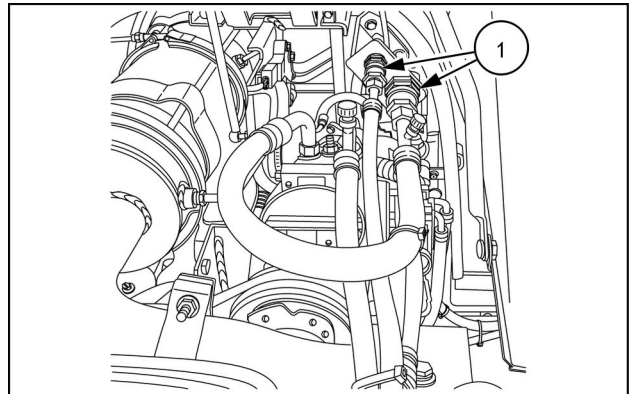
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18. Disconnect the two heater coolant hoses (1) on the right side of the machine.



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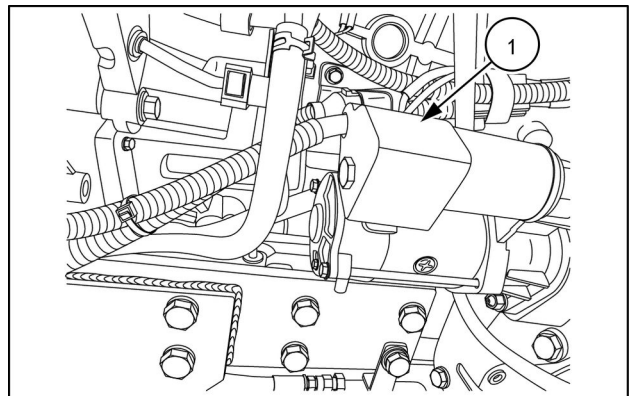
19. Disconnect the air conditioning lines at quick disconnects (1) on the left side of the machine.



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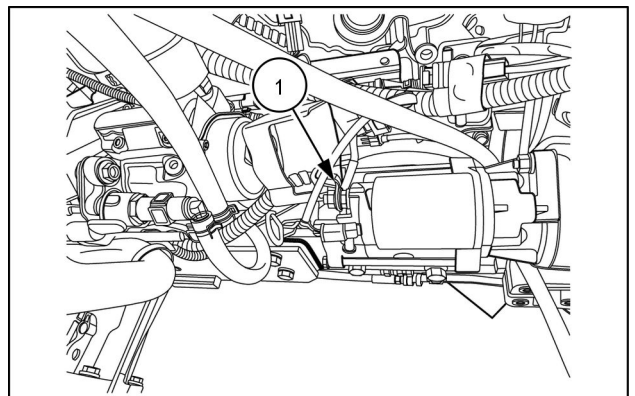
### Left-hand side

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



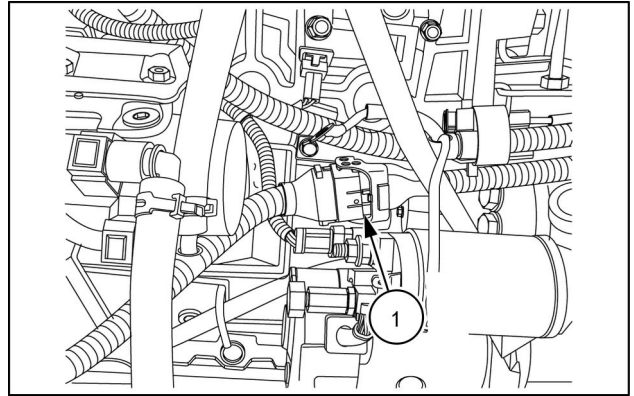
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21. Remove the M8 flange nut and remove the power cable (1) from the stud.



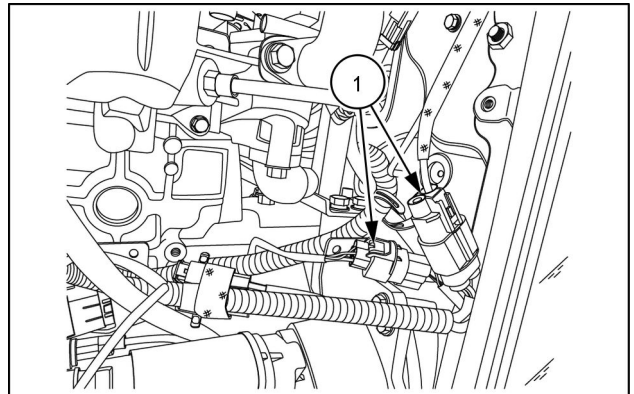
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22. Disconnect the Engine Control Unit (ECU) electrical connector **(1)** near the middle of the engine crankcase.



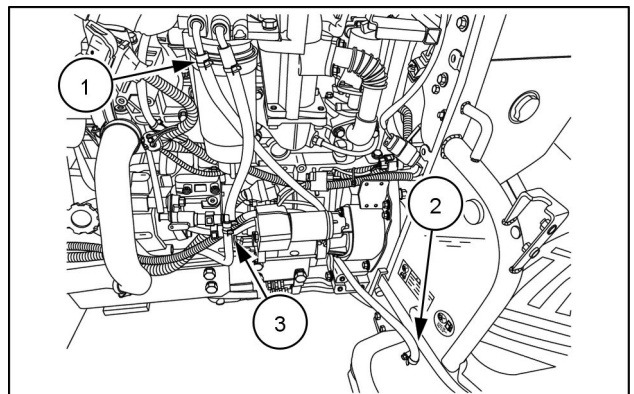
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23. Disconnect the power and ground electrical connectors **(1)** above the starter motor.



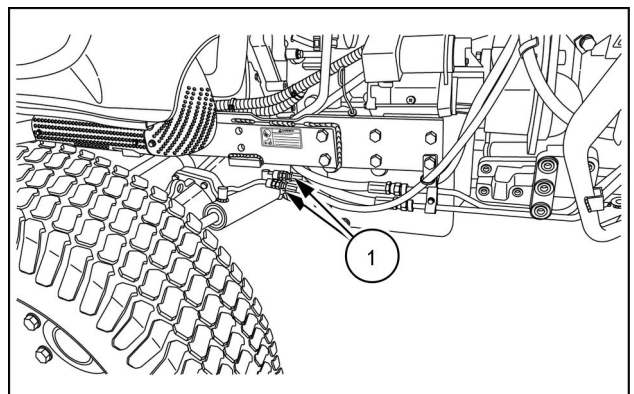
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24. Disconnect the fuel supply hose **(1)** from the fuel water separator filter to the fuel tank.
25. Disconnect the fuel return hose **(2)** from the high-pressure fuel pump to the right-hand fitting on the fuel cooler.
26. Disconnect the fuel return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



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.



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**Suggest:**

**If the above button click is invalid.**

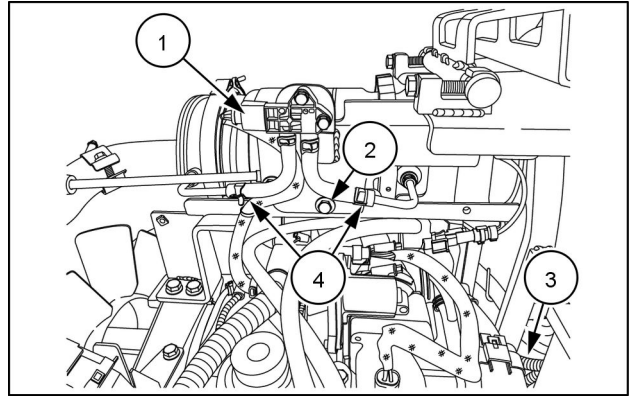
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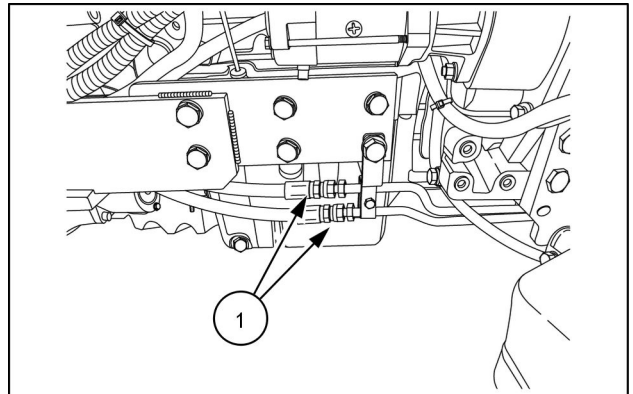
**Thank you so much for reading**

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)**.



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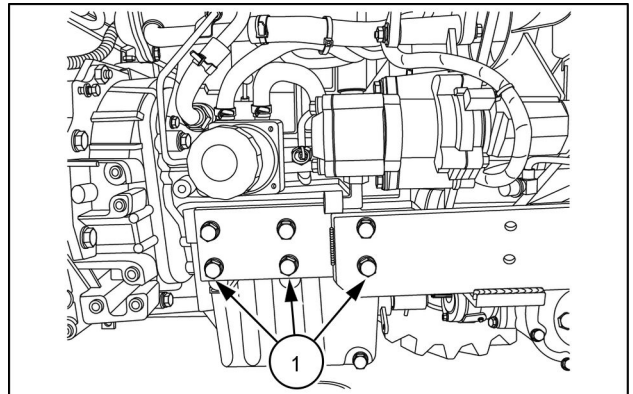
33. For HST transmissions:
  1. Disconnect the two hydraulic oil cooler lines **(1)**.
  2. Route the hydraulic oil cooler hoses toward the front of the tractor.



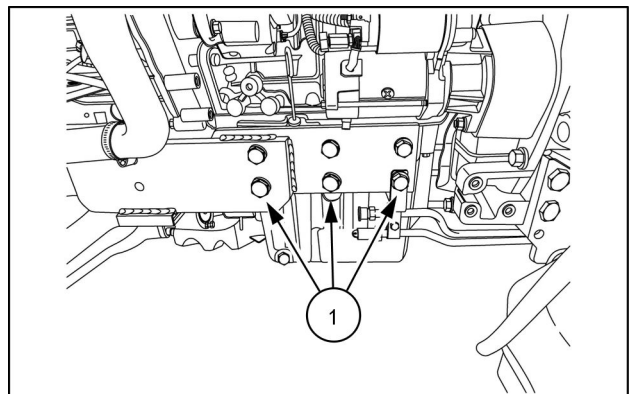
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### Front frame

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

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