

# SERVICE MANUAL

**TS6.110 / TS6.110 HC / TS6.120 /  
TS6.120 HC / TS6.130 / TS6.140  
Tier 4B (final)  
Tractor**

*PIN NT00001M and above*

**Part number 47924635**

1<sup>st</sup> edition English  
December 2015





## SERVICE MANUAL

**TS6.110 110 HP TIER 4B (final) engine, 2WD, and ROPS. , TS6.110 110 HP TIER 4B (final) engine, 2WD, and cab. , TS6.110 110 HP TIER 4B (final) engine, 4WD, and ROPS. , TS6.110 110 HP TIER 4B (final) engine, 4WD, and cab. , TS6.110 HC 110 HP TIER 4B (final) engine, High Clearance (HC), 4WD, and ROPS. , TS6.110 HC 110 HP TIER 4B (final) engine, High Clearance (HC), 4WD, and cab. , TS6.120 119 HP TIER 4B (final) engine, 2WD, and ROPS. , TS6.120 119 HP TIER 4B (final) engine, 2WD, and cab. , TS6.120 119 HP TIER 4B (final) engine, 4WD, and ROPS. , TS6.120 119 HP TIER 4B (final) engine, 4WD, and cab. , TS6.120 HC 119 HP TIER 4B (final) engine, High Clearance (HC), 4WD, and ROPS. , TS6.120 HC 119 HP TIER 4B (final) engine, High Clearance (HC), 4WD, and cab. , TS6.130 130 HP Tier 4B (final) engine, 2WD, and ROPS. , TS6.130 130 HP Tier 4B (final) engine, 2WD, and cab. , TS6.130 130 HP Tier 4B (final) engine, 4WD, and ROPS. , TS6.130 130 HP Tier 4B (final) engine, 4WD, and cab. , TS6.140 139 HP TIER 4B (final) engine, 2WD, and ROPS. , TS6.140 139 HP TIER 4B (final) engine, 2WD, and cab. , TS6.140 139 HP TIER 4B (final) engine, 4WD, and ROPS. , TS6.140 139 HP TIER 4B (final) engine, 4WD, and cab.**

## Link Product / Engine

<b>Product</b>	<b>Market Product</b>	<b>Engine</b>
TS6.110 110 HP TIER 4B (final) engine, 2WD, and ROPS.	North America	F4DFE413U*B001
TS6.110 110 HP TIER 4B (final) engine, 4WD, and ROPS.	North America	F4DFE413U*B001
TS6.110 110 HP TIER 4B (final) engine, 2WD, and cab.	North America	F4DFE413U*B001
TS6.110 110 HP TIER 4B (final) engine, 4WD, and cab.	North America	F4DFE413U*B001
TS6.110 HC 110 HP TIER 4B (final) engine, High Clearance (HC), 4WD, and ROPS.	North America	F4DFE413U*B001
TS6.110 HC 110 HP TIER 4B (final) engine, High Clearance (HC), 4WD, and cab.	North America	F4DFE413U*B001
TS6.120 119 HP TIER 4B (final) engine, 2WD, and ROPS.	North America	F4DFE413T*B001
TS6.120 119 HP TIER 4B (final) engine, 4WD, and ROPS.	North America	F4DFE413T*B001
TS6.120 119 HP TIER 4B (final) engine, 2WD, and cab.	North America	F4DFE413T*B001
TS6.120 119 HP TIER 4B (final) engine, 4WD, and cab.	North America	F4DFE413T*B001
TS6.120 HC 119 HP TIER 4B (final) engine, High Clearance (HC), 4WD, and ROPS.	North America	F4DFE413T*B001
TS6.120 HC 119 HP TIER 4B (final) engine, High Clearance (HC), 4WD, and cab.	North America	F4DFE413T*B001
TS6.130 130 HP Tier 4B (final) engine, 2WD, and ROPS.	North America	F4DFE413S*B001
TS6.130 130 HP Tier 4B (final) engine, 4WD, and ROPS.	North America	F4DFE413S*B001
TS6.130 130 HP Tier 4B (final) engine, 2WD, and cab.	North America	F4DFE413S*B001
TS6.130 130 HP Tier 4B (final) engine, 4WD, and cab.	North America	F4DFE413S*B001
TS6.140 139 HP TIER 4B (final) engine, 2WD, and ROPS.	North America	F4DFE413R*B001
TS6.140 139 HP TIER 4B (final) engine, 4WD, and ROPS.	North America	F4DFE413R*B001
TS6.140 139 HP TIER 4B (final) engine, 2WD, and cab.	North America	F4DFE413R*B001
TS6.140 139 HP TIER 4B (final) engine, 4WD, and cab.	North America	F4DFE413R*B001

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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**

**TS6.110 110 HP TIER 4B (final) engine, 2WD, and ROPS. , TS6.110 110 HP TIER 4B (final) engine, 2WD, and cab. , TS6.110 110 HP TIER 4B (final) engine, 4WD, and ROPS. , TS6.110 110 HP TIER 4B (final) engine, 4WD, and cab. , TS6.110 HC 110 HP TIER 4B (final) engine, High Clearance (HC), 4WD, and ROPS. , TS6.110 HC 110 HP TIER 4B (final) engine, High Clearance (HC), 4WD, and cab. , TS6.120 119 HP TIER 4B (final) engine, 2WD, and ROPS. , TS6.120 119 HP TIER 4B (final) engine, 2WD, and cab. , TS6.120 119 HP TIER 4B (final) engine, 4WD, and ROPS. , TS6.120 119 HP TIER 4B (final) engine, 4WD, and cab. , TS6.120 HC 119 HP TIER 4B (final) engine, High Clearance (HC), 4WD, and ROPS. , TS6.120 HC 119 HP TIER 4B (final) engine, High Clearance (HC), 4WD, and cab. , TS6.130 130 HP Tier 4B (final) engine, 2WD, and ROPS. , TS6.130 130 HP Tier 4B (final) engine, 2WD, and cab. , TS6.130 130 HP Tier 4B (final) engine, 4WD, and ROPS. , TS6.130 130 HP Tier 4B (final) engine, 4WD, and cab. , TS6.140 139 HP TIER 4B (final) engine, 2WD, and ROPS. , TS6.140 139 HP TIER 4B (final) engine, 2WD, and cab. , TS6.140 139 HP TIER 4B (final) engine, 4WD, and ROPS. , TS6.140 139 HP TIER 4B (final) engine, 4WD, and cab.**

## Engine - Remove

### **⚠ WARNING**

#### **Avoid injury!**

Handle all parts carefully. Do not place your hands or fingers between parts. Use Personal Protective Equipment (PPE) as indicated in this manual, including protective goggles, gloves, and safety footwear.

Failure to comply could result in death or serious injury.

W0208A

### **⚠ WARNING**

#### **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 could result in death or serious injury.

W0398A

#### **Prior operation:**

**Air conditioning - Recover (50.200)**

#### **Prior operation:**

**Battery - Disconnect (55.302)**

#### **Prior operation:**

**Engine cooling system - Drain fluid (10.400)**

#### **Prior operation:**

**Hood - Remove (90.100)**

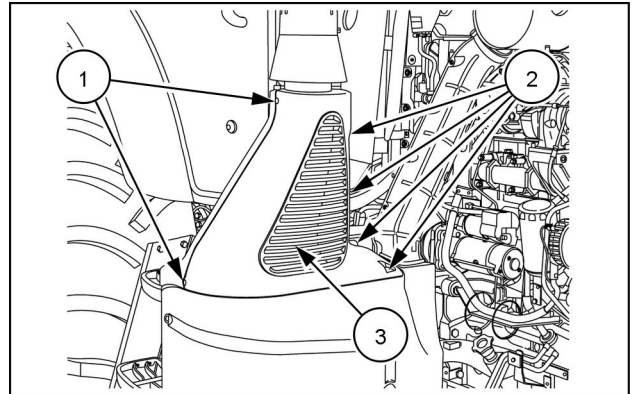
#### **Prior operation:**

**Axle support - Remove (Front support and front axle) – Standard-duty (25.100)**

#### **Prior operation:**

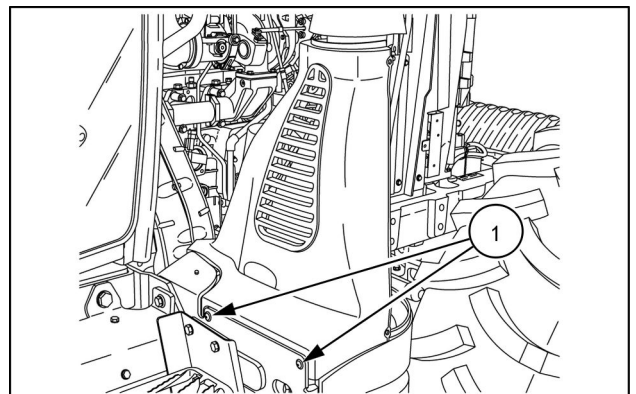
**Engine - Disconnect (10.001)**

1. Install wheel chocks in front of and behind the rear wheels.
2. Remove the Selective Catalytic Reduction (SCR) muffler and catalyst upper front cover retaining bolts (1) and (2).
3. Remove the SCR muffler and catalyst upper front cover (3).



NHIL15TR00033AA 1

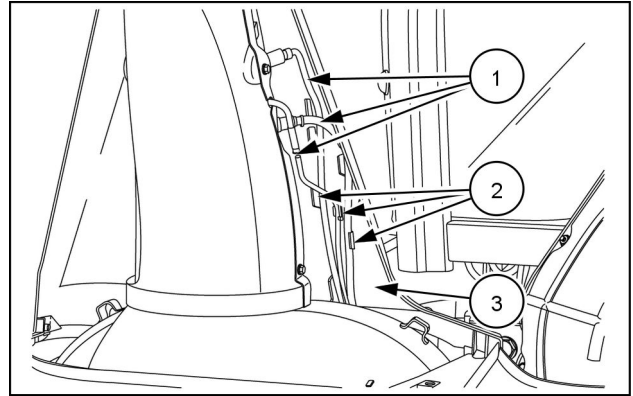
4. Remove the SCR muffler and catalyst upper rear cover retaining bolts (1).



NHIL15TR00264AA 2

5. Detach the SCR muffler and catalyst emissions sensors wiring harness (1) from the cover clips (2).

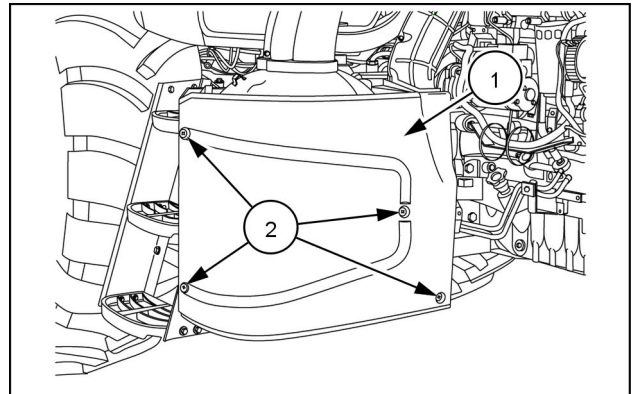
6. Remove the SCR muffler and catalyst upper rear cover (3).



NHIL15TR00256AA 3

7. Remove the SCR muffler and catalyst lower cover retaining bolts (2).

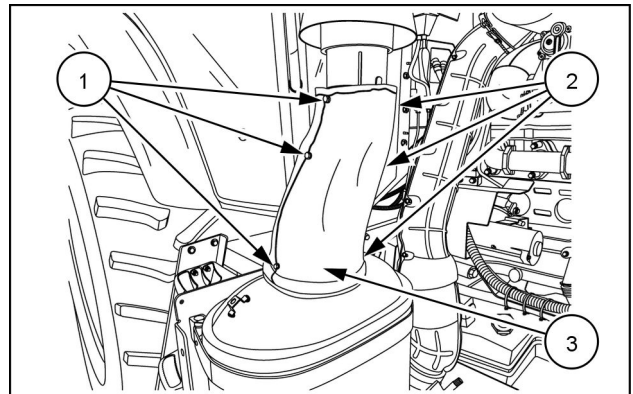
8. Remove the SCR muffler and catalyst lower cover (1).



NHIL15TR00020AA 4

9. Remove the six SCR muffler and catalyst heat shield retaining bolts (1) and (2).

10. Remove the SCR muffler and catalyst lower heat shield (3).



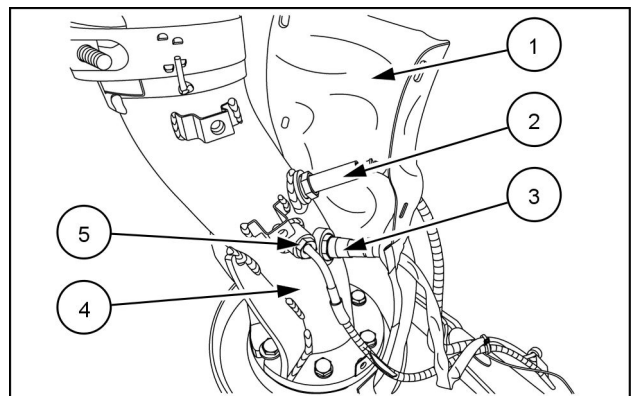
NHIL15TR00089AA 5

11. Move backward the SCR muffler and catalyst upper heat shield (1).

12. Remove the SCR muffler and catalyst emissions sensors from the SCR muffler and catalyst (4), as follows:

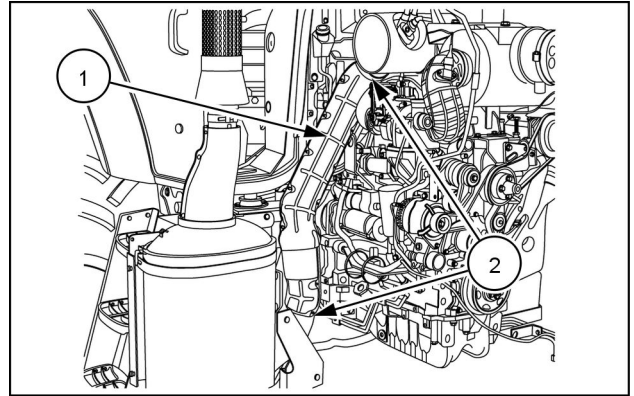
- Remove the downstream Nitrogen oxide (NOx) sensor (2).
- Remove the Ammonia (NH3) sensor (3).
- Remove the SCR muffler and catalyst downstream temperature sensor (5).

13. Remove the SCR muffler and catalyst upper heat shield.



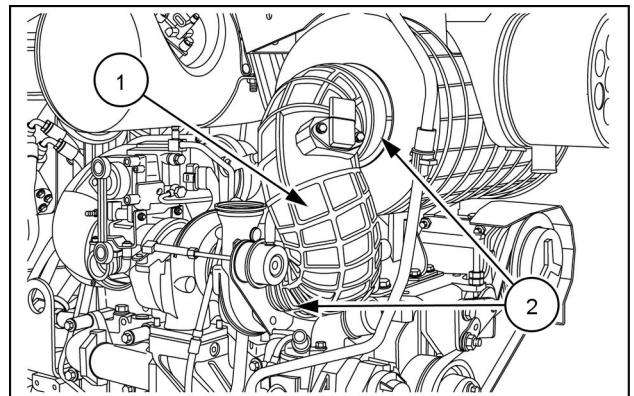
NHIL15TR00263AA 6

14. Remove the clamps **(2)** that secure the SCR muffler and catalyst exhaust outlet pipe **(1)**.
15. Remove the SCR muffler and catalyst exhaust outlet pipe.



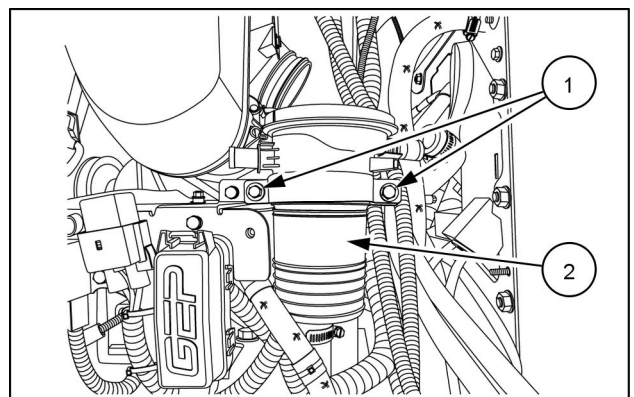
NHIL15TR00010AA 7

16. Remove the two clamps **(2)** that secure the air cleaner to turbo air duct **(1)**.
17. Remove the air duct.



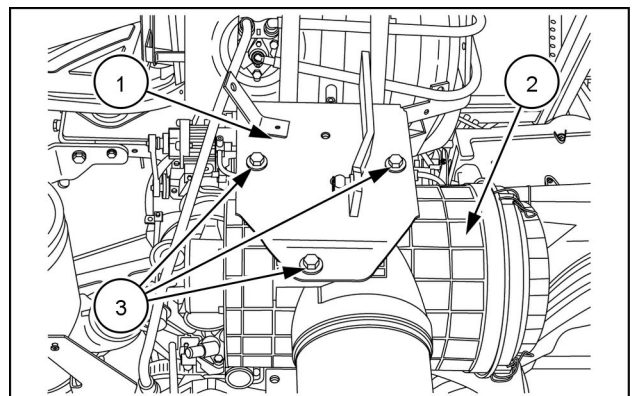
NHIL15TR00008AA 8

18. Remove the two bolts **(1)** from the Crank Case Ventilation (CCV) filter **(2)**.
19. Remove the CCV filter.



NHIL15TR00072AA 9

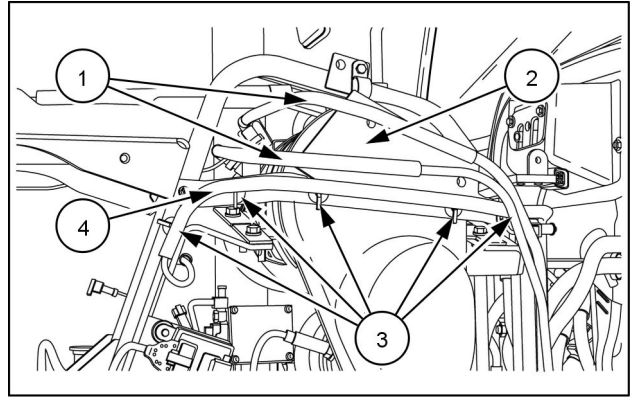
20. Remove the three air cleaner retaining bolts **(3)**.
21. Remove the air cleaner **(2)** from the hood support **(1)**.



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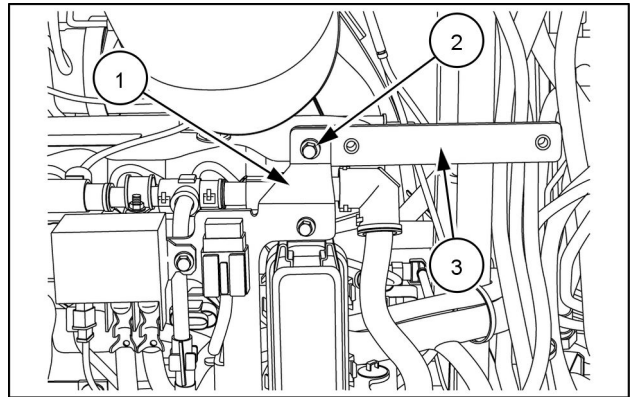
22. Remove the wiring harness (4) and the **DIESEL EXHAUST FLUID (DEF)/AdBLUE®** and coolant lines (1) from the hood support (2).

**NOTE:** Some cable ties (3) need to be removed before removing the wiring harness and the **DEF/AdBLUE®** and coolant lines.



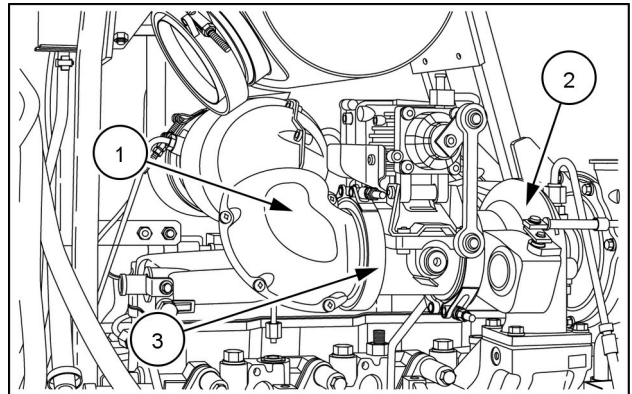
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23. Remove the fuse holder support retaining bolt (2).
24. Remove the fuse holder support (1) from the hood support (3).



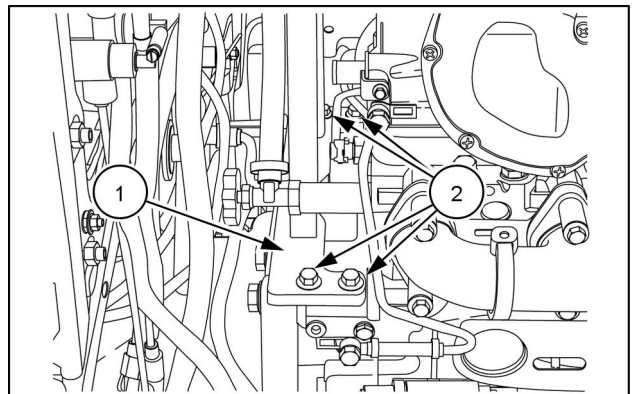
NHIL15TR00044AA 12

25. Remove the clamp (3) from the exhaust pipe (1).
26. Disconnect the exhaust pipe from the exhaust flap (2).



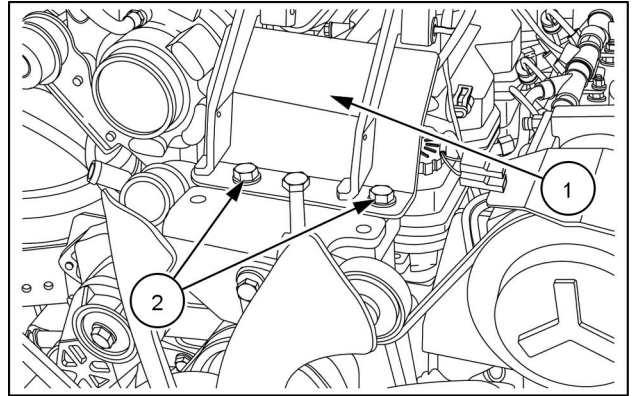
NHIL15TR00048AA 13

27. Remove the four retaining bolts (2) from the rear part of the hood support (1).



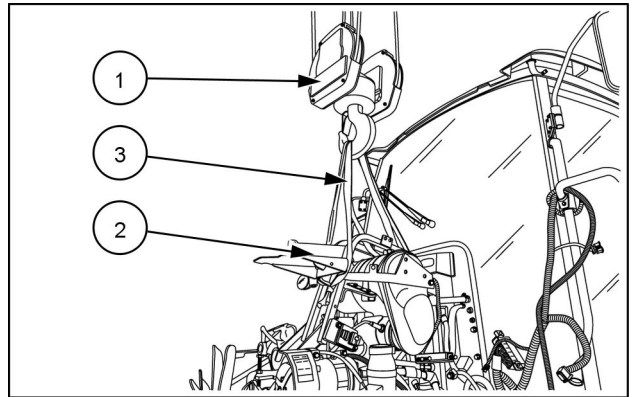
NHIL15TR00047AA 14

28. Remove the two retaining bolts (2) from the front part of the hood support (1).



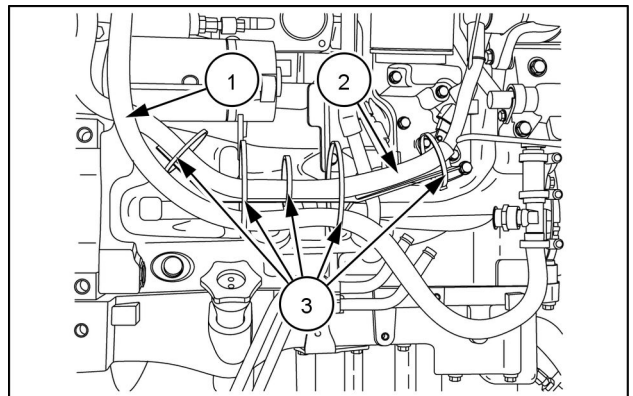
NHIL15TR00046AA 15

29. Use a suitable lifting device (1) and a suitable sling (3) to remove the hood support with the Diesel Oxidation Catalyst (DOC) assembly (2).



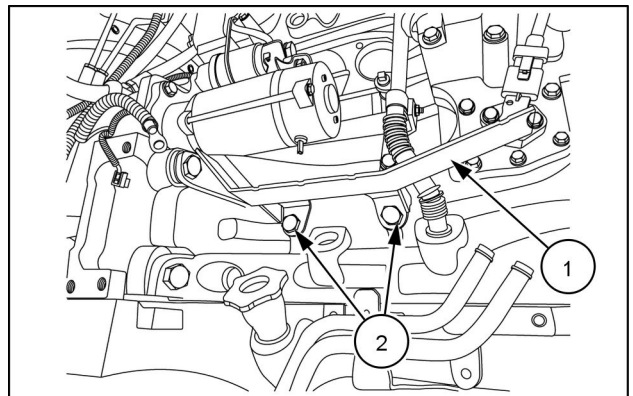
NHIL15TR00078AA 16

30. Cut the cable ties (3) that secure the wiring harness (2) and the heating return hose (1).
31. Remove the wire harness and the hose from the support.



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32. Remove the two bolts (2) from the support (1).
33. Remove the support from the engine.



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**Suggest:**

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

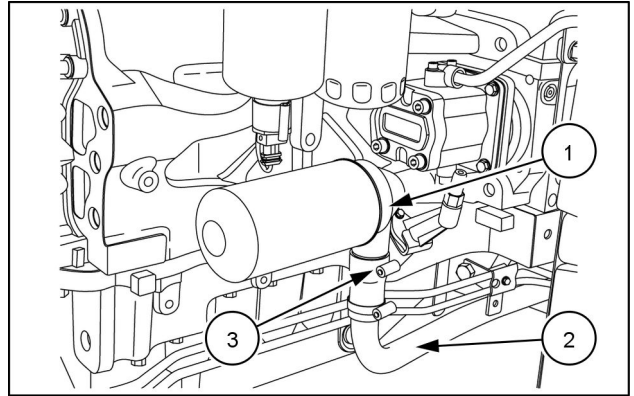
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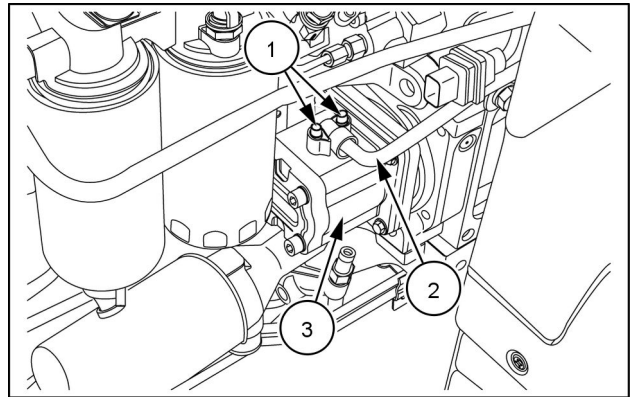
**Thank you so much for reading**

34. Remove the clamp **(3)** that secures the hydraulic tube **(2)** to the auxiliary pump **(1)**.
35. Remove the hydraulic tube.



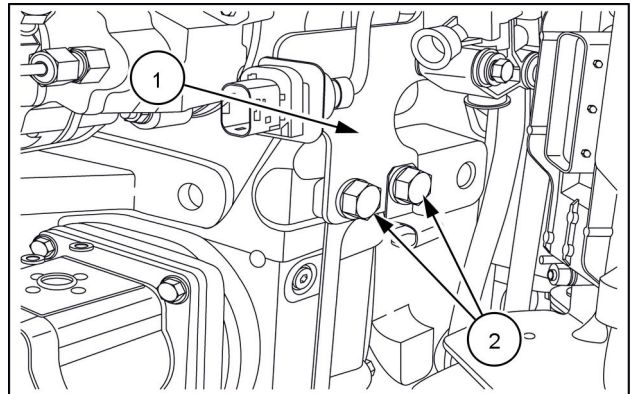
NHIL15TR00038AA 19

36. Remove the two hydraulic tube retaining bolts **(1)**.
37. Remove the hydraulic tube **(2)** from the auxiliary pump **(3)**.



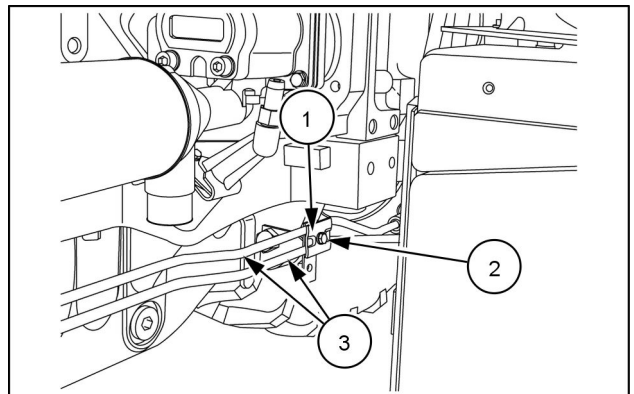
NHIL15TR00037AA 20

38. Remove the two coolant control valve support retaining bolts **(2)**.
39. Remove the support **(1)** with the coolant control valve assembly.



NHIL15TR00045AA 21

40. Remove the bolt **(2)** from the clamp **(1)** that secure the steering pump pipes **(3)**.



NHIL15TR00053AA 22

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