

SERVICE MANUAL

T6.125 / T6.145 / T6.155 / T6.165 / T6.175 / T6.180
T6.145 AutoCommand™ / T6.155 AutoCommand™
T6.165 AutoCommand™ / T6.175 AutoCommand™
Tier 4B (final)
Tractor

Part number 47938738

1st edition English
October 2015





SERVICE MANUAL

**T6.125 , T6.145 AutoCommand™ , T6.145 , T6.155 AutoCommand™ , T6.155 ,
T6.165 AutoCommand™ , T6.165 , T6.175 AutoCommand™ , T6.175 , T6.180**

Link Product / Engine

Product	Market Product	Engine
T6.145 AutoCommand™	North America	F4DFE4134*B005
T6.155 AutoCommand™	North America	F4DFE4133*B007
T6.165 AutoCommand™	North America	F4DFE4132*B005
T6.175 AutoCommand™	North America	F4DFE4131*B007
T6.125	North America	F4DFE414D*B001
T6.145	North America	F4DFE4134*B006
T6.155	North America	F4DFE4133*B008
T6.165	North America	F4DFE4132*B006
T6.175	North America	F4DFE4131*B008
T6.180	North America	F4DFE6132*B007

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INTRODUCTION

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.

Safety rules - Ecology and the environment

Soil, air, and water quality is important for all industries and life in general. When legislation does not yet rule the treatment of some of the substances that advanced technology requires, sound judgment should govern the use and disposal of products of a chemical and petrochemical nature.

Familiarize yourself with the relative legislation applicable to your country, and make sure that you understand this legislation. Where no legislation exists, obtain information from suppliers of oils, filters, batteries, fuels, anti-freeze, cleaning agents, etc., with regard to the effect of these substances on man and nature and how to safely store, use, and dispose of these substances.

Helpful hints

- Avoid the use of cans or other inappropriate pressurized fuel delivery systems to fill tanks. Such delivery systems may cause considerable spillage.
- In general, avoid skin contact with all fuels, oils, acids, solvents, etc. Most of these products contain substances that 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 you drain fluids such as used engine coolant mixtures, engine oil, hydraulic fluid, brake fluid, etc. Do not mix drained brake fluids or fuels with lubricants. Store all drained fluids safely until you can dispose of the fluids in a proper way that complies with all local legislation and available resources.
- Do not allow coolant mixtures to get into the soil. Collect and dispose of coolant mixtures properly.
- The air-conditioning system contains gases that should not be released into the atmosphere. Consult an air-conditioning specialist or use a special extractor to recharge the system properly.
- Repair any leaks or defects in the engine cooling system 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. Penetrating weld splatter may burn a hole or weaken hoses, allowing the loss of oils, coolant, etc.

Battery recycling

Batteries and electric accumulators contain several substances that can have a harmful effect on the environment if the batteries are not properly recycled after use. Improper disposal of batteries can contaminate the soil, groundwater, and waterways. NEW HOLLAND strongly recommends that you return all used batteries to a NEW HOLLAND dealer, who will dispose of the used batteries or recycle the used batteries properly. In some countries, this is a legal requirement.



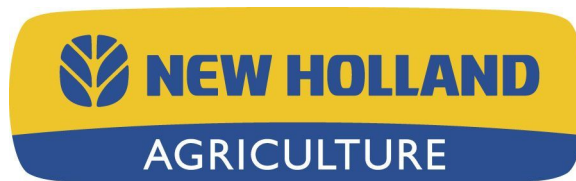
Mandatory battery recycling

NOTE: The following requirements are mandatory in Brazil.

Batteries are made of lead plates and a sulfuric acid solution. Because batteries contain heavy metals such as lead, CONAMA Resolution 401/2008 requires you to return all used batteries to the battery dealer when you replace any batteries. Do not dispose of batteries in your household garbage.

Points of sale are obliged to:

- Accept the return of your used batteries
- Store the returned batteries in a suitable location
- Send the returned batteries to the battery manufacturer for recycling



SERVICE MANUAL

Engine

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T6.165 AutoCommand™ , T6.165 , T6.175 AutoCommand™ , T6.175 , T6.180**

Engine - Disconnect

T6.125	NA
T6.145	NA
T6.155	NA
T6.165	NA
T6.175	NA
T6.180	NA

Prior operation:

Discharge the air conditioning system, see **Air conditioning - Discharging (50.200)**.

Prior operation:

Disconnect the battery, see **Battery - Disconnect (55.302)**.

Prior operation:

Drain the engine cooling system, see **Engine cooling system - Drain fluid (10.400)**.

Prior operation:

Remove the selective catalytic reduction (SCR) muffler, see **Selective Catalytic Reduction (SCR) muffler and catalyst - Remove (10.500)**.

Prior operation:

Remove the left-hand fuel tank, see **Fuel tank - Remove (10.216)**.

Prior operation:

Remove the coolant control valve, see **Coolant control valve - Remove (10.500)**.

⚠ 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

⚠ 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

All vehicles

1. ⚠ WARNING

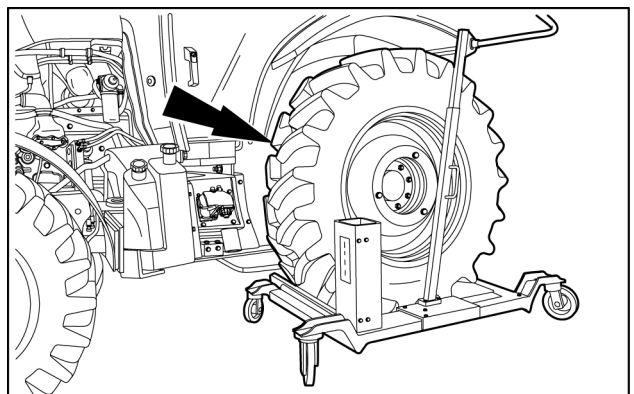
Crushing hazard!

The wheels on this vehicle are very heavy. Always use a wheel remover or chain hoists to remove and install the wheels. Use an assistant as required.

Failure to comply could result in death or serious injury.

W0149A

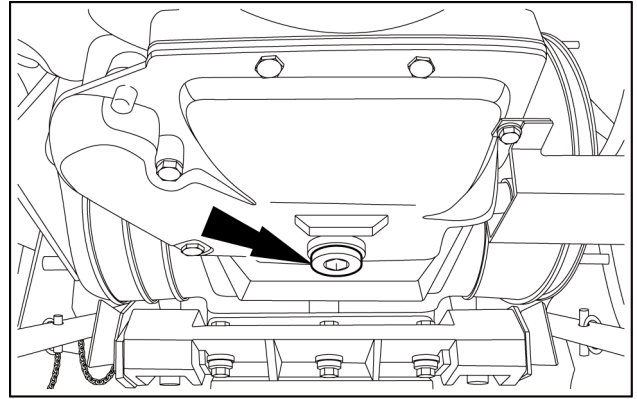
Install the left-hand rear wheel.



BAIL14TR00881AB 1

2. Drain the transmission oil.

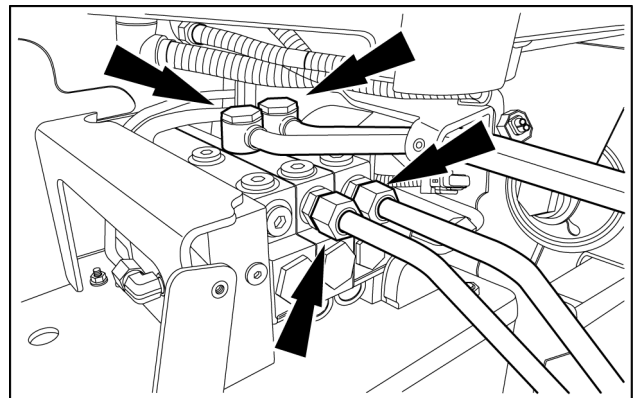
- A. Remove the transmission housing drain plug and drain the transmission oil into a suitable container.
- B. Install the drain plug and torque to **68 - 82 N·m (50 - 60 lb ft)**.



BAIL14TR00962AB 2

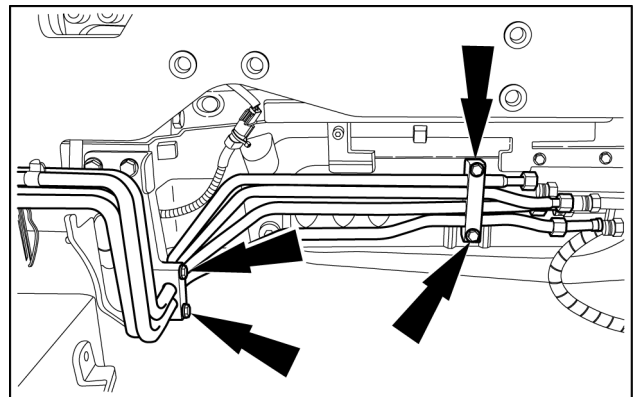
Vehicles with front hitch

3. Disconnect the front hitch hydraulic pipes from the mid-mount valve.



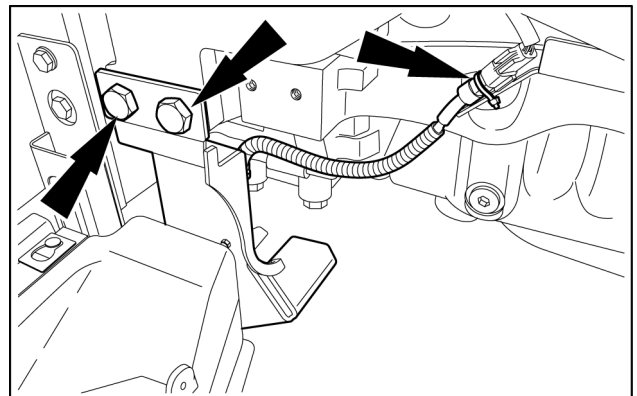
BAIL13TR01645AB 3

4. Remove the front hitch hydraulic pipes.



BAIL13TR01647AB 4

- 5. 1. Disconnect the radar electrical connector (if equipped).
- 2. Remove the radar (if equipped).



BAIL13TR01648AB 5

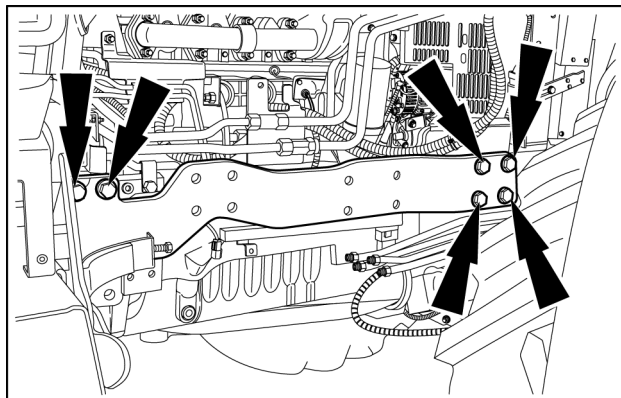
6. **⚠ WARNING**

Heavy object!
ALWAYS use a hoist or get assistance to lift the component.
 Failure to comply could result in death or serious injury.

W0086A

Remove the right-hand side rail.

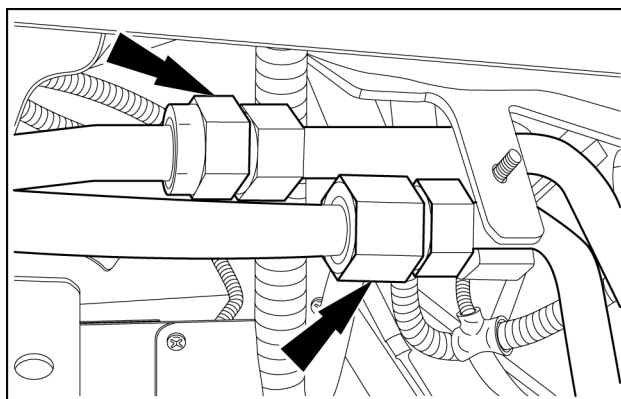
NOTE: Repeat this step for the left-hand side.



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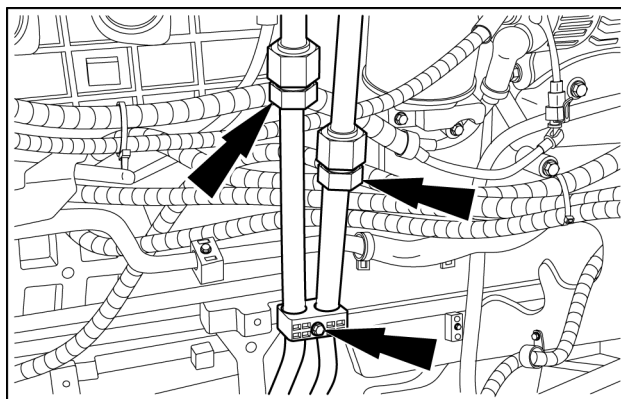
All vehicles

7. Disconnect the oil cooler supply and return pipes.



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8. Remove the oil cooler supply and return pipes.

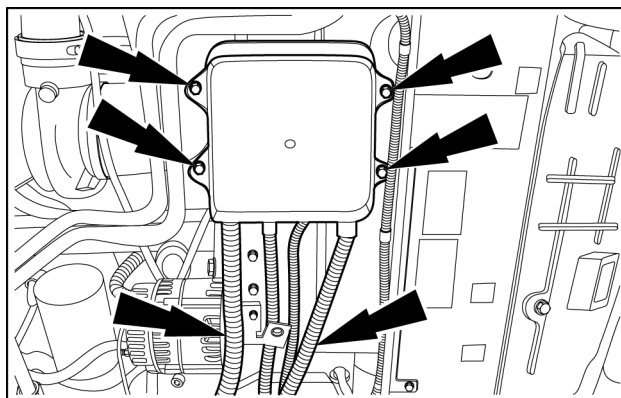


BAIL14TR00883AB 8

9. Detach the fuse box.

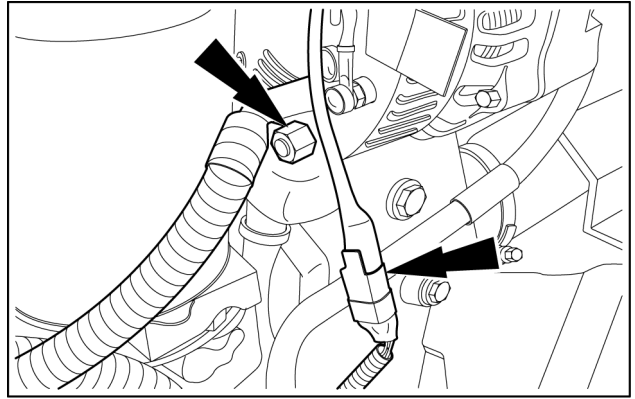
A. Remove the retaining nuts.

B. Detach the wiring harnesses from the retaining clips.



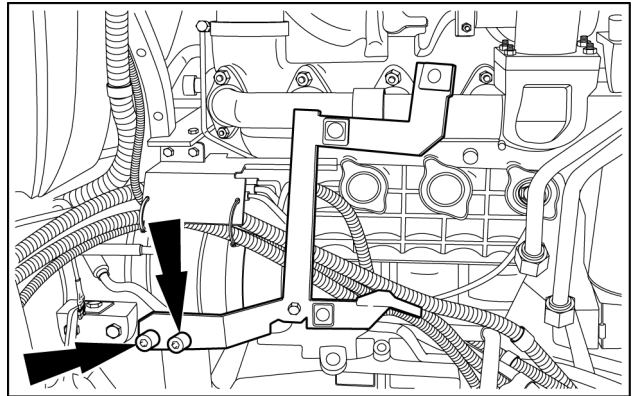
BAIL14TR00935AB 9

10. • Disconnect the alternator electrical connector.
• Disconnect the in-line electrical connector.



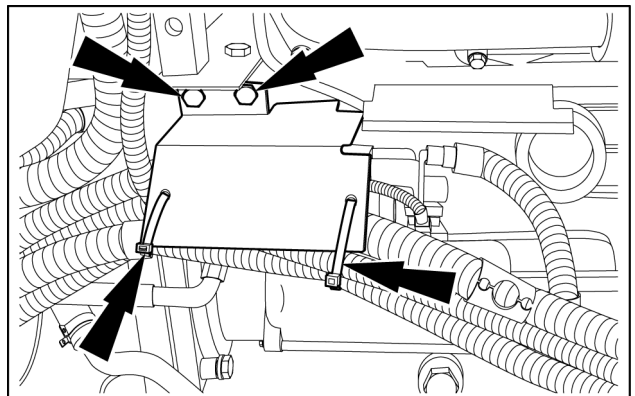
BAIL14TR00936AB 10

11. Remove the side panel mounting bracket.



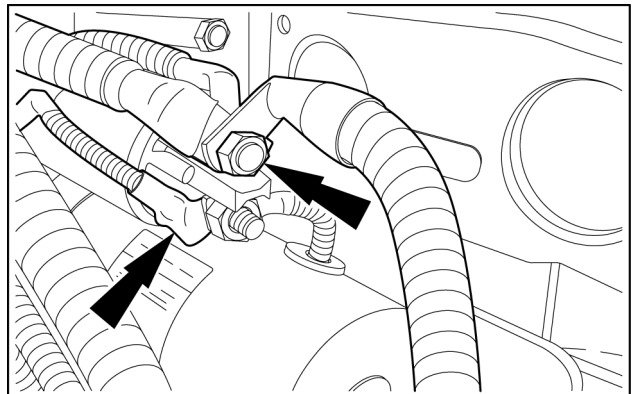
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12. Remove the starter motor shield.
A. Cut the cable ties.
B. Remove the starter motor shield retaining bolts.



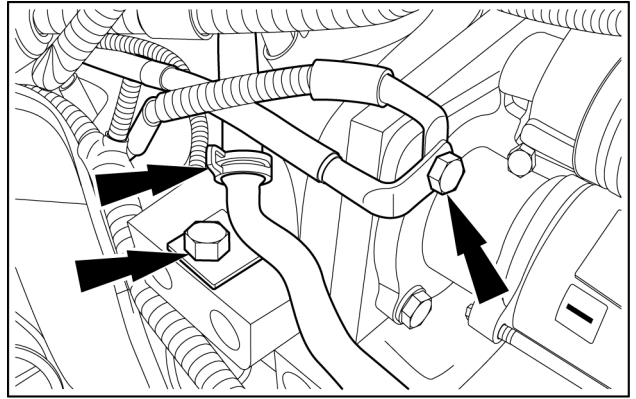
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13. Disconnect the starter motor electrical connectors.



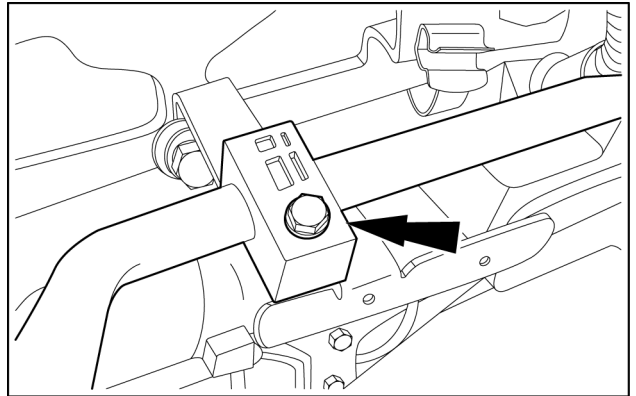
BAIL14TR00884AB 13

14. 1. Disconnect the starter motor negative terminal.
2. Disconnect the cab heater supply pipe.
3. Detach the cab heater supply pipe.



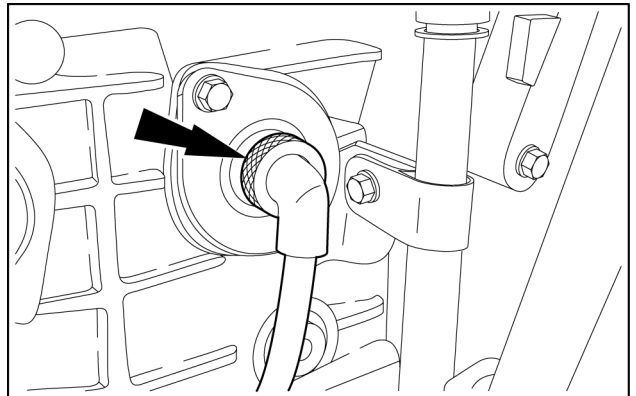
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15. Detach the cab heater supply pipe.



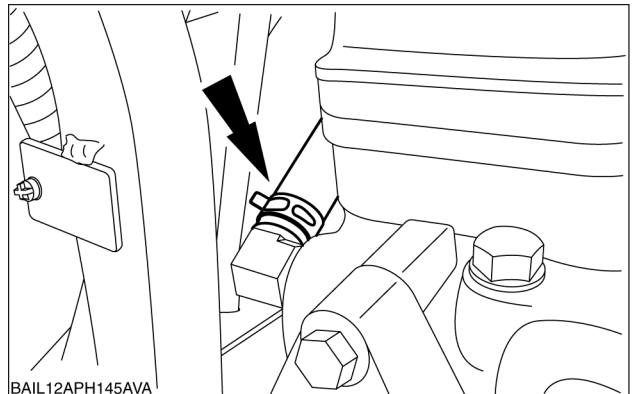
BAIL14TR00886AB 15

16. Disconnect the block heater electrical connector (if equipped).



BAIL14TR00887AB 16

17. Disconnect the heater supply hose from the rear of the cylinder head.



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BAIL12APH145AVA 17

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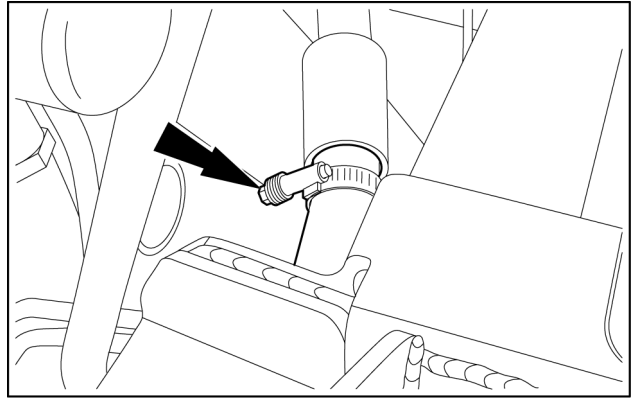


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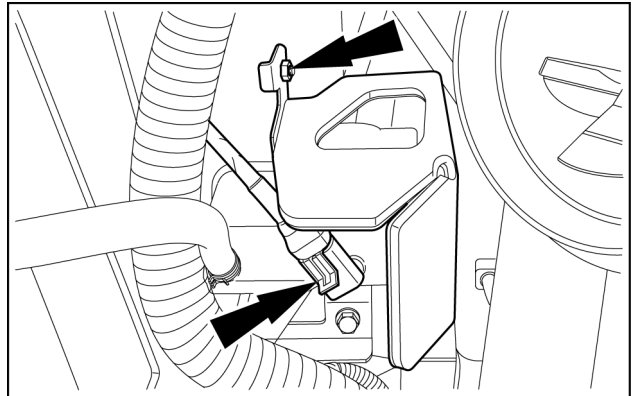
Thank you so much for reading.

18. Disconnect the engine breather pipe.



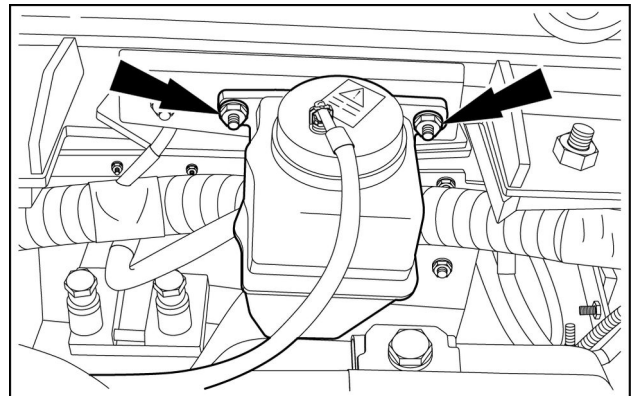
BAIL14TR0088AB 18

19. 1. Disconnect the brake fluid reservoir electrical connector.
2. Remove the brake fluid reservoir heat shield.



BAIL15TR00026AA 19

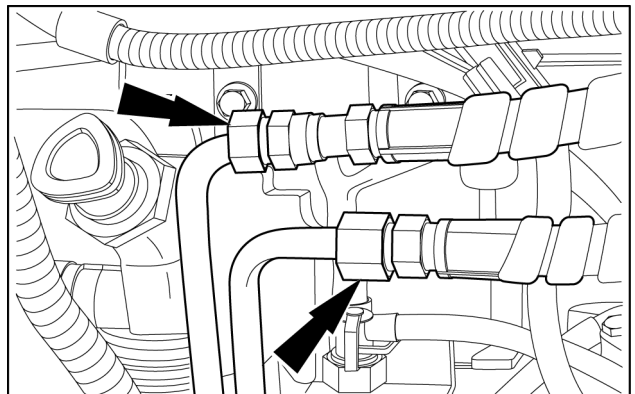
20. Detach the brake fluid reservoir and position it to one side.



BAIL14TR00939AB 20

21. Disconnect the steering pipes.

NOTE: Mark the pipes to aid installation.



BAIL14TR00940AB 21