

SERVICE MANUAL

T7.220 / T7.235 / T7.250 / T7.260 / T7.270

Auto Command™ Tractor

T7.220 / T7.235 / T7.250 / T7.260

Power Command™ Tractor

Part number 47524342

English

June 2013

Replaces part number 84476222A



Link Product / Engine

Product	Market Product	Engine
T7.220 Power Command	North America	F4DFE613L*A
T7.235 Power Command	North America	F4DFE613K*A
T7.250 Power Command	North America	F4DFE613J*A
T7.260 Power Command	North America	F4DFE613H*A
T7.235 AutoCommand	North America	F4DFE613K*A
T7.250 AutoCommand	North America	F4DFE613J*A
T7.260 AutoCommand	North America	F4DFE613H*A
T7.270 AutoCommand	North America	F4DFE613G*A

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INTRODUCTION

Foreword - How to use and navigate through this manual

This manual has been produced by a new technical information system. This new system is designed to deliver technical information electronically through web delivery (eTIM), DVD, and paper manuals. A coding system called SAP has been developed to link the technical information to other Product Support functions, e.g., Warranty.

Technical information is written to support the maintenance and service of the functions or systems on a customer's machine. When a customer has a concern on their machine it is usually because a function or system on their machine is not working at all, is not working efficiently, or is not responding correctly to their commands. When you refer to the technical information in this manual to resolve that customer's concern, you will find all the information classified using the SAP coding, according to the functions or systems on that machine. Once you have located the technical information for that function or system, you will then find all the mechanical, electrical or hydraulic devices, components, assemblies, and sub assemblies for that function or system. You will also find all the types of information that have been written for that function or system: the technical data (specifications), the functional data (how it works), the diagnostic data (fault codes and troubleshooting), and the service data (remove, install adjust, etc.).

By integrating SAP coding into technical information, you will be able to search and retrieve just the right piece of technical information you need to resolve that customer's concern on his machine. This is made possible by attaching 3 categories to each piece of technical information during the authoring process.

The first category is the Location, the second category is the Information Type and the third category is the Product:

- LOCATION - the component or function on the machine, that the piece of technical information is going to describe (e.g., Fuel tank).
- INFORMATION TYPE - the piece of technical information that has been written for a particular component or function on the machine (e.g., Capacity would be a type of Technical Data describing the amount of fuel held by the fuel tank).
- PRODUCT - the model for which the piece of technical information is written.

Every piece of technical information will have those three categories attached to it. You will be able to use any combination of those categories to find the right piece of technical information you need to resolve that customer's concern on their machine.

That information could be:

- the procedure for how to remove the cylinder head
- a table of specifications for a hydraulic pump
- a fault code
- a troubleshooting table
- a special tool

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 and on machine decals, 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 which, if not avoided, will result in death or serious injury. The color associated with DANGER is RED.

 **WARNING** indicates a hazardous situation which, if not avoided, could result in death or serious injury. The color associated with WARNING is ORANGE.

 **CAUTION**, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury. The color associated with CAUTION is YELLOW.

FAILURE TO FOLLOW DANGER, WARNING, AND CAUTION MESSAGES COULD RESULT IN DEATH OR SERIOUS INJURY.

Machine safety

NOTICE: Notice indicates a situation which, if not avoided, could result in machine or property damage. The color associated with Notice is BLUE.

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 which 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



**T7.220 AutoCommand , T7.220 Power Command , T7.235 AutoCommand ,
T7.235 Power Command , T7.250 AutoCommand , T7.250 Power Command ,
T7.260 AutoCommand , T7.260 Power Command , T7.270 AutoCommand**

Engine - Disconnect

Prior operation:

Remove the battery, for further information refer to **Battery - Remove (55.302)**

Prior operation:

Drain the engine coolant, for further information refer to **Engine cooling system - Drain fluid (10.400)**

Prior operation:

Discharge the air conditioning system, for further information refer to **Air conditioning - Discharging (50.200)**

Prior operation:

Remove the selective catalytic reduction (SCR) exhaust line, for further information refer to **Exhaust pipes - Remove (10.254)**

Prior operation:

Remove the front AoH converter, for further information refer to **Air-over-Hydraulic (AoH) converter - Remove (33.350)**

Prior operation:

Remove the front wheels, for further information refer to **Front wheels - Remove (44.511)**

⚠ 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

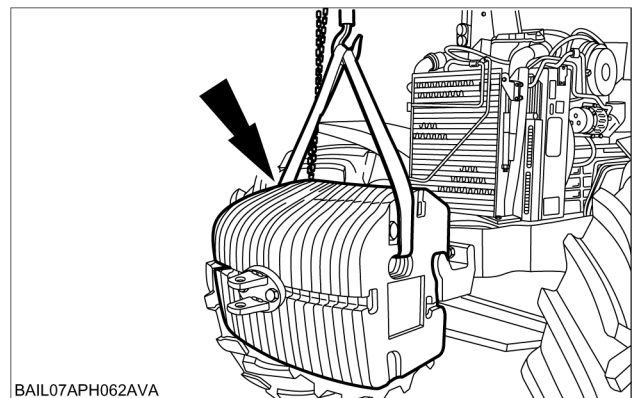
Avoid injury!

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

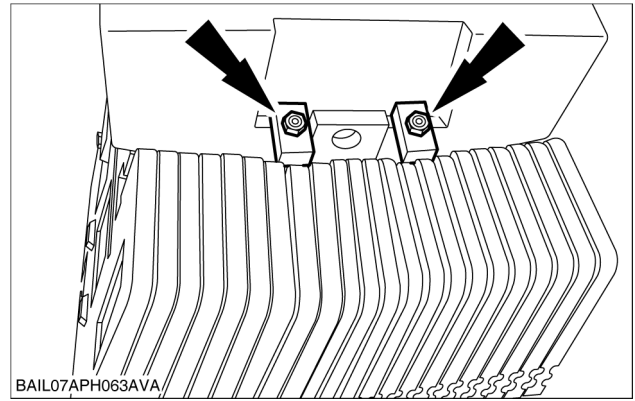
1. Using suitable lifting equipment support the front weights.



BAIL07APH062AVA

BAIL07APH062AVA 1

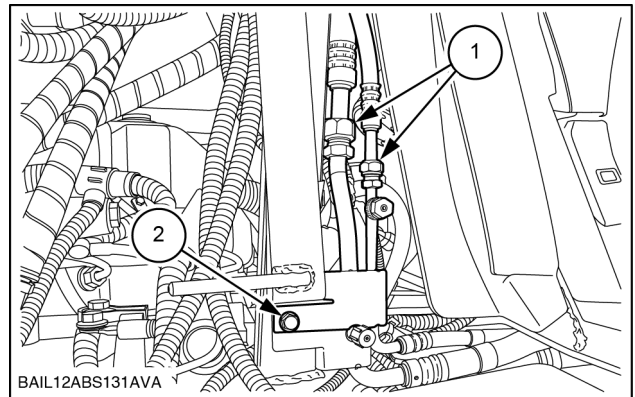
2. Disconnect and remove the front weights from the weight carrier.



BAIL07APH063AVA 2

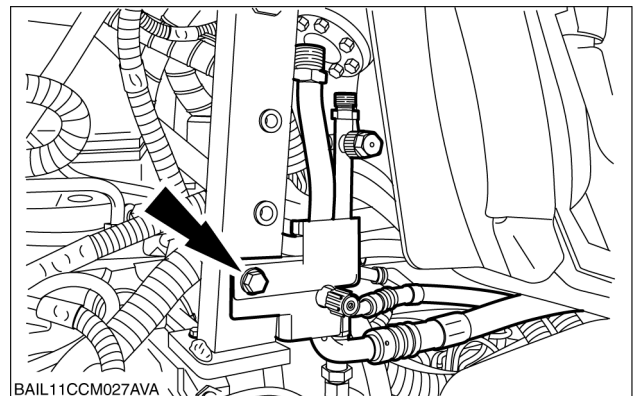
3. Disconnect the air conditioning hoses (1) and detach the bracket (2).

NOTE: Cap all open connections to prevent contamination of the system.



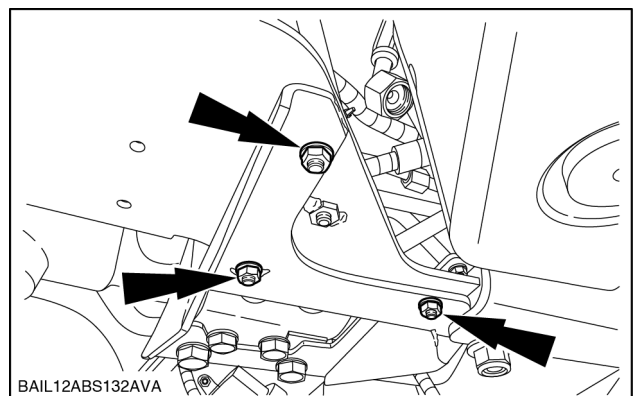
BAIL12ABS131AVA 3

4. Detach the air conditioning pipe bracket from the engine frame.



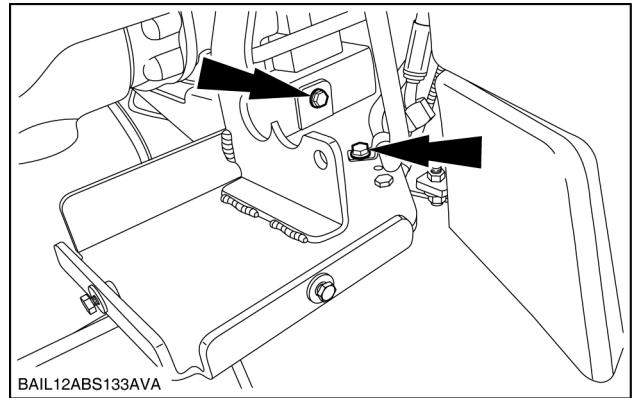
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5. Remove the front AoH bracket lower bolts.



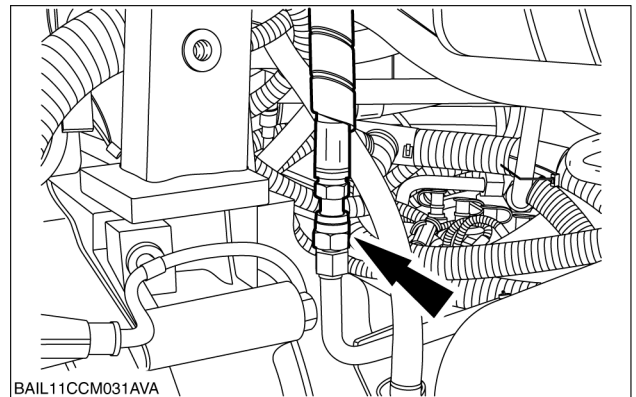
BAIL12ABS132AVA 5

6. Detach the pipe bracket and remove the AoH bracket.



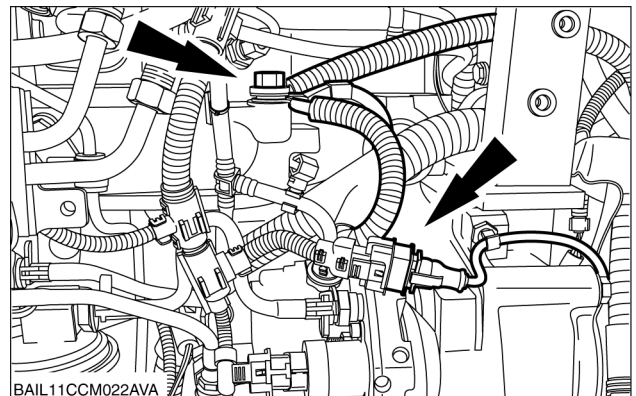
BAIL12ABS133AVA 6

7. Disconnect the brake valve supply hose (if fitted).



BAIL11CCM031AVA 7

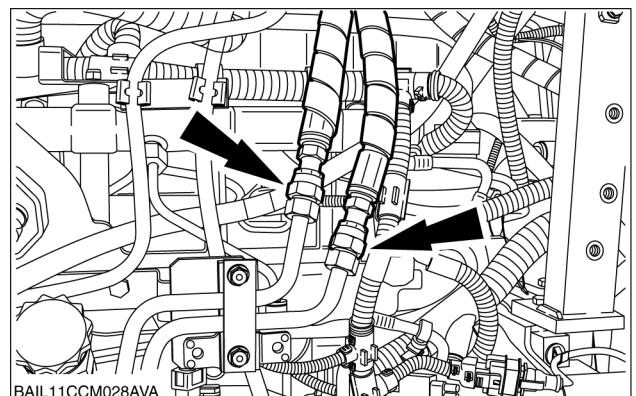
8. Disconnect the flywheel position sensor electrical connector.



BAIL11CCM022AVA 8

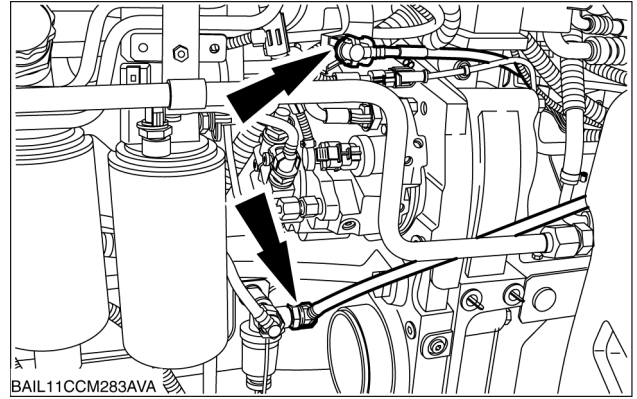
9. Disconnect the steering hoses.

NOTE: Make a note of the position of the hoses to aid in installation.



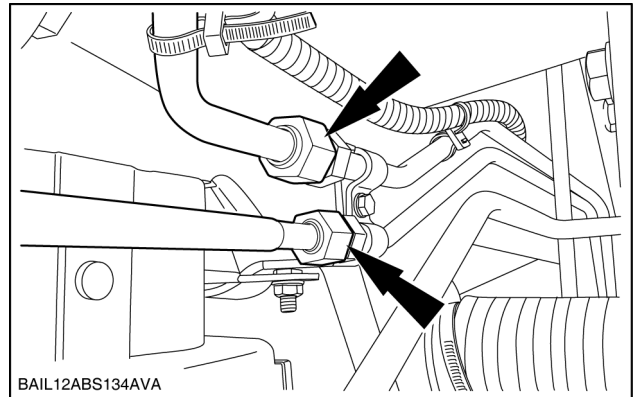
BAIL11CCM028AVA 9

10. Disconnect the fuel supply and return lines.



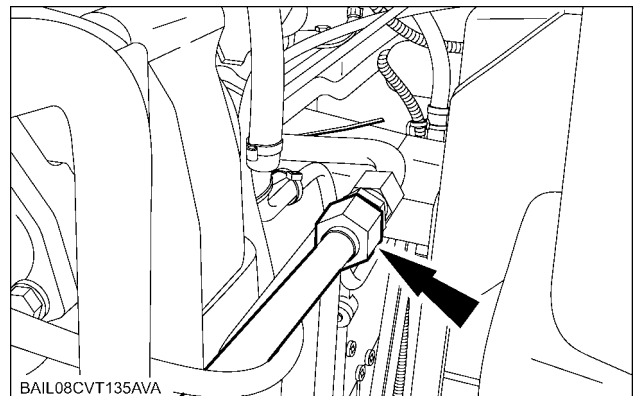
BAIL11CCM283AVA 10

11. Disconnect the diff lock and suspension pipes.



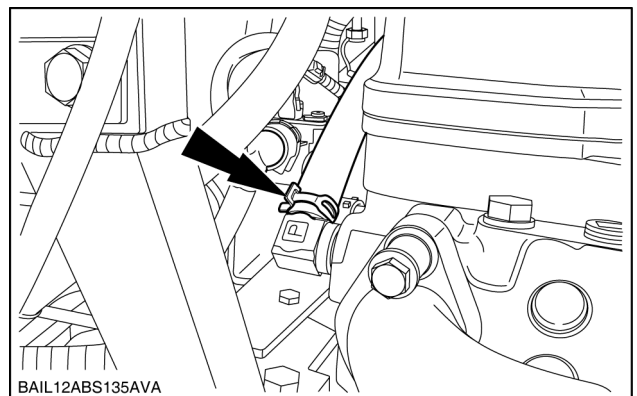
BAIL12ABS134AVA 11

12. Disconnect the trailer brake air supply pipe.



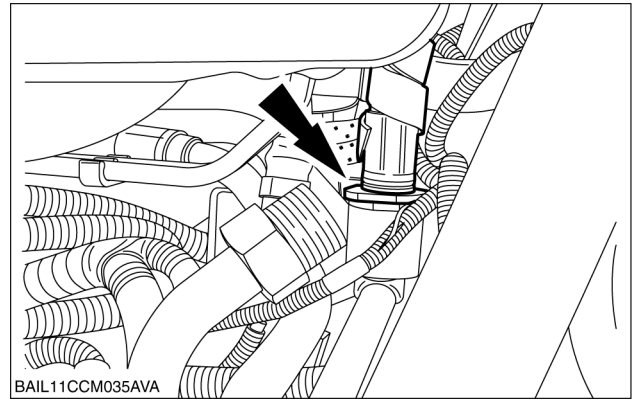
BAIL08CVT135AVA 12

13. Disconnect the heater supply hose from the rear of the engine cylinder head.



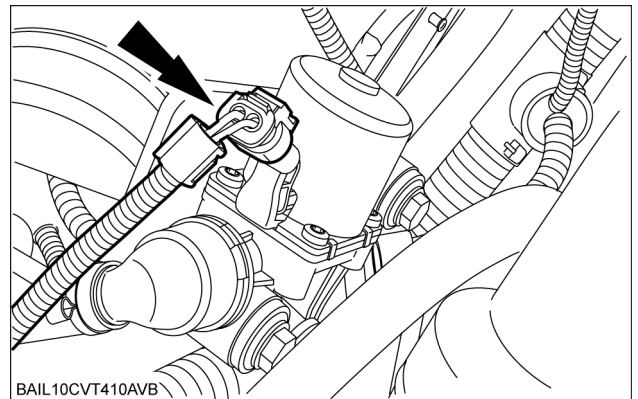
BAIL12ABS135AVA 13

14. Disconnect the steering hydraulic oil supply pipe.



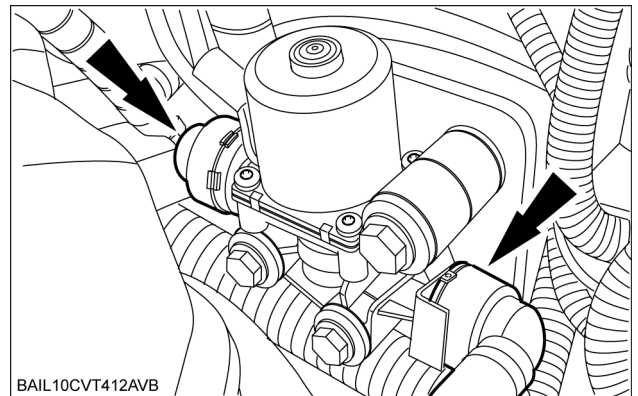
BAIL11CCM035AVA 14

15. Disconnect the SCR coolant control valve electrical connector.



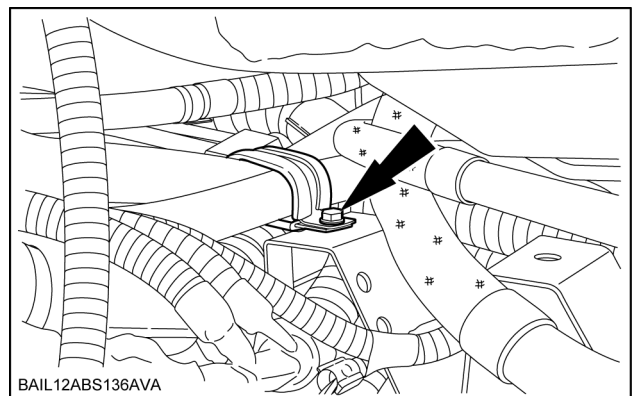
BAIL10CVT410AVB 15

16. Disconnect the coolant line connectors from the SCR coolant control valve.



BAIL10CVT412AVB 16

17. Detach the cab heater hose retaining bracket.



BAIL12ABS136AVA 17



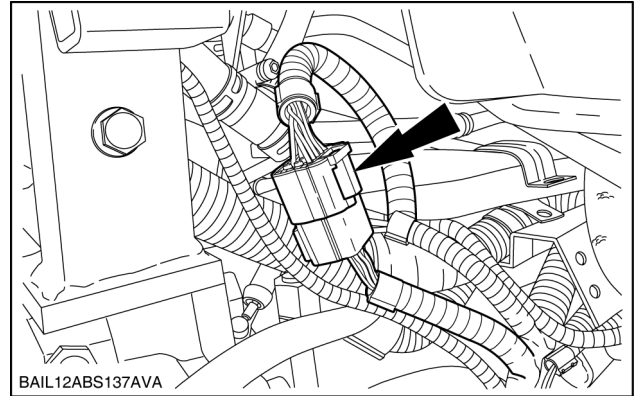
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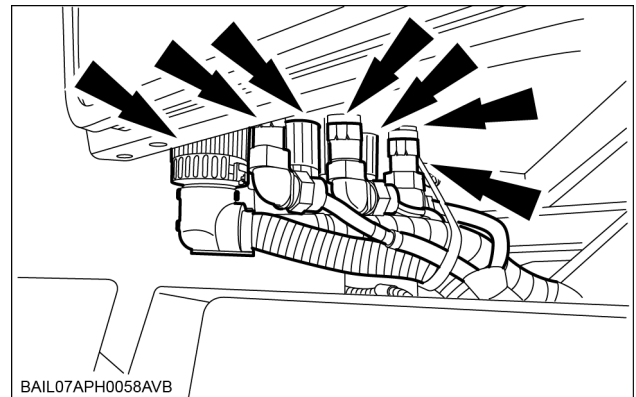
Thank you so much for reading

18. Disconnect the engine harness electrical connector.



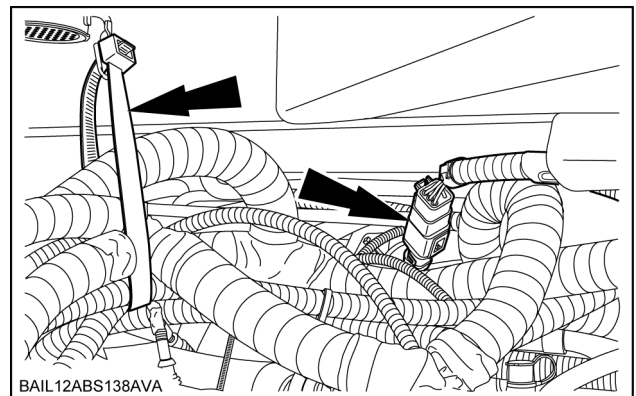
BAIL12ABS137AVA 18

19. Disconnect the cab electrical connectors.



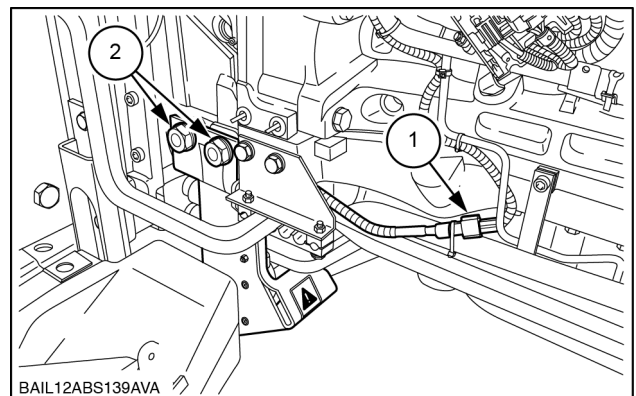
BAIL07APH0058AVB 19

20. Disconnect the electrical connector and cut the cable tie.



BAIL12ABS138AVA 20

21. Disconnect the radar electrical connector (1) and remove the radar (2).



BAIL12ABS139AVA 21

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