

I254
I404
Tractor

SERVICE MANUAL

Part number **48144038**

1st edition English

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SERVICE MANUAL

1254 CKD MAX125 CIH CAB 6
1404 CKD MAX140 CIH CAB 6
1404 Harbin unit

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INTRODUCTION

Foreword

IMPORTANT INFORMATION

All repair and maintenance works listed in this manual must be carried out only by staff belonging to the CASE IH Service network, strictly complying with the instructions given and using, whenever required, the special tools.

Anyone who carries out the above operations without complying with the prescriptions shall be responsible for the 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 due to the anomalous behavior of parts and/or components not approved by the manufacturer himself, 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 due to an anomalous behavior of parts and/or components not approved by the Manufacturer.

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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



SERVICE MANUAL

Engine

1254 CKD MAX125 CIH CAB 6

1404 CKD MAX140 CIH CAB 6

1404 Harbin unit

Engine - Remove

⚠ WARNING

Heavy objects!

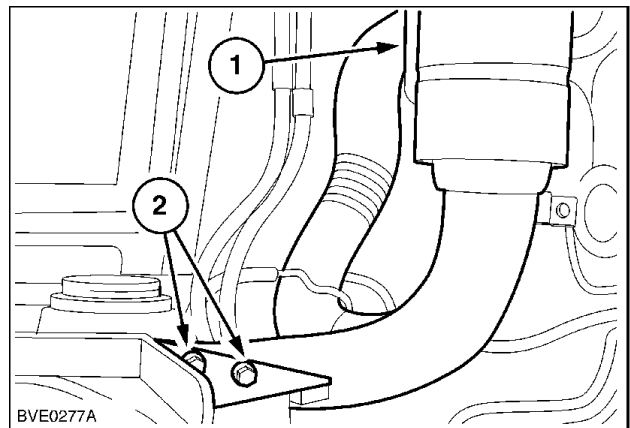
Lift and handle all heavy components using lifting equipment with adequate capacity. Always support units or parts with suitable slings or hooks. Make sure the work area is clear of all bystanders. Failure to comply could result in death or serious injury.

W0398A

Prior operation:

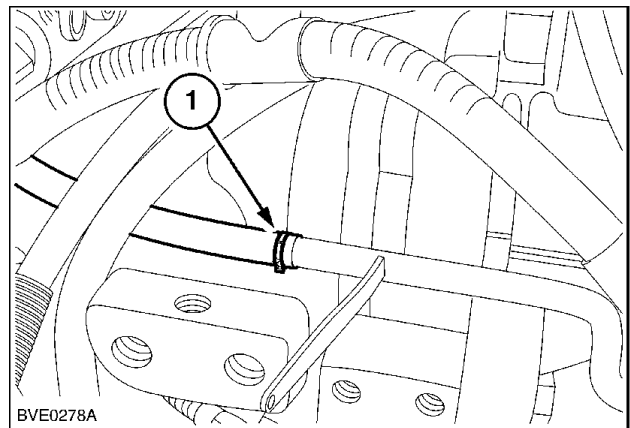
Separate the front axle and front support from the engine - see **Axle support - Remove (Front support and front axle) (25.100)**.

1. Remove the engine hood - see **Hood - Remove (90.100)**.
2. Disconnect the exhaust manifold from the turbocharger (1). Remove the exhaust support retaining bolts (2) and remove the exhaust manifold.



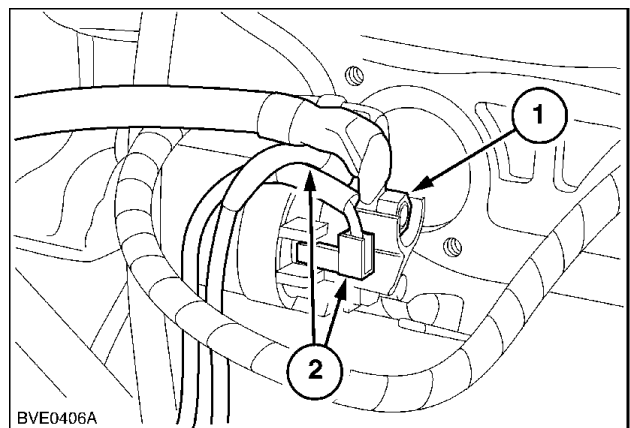
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3. Loosen the hose clamp (1) and disconnect the coolant hose connecting the cab heater to the radiator.



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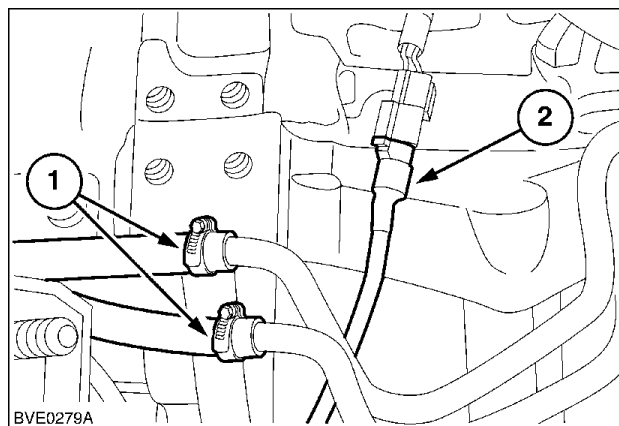
4. Disconnect the battery positive cable (1) and the electrical connectors (2) from the starter motor.



BVE0406A 3

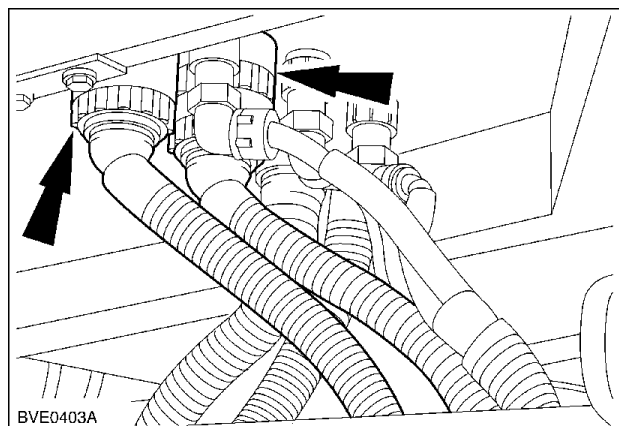
5. Loosen the hose clamps **(1)** and disconnect the drive-line oil cooler hoses.
Disconnect the tractor performance monitor radar electrical connector **(2)** (if fitted).

NOTE: Note the position of the driveline oil cooler hoses.



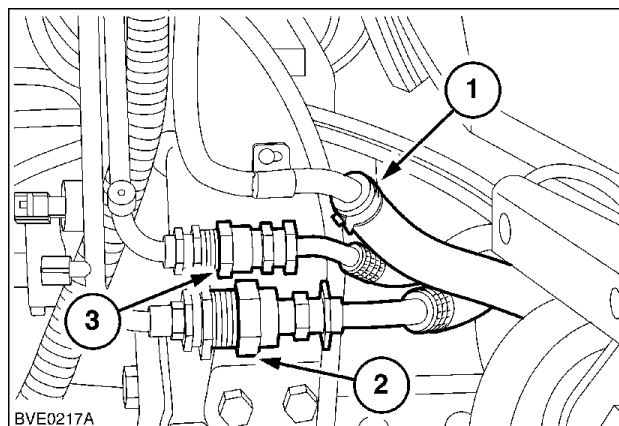
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6. Disconnect the engine harness electrical connectors.



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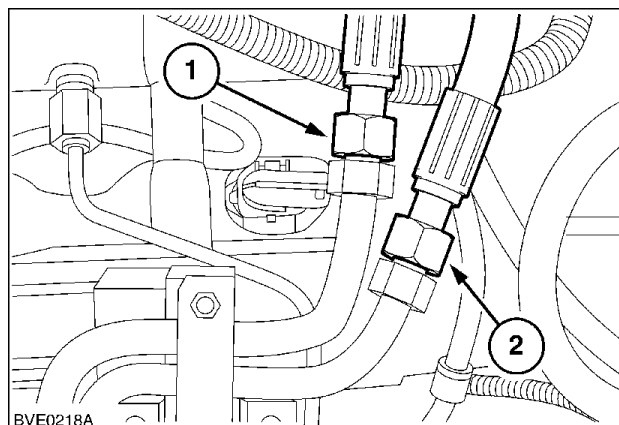
7. Disconnect the cab heater coolant hose **(1)**.
Disconnect the air conditioning hoses **(2)** and **(3)**.



BVE0217A_38 6

8. Disconnect the steering cylinder oil supply hoses **(1)** and **(2)**.

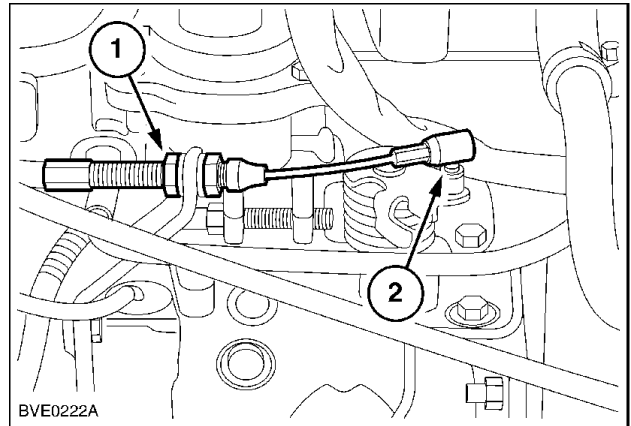
NOTE: Note the position of the steering cylinder oil supply hoses.



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Tractors with Mechanical Fuel Injection Pump

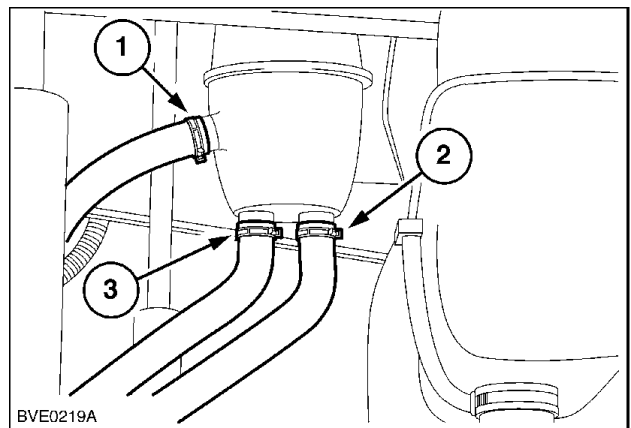
9. Loosen the retaining nut (1) and detach the throttle cable from the fuel injection pump (2).



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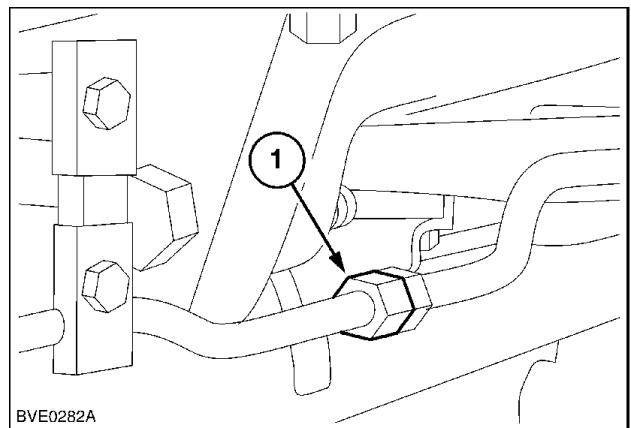
All Tractors

10. Disconnect the brake fluid lines (1), (2) and (3) from the brake fluid reservoir.



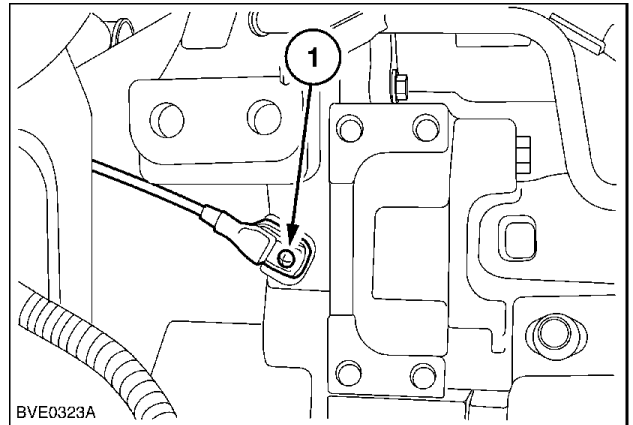
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11. Disconnect the differential lock oil supply pipe (1).



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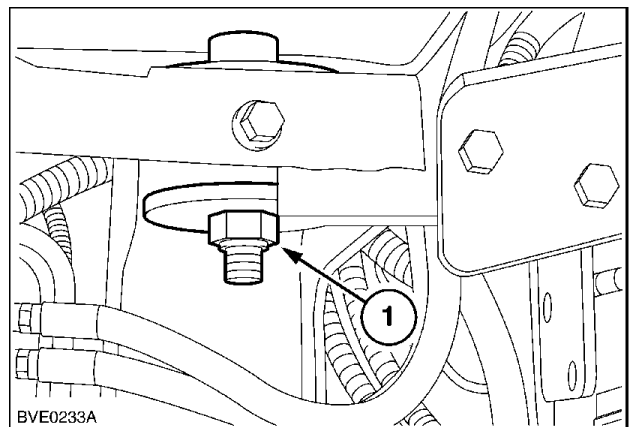
12. Remove the retaining screw (1) and detach the fly-wheel speed sensor (if fitted).



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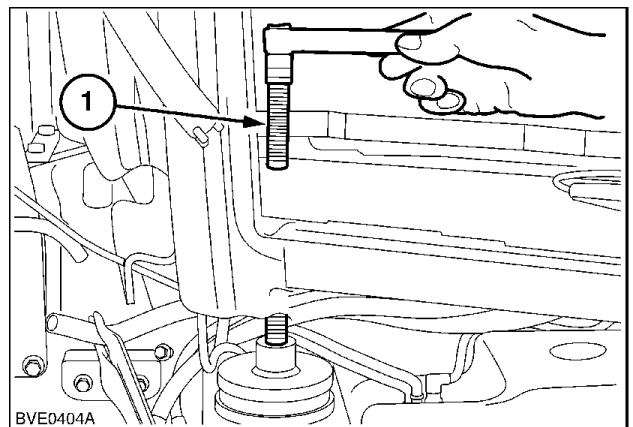
Tractors with Standard Cab

13. Loosen the cab front mounting bolt while holding the nut (1) under the cab floor. Remove the bolt and washers. Repeat this step for the left hand side of the cab.



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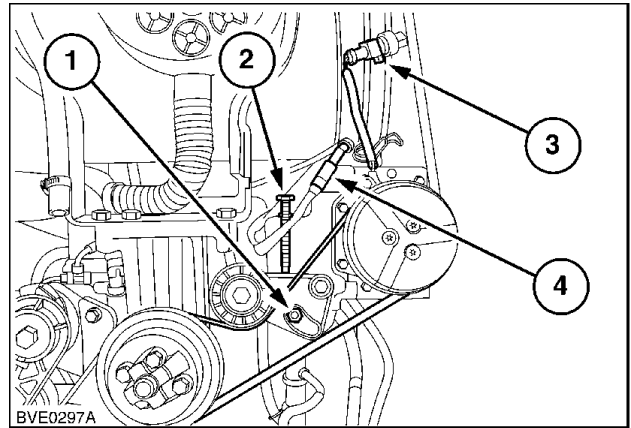
14. Using the locally fabricated tool (1), raise the cab evenly.



BVE0404A_45 13

Tractors with Air Conditioning

15. Loosen the drive belt tensioner securing nut **(1)**, tensioner bolt **(2)** and remove the air conditioning compressor drive belt. Disconnect the air conditioning pressure sensor electrical connector **(3)** and the air conditioning air compressor clutch electrical connector **(4)**.

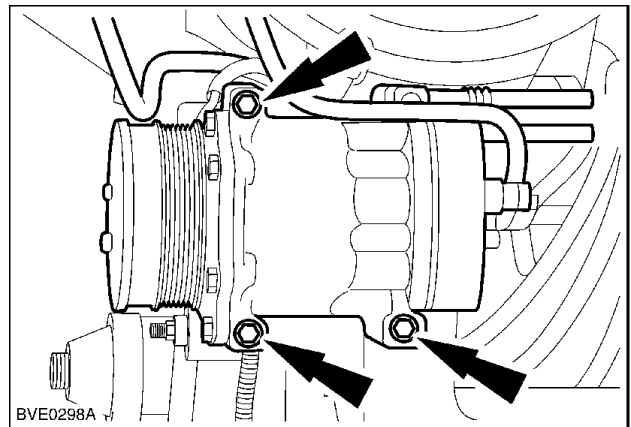


BVE0297A 14

16. Remove the air conditioning compressor, condenser, receiver dryer and pipe work from the engine as a complete assembly without disconnecting the pipe work.

NOTICE: If it is not possible to remove the air conditioning components as a complete assembly, the air conditioning system must be evacuated (refer to the climate control section).

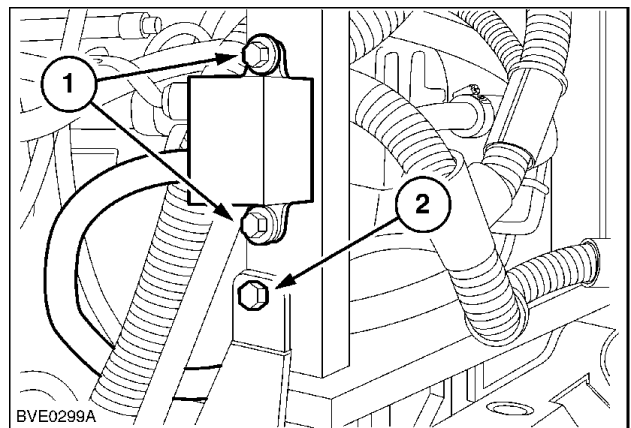
It is an offence to vent the air conditioning system into the atmosphere



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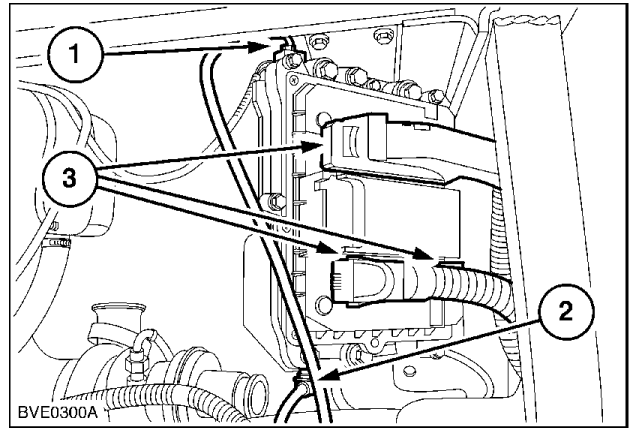
All Tractors

17. Remove the relay retaining bolts **(1)** and detach the relay. Remove the cab heater pipe support retaining bolt **(2)**.



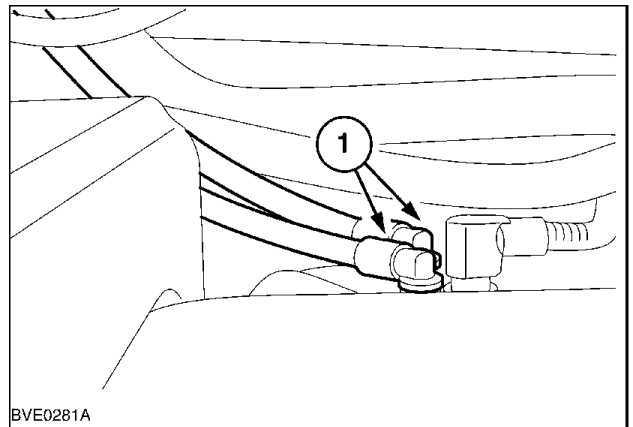
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18. Disconnect the fuel tank to fuel cooler supply line **(1)** from the fuel cooler and allow the fuel to drain back into the fuel tank.
Disconnect the fuel cooler to fuel filter supply line **(2)** from the fuel cooler.
Disconnect the engine controller electrical connectors **(3)**.



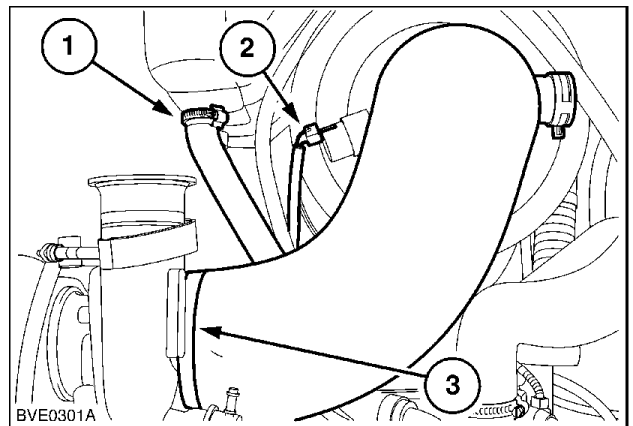
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19. Disconnect the fuel supply and return lines **(1)** from the fuel tank level sender.



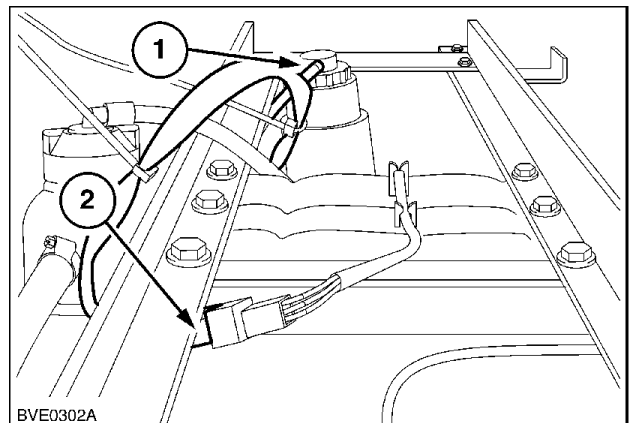
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20. Loosen the hose clamp **(1)** and disconnect the coolant hose from the expansion tank.
Disconnect the air cleaner vacuum switch electrical connector **(2)**.
Loosen the hose clamp **(3)** and disconnect the air cleaner hose from the turbocharger.



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21. Disconnect the brake reservoir electrical connectors **(1)** and the coolant level sender electrical connector **(2)**.



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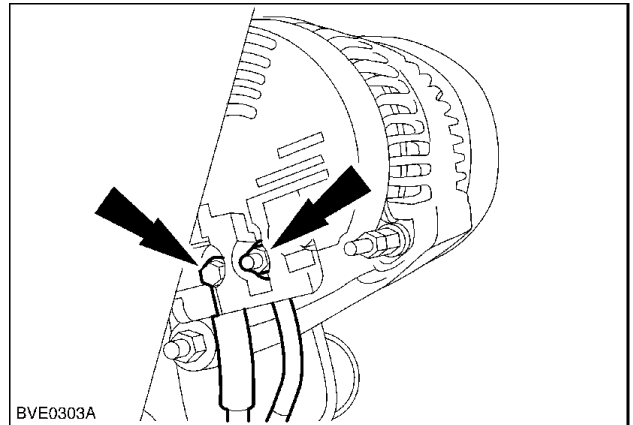
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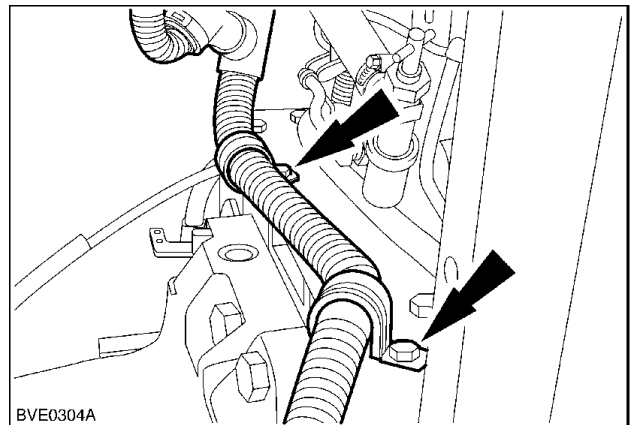
Thank you so much for reading

22. Disconnect the alternator electrical connectors.



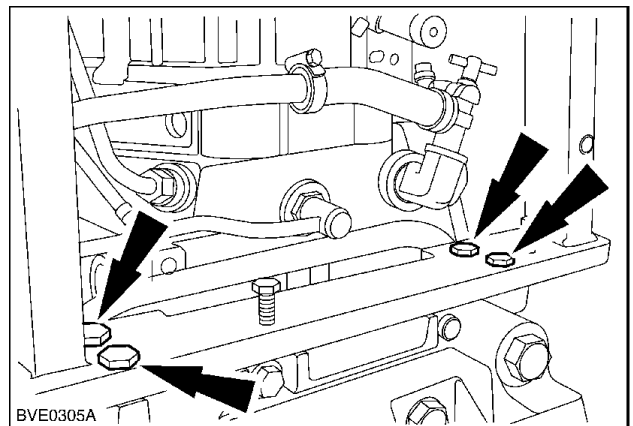
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23. Remove the engine harness clamp retaining bolts and reposition the engine harness on top of the engine.



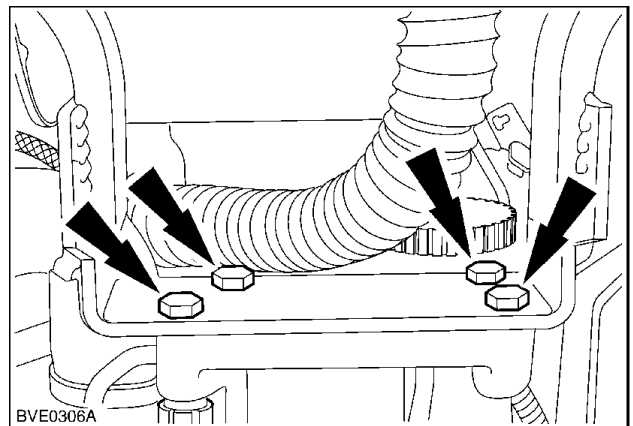
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24. Remove the air cleaner mounting frame retaining bolts.



BVE0305A 23

25. Remove the air cleaner mounting frame retaining bolts.



BVE0306A 24

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