SP 2-436-001

SERVICE PROGRAM

February, 2018

ATTENTION:

Service Managers / Parts Managers

SUBJECT:

Air Cleaner and Fuel Filter Relocation

DESCRIPTION OF WORK:

This Service Program provides information and instruction to relocate the air cleaner assembly and the fuel filter due to possible obstruction on certain Xpeditor vehicles.

PROGRAM EXPIRES:

February 28, 2019

VEHICLES AFFECTED:

There are 63 vehicles affected, manufactured after July 23, 2013. To determine if a vehicle is affected by this Service Program, log in to the Autocar Warranty Management System at www.autocartruck.com. Click on the blue "Warranty Management" diamond on the right hand side of the page. From the main menu, select "Service Programs" and look for the Autocar document number above. An excel file will be accessible with the VIN list of affected vehicles. Alternatively, to determine if a single vehicle is affected, select "VIN Profile" from the main menu. In the "Chassis Number" field, enter the last 6 of the VIN. Once the VIN profile is displayed, scroll down to the "Service Program Information" section to determine if the recall is open.

SERVICE RESPONSIBILITY:

Service Programs are performed on eligible vehicles at no charge to the owner until the expiration date listed above.

SERVICE PROGRAM INFORMATION:

Service Programs are product modifications and/or product improvements that Autocar has determined will enhance the operation of the truck. In a continuing effort to inform our customers of potential service issues and avoid unnecessary down time, Autocar has identified the following operation as recommended preventive maintenance.

This Service Program should be added to your preventive maintenance and service manuals.

While being committed to continuous product improvement, Autocar is not liable for updating existing chassis after they have been placed in service.

Questions regarding this Service Program should be directed to Autocar Technical Support at 888-218-3611.

TO OBTAIN PARTS:

DO NOT submit a Solutions ticket.
Ensure that you have authorization from the customer to perform this work and send an e-mail to: warranty@autocartruck.com

Include:

1. VIN(s) (or) (last 6 digits of the VIN(s))
2. Attention To Name
3. Ship To Address.

CLAIMS FOR REIMBURSEMENT:

This is a parts only Service Program, no claims for reimbursement of parts or labor will be accepted by Autocar.

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REQUIRED PARTS:

S4360004K001 Service Kit
- (23″) 8077449-0000 Hose
- (1) A2120489-001 Bracket Remote Fill
- (1) A5300175-001 Heat shield
- (1) A2220193-001 Bracket Inlet Piping Spt
- (1) A2220194-001 Bkt Upper Cross Spt
- (1) A2220203-002 Bracket Air Stack
- (1) A2230580-001 Pipe ISLG LH Exhaust
- (1) A2240115-001 Bkt Air Cleaner Spt LH
- (1) A2240115-002 Bkt Air Cleaner Spt RH
- (1) A2360262-001 Cross Brace Upper Spt
- (1) A2360266-003 Spt Cross Brace #1 LH
- (1) A2360266-004 Spt Cross Brace #2 RH
- (1) A5300175-001 Shield, turbo
- (1) A4360101-016 Hose CNG LP
- (1) A4360101-017 Hose CHG LP
- (1) A4360138-001 Bkt Fuel Filter LH
- (1) GZ200078-005 Union, 37 Degree JIC
- (1) GZ220009-001 Bracket, Two Hole
- (1) GZ220009-005 Bracket, Four Hole
- (20″) GZ240007-025 Hose, Coolant
- (1) S4360007K001 Fasteners Kit
  - (6) 3081963 Isolator
  - (2) 3082665 Clamp
  - (4) 3083125 Clamp, Dual
  - (1) 3083525 Plug
  - (1) 529640 P-Clamp
  - (2) 980464 Cable Tie
  - (2) GE280562BN01 Nut Hex 5/8″
  - (4) GE281862BB01 Nut Hex Jam 5/8″
  - (7) GE282025FL01 Nut Top Insert 1/4″
  - (1) GE286231BX01 Locknut Flg 5/16″
  - (10) GE286243BI01 Locknut Flg 7/16″
  - (10) GE286250BI0 Locknut Flg 1/2″
  - (6) GE286262BI01 Locknut Flg 5/8″
  - (2) GE286262BO01 Locknut Flg 1″
  - (3) GE410131AX10 Screw Hex Flg 1″
  - (2) GE410137AI14 Screw Hex Flg 1″
  - (8) GE410143AI12 Screw Hex Flg 1″
  - (5) GE410150AI14 Screw Hex Flg 1″
  - (5) GE410150AI16 Screw Hex Flg 1″
  - (4) GE410162AI16 Screw Hex Flg 1.5″
  - (1) GE410162AI20 Screw Hex Flg 1″
  - (5) GE410425AE10 Screw Hex 1/4″
  - (2) GE410425AE12 Screw Hex 1/4″
  - (2) GE410425AS10 Screw Hex
  - (14) GE811625NB01 Washer
  - (2) GE811625NT01 Washer
  - (3) GE811631NB01 Washer
  - (6) GE811662WY01 Washer

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(2) GZ220002-001 Clamp
(2) GZ220002-005 Clamp

TOOLS REQUIRED:

12″ Adjustable wrench
1/4″ Drive ratchet
3/8″ Drive ratchet
1/2″ Drive ratchet
1/4″ Drive 5/16” deep socket
3/8″ Drive 7/16” deep socket
3/8″ Drive 1/2” deep socket
3/8″ Drive 9/16” deep socket
1/2″ Drive 15/16" deep socket
1/2″ Drive 3/4” deep socket
1/2″ Drive 5/8” deep socket
1/2″ Drive 11/16” deep socket
7/16″ Combination wrench
1/2″ Combination wrench
9/16″ Combination wrench
5/8″ Combination wrench
11/16″ Combination wrench
3/4″ Combination wrench
15/16″ Combination wrench
3/8″ Extension 6"
1/2″ Drive torque wrench 200 ft lb
Standard screw driver

SAFETY NOTICES:

WARNING

Allow the vehicle’s engine and cooling system to cool to ambient temperature before performing the repair procedure. A hot engine or cooling assembly may cause burns or other personal injury.

WARNING

To prevent eye injury, always wear eye protection when performing vehicle maintenance, service or inspection.

WARNING

Before working on a vehicle, set the parking brake, place the transmission in neutral and block the wheels. Failure to do so can result in unexpected vehicle movement and can cause serious personal injury or death.

CAUTION

LOCKOUT/TAGOUT PROCEDURES:

Before entering the vehicle or vehicle body, read and follow OSHA regulations concerning entry and working in “CONFINED SPACE” OSHA 1910.146 and “LOCKOUT/TAGOUT” OSHA 1910.147. Follow OSHA regulations while performing any work on the vehicle. The vehicle must be disabled by the following steps before performing any work on the vehicle:

1. Place the transmission in NEUTRAL.
2. Set the parking brake.
3. Shut the engine OFF.
4. Lock cab doors, keep the key in your pocket. Block the wheels before entering the body or performing any work on the vehicle.
5. Turn the battery disconnect switch OFF, if equipped.
6. Completely drain the air from the primary/A system and secondary/B system by opening the drain valves on the air tanks themselves or by using the drain manifold if supplied. When draining the air tanks, do not look into the area where air is draining. Dirt or sludge particles may be expelled in the air stream and can cause eye injury.
7. Place magnetic “DANGER” signs on both cab doors before entering the body or performing any work on the vehicle.
8. Take proper precautions before working under the vehicle. Use ramps approved for the weight of your vehicle, or use floor jacks and stands. Never work under a vehicle supported by jacks alone. Always use jack stands to support the vehicle.

Working on CNG/LNG Trucks

SAFETY INSTRUCTIONS

If you store or dispense Compressed Natural Gas (CNG) or Liquefied Natural Gas (LNG), or if you work on CNG or LNG trucks, your location must be fully compliant with applicable codes, regulations and standards, including National Fire Protection Associate (NFPA) codes, Society of Automotive Engineers (SAE) standards, American National Standards Institute (ANSI) Natural Gas Vehicle (NGV) standards, the United States Code of Federal Regulations (CFR) and your state and local fire and other applicable codes (including, for example, the California Code of Regulations and the Texas Administrative Code).

Contact your local fire department for guidance and additional compliance information.

Technicians working on Autocar trucks with CNG or LNG engines must be trained in the proper repair of CNG and LNG trucks and engines and the safe storage and dispensing of CNG and LNG.

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Working on CNG Fuel Systems

WARNING

CNG fuel systems include a high pressure (3600 psi) system for fuel storage and a low pressure system (125 psi) for consumption by the engine. Understanding the characteristics of CNG and how the fuel system works will prevent injury and damage to persons and property.

Attempting to operate or maintain any CNG fuel system without proper training is dangerous. Complete training and consult instructional bulletins from the CNG system suppliers, such as Agility Fuel Systems' Field Service Bulletin, Safely Working on CNG Fuel Systems.

Welding and Hot Work Near CNG and LNG Trucks

WARNING

Welding, grinding and other "hot work" can be safely performed on or near a CNG or LNG vehicle, but certain precautions must be followed. Understand and perform the necessary precautions provided by the CNG system suppliers, such as Agility Fuel Systems' Field Service Bulletin, Welding and Hot Work Precautions Near CNG and LNG Vehicles.

CNG Cylinders

WARNING

CNG fuel containers must meet Federal Motor Vehicle Safety Standard (FMVSS) 304 (Compressed Natural Gas Fuel Container Integrity) and/or ANSI/CSA NGV2 (Basic Requirements for Compressed Natural Gas Vehicle Fuel Containers). Both standards specify a detailed visual examination every three years.

Ensure that every truck owner completes the required inspections, in accordance with the applicable standards and other resources, such as the Clean Vehicle Education Foundation and NGVAmerica's Compressed Natural Gas (CNG) Container Visual Inspection Advisory.

FMVSS 304 also requires that cylinders not be used after the end of life (EOL) date provided on the tank label. The EOL date is also displayed in the engine compartment and at the fueling connection of each truck. If there is any question as to proper decommissioning of a cylinder, contact the manufacturer, whose name and address is also required to be on the label.

CNG Fuel Container Pressure Relief Devices (PRDs)

WARNING

PRDs must be properly maintained and positioned for safe operation of a CNG fuel system. Missing vent caps can allow moisture into PRDs and vent lines, which can freeze and damage these safety components. Debris which clogs the PRDs and/or vent lines can prevent proper function.

PRDs must be positioned to vent upward, not outward, from a vehicle.

Ensure that every truck owner completes periodic inspections of the PRDs and vent lines and systems, in accordance with guidance provided by the system component suppliers.

Alert First Responders to CNG and LNG

DANGER

In the event of a fire or other emergency, alert first responders to the presence and location of CNG fuel systems, tanks and dispensers. Ensure that emergency personnel are aware of proper precautions, such as those provided in Agility's *First Responder Guide: CNG and LNG Vehicle Fuel Systems.*

RELOCATION PROCEDURE:

1. After turning the key to the "OFF" position, remove the key and allow sufficient time for the vehicle to cool down completely.

WARNING

Do not remove the pressure cap from a hot engine. Wait until the coolant temperature is below 50°C [120°F] before removing the pressure cap. Heated coolant spray or steam can cause personal injury.

2. Remove the cooling system pressure cap.
3. Using a 15-gallon (57-liter) drain pan, drain the cooling system by opening the drain valve on the radiator and the drain valve on the bottom of the engine oil cooler housing.
4. After the cooling system is completely drained, close the drain valves. Set the captured coolant aside for reinstallation. Refer to the engine manufacturer's instructions for complete cooling system drain procedure and information.

Note: The drained engine coolant will be reinstalled at the end of the procedure. Ensure that the engine coolant is kept separate from the drained transmission fluid. Use two separate drain pans as noted.

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WARNING

Coolant is toxic. Keep away from children and pets. If not reused, dispose of in accordance with local environmental regulations

5. Raise the cab in accordance with the following safety precautions and procedures.

WARNING

Due to the danger of sustaining personal injury and/or damage to the vehicle, never attempt to raise the cab outdoors under extremely windy conditions. Strong wind conditions could force the cab beyond the normal limits of its travel. Never rely on the hydraulic pressure to hold the cab in an open position. Always use the safety pin in the cab tilt lock tube to prevent serious personal injury or death.

WARNING

Remove or secure all loose articles and close all doors before raising the cab. The area above and ahead of the cab must be clear from obstructions. Place front wheels in a straight ahead position.

Remove the pump handle from its storage on the inside of the cab near the driver or passenger seat.

Place the selector lever on the hydraulic pump in the RAISE position. Insert the pump handle into the pump and operate the handle in an up and down motion. The hydraulic cab latches will open, then the hydraulic cylinders will lift the cab until the midpoint (top) is reached.

Once the cab has reached its midpoint the cab will move forward to the fully open position. The safety pin in the cab tilt lock device must be installed when the holes line up in the sliding bar.

Remove the pump handle when not in use. It may stick out and could cause injury to passersby.

6. Remove the fender, the cab jack, the air cleaner stack and the bonnet, and set aside for reinstallation *(see Figure 1).*

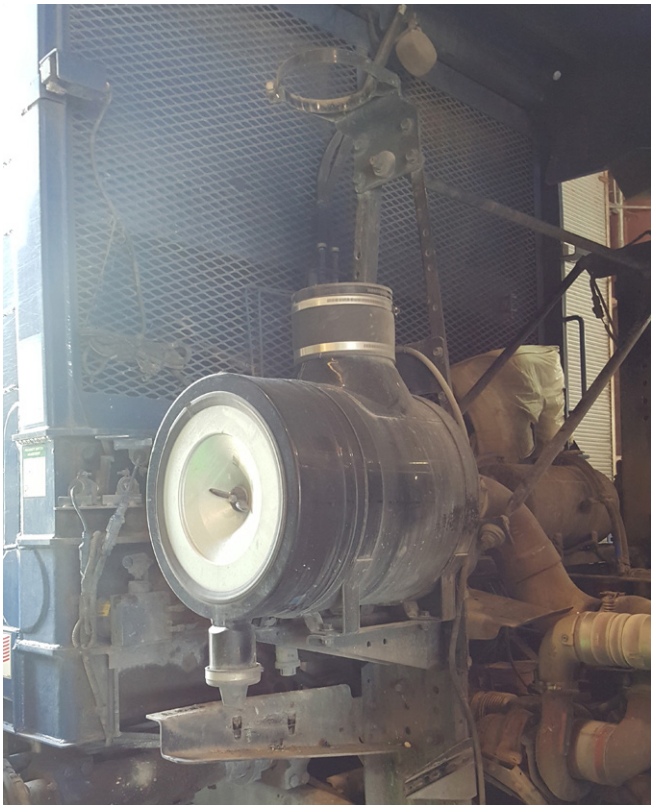

Figure 1

7. Remove the air cleaner intake pipe and discard *(see Figure 2)*.
8. Remove the air cleaner assembly and the surge tank vent hose, and set aside for reinstallation *(see Figure 2).*

Figure 2

9. Remove the upper stabilizer bar and discard. Remove the upper intake stack bracket, the retaining bolts for the surge tank remote fill, and the surge tank remote fill bracket and set aside for reinstallation. Loosen the jam nuts on the diagonal stabilizer bar. Remove the nut/ washer/bushing from the bottom of the diagonal stabilizer bars and set aside for reinstallation. Remove the bolts securing the lower stabilizer bracket (these bolts also secure both angle uprights) and remove the 2 stabilizer brackets and discard.

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10. Remove the 2 angle uprights and set aside for reinstallation *(see Figure 3).*

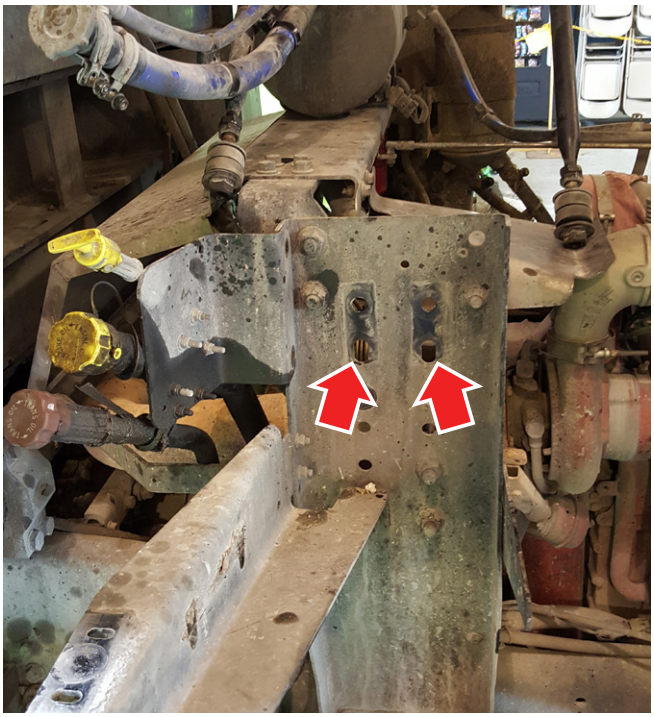

Figure 3

11. Remove the air cleaner mounting brackets and the turbo heat shield and discard *(see Figure 4).*
12. The static fill pipe will need upper mounting bolt removed and lower bolt loosened to gain access with wrench on inside of bracket.

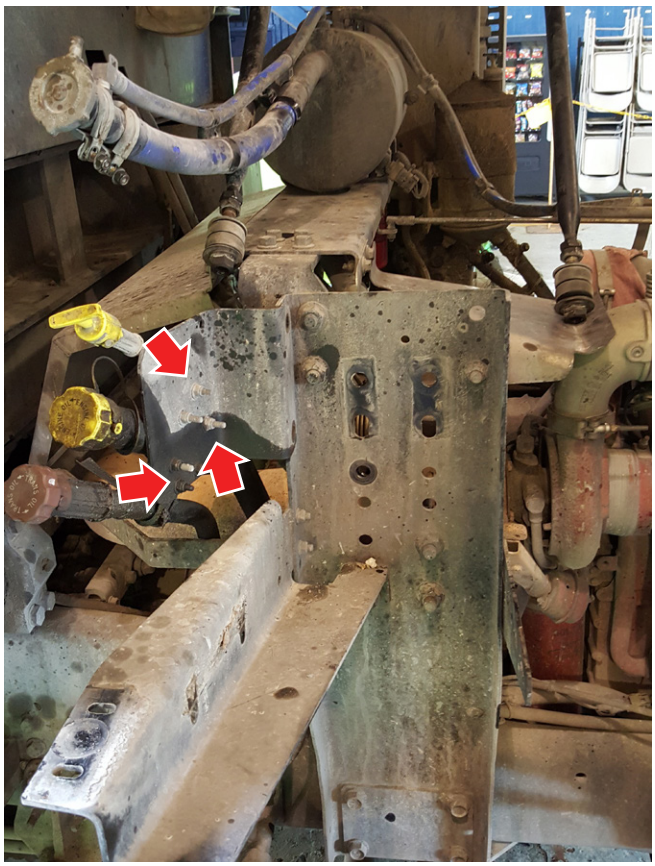

Figure 4

13. Reinstall the upright bracket onto the inside of the main support, and install center bolts and hand tighten. Install the new forward air cleaner support bracket (A2240115-002) and, at the same time, install the new heat shield (A5300175-001) on the inside of the main support *(see Figure 5).*

Figure 5

14. Remove the upper rear shelf bolt and replace it with the new bolt and nut from the fasteners kit (S4360007K001). Remove the lower bolt and replace it with the new bolt from the kit. Install the new rear air cleaner support bracket (A2240115-001) and hand tighten the nuts. Tighten the 2 center bolts to 200 +/- 10% ft lb of torque. Snug the outer bolts.
15. Install the new fuel filter bracket (A4360138-001) and tighten bolts to 23 ft lb of torque. Tighten the front and rear air cleaner bracket bolts to 37 ft lb of torque *(see Figure 6).*

Figure 6

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16. Drain the fuel filter and disconnect the fuel hoses from the fuel filter base on LH side. Remove the fuel filter base and discard. Install the new fuel filter base (A4360138-001) onto the fuel filter bracket *(see Figure 7).*

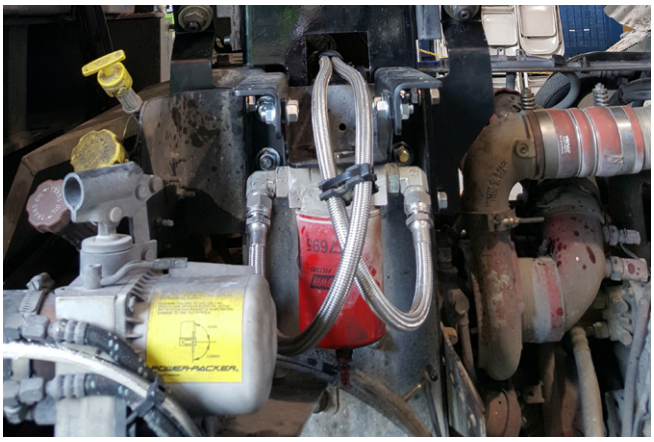

Figure 7

17. From the end of each fuel hose, measure and wrap tape at 32”. This spot is where a clamp is installed at a later step *(see Figure 8).*

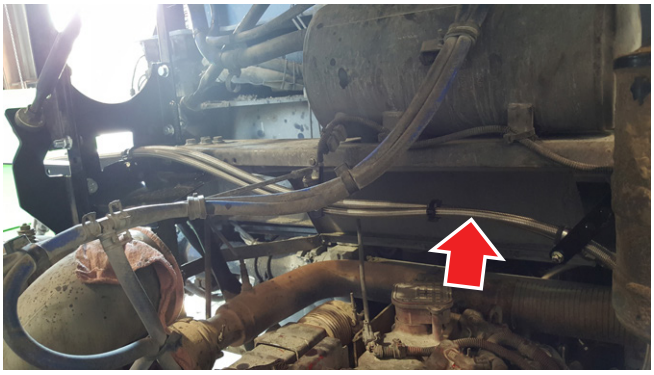

Figure 8

18. Install the new union (GZ200078-005) into the short hose and pass it through the main support.
19. Connect the short hose to the existing fuel hose from the fuel management module with the marked end closest to the filter.
20. Pass the long hose through the main support with the marked end closest to the filter, and connect it to the engine. Tighten both hoses.
21. Remove the upper inside power steering reservoir bolt and set aside for reinstallation.
22. Install the new 4-hole straight bracket (GZ220009-005) and reinstall the upper inside power steering reservoir bolt, and hand tighten.
23. Install the new 2-hole straight bracket (GZ220009-001) on the existing coolant line rod bracket bolt.
24. Loosen the fittings on the filter base and rotate out.
25. Connect the hoses and hand tighten, noting the direction of the flow.
26. Install the new dual P-clamp (3083125), at the tape, on both hoses and bolt it to the main support.
27. Install the new dual P-clamp (3083125) onto the 2-hole bracket (GZ220009-001).

28. Install the new single P-clamp (3082665) onto the 4-hole bracket (GZ220009-005) at the power steering reservoir. Tighten the fittings and hoses at the filter *(see Figure 9)*.

Figure 9

29. Reinstall the uprights and fill hose bracket that were removed in step 7.

30. Install the new upper cross support bracket (A2220194-001) and the new filter stack bracket (A2220203-002) and tighten to 100 ft lb of torque. Install the cross brace upper support (A2360262-001). Install the new lower stabilizer brackets (A2360266-004/A2360266-003) and adjust the bushing preload on all 3 stabilizers *(see Figure 10).*

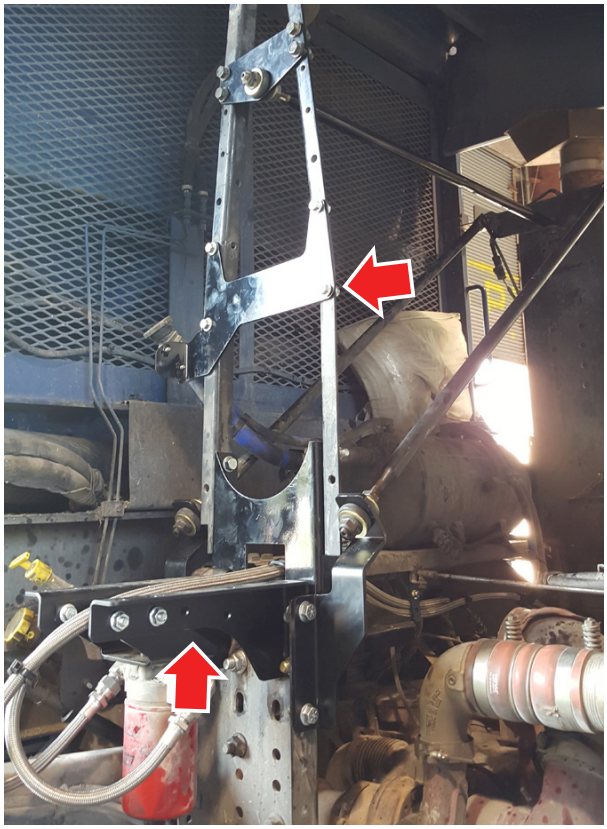

Figure 10

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31. Remove the fill neck from the large and small hoses. Cut 2.5” from each hose and reinstall to the fill neck. Bolt the neck to the upright bracket using existing hardware *(see Figure 11).*

Note: New coolant hoses are supplied and can be used in place of cutting the existing as set forth in Step 31.

Figure 11

32. Loosen the air cleaner brackets to facilitate in reassembly and reinstall the air cleaner assembly.

33. Install the new intake pipe (A2230580-001) and reinstall the air cleaner stackk, bonnet, cab jack and fender that were removed in step 6 *(see Figure 12).*

Figure 12

34. Reinstall the previously captured engine coolant. Refer to the engine manufacturer's instructions for complete cooling system fill procedure and information.
35. Pressure test the cooling system to 16 psi.
36. Operate the unit to verify the installation and inspect for any leaks.
37.. Reinstall cab jack and fender that were removed in step 3.
38. Lower the cab.
39. Procedure is complete.

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