

1 809-12



Service Information Bulletin

Table 1.

SUBJECT	DATE
Removal and Installation of the GHG14 1-BOX™ From the Vehicle	August 2012

Additions, Revisions, or Updates

Table 2.

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0083	GHG14 DD Platform	Removal of the GHG14 1-BOX™ From the Vehicle	New information for GHG14 systems.
		Installation of the GHG14 1-BOX™ From the Vehicle	



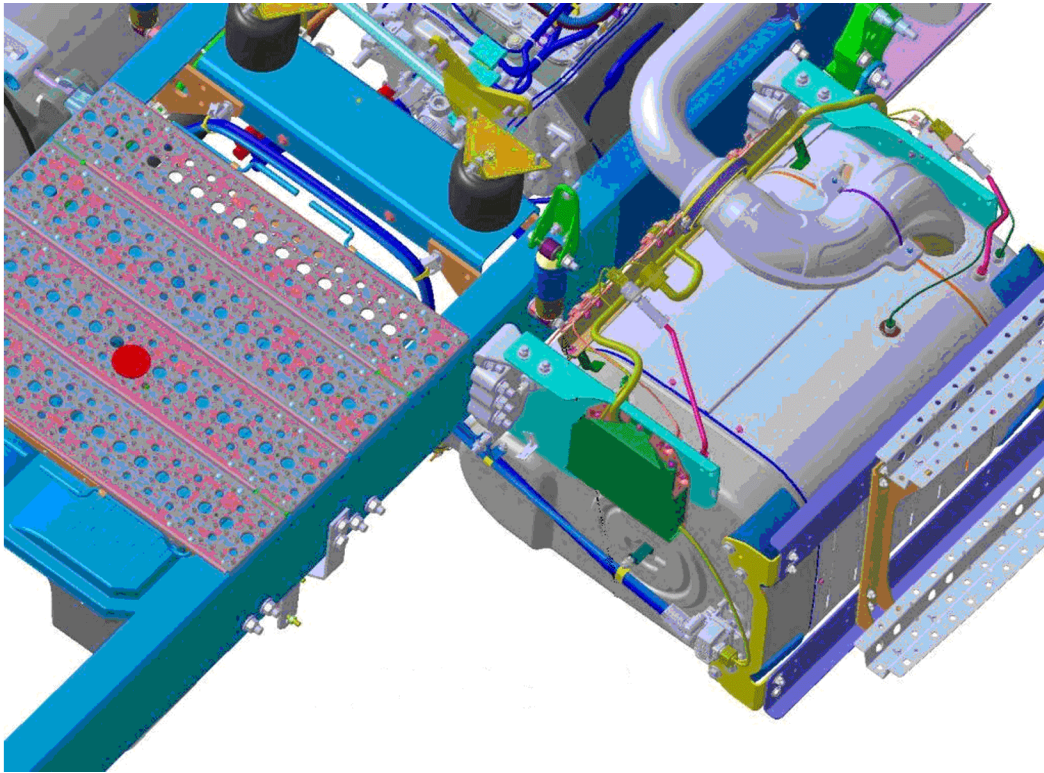
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 Telephone: 313-592-5000
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2 Removal of the GHG14 1-BOX™ From the Vehicle

Remove as follows:

NOTICE: To prevent Diesel Exhaust Fluid (DEF) flow issues, take note of the routing of the DEF lines. If removed, they **MUST** be installed according to the manufacturer's specifications to avoid DEF flow issues and leaks.

NOTICE: Wait at least five minutes after shutting down the engine to disconnect the DEF lines.

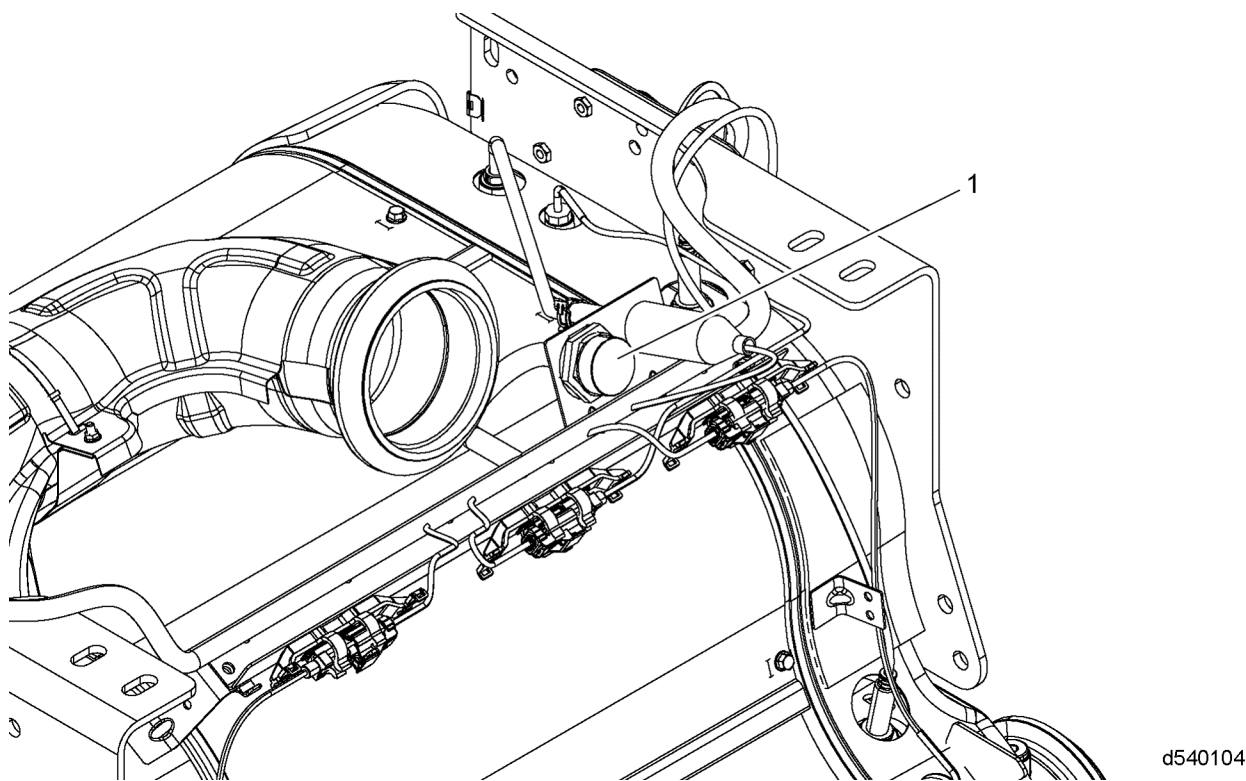


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1. Shut off engine and apply the parking brake, chock the wheels, and perform any other applicable safety steps.
2. Disconnect the batteries.
3. Remove the vehicle steps and fairing if applicable. Refer to OEM procedures.

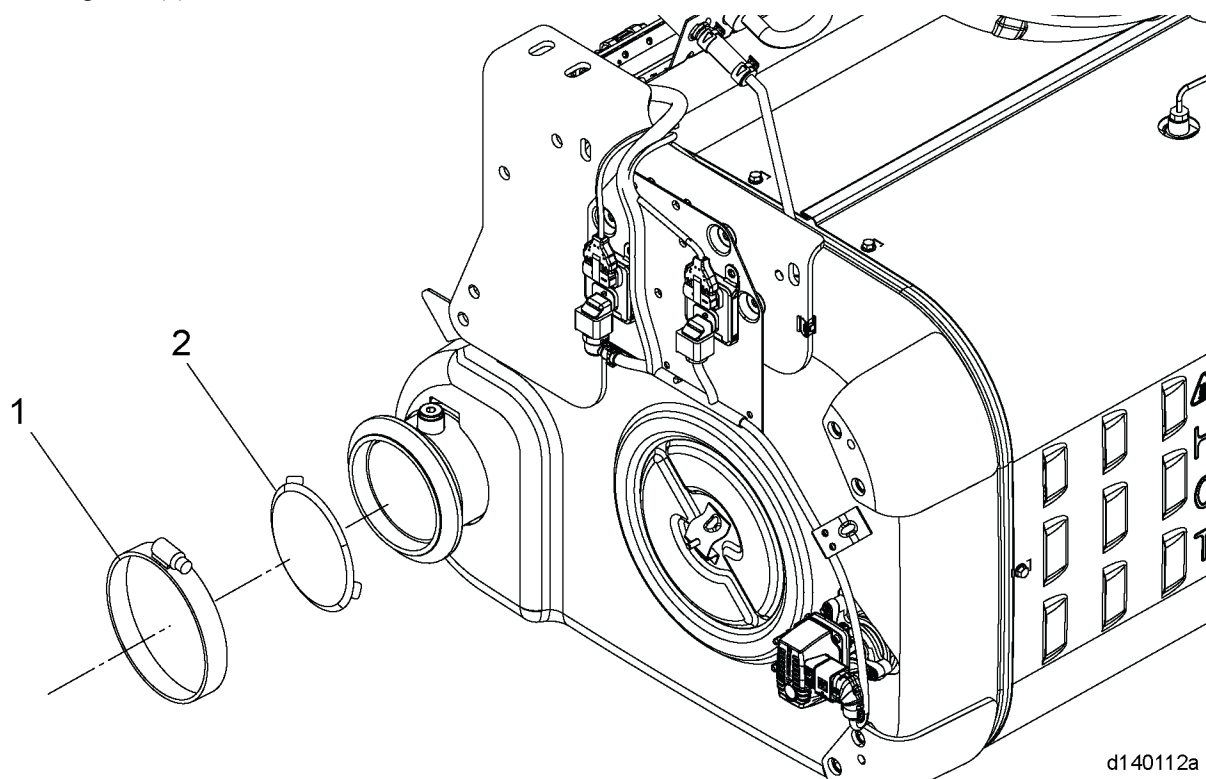
NOTE: The exhaust clamps are directional. Record the location of the clamps for reinstallation.

4. Disconnect the exhaust system inlet pipe by loosening the clamp and relocating the inlet pipe away from work area. Discard the gasket.
5. Disconnect the 47-pin electrical connector harness (1) from the sensor bridge.



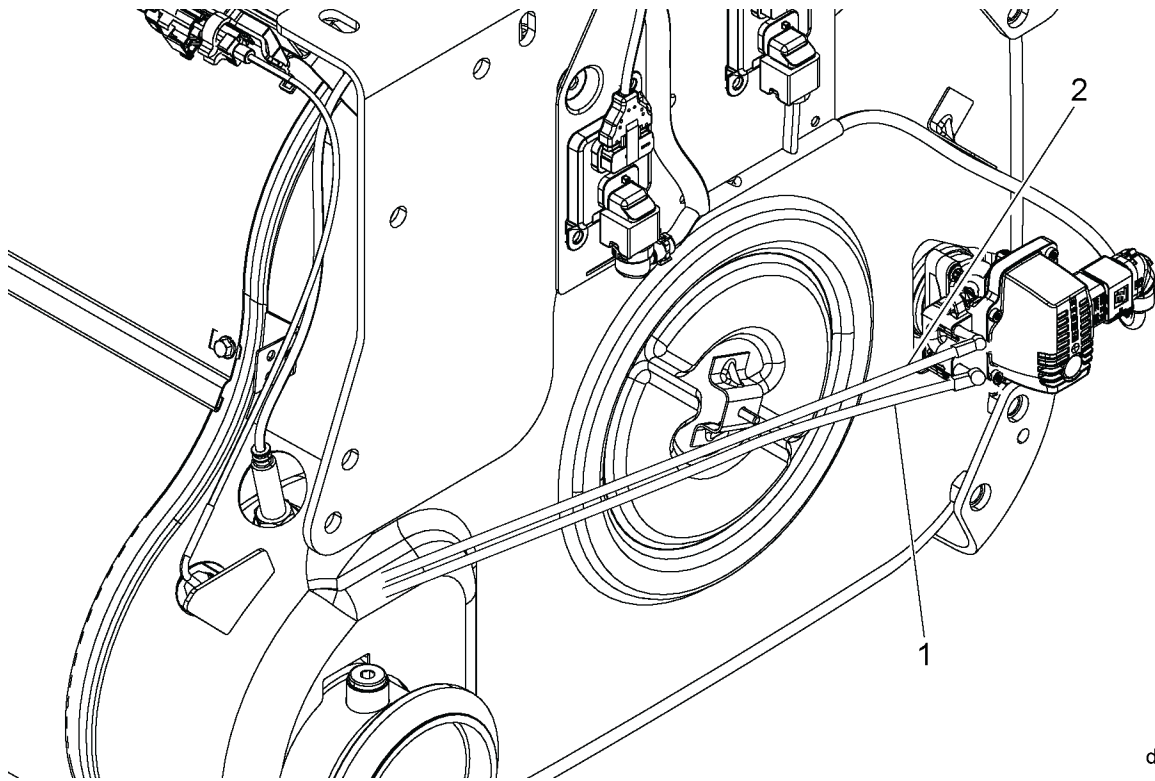
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6. Disconnect the exhaust system outlet pipe by loosening the clamp and relocating the outlet pipe away from work area. Discard the gasket (1).



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7. Disconnect the DEF supply (2) and return line (1) from the DEF Doser unit.



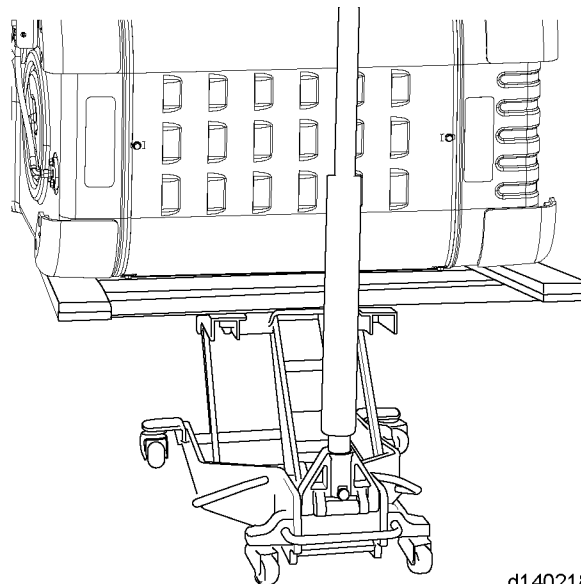
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WARNING: PERSONAL INJURY

To avoid injury when removing or installing a heavy engine component, ensure the component is properly supported and securely attached to an adequate lifting device to prevent the component from falling.

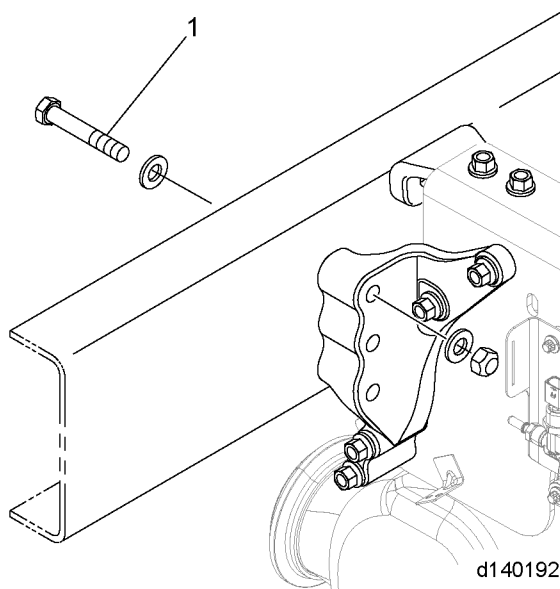
8. Using the ATD lifting device W060589001900 along with the EPA07 lifting jack TLZ-00785, lightly position the lifting device under the 1-BOX™ so that the lifting bars are under the outer tanks without enough force to lift the 1-BOX™ or the vehicle. Attach the safety strap to the lifting device.



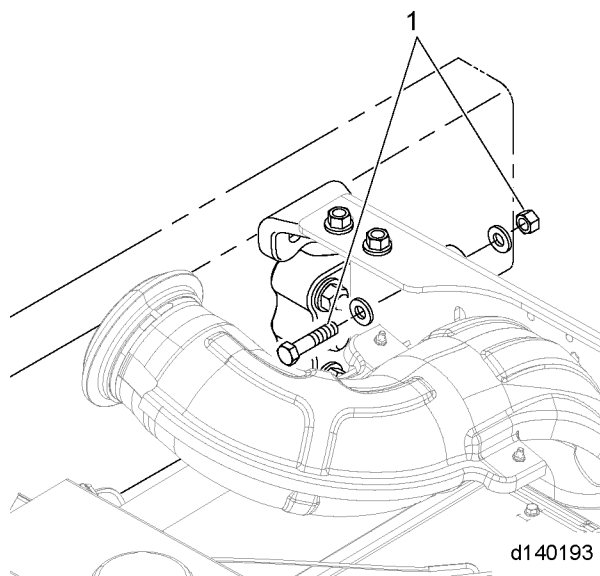
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NOTICE: The front mounting bracket and the two upper mounting brackets **MUST** stay attached to the frame; failure to do so can result in damage to the 1-BOX™.

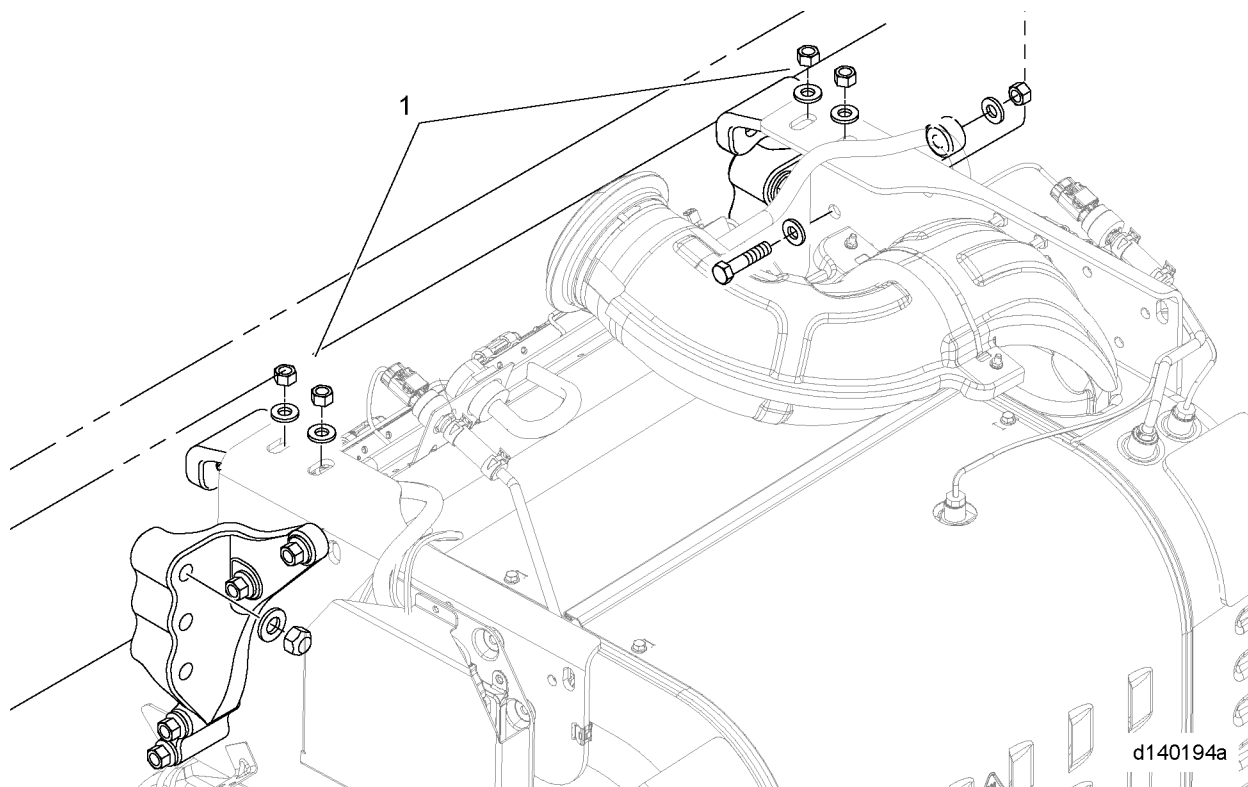
9. Remove the three bolts (1) and nuts attaching the 1-BOX™ rear mounting bracket to the vehicle frame rail.



10. Remove the four bolts and nuts (1) attaching the 1-BOX™ to the front mounting bracket. **DO NOT** remove the three bolts attaching the front mounting bracket to the frame.



11. Remove the four top mounting bolts and nuts (1) attaching the 1-BOX™ to the upper mounting brackets. **DO NOT** remove the four bolts attaching the top mounting brackets to the frame.



12. Using tool W060589001900, carefully lower the 1-BOX™ away from the vehicle ensuring that all exhaust, air, and electrical harness connections have been disconnected and that the 1-BOX™ is free from the vehicle.

3 Installation of the GHG14 1-BOX™ to the Vehicle

Install as follows:

If the 1-BOX™ is being replaced with a new 1-BOX™, perform the following. If not, Go to step 3.

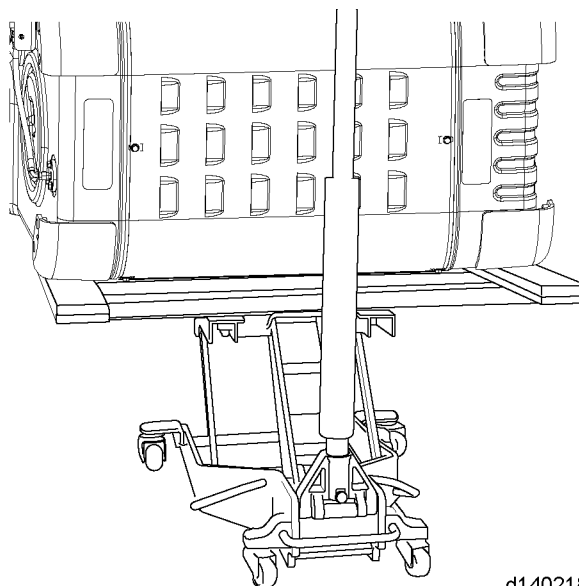
1. Transfer rear mounting bracket over to the new Aftertreatment Device (ATD) and hand tighten the bolts.
2. Transfer all parts over to new ATD.
 - ATS Harness Bridge and Harness
 - Front Sensor Bracket
 - Temperature, Pressure and NOx Sensors
 - Diesel Exhaust Fluid Dosing Unit
 - ECU Bracket and Cover
 - Diesel Particulate Filters
 - Pressure Sensor Tubes
 - 1-BOX™ Heat Shields



WARNING: PERSONAL INJURY

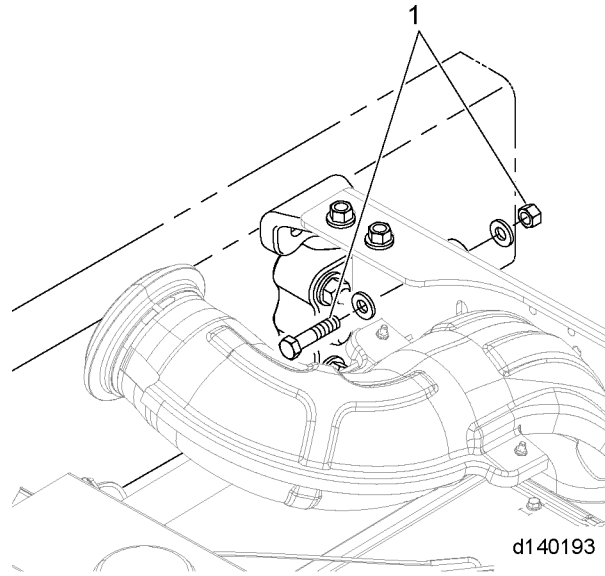
To avoid injury when removing or installing a heavy engine component, ensure the component is properly supported and securely attached to an adequate lifting device to prevent the component from falling.

3. Using ATD lifting device W060589001900, carefully raise the 1-BOX™ to the vehicle frame and align the 1-BOX™ mounting brackets to the holes in the vehicle frame.

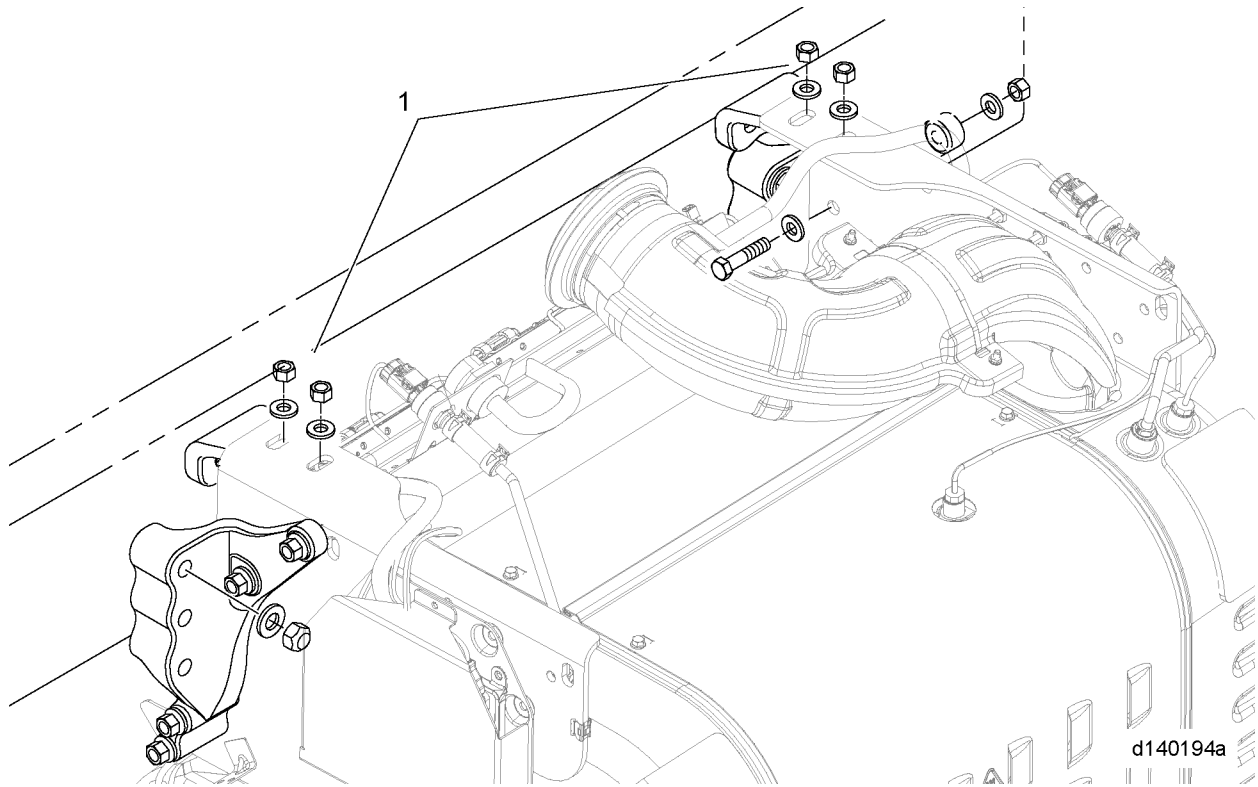


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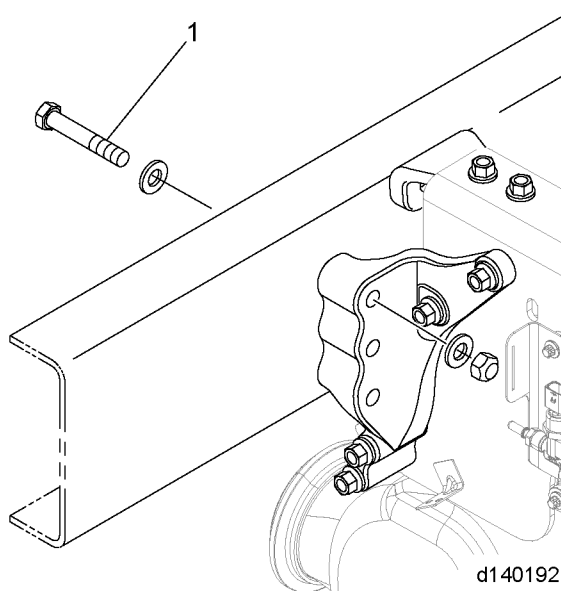
4. Install the four bolts and nuts (1) on the front mounting bracket, attaching the 1-BOX™ to the front mounting bracket. Hand-tighten the bolts.



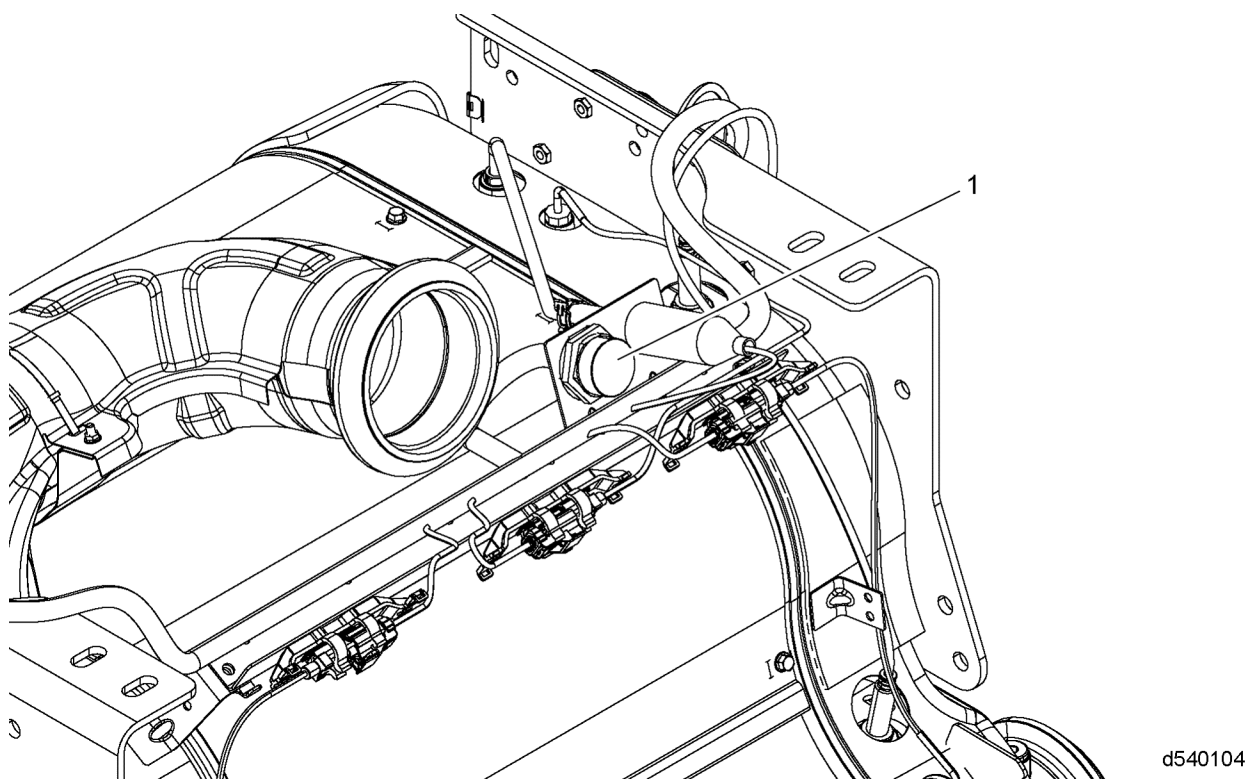
5. Install the four bolts and nuts (1) attaching the 1-BOX™ to the top mounting brackets and hand-tighten.



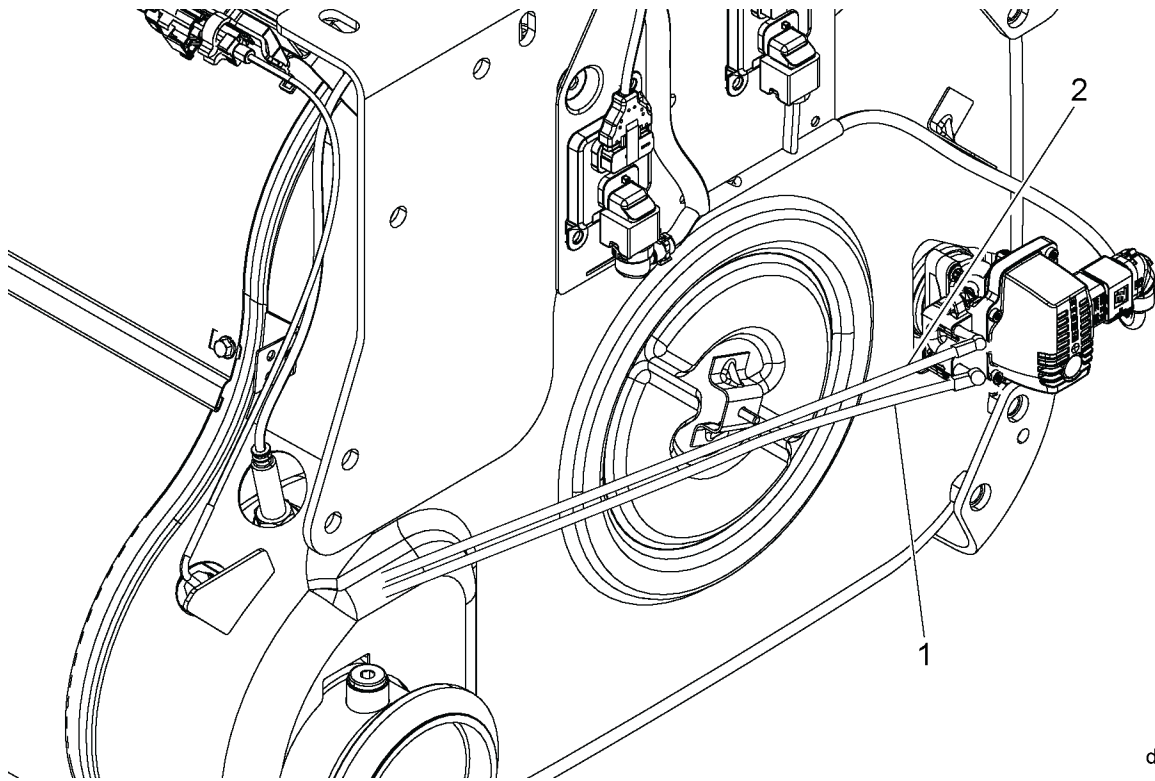
6. Install the three bolts (1) and nuts attaching the rear mounting bracket to the vehicle frame. Torque to 134-169 N·m (99-125 lb·ft).



7. Torque the front side mounting bracket bolts and nuts to 134-135 N·m (99-100 lb·ft).
8. Torque the top mounting bracket bolts to the 1-BOX™ to 64-88 N·m (47-65 lb·ft).
9. Install the 47-pin electrical harness connector (1) to the sensor bridge.

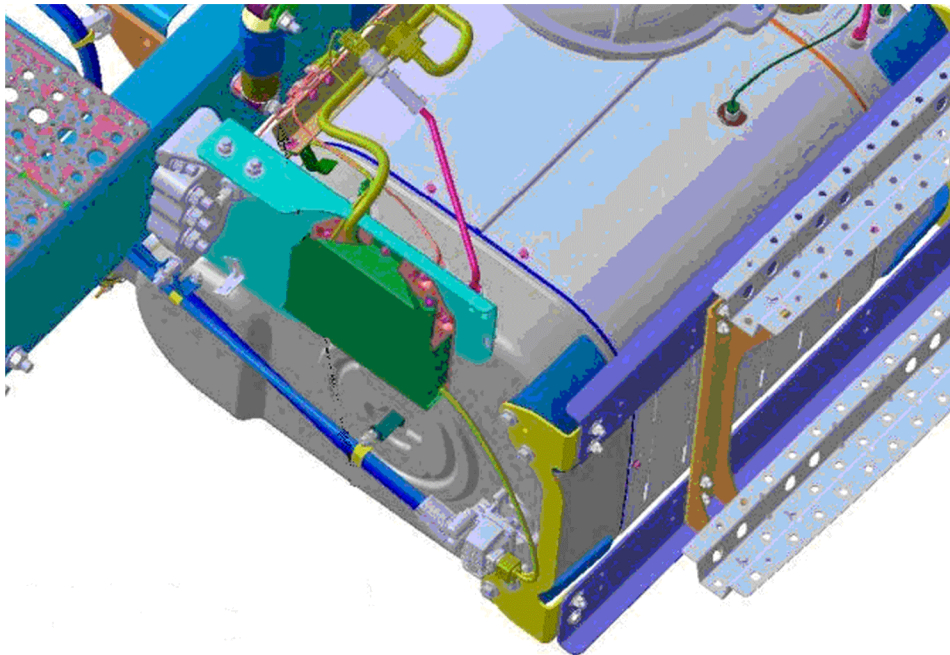


10. Connect the electrical harness connectors to the DEF dosing unit.
11. Connect the DEF feed line (2) and return lines (1) to the DEF dosing unit and to the mounting clips on the 1-BOX™.



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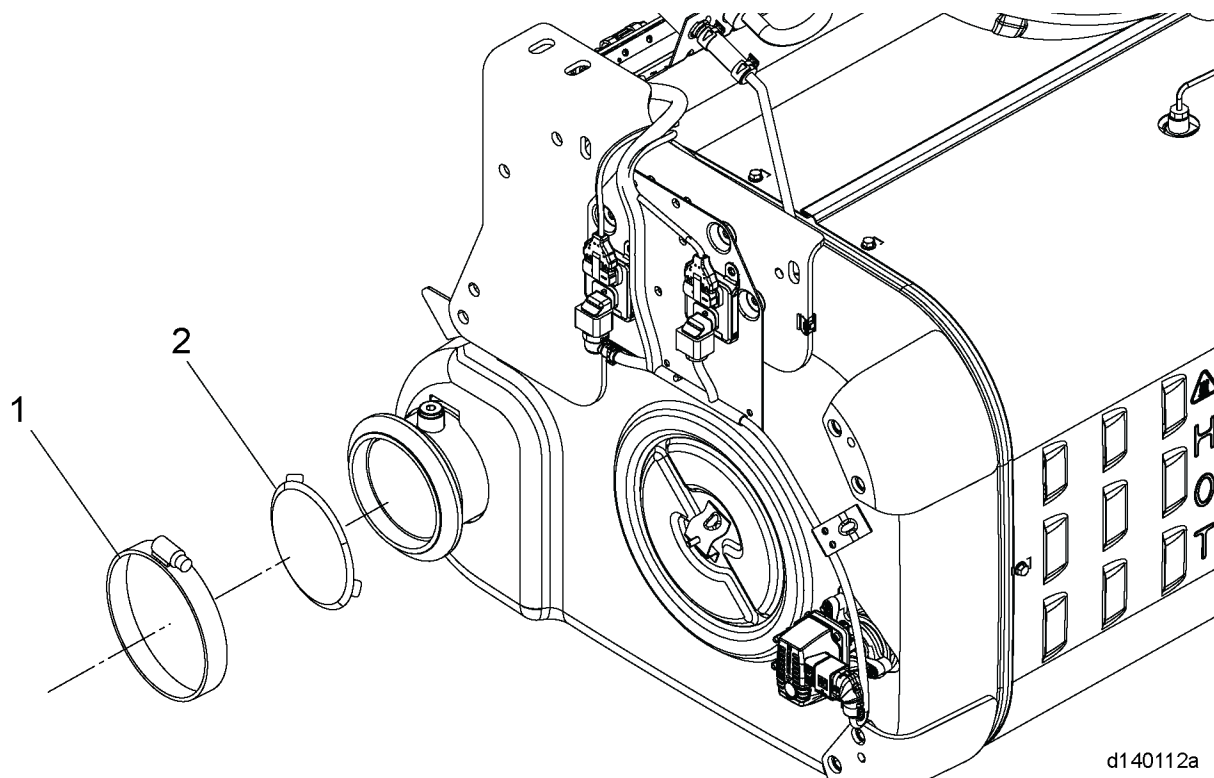
12. Ensure that the DEF feed and return line is routed correctly under the frame rail of the vehicle and is connected to the tabs on the 1-BOX™.



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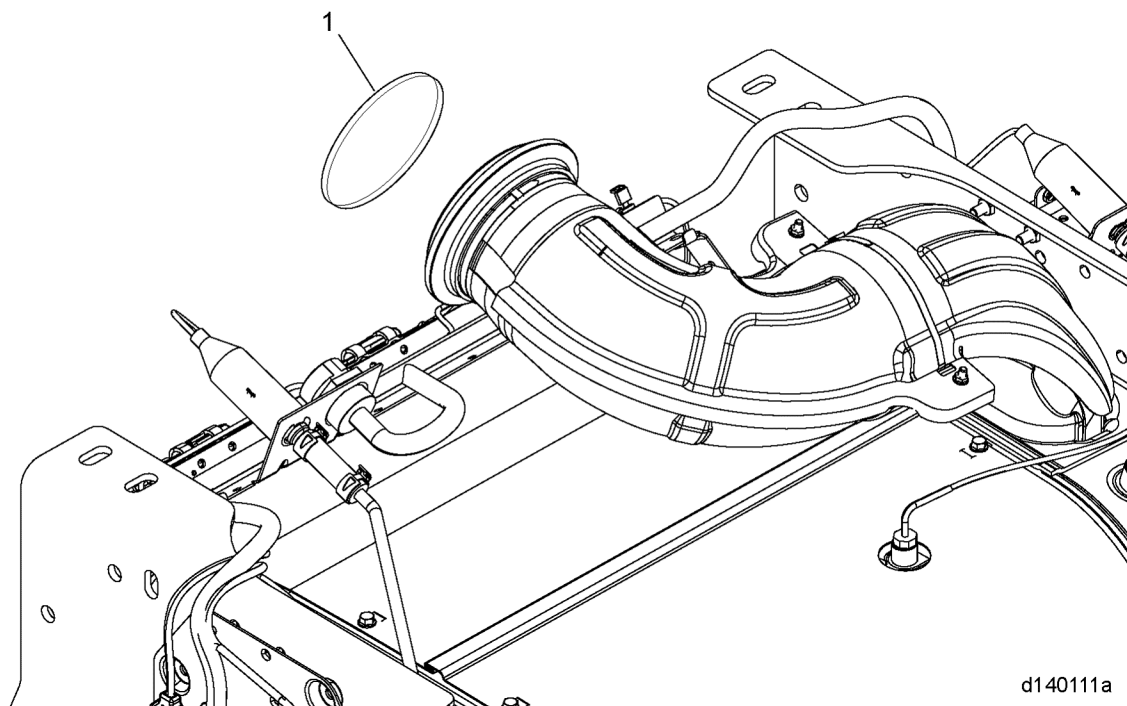
NOTE: The exhaust system outlet pipe clamps are directional; verify correct installation.

13. Install a new gasket (1) onto the 1-BOX™ exhaust outlet and then connect the exhaust system outlet pipe by installing the clamp. Torque to 9-10 N·m (79-88 lb·in.).



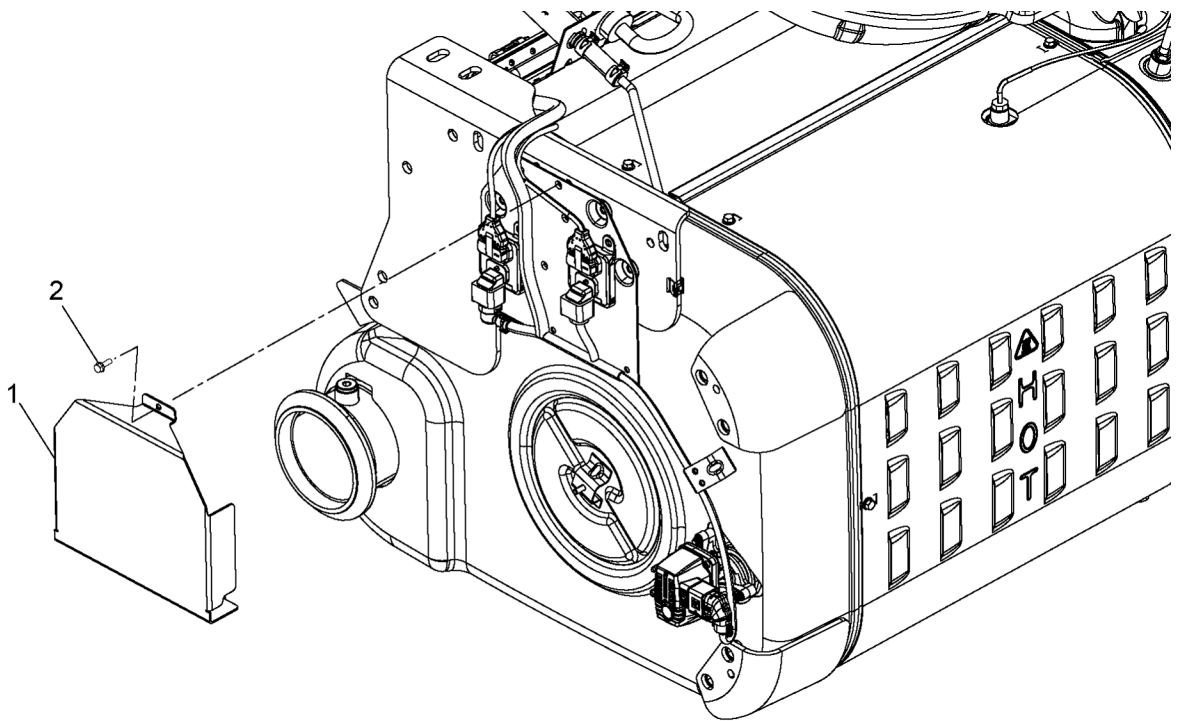
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14. Install a new gasket (1) onto the 1-BOX™ exhaust inlet and then connect the exhaust system inlet pipe by installing the clamp. Torque to 9-10 N·m (79-88 lb·in.).



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15. Install the ECU unit cover (1) and torque bolt 9-10 N·m (7 lb·in.).



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16. Connect the batteries.
17. Check all exhaust and electrical harness connections.