



advanced FLOW engineering BladeRunner – Cold Side Charge Pipe Kit

**Instruction Manual** P/N: 46-20449-B

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Make: <b>GMC</b>	Model: <b>Sierra 2500</b>	Year: <b>20-23</b>	Engine: <b>V8-6.6L (td)</b>
Make: <b>GMC</b>	Model: <b>Sierra 3500</b>	Year: <b>20-23</b>	Engine: <b>V8-6.6L (td)</b>
Make: <b>Chevrolet</b>	Model: <b>Silverado 2500</b>	Year: <b>20-23</b>	Engine: <b>V8-6.6L (td)</b>
Make: <b>Chevrolet</b>	Model: <b>Silverado 3500</b>	Year: <b>20-23</b>	Engine: <b>V8-6.6L (td)</b>



- Please read the entire instruction manual before proceeding.
- Ensure all components listed are present.
- For technical support please call 951-493-7185.
- Ensure you have all necessary tools before proceeding.
- Do not attempt to work on your vehicle when the engine is hot.
- Retain factory parts for future use.

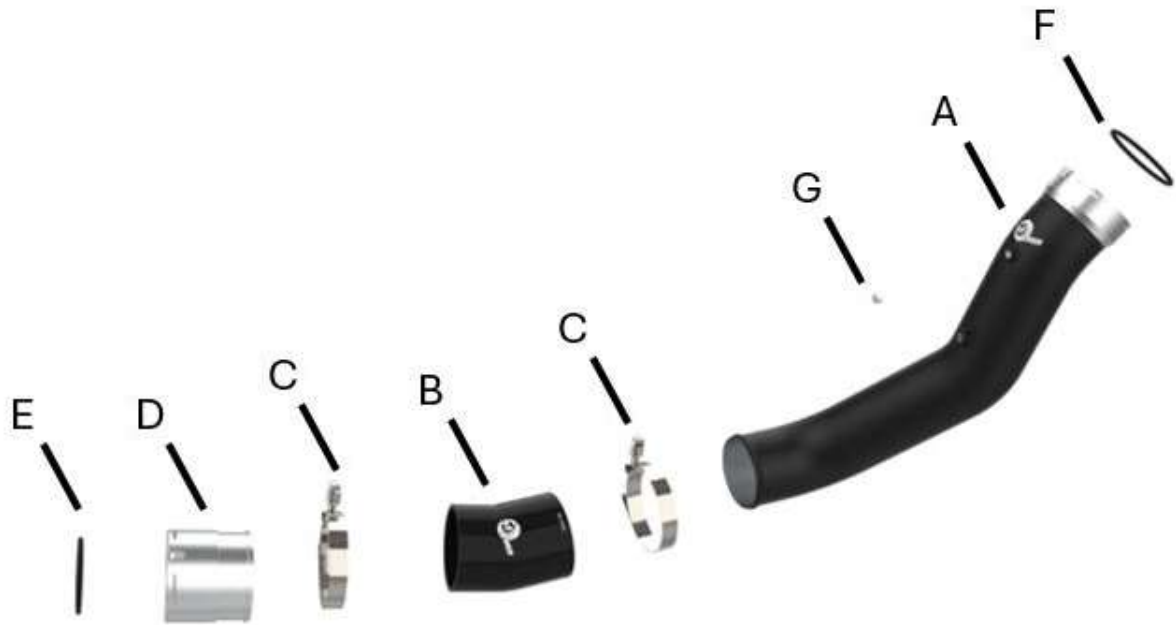
Label	Qty.	UoM	Description	Part Number
A	1	Ea.	Tube, Cold Side: 46-20449-B	05-61140B
B	1	Ea.	Coupling, Silicone Elbow: (3.5" x 3.45") 14 Deg	05-61142
C	2	Ea.	Clamp, Spring Loaded T-Bolt: 3.75" - 4" Dia	05-60024
D	1	Ea.	Adaptor; Inlet: 05-61140	05-61141
E	1	Ea.	O-Ring, 70mm ID x 5mm W	05-61151
F	1	Ea.	O-Ring, 80m ID x 5mm W	05-61136
G	1	Ea.	Plug, Hex Hd Socket: 1/8" NPT (Zn Plt)	03-50029

**Installation will require the following tools:**

7mm, 8mm, 10mm sockets, 7/16 socket, 3/16" allen wrench, 24" extension, ratchet, pick, & thread sealant

Warranty Information available at <https://afepower.com/contact#warranty>

**Emissions Disclaimer:** This product is not currently CARB exempt and is not available for purchase in California or for use on any vehicle registered with the California Department of Motor Vehicles.





**Figure A**

**Refer to Figure A for Steps 1- 5**

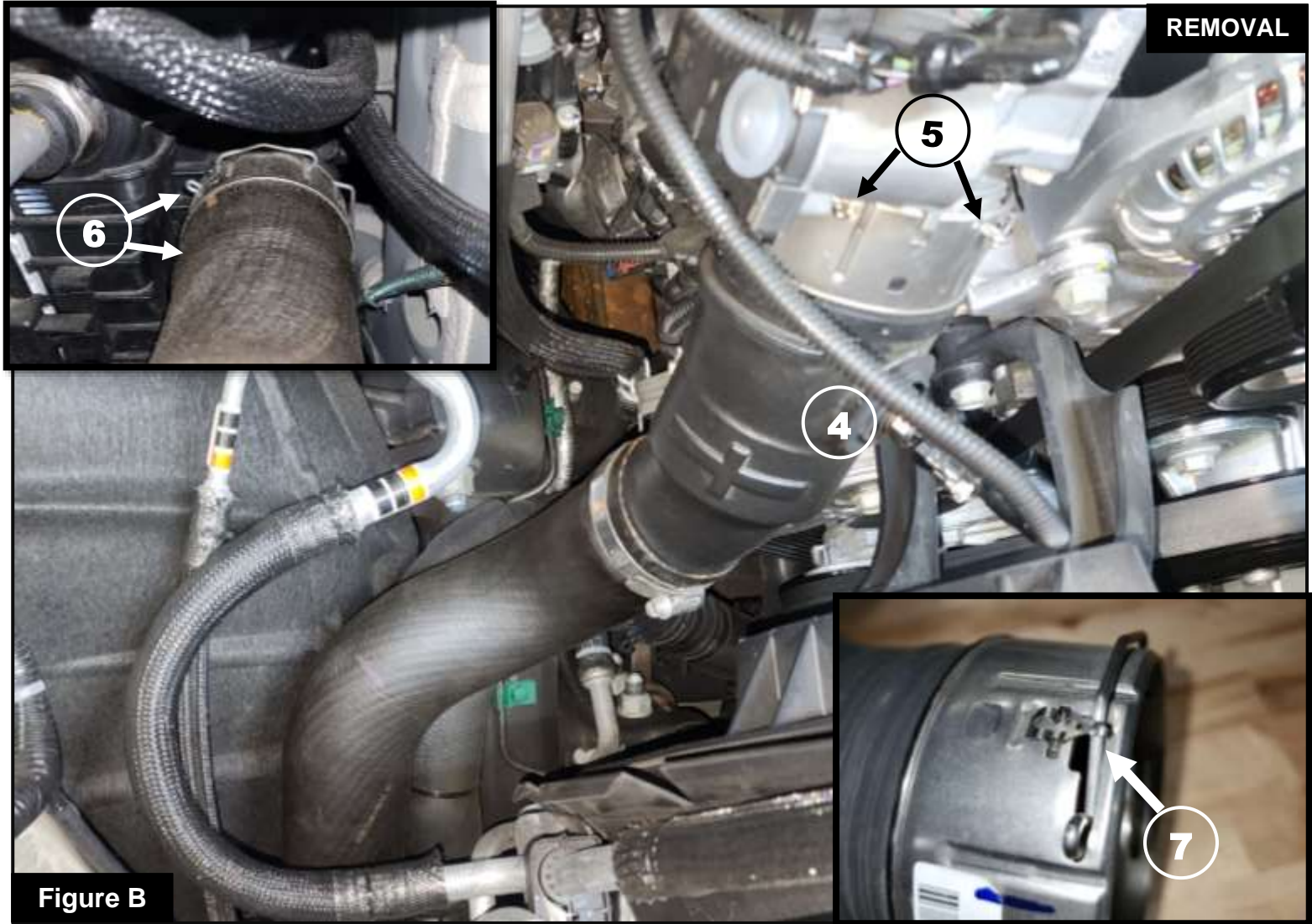
Step 1: Park the vehicle on level ground and engage the parking brake.

Step 2: Disconnect the negative battery cable.

Step 3: Release the safety clip, by sliding it back, then disconnect the electrical connection for the Mass Air Flow Sensor (MAF) on the air intake tube ①

Step 4: Loosen the two clamps securing the intake tube to the turbo inlet and the intake air box, then remove the intake tube from the vehicle ②

Step 5: Remove the nut securing the intake air box to the vehicle, then lift upwards to release the air box from the rubber grommets and remove it from the vehicle ③



**Figure B**

**Refer to Figure B for Steps 6-9**

- Step 6: Release the safety clip, by sliding it back, then disconnect the electrical connection for the intake air temperature sensor on the cold side charge pipe (4)
- Step 7: Expand the retaining clip securing the cold side charge pipe onto the engine inlet, then disconnect it from the engine (5)
- Step 8: Expand the retaining clip securing the cold side charge pipe onto the intercooler outlet (6) then remove the cold side charge pipe from the vehicle.
- Step 9: Remove the factory retaining clips from the cold side charge pipe (7) Do this by gently lifting the tabs up on each side and sliding the clips out of the slots, set aside for later use.

**Figure C****Refer to Figure C for Steps 10-13**

Step 10: Transfer the intake air temperature sensor from the factory cold side charge pipe into the fitting closest to the aFe POWER logo on the cold side charge pipe ⑧

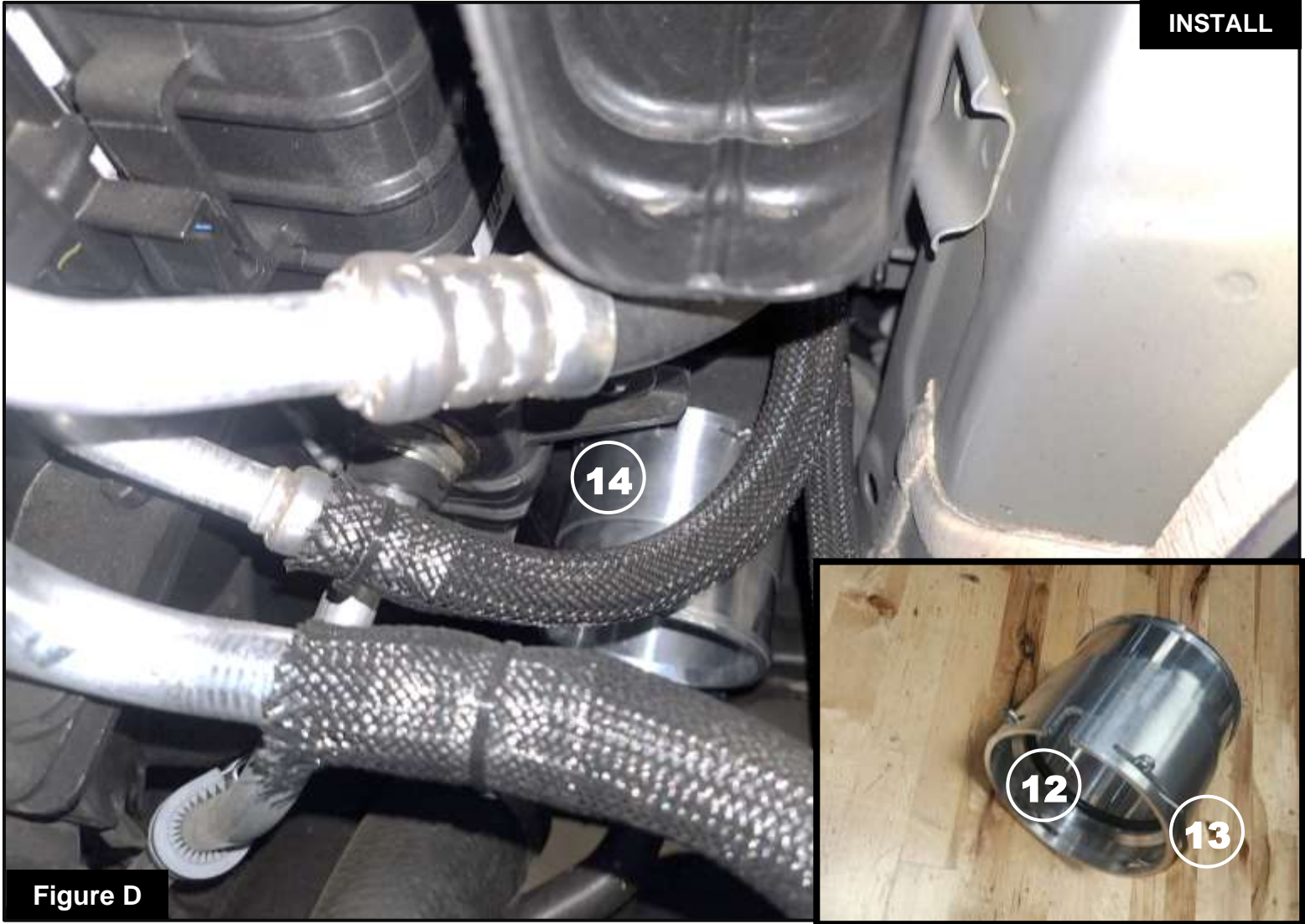
**Note: Be sure to use thread sealant on the plugs or sensors to prevent any leaking.**

Step 11: If you are not using any aftermarket sensors, install the 1/8" NPT plug ⑨ into the threaded fitting on the aFe POWER cold side charge pipe.

**Note: Be sure to lubricate the O-ring with grease to prevent tearing during installation.**

Step 12: Install the 80mm ID x 5mm W O-ring into the groove on the inside of the aFe POWER cold side charge pipe ⑩

Step 13: Install the upper factory retaining clip from Step 9 onto the aFe POWER cold side charge pipe ⑪

**Figure D****Refer to Figure D for Steps 14-17**

***Note: Be sure to lubricate the O-ring with grease to prevent tearing during installation.***

- Step 14: Install the 70mm ID x 5mm W O-ring into the groove on the inside of the aFe POWER quick connect adaptor (12)
- Step 15: Install the lower factory retaining clip from Step 9 onto the aFe POWER quick connect adaptor (13)
- Step 16: Install the aFe POWER quick connect adaptor onto the intercooler outlet, and ensure the retaining clip snaps into place all the way around (14)
- Step 17: Place one of the supplied 3.75"- 4" spring-loaded T-Bolt clamps onto the adaptor from the previous step.

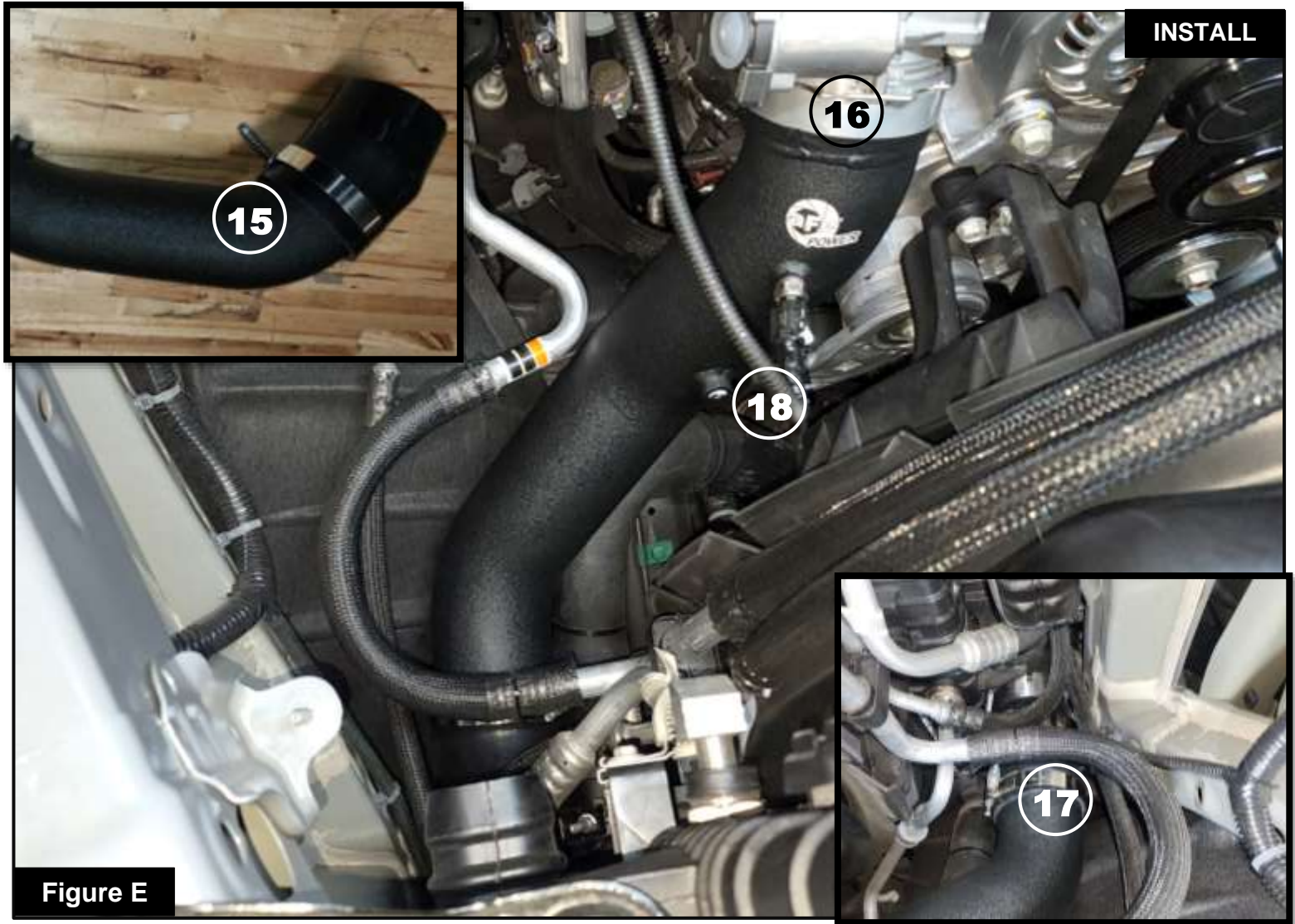


Figure E

**Refer to Figure E for Steps 18-21**

- Step 18: Install the supplied aFe silicone elbow coupling, 3.50" x 3.45" ID x 14 Deg, and one 3.75"- 4" spring-loaded T-Bolt clamp onto the aFe POWER cold side charge pipe (15) do not tighten the clamp yet.
- Step 19: Install the aFe POWER cold side charge pipe into the vehicle by first connecting the charge pipe to the engine inlet (16) then sliding the coupling down to connect it to the quick connect adaptor (17) from Step 16. Do not tighten the clamps yet.
- Step 20: Adjust and ensure the aFe POWER cold side charge pipe is not touching anything, then tighten the clamps. Torque all spring-loaded T-Bolt clamps to 10 Ft-lbs or until spring is completely collapsed.
- Step 21: Reconnect the electrical connection for the intake air temperature sensor on the aFe POWER cold side charge pipe, then lock the safety clip (18)



**Figure F****Refer to Figure F for Steps 22-26**

Step 22: Install the intake air box into the vehicle, then secure it with the factory nut (19). Be sure the bottom mounting pegs go into the factory grommets.

Step 23: Install the air intake tube onto the vehicle, then secure with the factory clamps (20).

Step 24: Reconnect the electrical connection for the MAF sensor, then lock the safety clip (21).

Step 25: Reconnect the negative battery cables.

Step 26: Install is now complete.

**NOTE: Check all clamps, and connectors are secure after 100-200 miles**



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