



# FORD F-150 DOWNPIPES

---

We are extremely excited to introduce the next BIG thing in the AMS engineering and performance tradition, the AMS 3.5L EcoBoost F150 Downpipes.

# Table of Contents

## Introduction

The goal of AMS Performance is to provide the highest quality, best performing products available. By utilizing research & development, and rigorous testing programs, AMS Performance will never compromise the quality or performance of our products. In addition, AMS Performance will only provide the finest customer service; offering only parts and advice that are in the best interest of the customer. AMS Performance was built on a foundation of integrity. This is who we are; this is what you can count on.

A vehicle modified by the use of performance parts may not meet the legal requirements for use on public roads. Federal and state laws prohibit the removal, modification, or rendering inoperative of any part or element of design affecting emissions or safety on motor vehicles used for transporting persons or property on public streets or highways. Use or installation of performance parts may adversely affect the drivability and reliability of your vehicle, and may also affect or eliminate your insurance coverage, factory warranty, and/or new OEM part warranty. Performance parts are sold as-is without any warranty of any type. There is no warranty stated or implied due to the stresses placed on your vehicle by performance parts and our inability to monitor their use, tuning, or modification.

These instructions are provided as a guide only, as there are many variables that cannot be accounted for concerning your particular vehicle; including, but not limited to, model year differences, model differences, the presence of non-OEM parts, and modifications that may already be or, were previously installed. A basic knowledge of automotive parts and systems is helpful but a better understanding of the parts and systems on your particular vehicle may be required.

If you have any questions or issues at any time during the installation of your AMS Performance product(s), please call us for technical assistance. The AMS Performance tech line can be reached during business hours at 847-709-0530 for AMS Performance products only.

PAGE **03** Introduction

PAGE **04** Disassembly

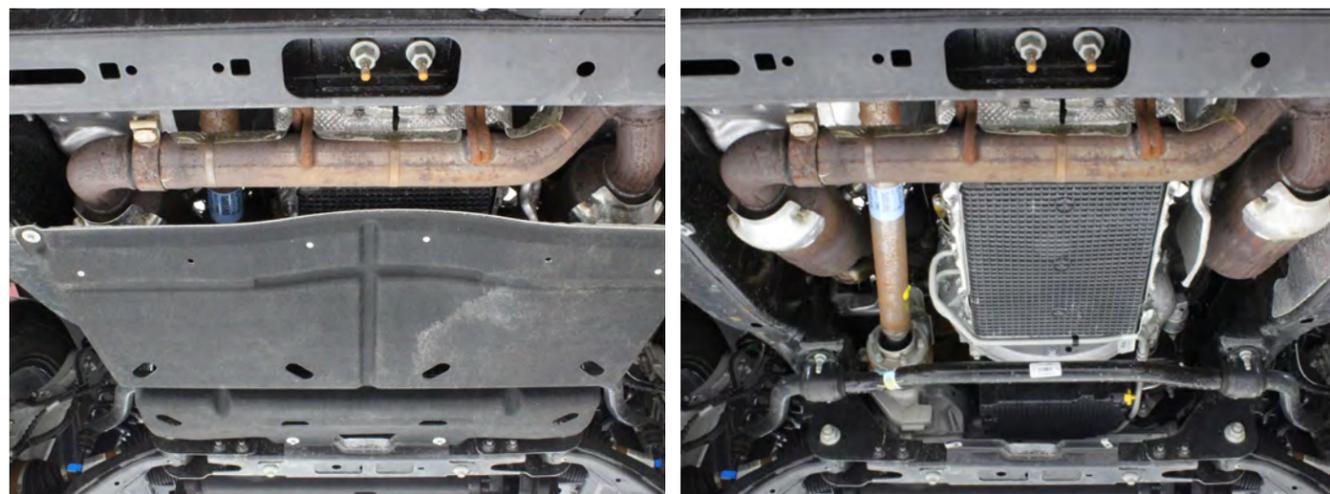
PAGE **11** Assembly & Installation

PAGE **13** Enjoy!

## Disassembly

**TECH TIP:** Before beginning, soak all the exhaust connection hardware in rust penetrant. This will allow time for the penetrant to work in and help with downpipe removal.

**01.** Raise the vehicle in a safe manner. Remove the undertray, if applicable.



**02.** Remove all four A/F and O2 sensors. You can leave the sensors harnesses connected and spin the sensors out.  
**a.** Do not attempt to remove the OEM downpipe with the sensors in place. Damage to the sensors and harness may occur.



**Note:** There are two ways to remove the OEM downpipe and install the AMS downpipe. The way shown in these instructions is for removing the OEM downpipe as a full assembly without cutting. The other optional way may be faster and easier but requires cutting the OEM downpipe out of the truck. If cutting the downpipe out of the truck is the chosen method, skip steps #3 to #11 and leave the transmission cross member in place.

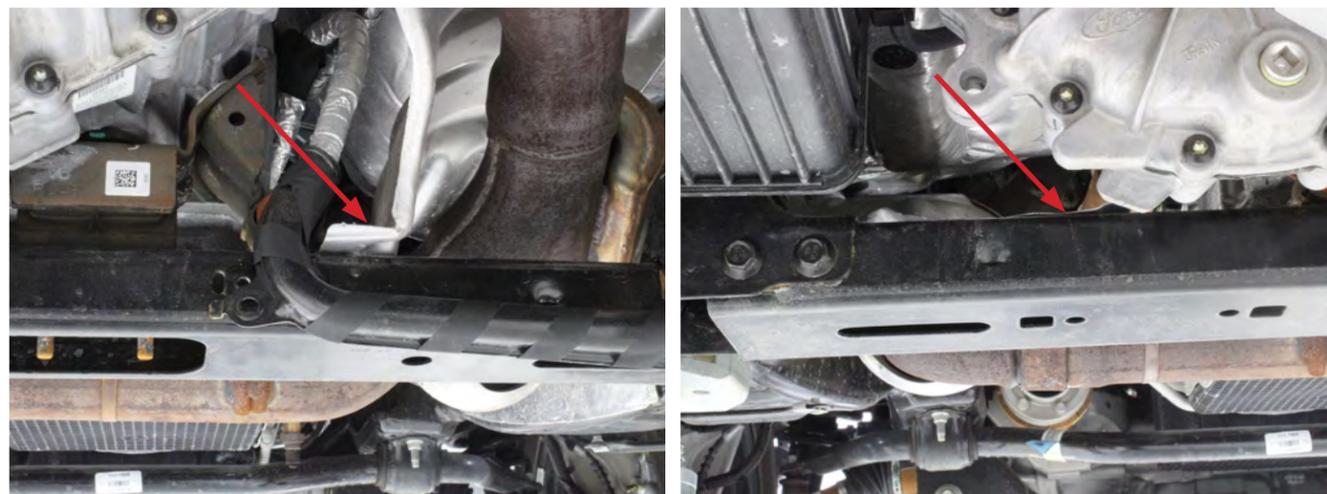
**03.** On the rear side of the transmission cross member, unbolt and unclip the chassis harness.



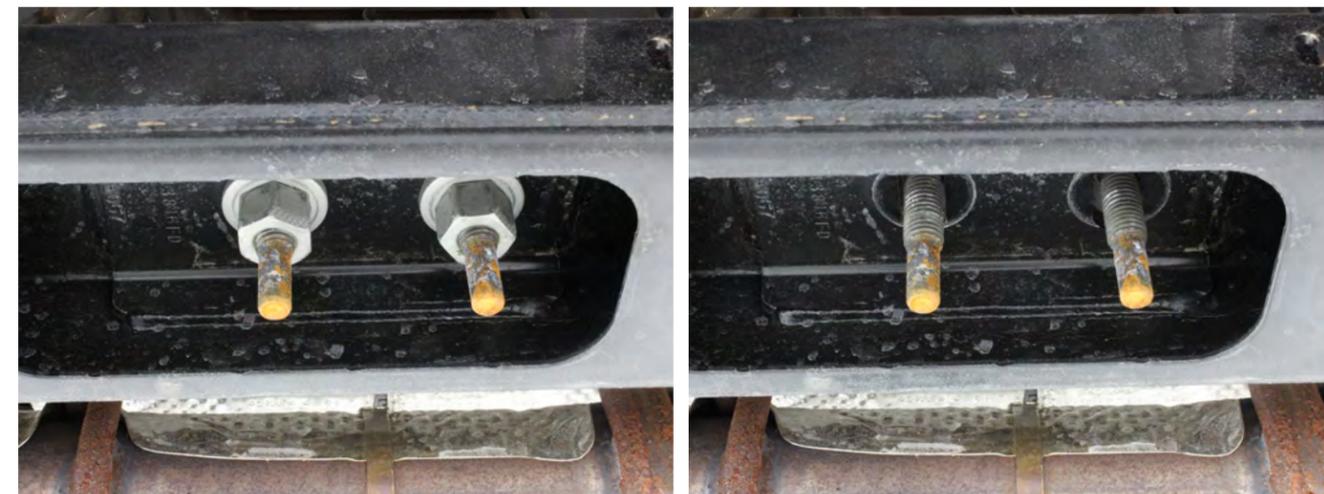
04. Remove the heat shield on the top of the transmission cross member that bolts to the frame.



05. Remove the two bolts holding the heat shields on the top of the transmission cross member. There is one on each side of the transmission. These heat shields do not need to be removed, only the bolts.



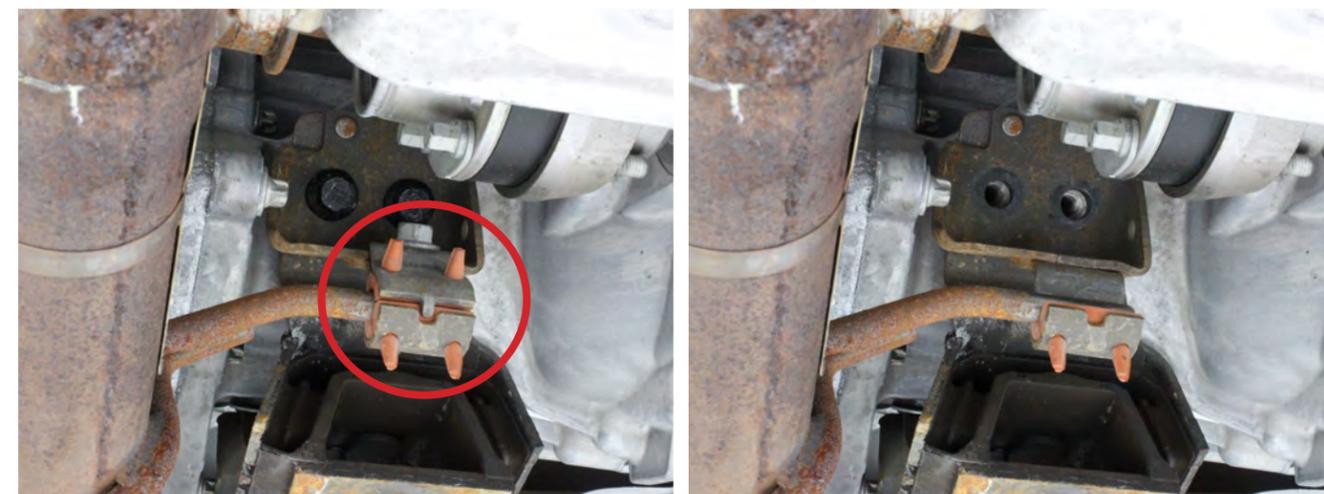
06. Remove the two nuts from the transmission mount.



07. Safely support the weight of the transmission and/or transfer case. Remove the two long bolts on each side of the transmission cross member bolting it to the frame. Remove the transmission cross member from the truck.



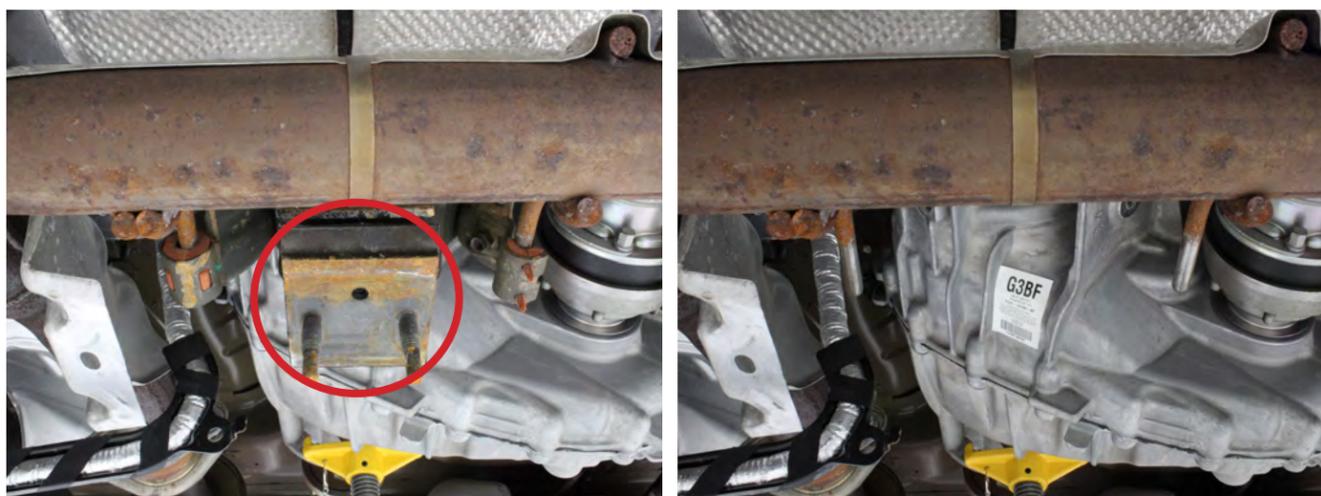
08. Remove the exhaust hanger top clamp and transmission mount bolts on the driver's side.



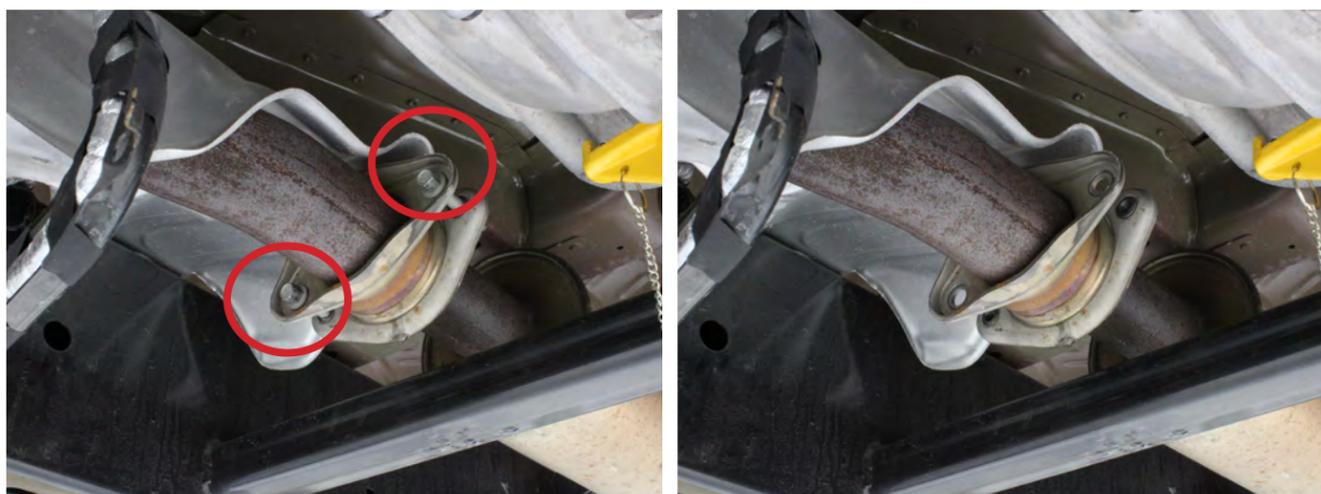
09. Remove the other two bolts from the transmission mount on the passenger side.



10. Remove the transmission mount from the vehicle.



11. Disconnect the two-bolt flange connecting the downpipe to the exhaust. Save these bolts as they will be reused.



12. Disconnect both left and right side two-bolt flanges from the turbine outlet flanges. Save the nuts as they will be reused.



13. Push the exhaust over to the right-side frame rail and hold it there using a strap. Pull the harness disconnected from the transmission cross member in step #3 towards the rear of the truck. You will need to slip the downpipe down and around the harness. Carefully remove the OEM downpipe assembly. It will take a little back and forth to work it out.



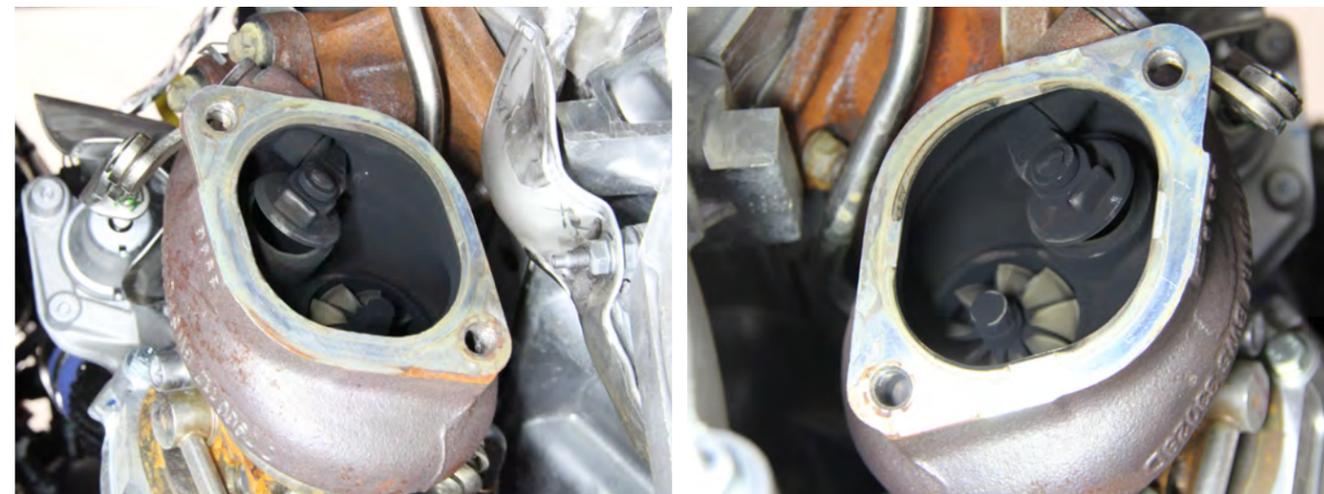
## Turbine Outlet Flange Removal and Installation (Optional)

**Note:** The AMS Turbine Outlet Flanges are designed to work best with the AMS downpipe but are not required for downpipe installation. The outlet flanges allow a smooth transition from the turbine housing into the 3" downpipe.

14. With the downpipe removed, you can now access the turbine housing outlet flanges. The studs shown are holding the flange in place and need to be removed.



15. Use a 10mm or 3/8" stud extractor to remove the stud from the turbine housing outlet flanges. This may take a little heat on the turbine housing to get these studs to move.



16. Make sure the threads of the turbine housing are clean. Inspect the turbine outlet flange gasket, replace as needed. Install the new AMS turbine outlet flanges using new OEM studs. The best way to do this is to put some washers or spacer on the stud then the nut. Use the nut to tighten the stud in place. Remove the nut by shocking it with an impact.

## Downpipe Installation

17. While the downpipe is out, some adjustments to the rear O2 sensor harness needs to be made. Completely unclip the harness from the transmission on the driver's side. Then, on top of the transmission, unclip the passenger side connector from the harness. The connector is zip tied to the harness. There is more harness length on the driver's side. The goal is to pull the harness over to the passenger side give this side more length on the harness.



18. Loosely assemble the AMS downpipe and install it in the truck. If the OEM downpipe was cut to remove, the AMS downpipe will need to be slipped together in the truck piece by piece. Leave the two-bolt connections and clamps loose at this time.

**Note:** If exhaust leaks are a concern or if the OEM turbine outlet flanges are rusty, a layer of high temp exhaust sealant may be applied to the ball seal area of the turbine outlet flanges before installing the downpipe.



19. Reinstall the transmission mount and cross member. Once everything is installed and the downpipe is aligned, tighten the two-bolt flanges first starting with the connection at the turbo. You must be careful to tighten these flanges evenly. Failure to do so may result in exhaust leaks and/or damage to the ball seal and flange. Next tighten the two-bolt flange to exhaust, followed by the band clamps.

**Note:** The collar on the stud will need to pass through the flange of the AMS downpipe. Make sure when tightening the nut, the flange does not get caught between the collar and nut.



20. Reinstall the O2 sensors. The passenger rear sensor will not route through the heat shield as it did with the OEM downpipe. It will now route over the top of the heat shield and around. This was the reason for releasing all the clips on the rear O2 sensor harness in step #17.



21. Make sure tie up any loose harnesses away from heat sources and rotating drivetrain parts.

22. Start the vehicle and check for any exhaust leaks. Adjust as necessary.

23. Enjoy!