FS Performance Engineering
Ford F150 Cat Guard Installation Instructions

<u>**Tools Needed:**</u>
- Ratchet Wrench
- ¼" Socket for Security Bit
- 7/16" Socket
- 15mm Socket
- 13mm Socket
- 25/64" Drill Bit (for the Rivnuts)
- Dremel tool with disc attachment
- Drill
- Rivnut Installation Tool (a heavy duty one is necessary)
- Helper
- Marker
- Flat head screwdriver

<u>**What's Supplied:**</u>
Parts:
(1) Ford F-150 Cat Guard with preinstalled ¼"-20 rivnuts for oil drain cover
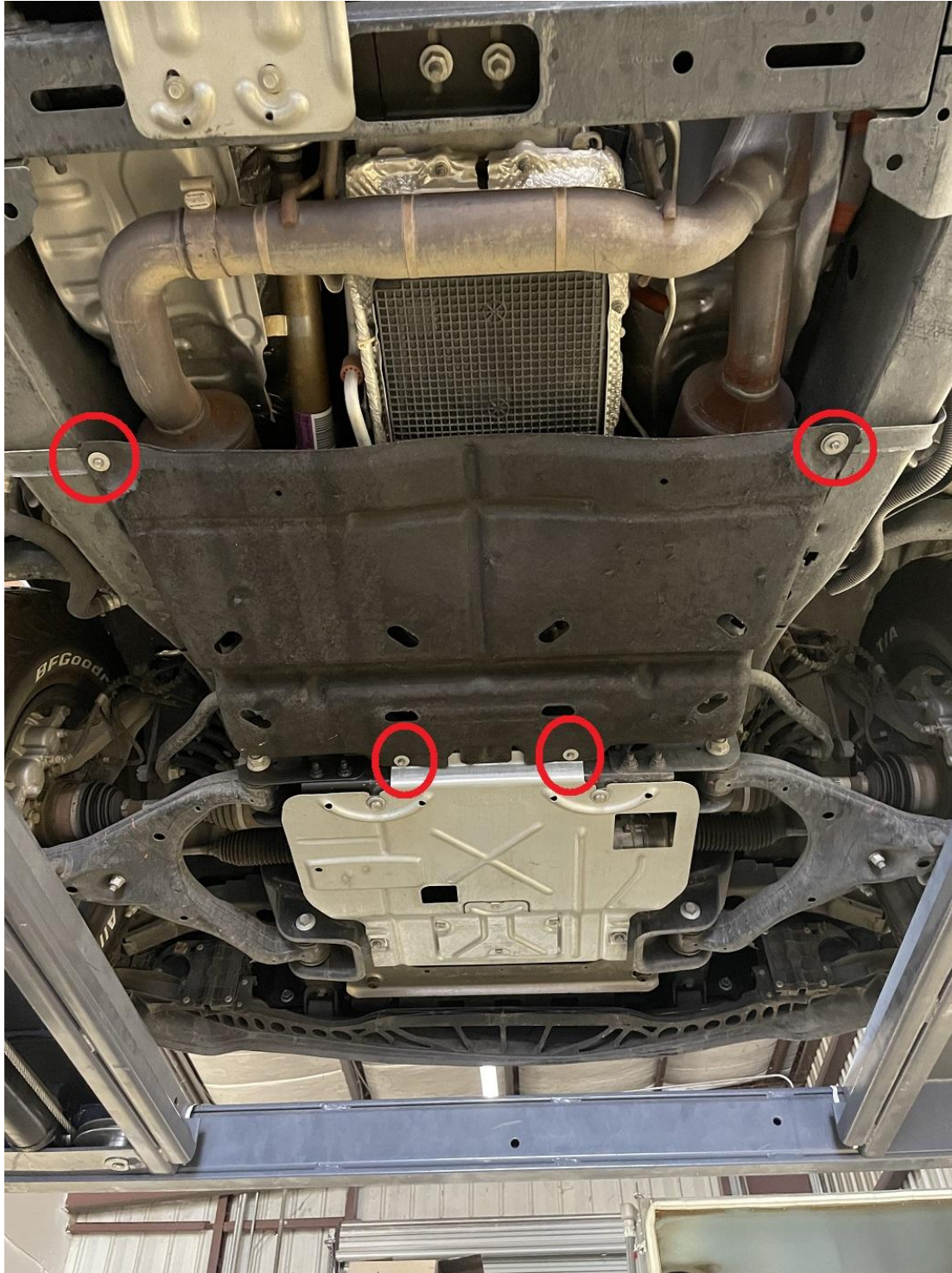(1) Oil Drain Cover

Hardware:
(7) ¼"-20 Rivnuts (some are extra just in case)
(5) ¼"-20 x 1" Security Bolts
(1) Security Bit (5/32")

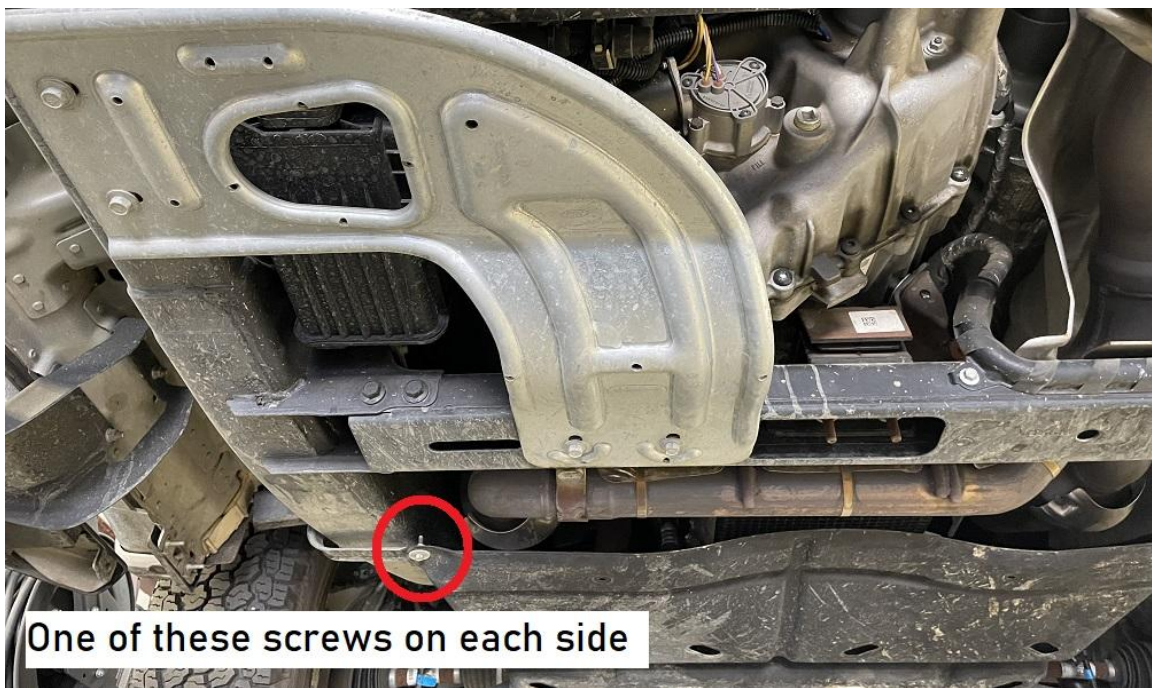(2) M10 Speed Nuts
(2) M10-1.5 x 25mm Security Bolts
(2) M10 Washers
(1) Security Bit (7/32")

(6) ¼"-20 x 1" Hex Bolts
(6) ¼" Lock Washers

Steps:

1.) Begin by raising your Ford. Place it securely on jack stands. Or use a vehicle lift.

2.) If your F-150 has an OEM cloth tray it will need to be removed. It is held on by four 8mm screws.

One of these screws on each side

3.) The "L" brackets shown in the picture will also need to be removed for proper installation. The "L" brackets are only there to hold on the cloth tray.
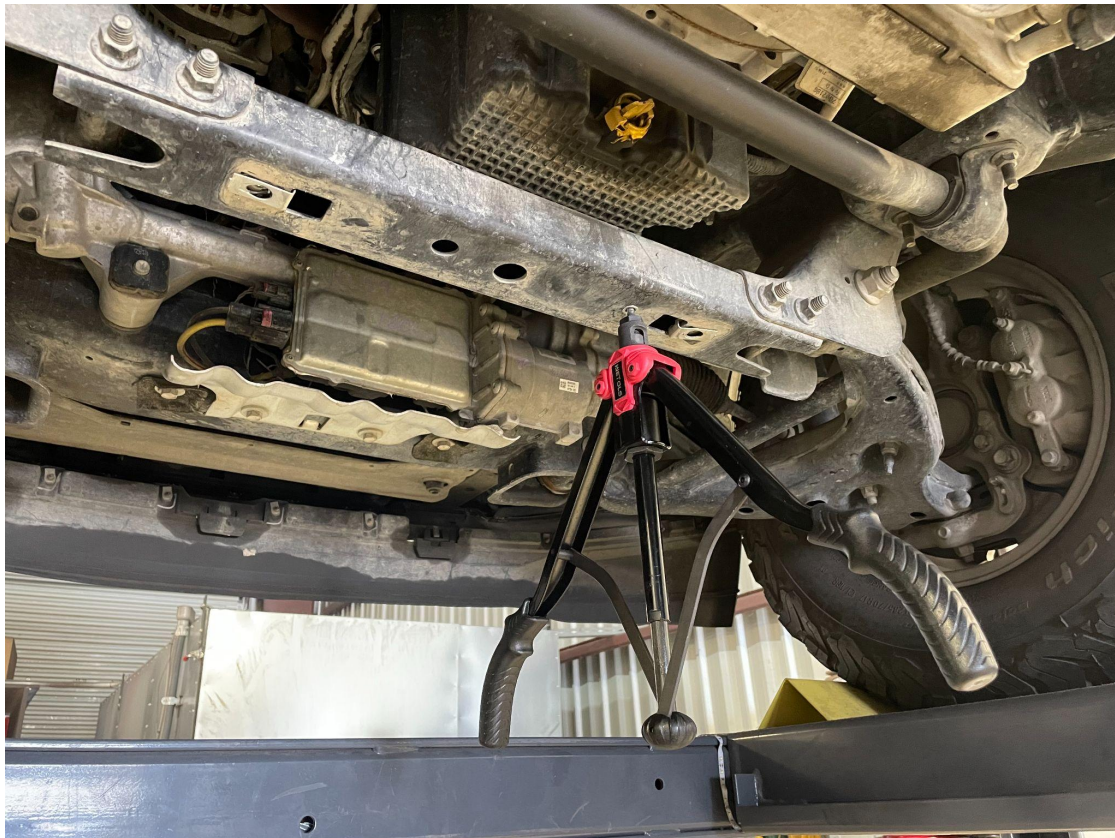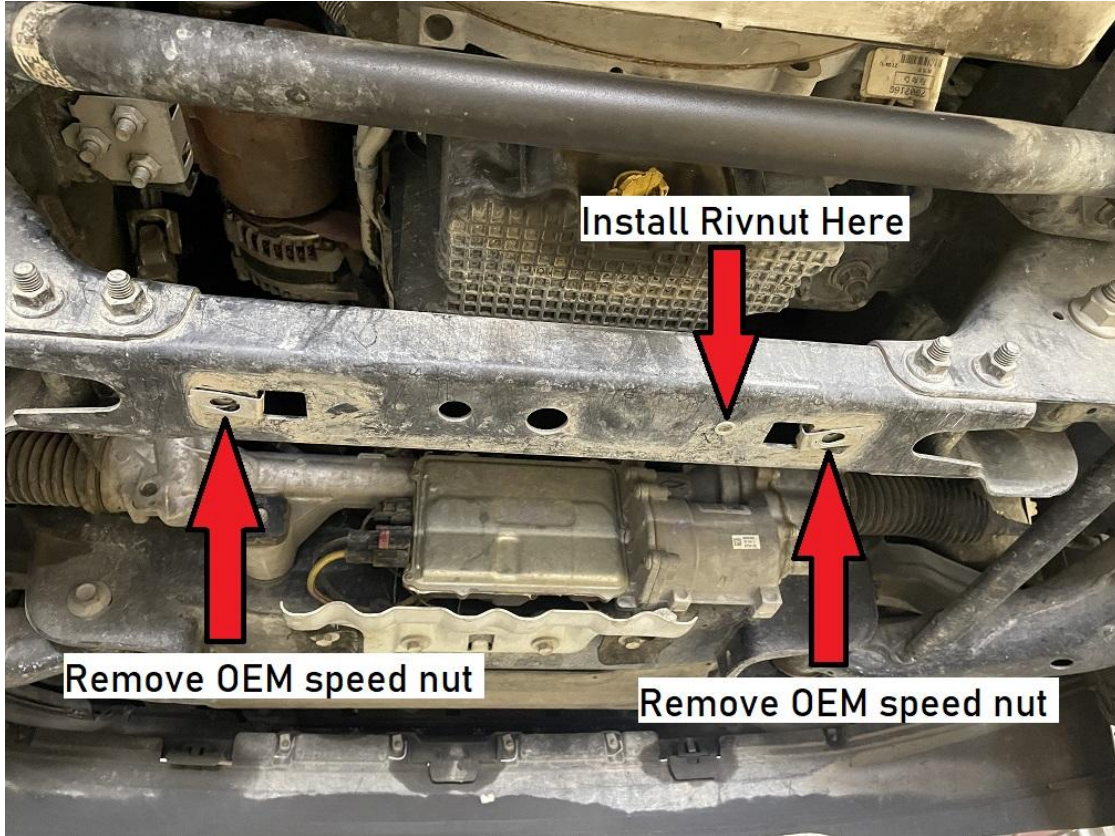
4.) If your F-150 has the OEM metal skid plate under the engine then you will need to trim off the rear edge that holds the cloth tray. Here is what needs to be trimmed with a dremel tool and disc attachment. Feel free to remove the OEM metal skid plate to make the cut (15mm socket/wrench required). The cat guard sits above the skid plate, hence why that fold needs to be cut off.

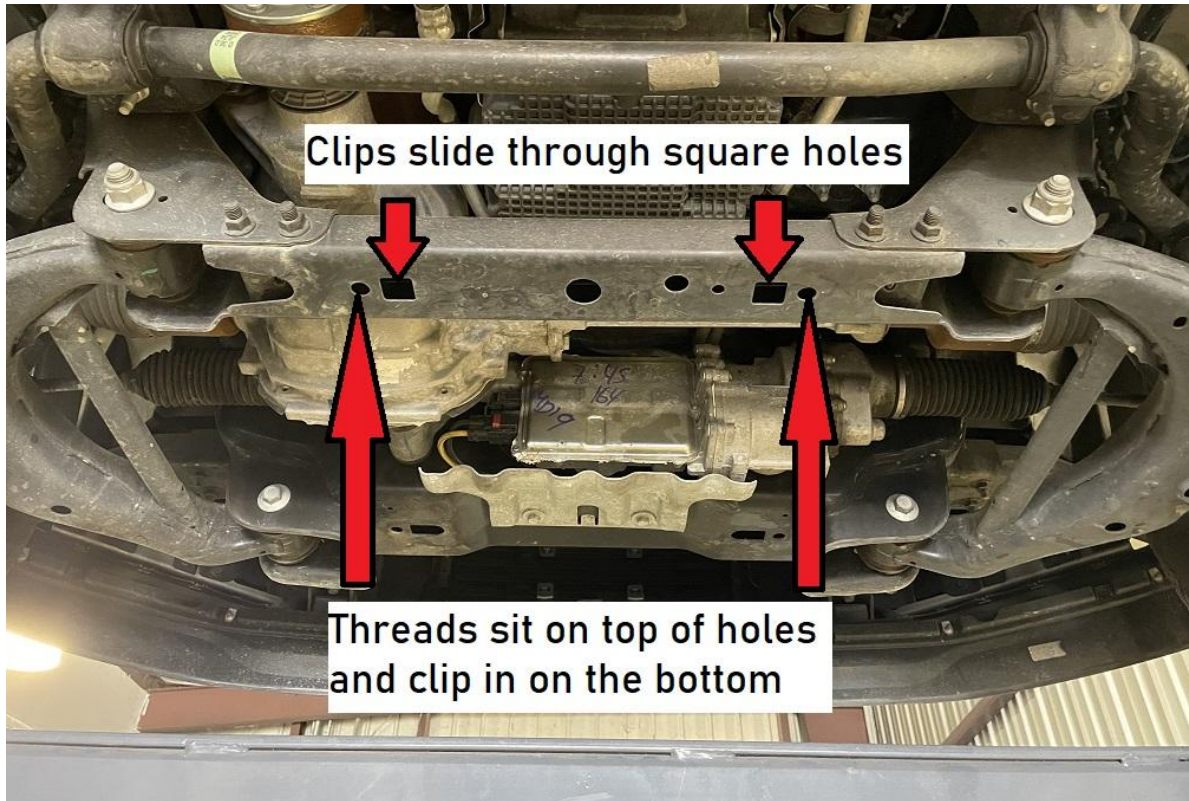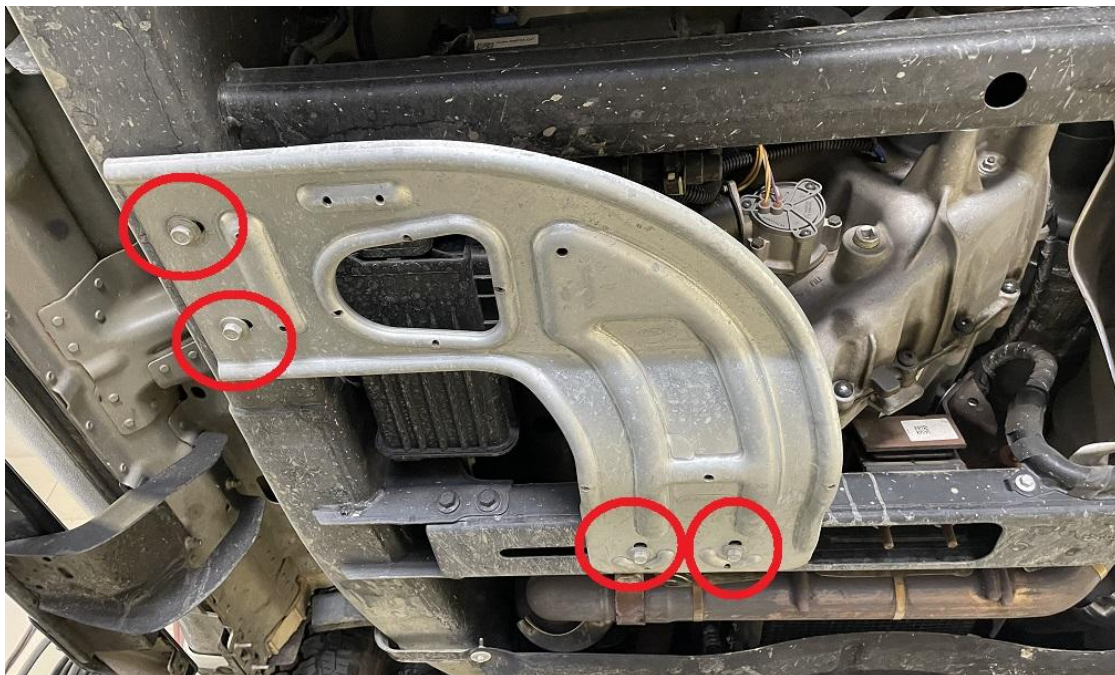Cut this off of the silver skid plate once the cloth tray is removed

5.) Remove the OEM speed clips found there with a flat head screwdriver. Install our newly supplied speed clips! Then use your rivnut installation tool with a ¼"-20 mandrel to install a rivnut into the hole found next to the most right M8 speed nut -> **Only install this rivnut if you don't have/plan on using the OEM metal skid plate!!**
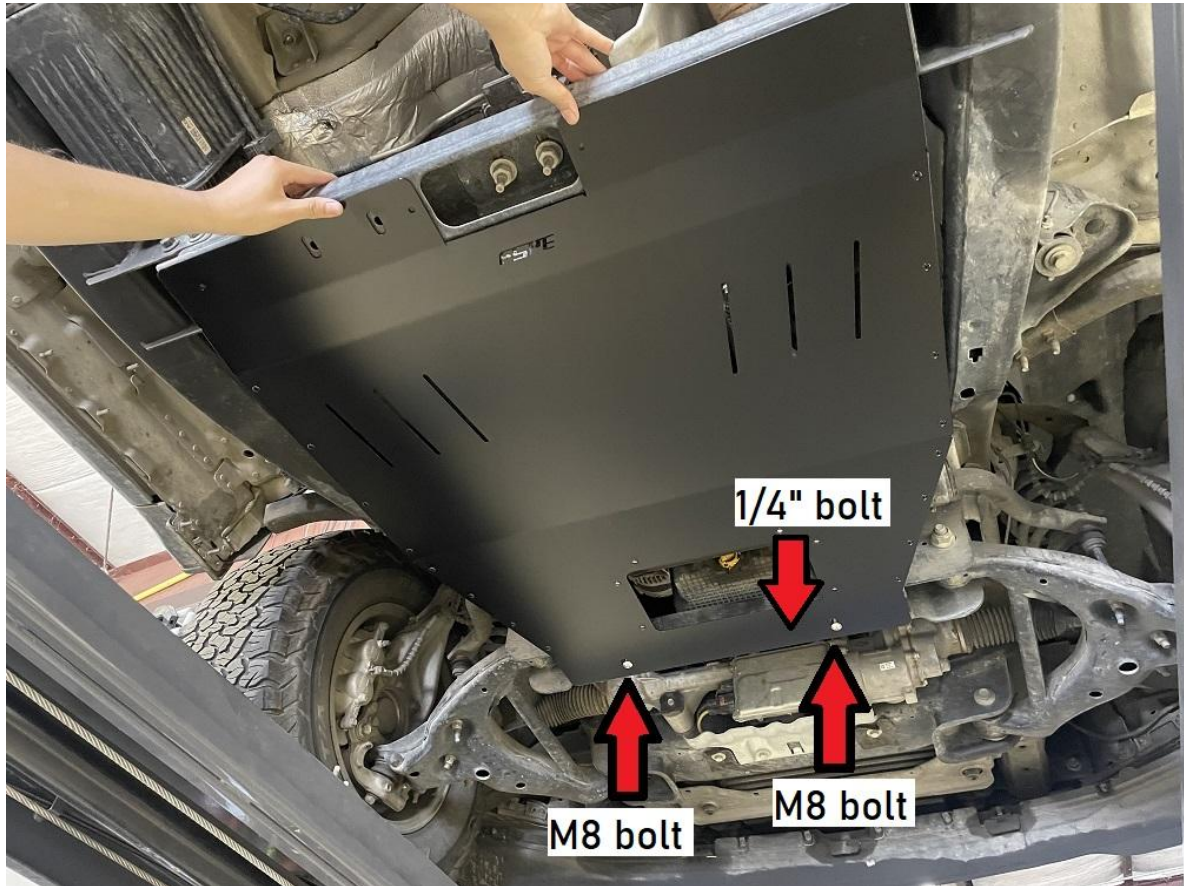
Install Rivnut Here

Remove OEM speed nut

Remove OEM speed nut

Insert new speed clips:

6.) If you have a rear transfer case shield… remove it with a 13mm socket/wrench! There are 4 bolts holding it but feel free to only remove the front 2 bolts. With only the front two held on the tray can be held up at the rear without a second person. The transfer case shield will be reinstalled underneath the cat guard later.

7.) Install your cat guard into the 3 holes from step 5. It will be sitting above the OEM metal skid plate and transfer case shields if you have those. Use the supplied M8 bolts (and washers if you would like) with the 7/32" security bit. And install a ¼"-20 x 1" bolt into the rivnut with the 5/32" security bit. The security bits fit into a ¼" socket. Hand tighten.

8.) Adjust the cat guard so the rear slots for the transfer case shield align with the holes in the mid subframe. Then mark the 4 smaller holes with a marker. If you have a transfer case shield you need to omit the mid-left hole.

Left Hole:

Mid-Left Hole (omit if you have case shield):

Mid Right Hole:

Right Hole:

9.) Remove the cat guard and drill out the 4 marked holes (3 if you have a transfer case shield) with a 25/64" drill. Then use your rivnut installation tool with a ¼"-20 mandrel to install the rivnuts.

Omit if you have a transfer case shield

10.) Install your cat guard onto the frame. Use the same bolts from step 7 for the front. Then install four ¼"-20 x 1" bolts (3 if you have a transfer case shield) at the rear. Securely tighten, but don't strip the allen heads. If you have the OEM transfer case shield and OEM front skid plate, make sure those install under the cat guard.

11.) Install your oil drain cover using the ¼"-20 x 1" bolts. Use ¼" lock washers under the bolt heads.

12.) Double check all bolts are secure and you are done! Enjoy your new F150 cat guard ! Feel free to tag us online using #FSPerformanceEngineering. If you have any questions don't hesitate to contact us.

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THANK YOU :)