

## **FS Performance Engineering**

### **Sierra/Silverado 2500HD/3500HD 6.6L Diesel Cat Guard Installation Instructions**

Professional Installation Recommended as Always - A car LIFT is HIGHLY Recommended

#### **Tools Needed:**

- Ratchet Wrench(es)
- ¼" Socket (to hold Security Bits)
- 1/2" Socket/Wrench
- 25/64" Drill Bit (for the ¼" Rivnut)
- 17/32" Drill Bit (for the 5/16" Rivnut)
- Drill
- Rivnut Installation Tool (a heavy duty one is necessary) w/ a ¼"-20 & 5/16"-18 mandrel
- Helper
- Marker
- Blue Threadlocker (optional) but a GOOD idea

#### **What's Supplied:**

##### **Parts:**

(1) 2500HD/3500 6.6L Diesel Cat Guard

##### **Hardware:**

###### **Bag 1:**

(2) ¼"-20 Rivnuts (1 is extra just in case)

(1) ¼"-20 x 2" Security Bolt

(1) Security Bit (5/32")

(1) 1 ⅛" Spacer

###### **Bag 2:**

(1) 5/16"-18 x 2" Security Bolt

(1) 5/16"-18 Nut

(1) 5/16"-18 Nyloc Nut

(1) 5/16" ID, 1.25" OD Washer

(1) Security Bit (3/16")

(1) 1 ⅛" Spacer

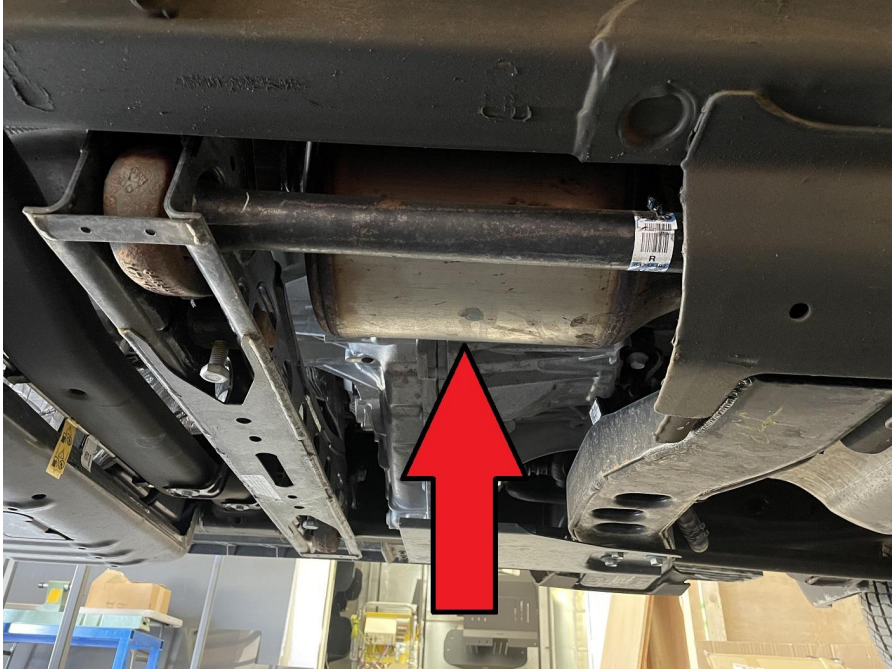
###### **Bag 3:**

(2) 5/16"-18 Rivnuts (1 is extra just in case)

(1) 5/16"-18 x 1" Security Bolt

**Steps:**

- 1.) Begin by raising your Chevy/GMC. Place it securely on jack stands. Or alternatively use a vehicle lift. The vehicle must be high enough for you to use your rivnut installation tool.
- 2.) Identify your catalytic converter. It is located under the right side of the vehicle.

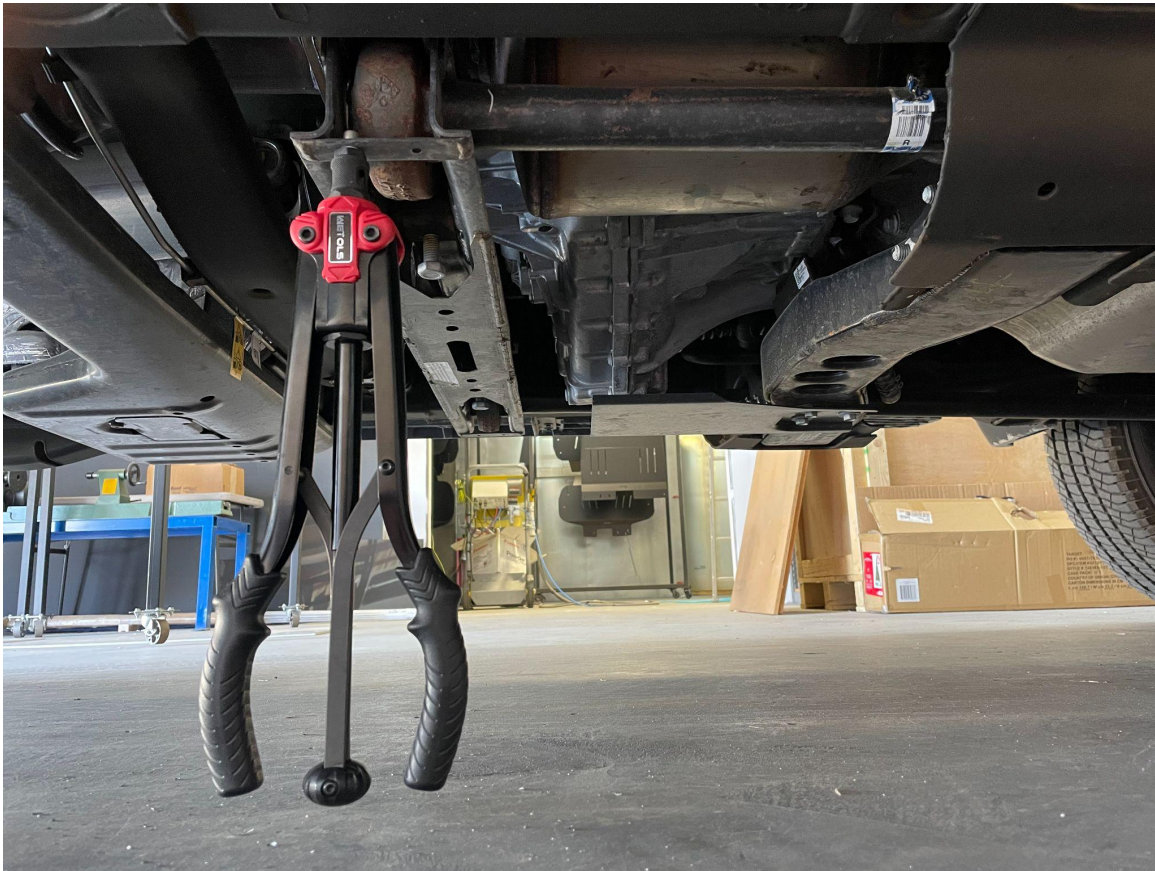


- 3.) There are two small holes located just behind the catalytic converter on the subframe near the steel joint toward the outside of the vehicle. Use your 25/64" drill bit to open the most rearward hole. See pictures.





4.) Once drilled, install a 1/4"-20 rivnut. Use a heavy rivnut installation tool with long, squeezable handles. Assure it is fully seated. We supply 2 just in case it is not installed properly and needs to be drilled out. If you need help operating a rivnut installation tool please use online sources.



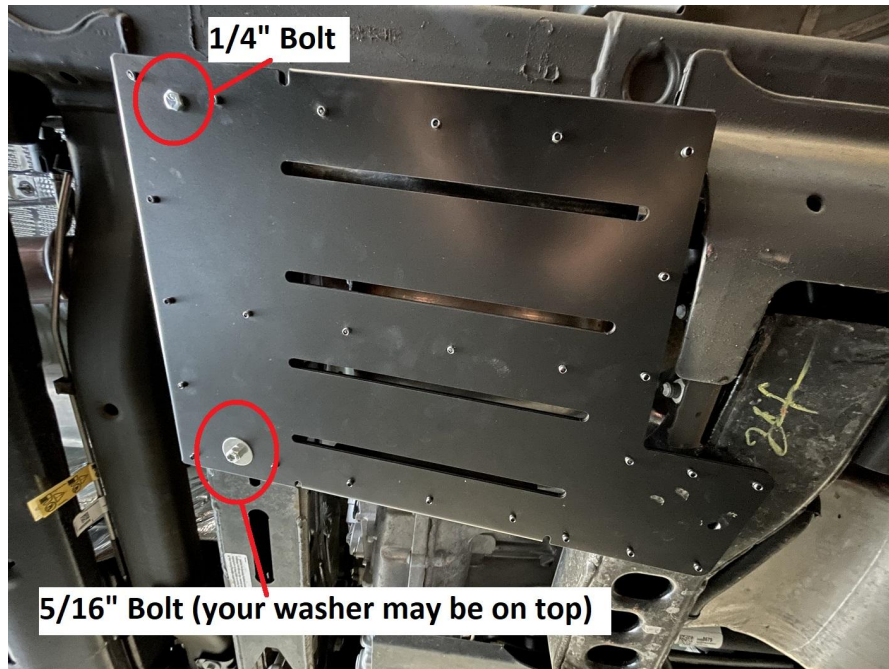


5.) Drop a 5/16"-18 x 2" bolt down the hole shown in the subframe. Feel free to use the washer supplied under the head. This bolt serves a temporary purpose for now.

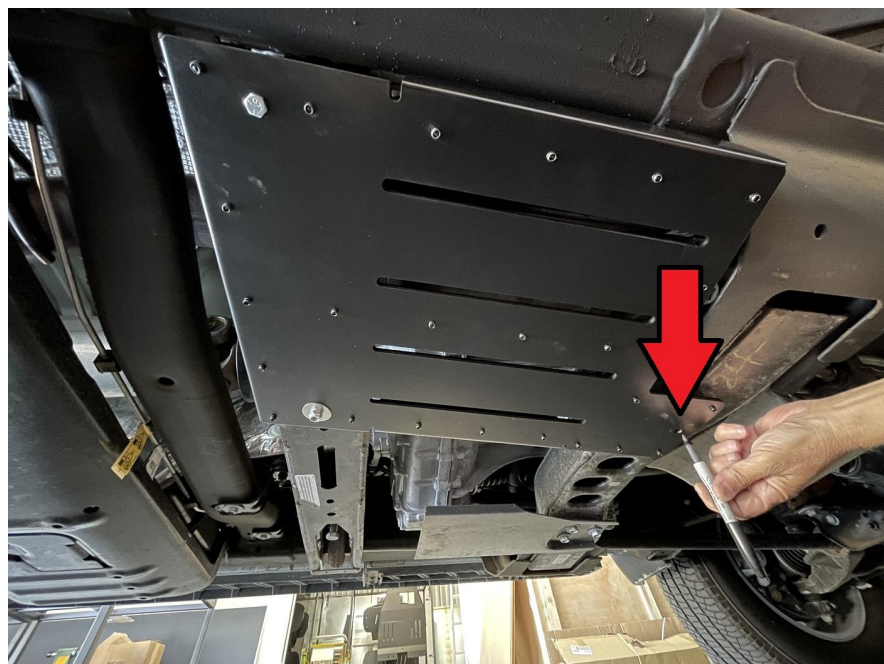


6.) Install your cat guard hand tight into the  $\frac{1}{4}$ " rivnut using the  $\frac{1}{4}$ "-20 x 2" bolt and 1  $\frac{1}{8}$ " spacer; as well as through the  $\frac{5}{16}$ "-18 x 2" bolt from the last step with a 1  $\frac{1}{8}$ " spacer and standard  $\frac{5}{16}$ " nut (not the nyloc). The security bits may need to be used with a  $\frac{1}{4}$ " socket - there are two size security bits - although unlikely until final installation.

This temporary installation allows you to identify where the 3rd hole must be made in the forward subframe.

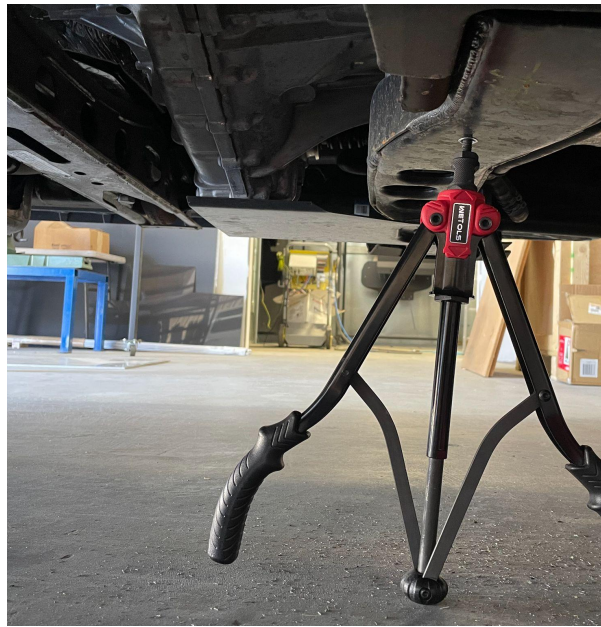
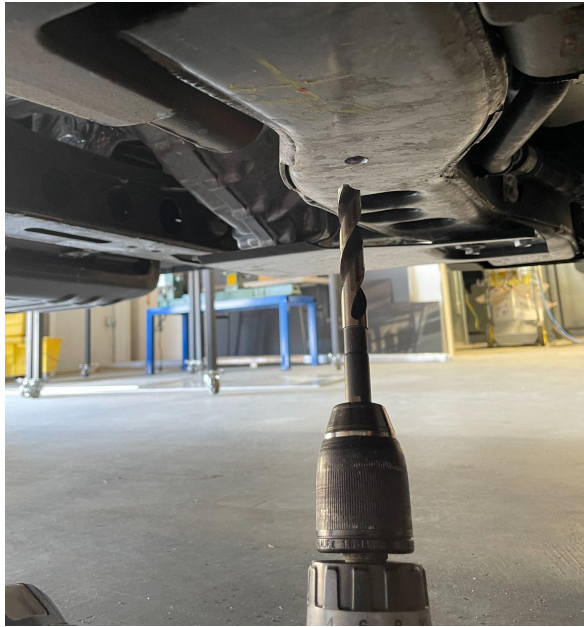


7.) Adjust your cat guard so it sits flat on the forward subframe. Then mark the hole through the cat guard onto the forward subframe.



8.) Remove your cat guard. Drill the hole you just marked with a 17/32" drill bit. Feel free to start with a smaller drill bit to get started, then move onto the larger 17/32" drill bit.

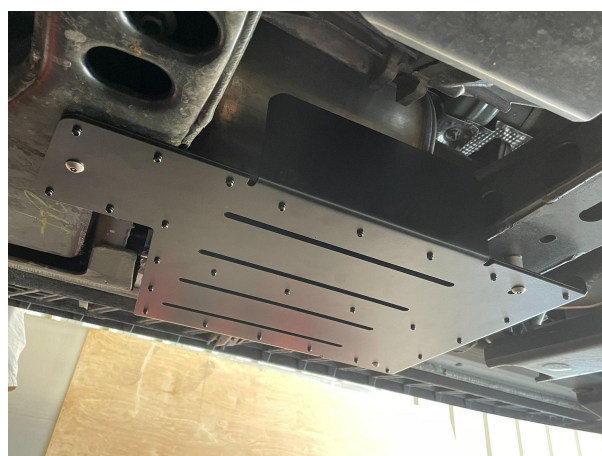
Next install a 5/16"-18 rivnut!



9.) Your cat guard can now be installed. Don't over tighten so much that you strip the bolt heads.

- For the forward 5/16" rivnut please use a 5/16"-18 x 1" security bolt.
- For the rearward left bolt please use a 5/16"-18 x 2" bolt, 1 1/8" spacer, 5/16" washer, and 5/16" nyloc nut! Point bolt upward.
- For the rearward right bolt please use a 1/4"-20 x 2" bolt and 1 1/8" spacer.

Feel free to place a VERY SMALL amount of blue threadlocker on the security bolts if you are worried about them coming loose. If you do not, you will need to check the bolts after about 100 miles to assure they are still tight. We recommend checking the bolts periodically over the lifetime of the vehicle.





10.) Double check all bolts are secure and you are done! Enjoy your new 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 :)