

V1 Dual Steering Stabilizer

- F250 F350 F450

February 17 2021



INSTALLATION GUIDE

Stryker Off Road Design Dual Steering Stabilizer gives your truck better handling. Our V1 stabilizer includes Distinctive Striker Badging for a great look.

Our steering stabilizer provides better handling and control of oversized tires by reducing bump steer and front-end vibration, as well as reducing ball joint and tie rod wear and tear.

The V1 Kit is designed for easy installation requiring just a few hand tools and a few hours!

Tools listed for reference are for the Stryker Level 2 Bilstein shocks* (Level 3 and 5 use different bolts)

(qty 1) "open end" or "box" wrench 22mm, (19mm)*, 16mm, 14mm

(qty 1) "Socket wrench with 22mm, (19mm)*, 16mm, 14mm sockets

(qty 1) SECOND "open end" or "box" wrench 22mm, (19mm)*, 16mm, 14mm if you do not supply a socket wrench set.

(qty 1) Tape measure
(qty 1) Pen or Sharpie for marking location.

*Alternate size of level 3 or 5 shock ordered.

RUGGED STYLE™

Stryker Off Road Design is a USA manufacturer of high-end suspension components for your Ford Super Duty F250 F350 F450 truck.

We don't cut corners! We are perfectionists.



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Stryker mounting brackets for our V1 Dual Steering Stabilizers are engineered with 3/8th inch and 1/4 inch **USA STEEL CLAMPS!**

Some of our low-cost competitors use a commercial U-BOLT in its place!

We will leave it to you to make an informed decision how you want to secure the front steering system of your Super Duty Truck.

Kit Contents:

- (2) 3/8" Tie Rod Clamp Plates
- (2) 1/4" Tie Rod Clamps
- (1) Center Mount Bottom Plate
- (1) Rear Clamp for Center Mount Plate
- (1) "Stryker" Identity Badge Front Plate
- (2) Spacers (may not be needed)
- (2) Stabilizer Cylinders (if selected)

All necessary hardware

*We don't cut corners!
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- 1) (qty 2) 1/2" x 3.5" Bolts with (2) washers and (1) Nut per bolt. (substitute)
 - 12mm x 90mm Bolts with (2) washers and (1) Nut per bolt when Stryker's ORD Level 3 shocks are supplied.
 - 14mm x 90mm Bolts with (2) washers and (1) Nut per bolt when Stryker's ORD Level 4 shocks are supplied
- 2) (qty 2) 1/2" x 3" Bolts with (2) washers and (1) Nut per bolt. (substitute)
 - 12mm x 80mm Bolts with (2) washers and (1) Nut per bolt when Stryker's ORD Level 3 shocks are supplied.
 - 14mm x 80mm Bolts with (2) washers and (1) Nut per bolt when Stryker's ORD Level 4 shocks are supplied.
- 3) (qty 8) 3/8" x 1.5" Bolts with (2) washers and (1) Nut per bolt.
- 4) (qty 4) 7/16" x 2.0" Bolts with (2) washers and (1) Nut per bolt.
- 5) (qty 2) 3/8" x 1" Bolts *** No Washers or Nut ***
- 6) (qty 2) 1/2" Washer

Ensure your kit is complete.

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The instructions to install.

- 1) The center stabilizer bracket
- 2) Passenger and driver outside shock brackets
- 3) The shocks to the center bracket
- 4) The identity badge top support bracket
- 5) The shocks to the outer brackets
- 6) Testing finished assembly

Follows.

- 1) Truck setup (preparation)
Make sure the front wheels are straight forward!
- 2) Remove two bolts from the differential cover as shown. These are 9/16 (14mm*) bolt heads.

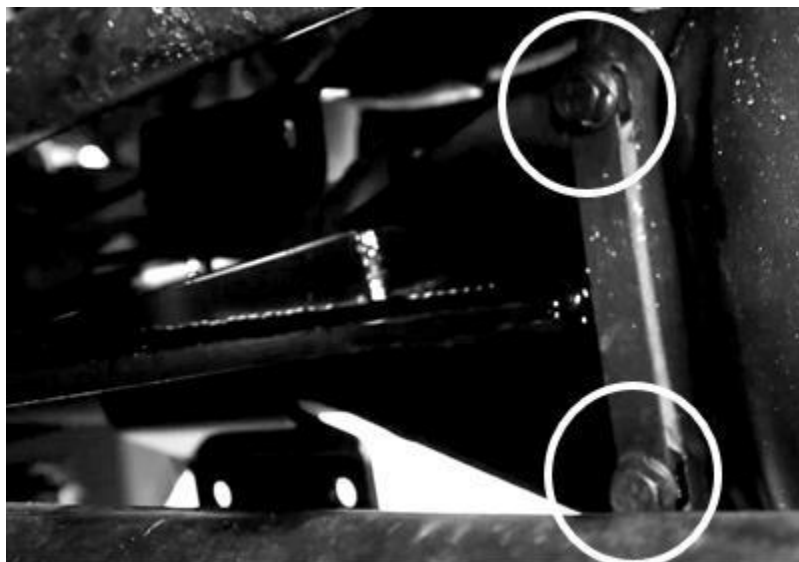


There is little chance of the differential leaking. Once both factory bolts are removed the factory identification plate can be included in the reassembly (over the top of the V1 stabilizer bracket) or omitted at your discretion.

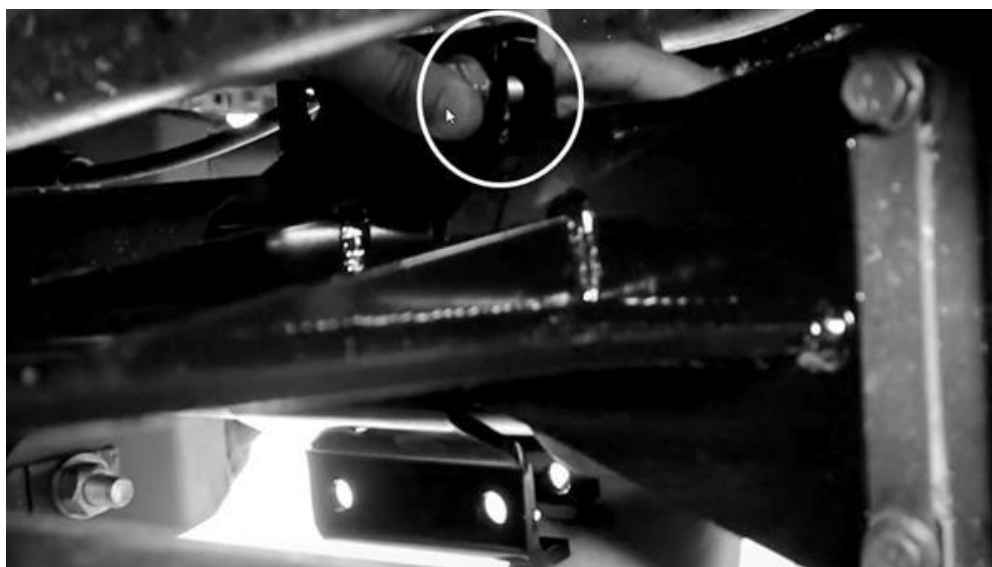


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- 3) Mount the driver side of the center stabilizer bracket to the differential. (stack sequence is differential, stabilizer, (factory differential badge strip - optional), bolts (either the supplied 3/8" x 1" bolts or your original bolts).



- 4) Next add the Center Stabilizer back bracket clamp using (qty 4) 7/16" x 2.0" Bolts with (2) washers and (1) Nut per bolt. The stack sequence (from the front of the truck to the back) is bolt, washer, steering stabilizer front bracket, Tie Rod, steering stabilizer back bracket clamp, washer and then the nut.





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5) Next add the driver and then the passenger side shock end brackets as follows (do not mount the shocks).

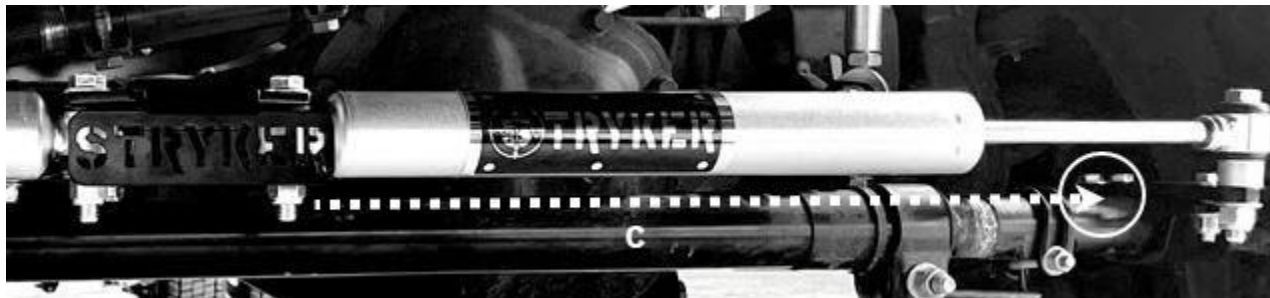


Passenger side parts list (driver side identical):

- (qty 1) lower shock bracket clamp
- (qty 1) upper shock bracket base
- (qty 4) bolts (see #3 in kit contents)
- (qty 4) matching nuts
- (qty 8) matching washers
- (qty 1) bolt (see #1 in kit contents)
- (qty 1) matching nut
- (qty 2) matching washers
- (qty 1) 1/2" bushing washer
- (qty 1) bushing



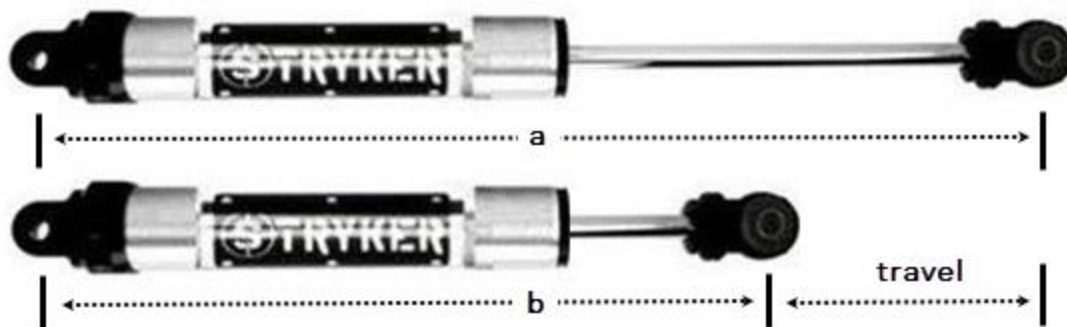
CRITICAL MEASUREMENT: A critical measurement is required to determine where on the front Tie Rod you will be mounting the passenger and driver side end brackets. The design criteria for the dual steering stabilizer requires that the brackets be mounted at a length from the center stabilizer bracket allowing for a uniform compression and extension of the shock. The key measurement regarding the shock itself is determining 1/2 the total travel for the shock shaft as measured from the other end of the shock. Locating the placement for the passenger and driver side end bracket require the following measurements if you have NOT purchased your steering stabilizer shocks from Stryker.



Driver side assembly shown for reference.



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- a) You need to measure the full extended length “a”. Then measure the compressed length “b”. Subtract the extended length from the compressed length. That is the total travel. Then divide the travel by 2.
- b) Length “c” is “b” plus $\frac{1}{2}$ the travel minus 3 inches for the F250, F350 install. This is the width from the center mounting bolt to the inside edge of the lower clamp. **If you purchase a Stryker Steering Stabilizer shock set with your kit value for “c” will be supplied.**

SPECIAL NOTE: On an F450 F50 kit the end top mounts are REVERSED from what is shown. The dog ears point toward the center of the truck (not toward the outside). For F450 F50 the length “c” is “b” plus $\frac{1}{2}$ the travel **plus** $\frac{1}{2}$ inch.



Once you have the length for “c” you can use your tape measure and mark or scribe the location line for the **INSIDE** edge of the lower shock clamp. Then use the 4 screws, matching washers and nut to assemble the clamp and top bracket in place. The stack sequence is bolt, top washer, top bracket, “TIE ROD”, lower clamp, washer and finally the nut.

See the example image. Repeat above steps for the driver side. **Reminder: For F250, F350 the top shock bracket “dog ears” point outward. For the F450 F550 they point inward!**



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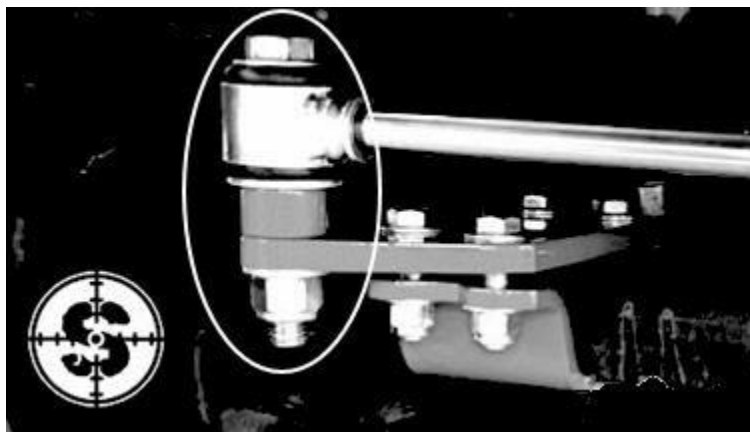
6) Next attach the shocks to the center Steering Stabilizer Bracket (without shocks)



The assembly sequence for the driver side will be a 1/2" x 3.5" bolt, washer, center identity badged top bracket, shock end, center stabilizer bottom bracket, washer and nut. (repeat for passenger side)

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7) Attach the outside shock ends to the brackets.



Collect the shock spacer, bolt, washers and nut. Place one washer on the bolt. Insert the bolt and washer through the mounting hole on the shock piston end, add the $\frac{1}{2}$ " bushing washer, add the bushing. Then compress the shock piston (this step will require quite a lot of strength) so the end is over the bracket hole. Insert the bolt through the bracket mounting hole (make sure to not let the spacer fall off), add the bottom washer and nut. Then tighten.

Optional sequence.

- Some customers may prefer to add the bushing washer and bushing after they align the compressed shock and bolt ABOVE the bracket hole.

8) Final Testing

- Turn the steering wheel completely to the driver side to ensure the shocks are not reaching the end of their travel and are not binding.
- Repeat by turning the steering wheel completely to the passenger side to ensure the shocks are not reaching the end of their travel and are not binding.
- Return the steering wheel to straight and recheck all Stryker mounting hardware.



Now enjoy your Rugged Style™ Stryker Dual Steering Stabilizer!