



**FORD PERFORMANCE**

## M-3000- H F150 4X4 Rear Lowering Kit

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS

Please visit [www.performanceparts.ford.com](http://www.performanceparts.ford.com) for the most current instruction and warranty information.

**PLEASE READ ALL OF THE FOLLOWING INSTRUCTIONS CAREFULLY PRIOR TO INSTALLATION. AT ANY TIME YOU DO NOT UNDERSTAND THE INSTRUCTIONS, PLEASE CALL THE FORD PERFORMANCE TECHLINE AT 1-800-367-3788**

**READ INSTRUCTIONS COMPLETELY THROUGH BEFORE STARTING.**  
IT IS RECOMMENDED THAT INSTALLATION BE DONE BY A QUALIFIED MECHANIC.  
REPLACE ALL STOCK PARTS THAT ARE DAMAGED OR WORN.  
ALWAYS WEAR EYE PROTECTION.  
ALWAYS USE PROPERLY RATED HOIST AND SAFETY STANDS WHENEVER A PROCEDURE REQUIRES YOU TO BE UNDER A VEHICLE. KNOW AND FOLLOW ALL SAFE WORK PRACTICES TO AVOID SERIOUS INJURY OR DEATH.  
CHECK TO SEE THAT ALL PARTS LISTED ARE INCLUDED.  
NOTE: AMOUNT OF DROP APPROXIMATE DUE TO FACTORY OPTIONS.

Rear Lowering Kit includes

4-SHACKLE BUSHINGS  
2-SHACKLE SLEEVES  
2-SHACKLES  
2-AXLE WEDGES

### Rear Lowering kit installation

#### Removal, Rear Leaf Springs

 **WARNING:** Do not apply heat or flame to the shock absorber or strut tube. The shock absorber and strut tube are gas pressurized and could explode if heated. Failure to follow this instruction may result in serious personal injury.

 **WARNING:** Keep all body parts clear of shock absorbers or strut rods. Shock absorbers or struts can extend unassisted. Failure to follow this instruction may result in serious personal injury.

**NOTICE:** Suspension fasteners are critical parts that affect the performance of vital components and systems. Failure of these fasteners may result in major service expense. Use the same or equivalent parts if replacement is necessary. Do not use a replacement part of lesser quality or substitute design. Tighten fasteners as specified.

Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356

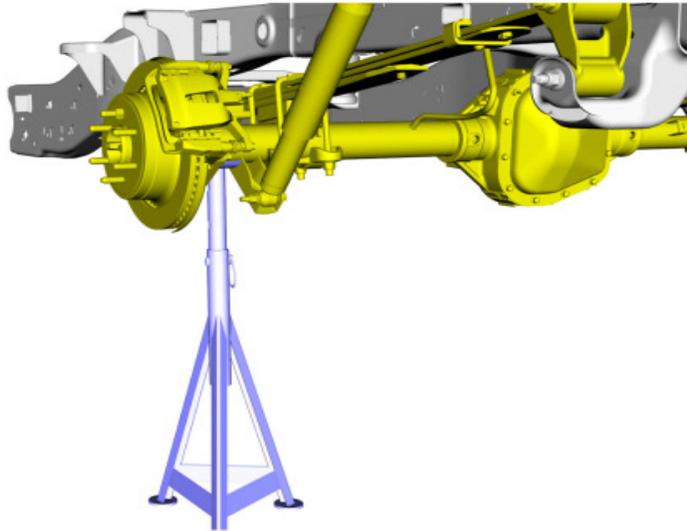


**FORD PERFORMANCE**

## M-3000- H F150 4X4 Rear Lowering Kit

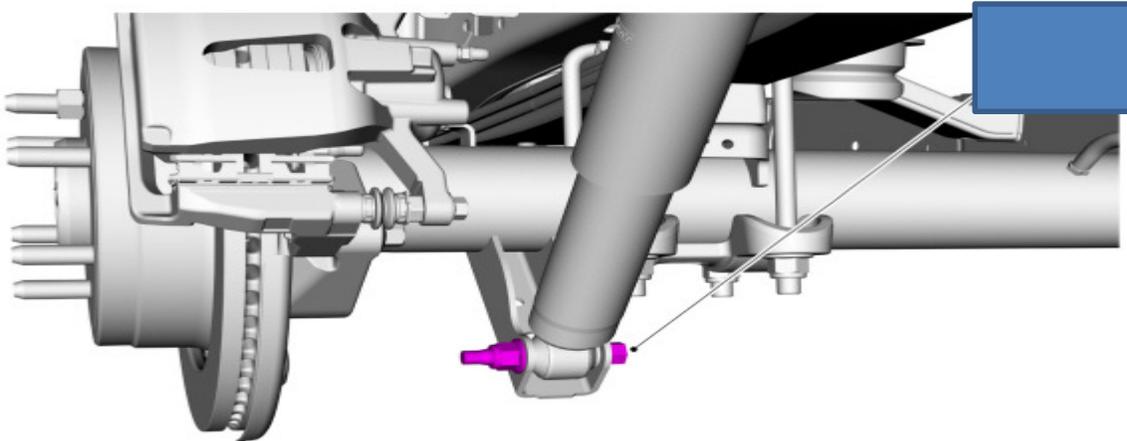
NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS

1. Remove the wheel and tire.
2. Support the rear axle assembly.



E192663

3.
  1. Remove the rear shock absorber lower nut and bolt. Save fasteners for reuse.



E191387

Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356

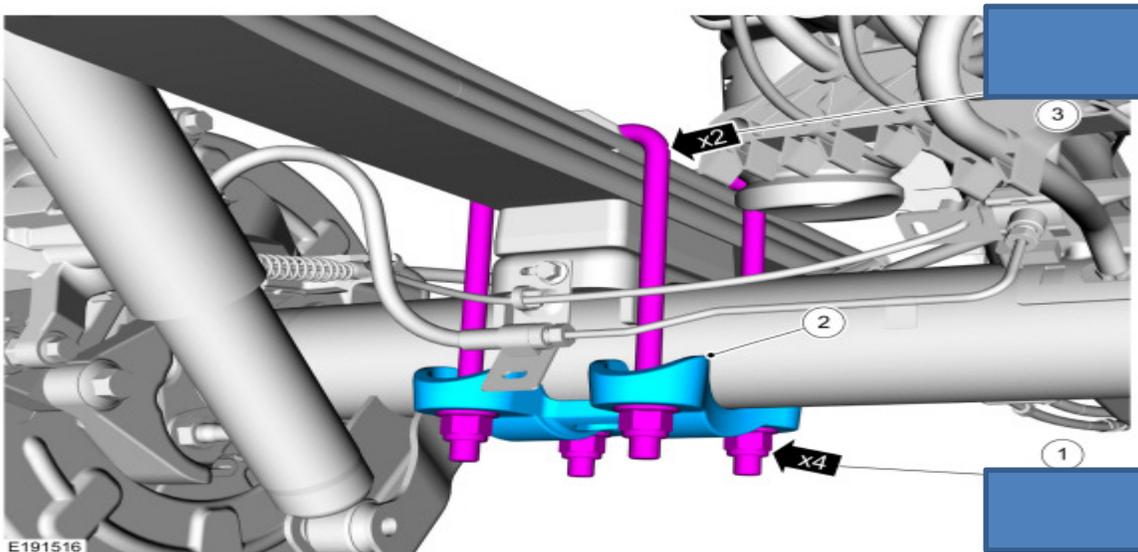


FORD PERFORMANCE

## M-3000- H F150 4X4 Rear Lowering Kit

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS

4.
  1. Remove the 4 U-bolt nuts.
  2. Remove the U-bolt plate.
  3. Remove the 2 U-bolts.



For the LH spring.  
Lower the fuel tank to gain access to the spring-to-frame bolt.

### Pressure release

**NOTE:** *The Fuel Pump Control Module is located on the frame rail above the fuel tank.*

1. Disconnect the Fuel Pump Control Module electrical connector.

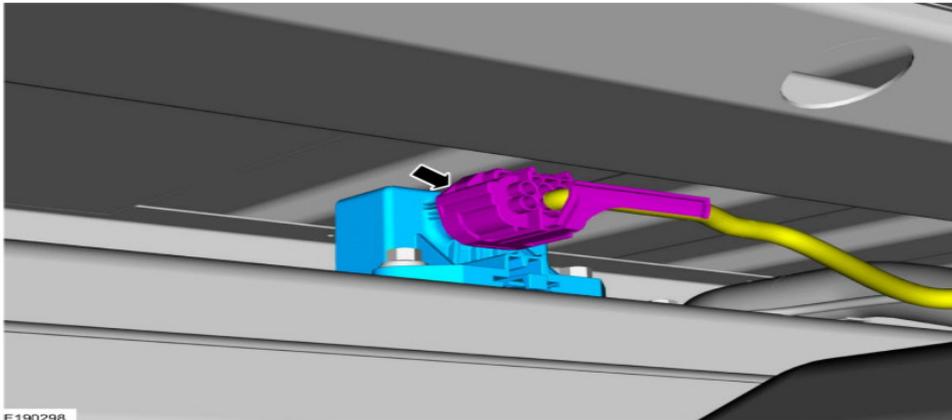
Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356



**FORD PERFORMANCE**

## M-3000- H F150 4X4 Rear Lowering Kit

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS



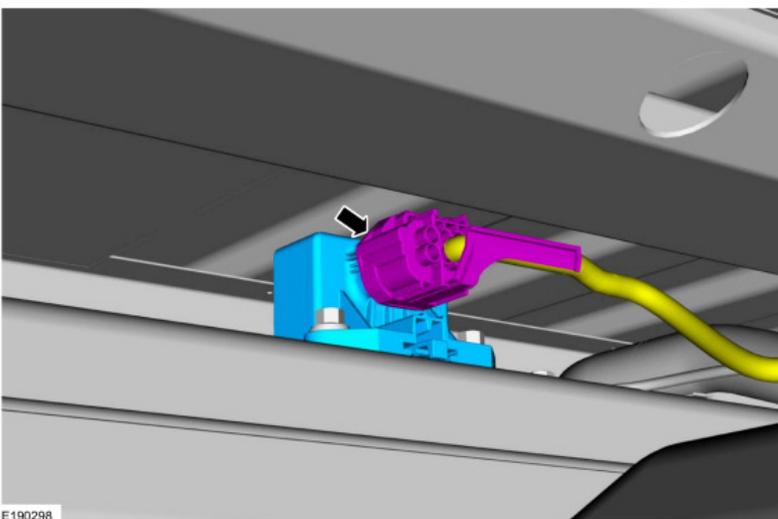
2. Start the engine and allow it to idle until it stalls.

3. After the engine stalls, crank the engine for approximately 5 seconds to make sure the fuel rail pressure has been released.

4. Turn the ignition switch to the OFF position.

**DISCONNECT NEGATIVE BATTERY CABLE**

5. When the fuel system service is complete, reconnect the Fuel Pump Control Module electrical connector.



Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356



**FORD PERFORMANCE**

## M-3000- H F150 4X4 Rear Lowering Kit

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS

6. Cycle the ignition key and wait 3 seconds to pressurize the fuel system. Check for leaks before starting the engine.

7. When service on the fuel system is completed, start the engine and check for leaks.

### Drain the fuel tank

Draining the fuel tank requires removal of the driveshaft.

1. Index-mark the driveshaft flange to the pinion flange to maintain alignment during installation.
2. Remove and save the driveshaft flange to pinion flange bolts.  
*Torque: 76 lb.ft (103 Nm)*

**NOTE: DURING SUSPENSION RE-ASSEMBLY, APPLY BLUE THREAD LOCKING COMPOUND TO ALL FASTENERS!**

**NOTICE: The driveshaft flange fits tightly on the flange pilot. Never hammer on the driveshaft or any of its components to disconnect the driveshaft flange from the flange pilot. Pry only in the area shown with a suitable tool, to disconnect the driveshaft flange from the flange pilot or damage to the driveshaft flange can occur.**

Using a large flat headed screwdriver or tire lever, separate the driveshaft flange from the pinion flange.

4. Support the driveshaft.

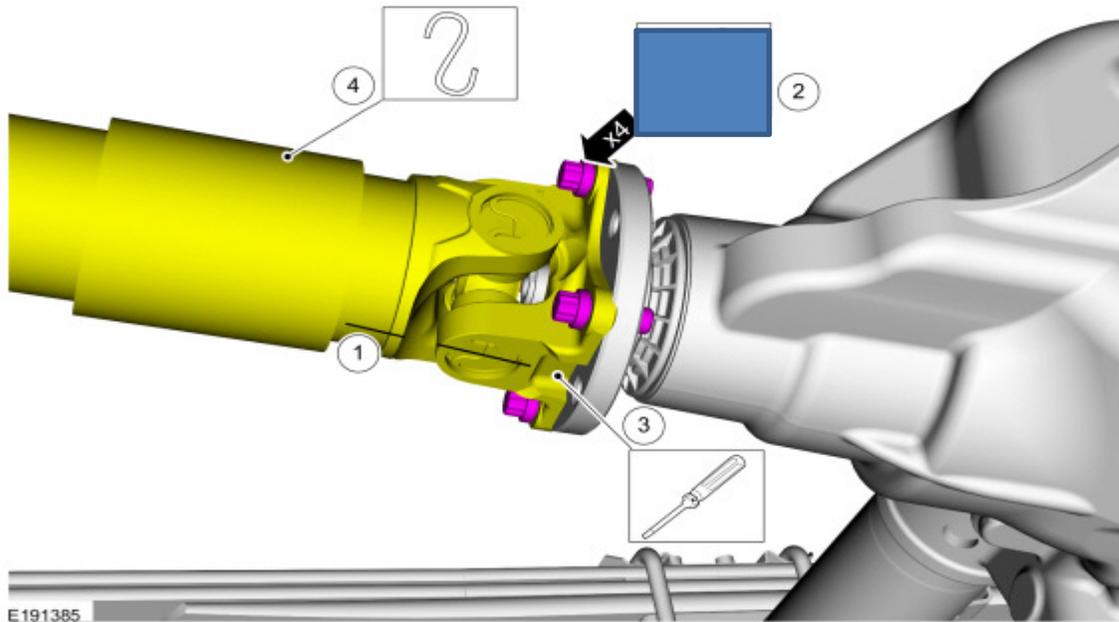
Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356



FORD PERFORMANCE

## M-3000- H F150 4X4 Rear Lowering Kit

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS



### Vehicles equipped with a 4 bolt style yoke

1. Index-mark the driveshaft flange to the transmission flange to maintain alignment during installation.
2. **NOTICE:** The driveshaft flange fits tightly on the pinion flange pilots. To make sure that the driveshaft flanges seat squarely on the pinion flange pilots, tighten the driveshaft flange bolts evenly in a cross pattern or damage to the flanges can occur.

Remove and save the driveshaft flange to transmission flange bolts.  
*Torque:* 76 lb.ft (103 Nm)

**NOTE:** DURING SUSPENSION RE-ASSEMBLY, APPLY BLUE THREAD LOCKING COMPOUND TO ALL FASTENERS!

3. **NOTICE:** The driveshaft flange fits tightly on the flange pilot. Never hammer on the driveshaft or any of its components to disconnect the driveshaft flange from the flange pilot. Pry only in the area shown with a suitable tool, to disconnect the driveshaft flange from the flange pilot or damage to the driveshaft flange can occur.

Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356

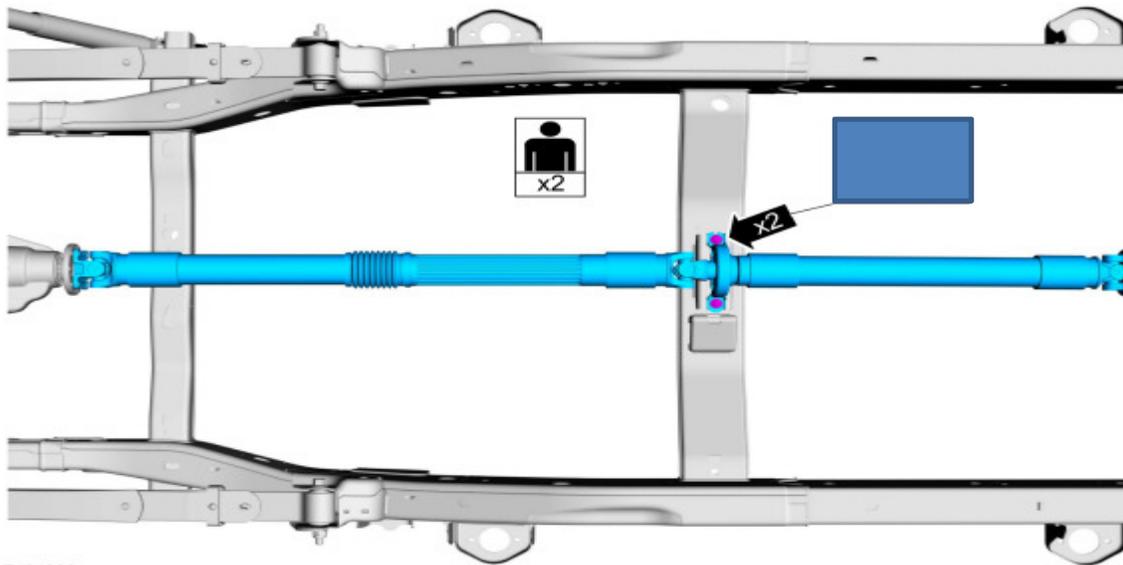




FORD PERFORMANCE

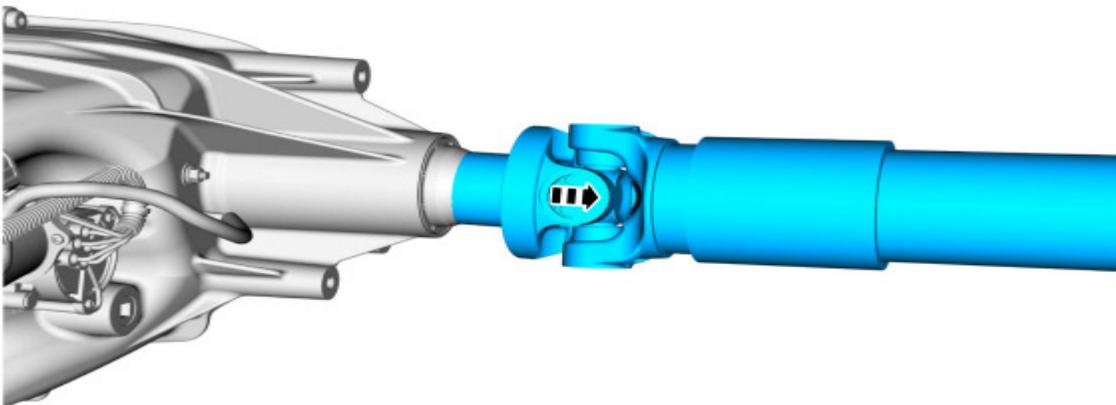
## M-3000- H F150 4X4 Rear Lowering Kit

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS



### Vehicles equipped with a slip yoke

6. If equipped with a 2 piece driveshaft.  
Remove and save the driveshaft center bearing bolts.  
*Torque: 35 lb.ft (48 Nm)*



Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356



FORD PERFORMANCE

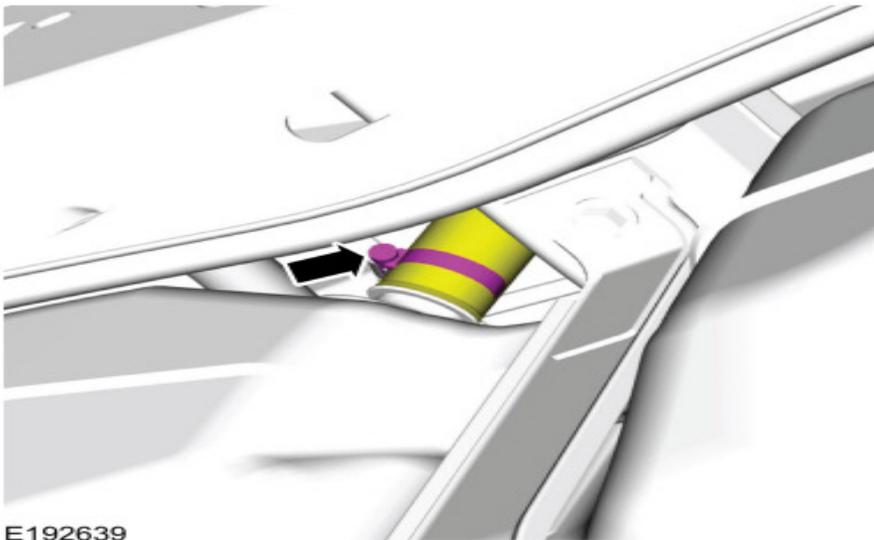
## M-3000- H F150 4X4 Rear Lowering Kit

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS

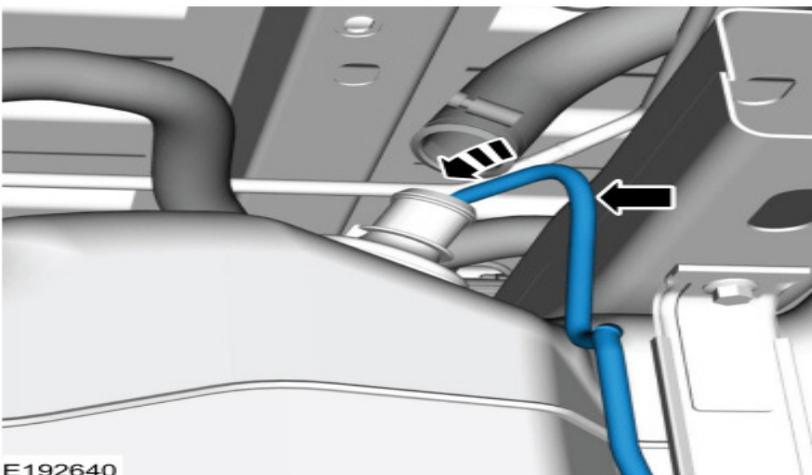
### Drain fuel tank

**NOTE:** *Some residual fuel may remain in the fuel tank filler pipe. Carefully drain into a suitable container.*

1. Release the clamp and position the fuel filler pipe hose aside.



2. Insert the hose from the Fuel Tanker (NOT INCLUDED) and siphon the fuel through the fuel tank inlet spout.



Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356

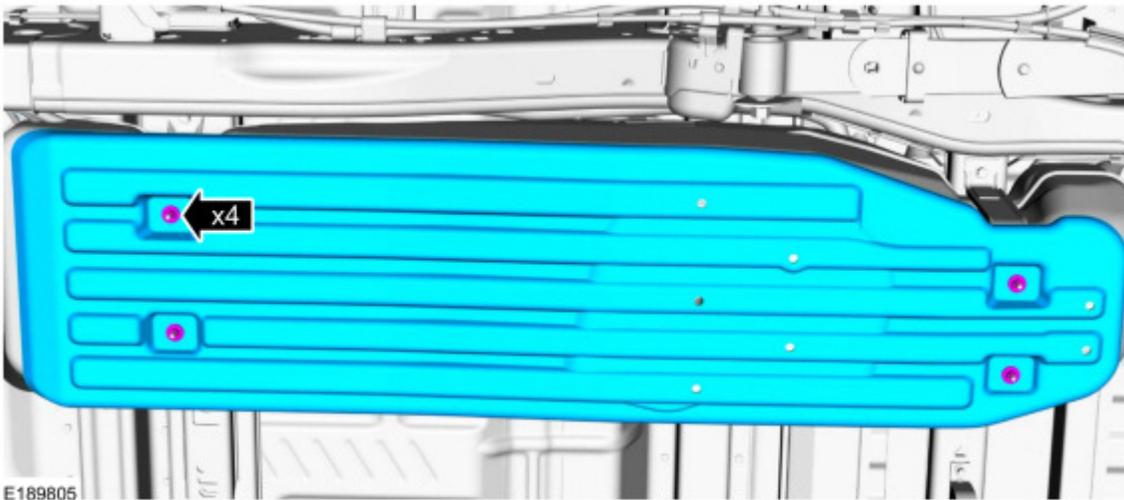


**FORD PERFORMANCE**

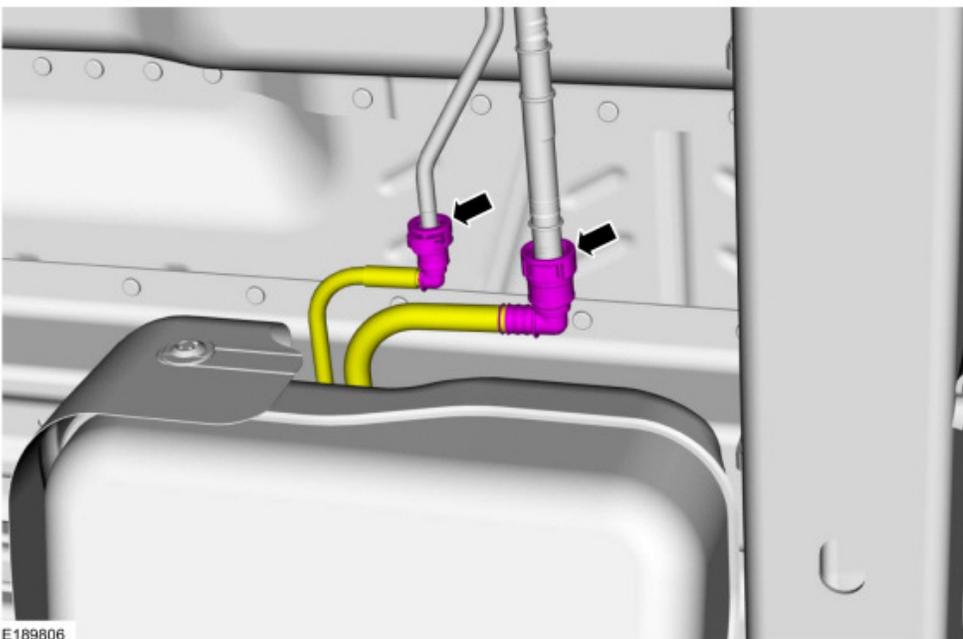
## M-3000- H F150 4X4 Rear Lowering Kit

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS

3.If equipped, remove the nuts and the skid plate.



4.Disconnect the fuel feed and vapor tube quick release couplings.



Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356



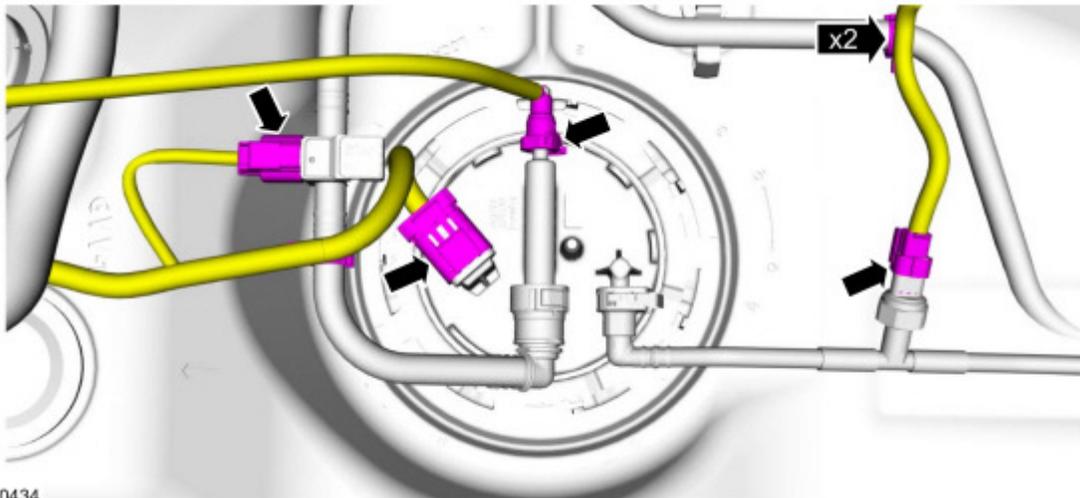
FORD PERFORMANCE

## M-3000- H F150 4X4 Rear Lowering Kit

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS

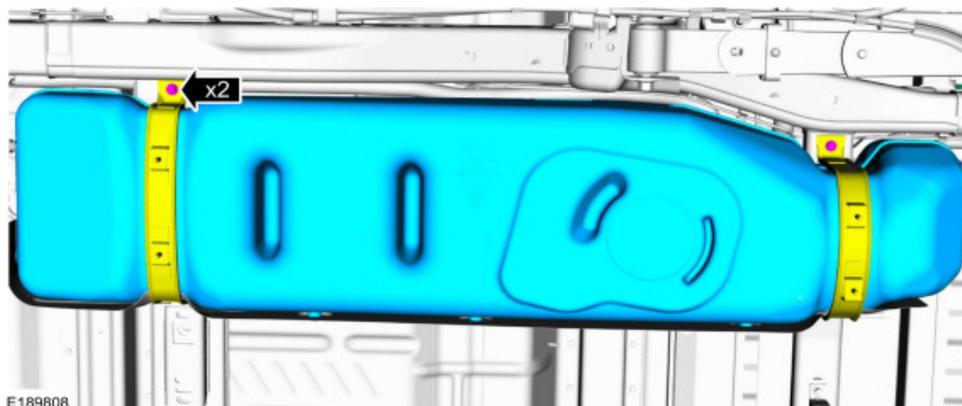
5. Disconnect the fuel tank filler pipe vent tube quick release coupling.
6. Disconnect the electrical connectors and release the harness retainer clip.

(3.5 EcoBoost shown)



6. Using a powertrain lift, support the fuel tank.

- Remove the bolts.  
*Torque:* 30 lb.ft (40 Nm)
- Position aside the fuel tanks straps and remove the fuel tank.



Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356



**FORD PERFORMANCE**

## M-3000- H F150 4X4 Rear Lowering Kit

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS

For the RH spring.

Remove the muffler to gain access to the spring-to-frame bolt.

### Removal

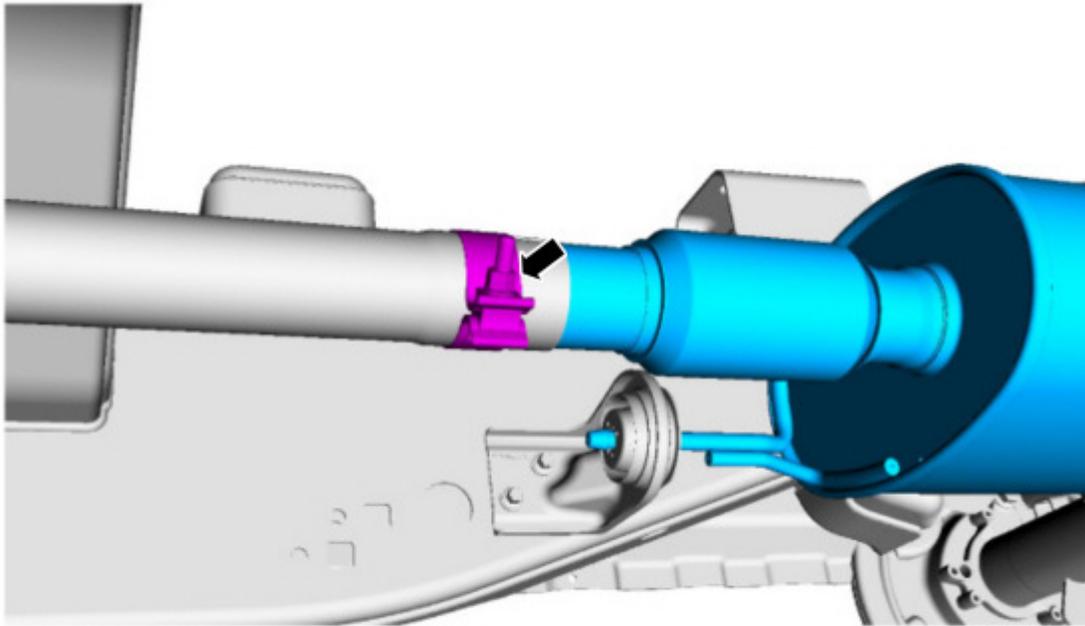
**NOTE:** *Muffler and tailpipe assemblies will vary in configuration with different wheelbases and powertrains. Typical application shown.*

**NOTE:** *Removal steps in this procedure may contain installation details.*

**NOTE:** *Clean all exhaust connections before reassembly.*

1. Loosen the clamp.

*Torque: 35 lb.ft (48 Nm)*



E194338

Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356

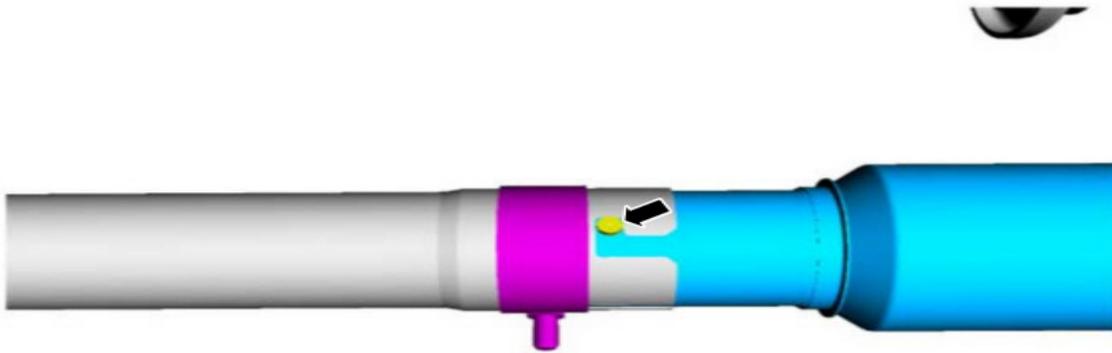


**FORD PERFORMANCE**

## M-3000- H F150 4X4 Rear Lowering Kit

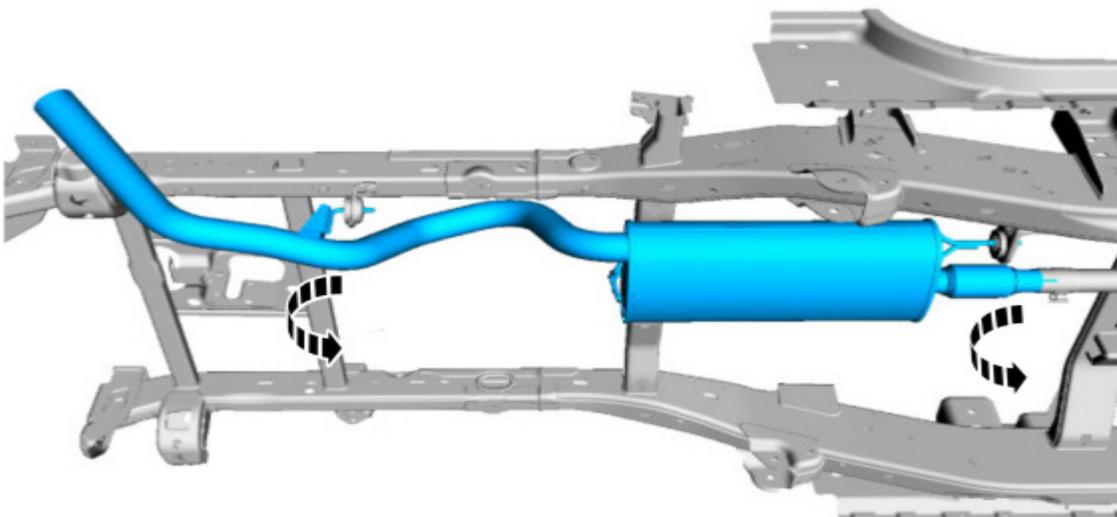
NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS

2. Release the locator tab out of the muffler inlet pipe.



E194340

3. Slide the muffler and tailpipe rearward out of the isolators and then forward to remove.



E194339

Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356

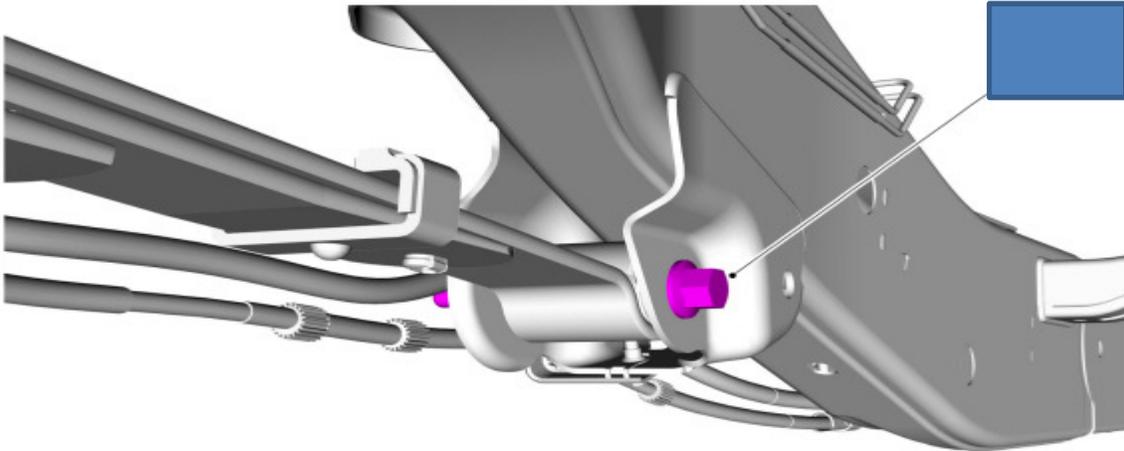


**FORD PERFORMANCE**

## M-3000- H F150 4X4 Rear Lowering Kit

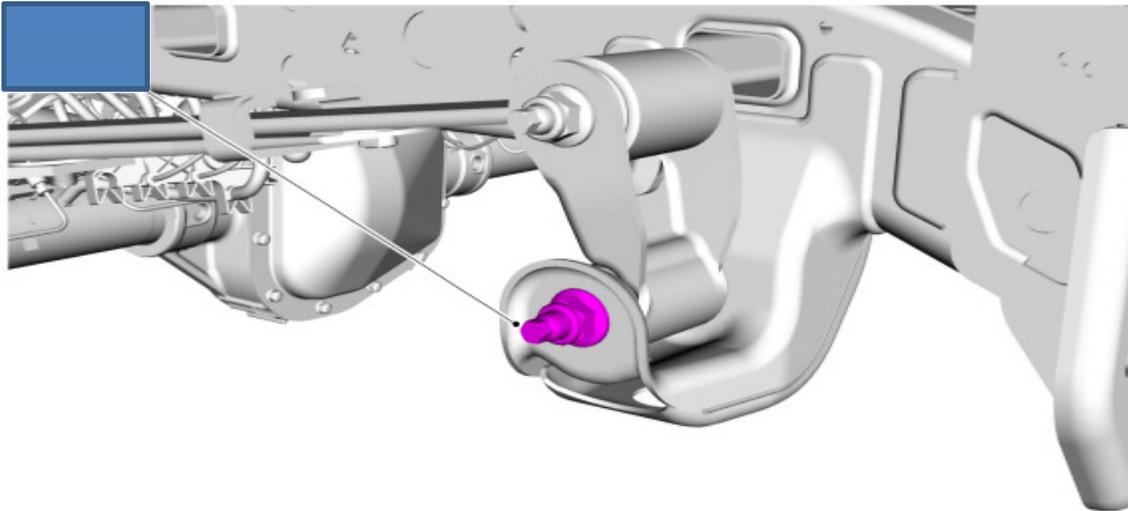
NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS

4. Remove and save the spring-to-frame nut and bolt.



E191517

5. Remove and save the spring shackle-to-frame nut and bolt.



E191518

Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356



FORD PERFORMANCE

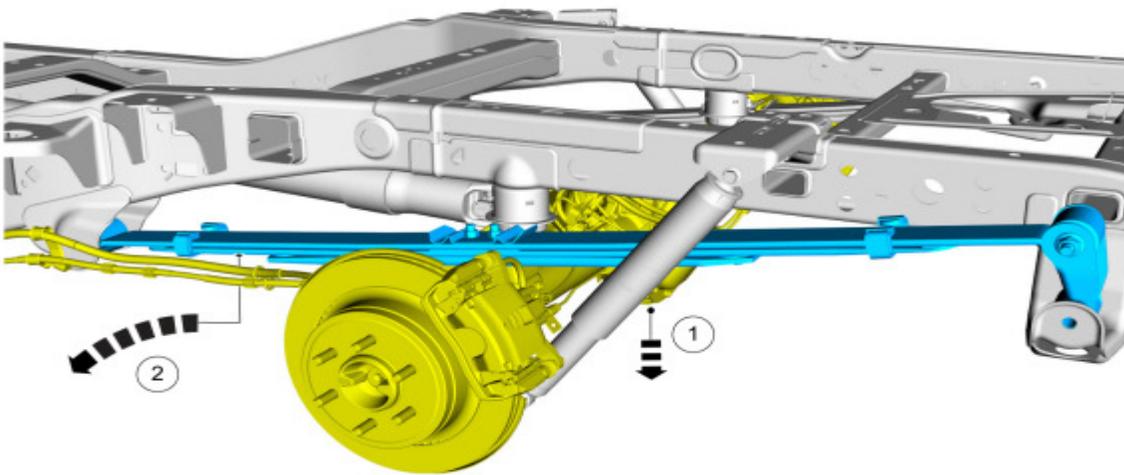
## M-3000- H F150 4X4 Rear Lowering Kit

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS

**NOTE:** *Only lower the axle enough to gain access to remove the spring.*

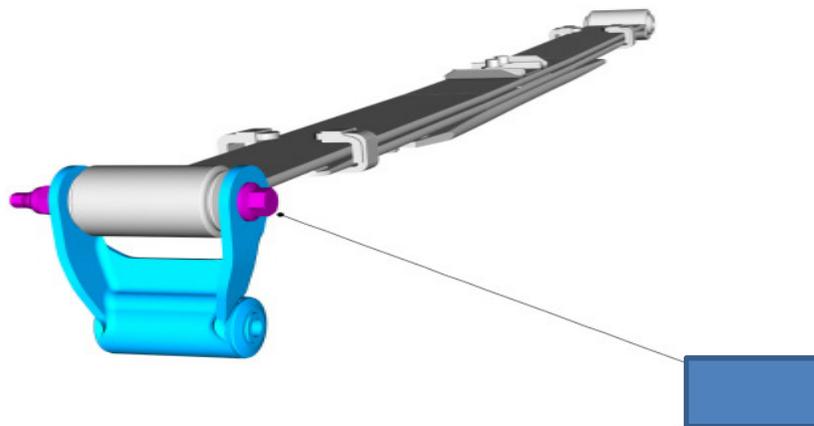
6. Lower the axle.

7. Remove the spring and shackle assembly.



E191519

8. Remove and save the spring-to-shackle bolt and nut and remove the spring shackle.



E191520

Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356



FORD PERFORMANCE

## M-3000- H F150 4X4 Rear Lowering Kit

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS

### Install shackles

1. **GREASE** THE NEW SHACKLE BUSHINGS (INSIDE, OUT AND THE FACE OF THE BUSHINGS). **GREASE** THE STEEL SLEEVES AND THE INSIDE OF THE LOWER SHACKLE TUBES. INSTALL THE **GREASED** SHACKLE BUSHINGS AND SLEEVES INTO THE **GREASED** LOWER SHACKLE TUBES (HIGH TEMP WHEEL BEARING GREASE WORKS FINE). **NOTE:** IF YOU DO NOT GREASE THESE POINTS BEFORE THE SHACKLE IS ASSEMBLED THE BUSHINGS WILL SQUEAK.

#### DROP SHACKLE INSTALLATION



A. INSTALL THE NEW DROP SHACKLE OVER THE REAR LEAF SPRING EYE WITH THE OPEN END OF THE SHACKLE TOWARD THE FRONT.

B. INSTALL THE STOCK UPPER BOLT (WITH THE HEAD INBOARD) THROUGH THE NEW SHACKLE AND THE STOCK LEAF SPRING, INSTALL THE STOCK NUT AND JUST SNUG AT THIS TIME.

NOTE: DURING SUSPENSION RE-ASSEMBLY, APPLY BLUE THREAD LOCKING COMPOUND TO ALL FASTENERS!

C. REPEAT TO THE OTHER SIDE.

Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356



FORD PERFORMANCE

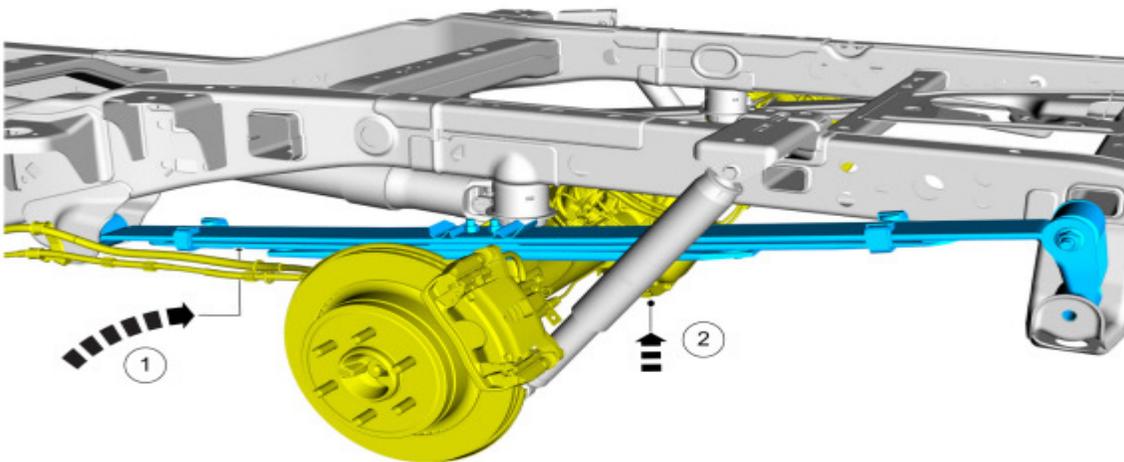
## M-3000- H F150 4X4 Rear Lowering Kit

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS

### Rear spring installation

1. Position the spring and shackle assembly.

Raise the axle.



E192161

**NOTE:** *Only tighten the nut and bolt to snug at this stage.*

3. Install the spring shackle-to-frame nut and bolt.

**NOTE:** DURING SUSPENSION RE-ASSEMBLY, APPLY BLUE THREAD LOCKING COMPOUND TO ALL FASTENERS!

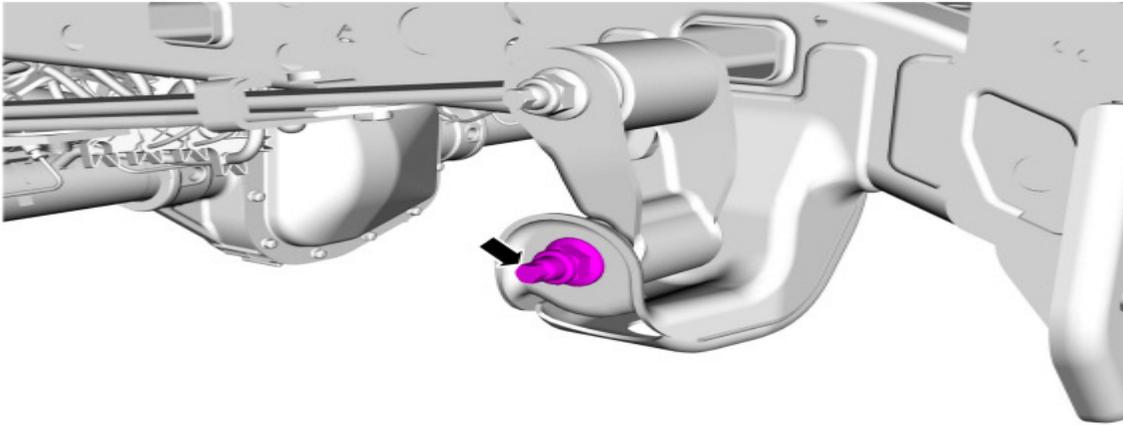
Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356



**FORD PERFORMANCE**

## M-3000- H F150 4X4 Rear Lowering Kit

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS

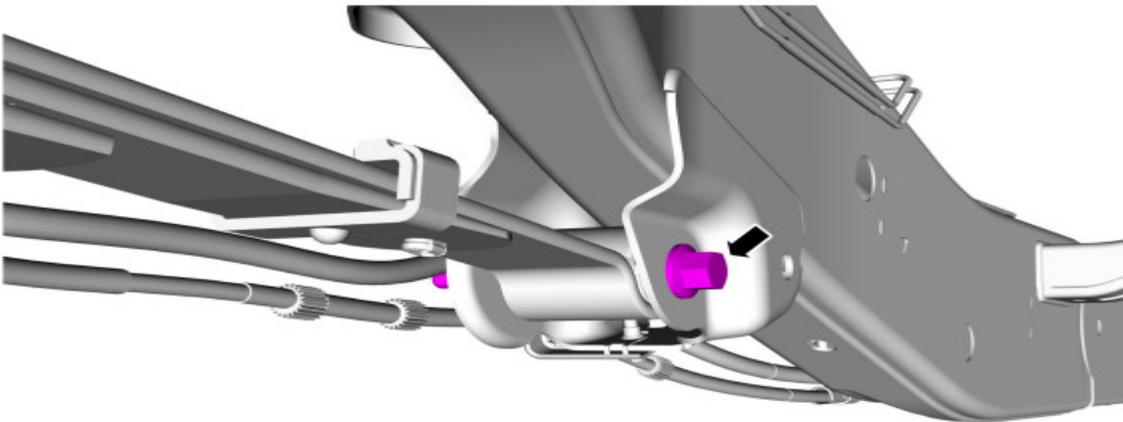


E192162

**NOTE:** *Only tighten the nut and bolt to snug at this stage.*

4. Install the spring-to-frame nut and bolt.

**NOTE:** DURING SUSPENSION RE-ASSEMBLY, APPLY BLUE THREAD LOCKING COMPOUND TO ALL FASTENERS!



E192163

Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356

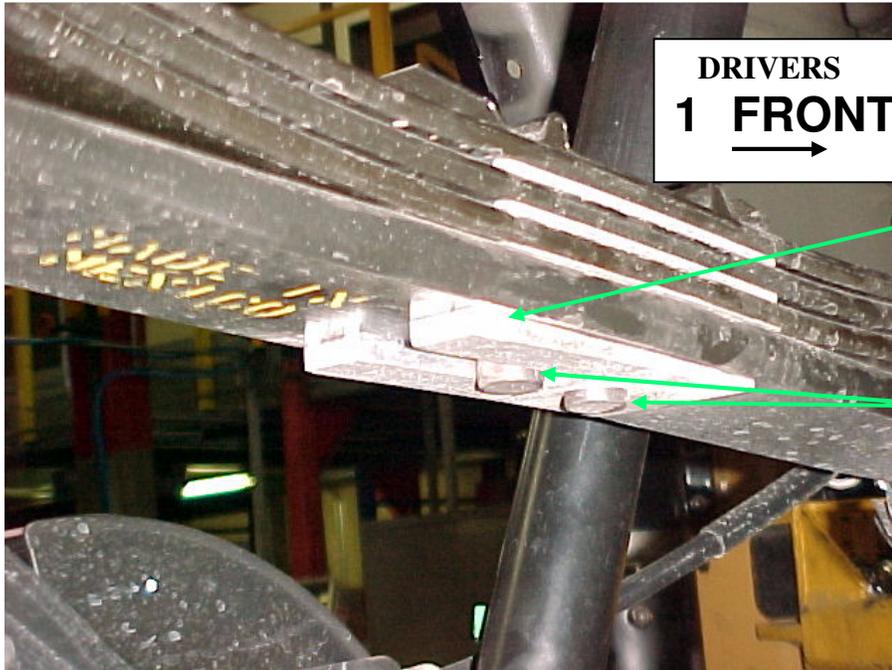


FORD PERFORMANCE

## M-3000- H F150 4X4 Rear Lowering Kit

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS

INSTALL THE SUPPLIED WEDGE ON TOP OF THE AXLE WITH THE **THICKER** END OF THE WEDGE TOWARD THE **REAR** OF THE VEHICLE. REFER TO PHOTO BELOW.



DRIVERS  
1 FRONT  
→

THICKER END OF  
WEDGE TOWARD  
THE REAR OF  
VEHICLE

STOCK CENTER  
PINS WITH THE  
HEADS ON THE  
BOTTOM OF THE  
SPRING PACK  
THROUGH THE

5.
  1. **NOTE:** *Verify U-bolts are perpendicular and on center to leaf spring. Maintain equal side-to-side clearance to leaf spring stack when securing.*  
  
Install the 2 U-bolts.
  2. Install the U-bolt plate.
  3. **NOTE:** *Only tighten the nut and bolt to snug at this stage.*
  4. Install the 4 U-bolt nuts.

**NOTE: DURING SUSPENSION RE-ASSEMBLY, APPLY BLUE THREAD LOCKING COMPOUND TO ALL FASTENERS!**

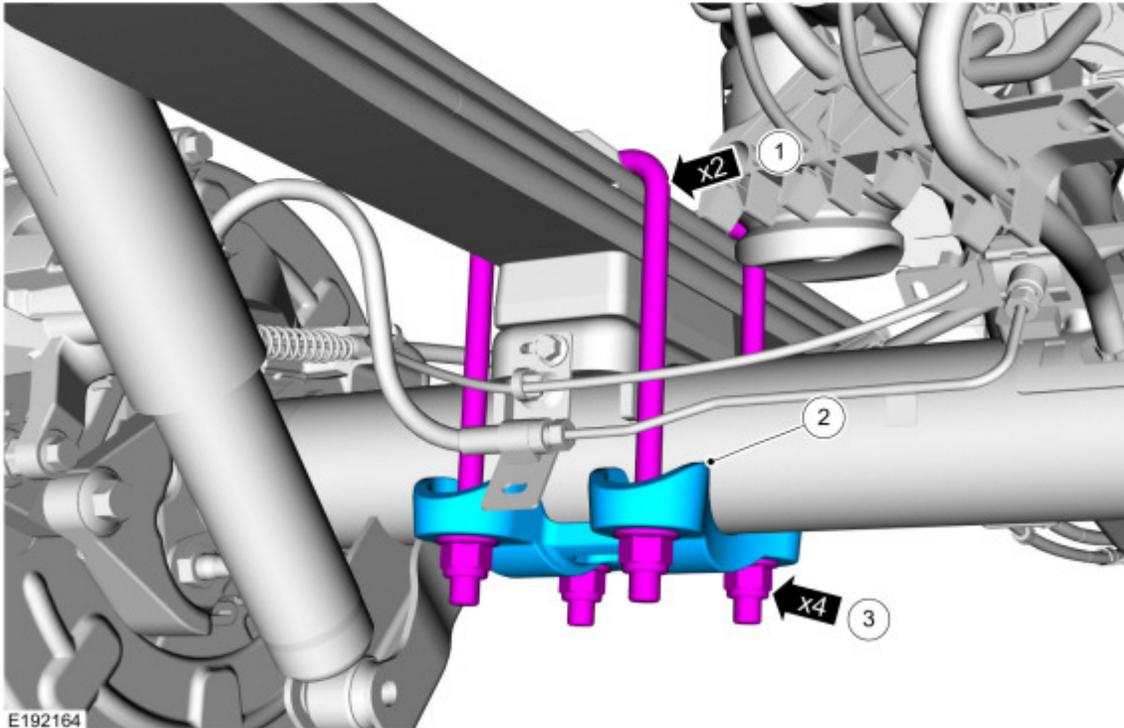
Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356



FORD PERFORMANCE

## M-3000- H F150 4X4 Rear Lowering Kit

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS



**NOTE:** *Only tighten the nut and bolt to snug at this stage.*

6. Install the rear shock absorber lower nut and bolt.

**NOTE:** DURING SUSPENSION RE-ASSEMBLY, APPLY BLUE THREAD LOCKING COMPOUND TO ALL FASTENERS!

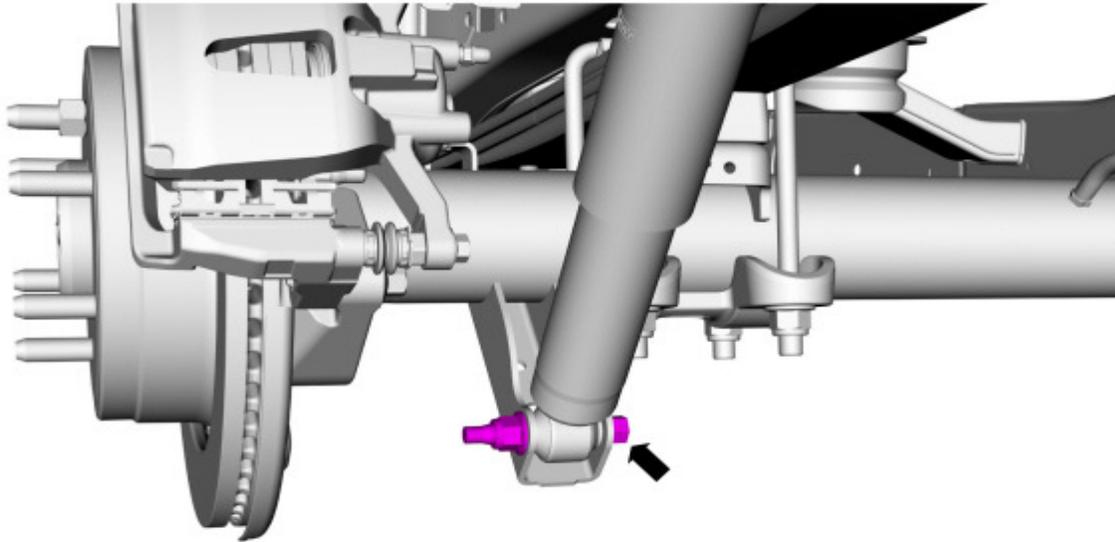
Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356



FORD PERFORMANCE

## M-3000- H F150 4X4 Rear Lowering Kit

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS



E192165

7. Install the wheel and tire.

**⚠ WARNING:** Retighten wheel nuts within 160 km (100 mi) after a wheel is reinstalled. Wheels can loosen after initial tightening. Failure to follow this instruction may result in serious injury to vehicle occupant(s).

**NOTICE:** Failure to tighten the wheel nuts in a star/cross pattern can result in high brake disc runout, which accelerates the development of brake roughness, shudder and vibration.

**NOTE:** *The wheel nut torque specification is for clean, dry wheel stud and wheel nut threads.*

**NOTE:** *Final tightening to be performed with vehicle resting on tires.*

Tighten the wheel nuts  
*Torque:* 150 lb.ft (204 Nm)

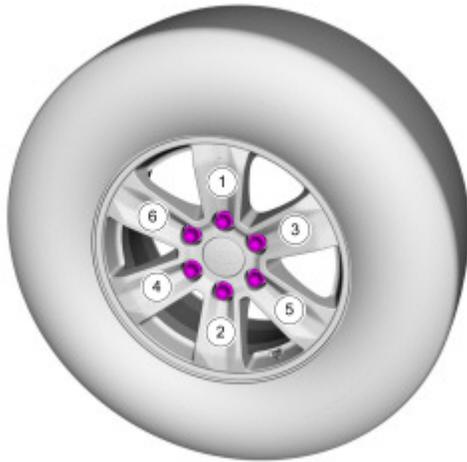
Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356



**FORD PERFORMANCE**

## M-3000- H F150 4X4 Rear Lowering Kit

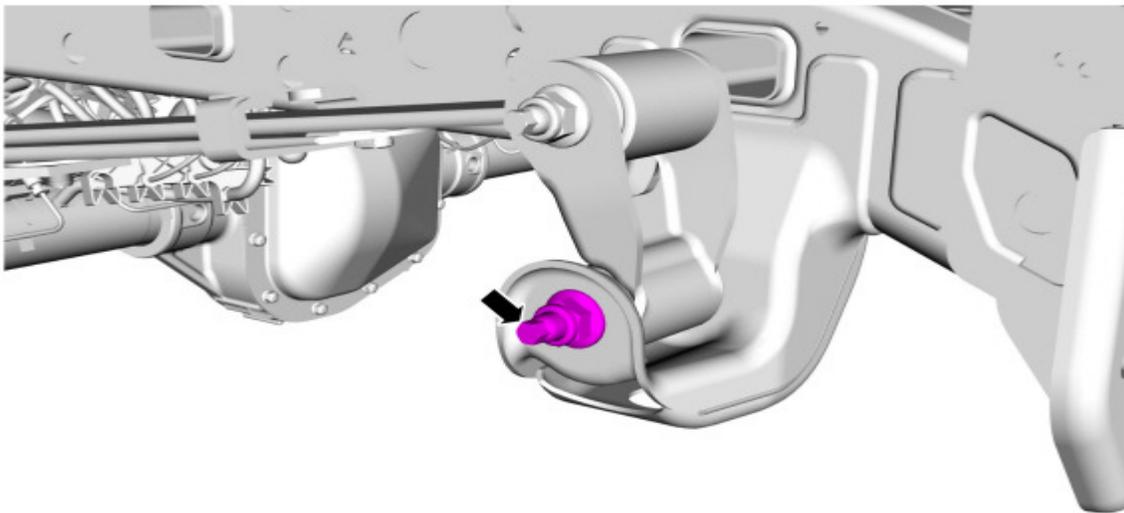
NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS



E190252

8. Lower the vehicle until the weight of the vehicle is resting on the wheels and tires (curb height).

9. Tighten the spring shackle-to-frame nut and bolt.  
*Torque: 173 lb.ft (235 Nm)*



E192162

Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356

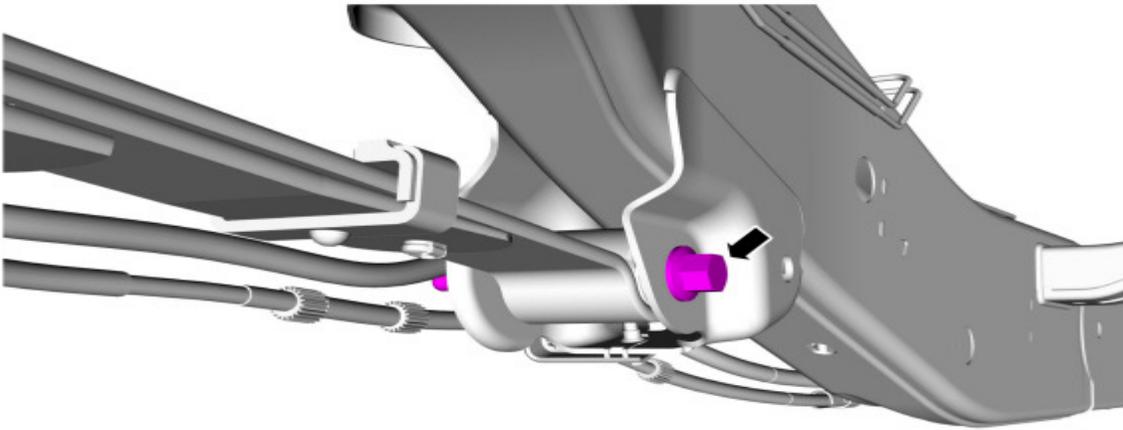


**FORD PERFORMANCE**

## M-3000- H F150 4X4 Rear Lowering Kit

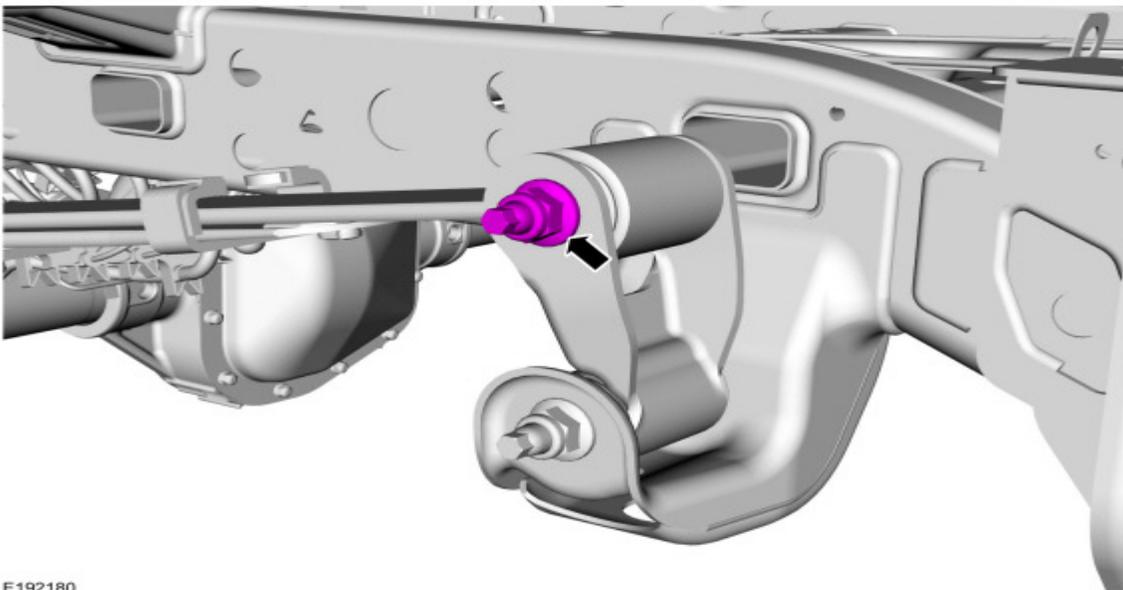
NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS

10. Tighten the spring-to-frame nut and bolt.  
*Torque: 258 lb.ft (350 Nm)*



E192163

11. Tighten the shackle-to-spring bolt and nut.  
*Torque: 173 lb.ft (235 Nm)*



E192180

Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356



**FORD PERFORMANCE**

## M-3000- H F150 4X4 Rear Lowering Kit

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS

### Muffler Installation

1. To install, reverse removal procedure.
2. Check the exhaust system for leaks.

Raise the fuel tank.

### Fuel Tank Installation

To install, reverse the removal procedure.

12. Tighten the U-bolt nuts in a cross pattern in 4 stages.

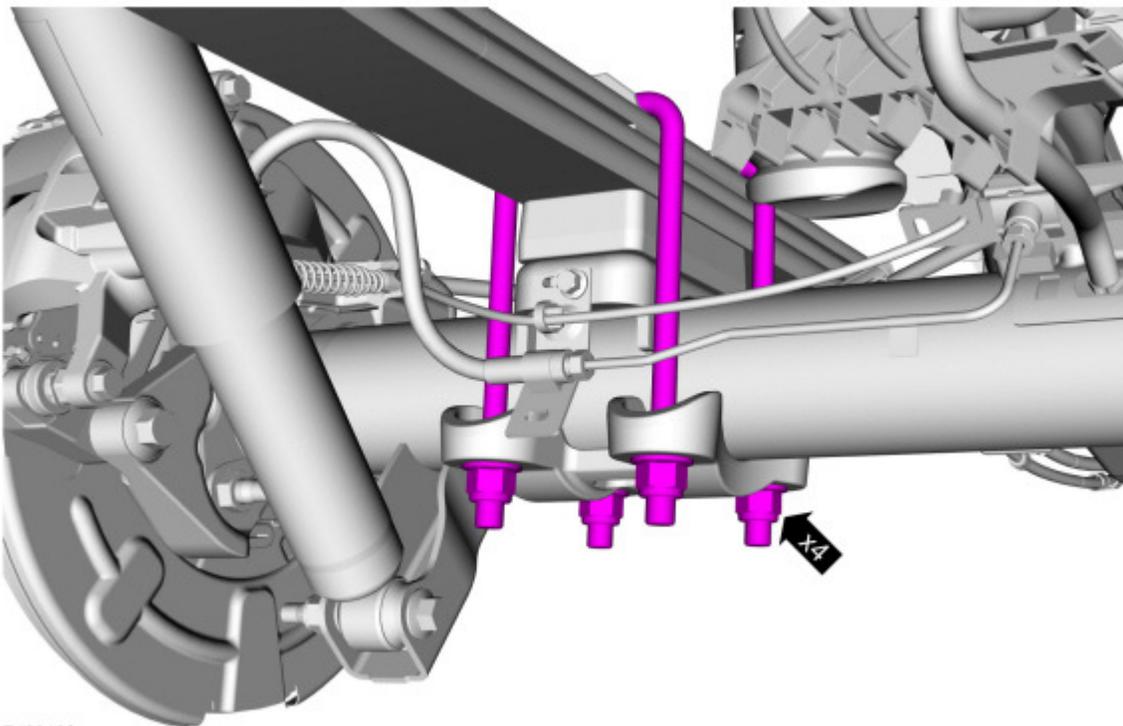
*Torque:*

Stage 1: 26 lb.ft (35 Nm)

Stage 2: 52 lb.ft (70 Nm)

Stage 3: 74 lb.ft (100 Nm)

Stage 4: 98 lb.ft (133 Nm)



Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356

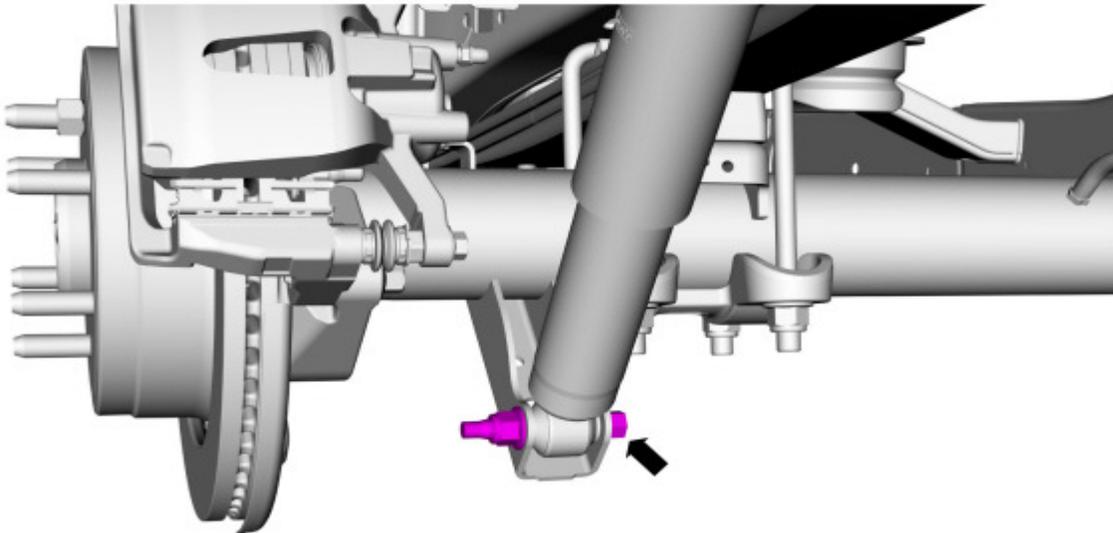


**FORD PERFORMANCE**

## M-3000- H F150 4X4 Rear Lowering Kit

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS

13. Tighten the rear shock absorber lower nut and bolt.  
*Torque:* 66 lb.ft (90 Nm)



E192165

14. CHECK THAT ALL INSTALLATION STEPS HAVE BEEN COMPLETED.  
CHECK THE TORQUE OF ALL NUTS AND BOLTS AFFECTED BY THIS PROCEDURE.  
RECHECK  
ALL NUTS AND BOLTS FOR TIGHTNESS AFTER THE FIRST 300 MILES AND AT EVERY  
ROUTINE SERVICE INSPECTION.
15. MAKE SURE TO INSTALL THE SUPPLIED WARNING DECAL FOLLOWING THE  
INSTRUCTIONS INCLUDED WITH THE WARNING INFORMATION SHEET.
- RECONNECT THE NEGATIVE BATTERY TERMINAL ON THE BATTERY.**
16. MAKE SURE TO KEEP THESE INSTRUCTIONS WITH THE VEHICLE.
17. Check front end alignment.
18. READJUST THE HEADLIGHTS TO THE PROPER SETTINGS.
19. ROAD TEST THE VEHICLE.

Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356