



1511 Hancel Parkway Mooresville, IN 46158 317-837-2444

Long Bar Traction System 2009-2014 F-150 All 4WD Models including Raptor (LLB-FT03)

This kit is designed to work on factory height or lifted 4WD models, including the Raptor. These trucks require longer traction bars to maintain proper rear suspension movement due to their increased ride height and wheel travel. Because of this, the front bracket is mounted to the flat section of the frame just in front of the kick-up.

Kit Includes:

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| <ul style="list-style-type: none">(1) Front Brkt. (Driver)(1) Front Brkt. (Pass.)(2) Rear Brackets(2) Long Bars(2) Rod End Assembly Kits | <ul style="list-style-type: none">(6) ½"-13x1.25" Hex Cap Screws(4) ½"-13x3.5" Hex Cap Screws(10) ½" SAE Washers(8) ½" Square Washers(4) ½"-13 Nyloc Nuts(4) Dual Nut Plates |
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Required Tools: Basic hand tools
Drill with 1/8" & 9/16" bits
Torque Wrench
Grinder

Install Time: Approximately 2hrs.

Rear Bracket Installation:

- 1) Raise rear of vehicle to allow access for installation. [*NOTE: It is recommended the vehicle's weight be supported by the suspension during installation. This can be accomplished by using a drive on style lift, ramps or raising the truck and positioning jackstands under axle housing between center section and shock mounts.*]
- 2) Loosen and remove retaining nuts and U-bolt plate from passenger side. The nuts will be reused but the U-bolt plate will not.
- 3) Loosely install Stifflers axle bracket using SQUARE washers and OEM nuts (Fig.1). Check that the U-bolts are still seated properly in the upper leaf spring plate.
- 4) Snug bracket squarely against axle housing by maintaining the same amount of thread showing below the nut at all four locations. Adjust bracket until dimension "X" is within 1/8" of each other. (Fig.1)
- 5) Using a torque wrench, evenly tighten fasteners to 75~80 ft-lbs.
- 6) Repeat steps 2-5 for remaining axle bracket.





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Front Bracket Installation:

- 7) About 5" in front of the frame kickup locate existing slot on the bottom of the frame (Fig.2). Place passenger's front bracket into position by aligning front mounting slot with slot in frame. There will be an overlap as shown (Fig.3). Use a scribe to trace both the front and rear mounting slots and the side mounting hole (Fig.4). Remove bracket.
- 8) Use a grinder to widen front slot to scribe mark (Fig.5).
- 9) Use a punch to mark center of radius at **REAR** of slot (Fig.6). **[NOTE: This is very important, mark as shown in the picture!]**
- 10) Mark center of side mounting hole.
- 11) At marked locations step-drill new holes starting with 1/8" and then 9/16" bit.
- 12) Insert a 90 degree nut plate into slot on frame (Fig.7) and position so the tab is touching end of slot (Fig.8). Test fit both bolts into nut plate a few turns to check alignment of holes, adjust holes size if needed. Remove bolts leaving nut plate in place.
- 13) Position the front bracket into place once again by aligning with slot. **Bend the nut plate tab to pass through the opening in the front of bracket (Fig.9), this will make it easier to install the bolt.** Loosely install 1/2"-13x1.25 bolts with washers. It is helpful to use a shallow socket and extension to get the bolts started. Do Not Tighten.
- 14) Using a straight nut plate, slightly bend tab and insert through existing hole in frame and line up with side mounting hole, loosely secure with supplied 1/2"-13x1.25 bolt and washer (Fig.10). **[NOTE: Only one bolt will be used with this nut plate.]**
- 15) Beginning at the bottom, snug all three bolts, then torque to 75~80 ft-lbs.
- 16) Repeat steps 7-15 for remaining front bracket.

Bar Installation:

- 17) Thread jam nuts completely onto rod ends then install into long bar. Leave 1/2" of thread showing between nut and end of bar. **[NOTE: Each bar requires one right (RH) & left (LH) hand rod end. LH thread is identified with machined groove (Fig.11).]**
- 18) Beginning with front bracket, assemble misalignment spacers onto rod end, squeeze together and insert into bracket (Fig.12). Insert bolt and secure with washer & nut. Torque to 75~80 ft-lbs.
- 19) Assemble parts onto remaining rod end and insert into rear bracket. Rotate bar until mounting holes align and install bolt, washer & nut. Torque to 75~80 ft-lbs.
- 20) Repeat Step 17~19 for remaining side.

BAR ADJUSTMENT – With truck sitting at ride height, confirm jam nuts are loose. Beginning with either side, **Lengthen bar by rotating them by hand until a firm resistance is felt and tighten jam nuts. Repeat for other bar. You have now put a small amount of preload in the system and you're ready to go! **[NOTE: It's recommended to occasionally check & reset the preload as the vehicle ages due to leaf spring sag or when any suspension modifications are made.]****



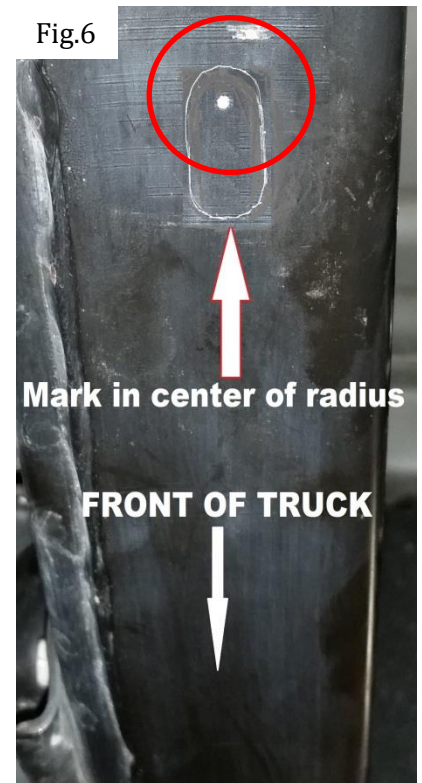
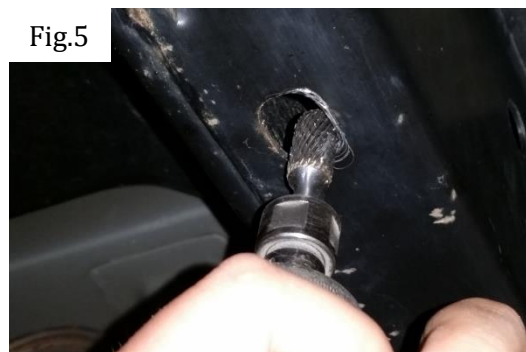




Fig.11