



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

Long Bar Traction System 2009-2014 F-150 All 2WD Models (LLB-FT02)

This kit is designed to work best on factory height or lowered 2WD trucks. Because the frames on these trucks sit lower to the ground and they typically have less wheel travel, a shorter traction bar can be used without concern of rear suspension binding. This allows the front bracket to be located on the kick-up section of the frame providing additional ground clearance and improved weight transfer under hard acceleration.

Kit Includes:

- (1) Front Brkt. (Driver)
- (1) Front Brkt. (Pass.)
- (2) Rear Brackets
- (2) Long Bars
- (2) Rod End Assembly Kits

- (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

Required Tools: Basic hand tools
Drill with 1/8" & 9/16" bits
Torque Wrench

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) Place passenger's front bracket into position by aligning with slot "A" and hole "B" in frame (Fig.2). To help keep the bracket in place, insert a ½"-13x1.25 bolt through hole "B" (see arrow in Fig.3), use a scribe to trace location of forward mounting slot (Fig.3). Remove bracket. **[NOTE: If your truck came from the factory without hole "B" scribe its location now.]**
- 8) Use a punch to mark center of radius at front end of slot (Fig.4). **[NOTE: This is very important, mark as shown in the picture!]**
- 9) Mark center of hole "B" if required.
- 10) At marked location(s) step-drill new hole starting with 1/8" and then 9/16" bit.
- 11) Insert a 90 degree nut plate into slot "A" on frame (Fig.5) and position so the tab is touching end of slot (Fig.6). 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 position with tab pointing down. (Fig.6).
- 12) Position Stiffeners front bracket into position once again by aligning with slot "A". **The nut plate tab will pass through the rear slot in the bracket (Fig.7).** Loosely install ½"-13x1.25 bolts with washers. It is helpful to use a shallow socket and extension to get the bolts started. Do Not Tighten.
- 13) Using a straight nut plate, slightly bend tab and insert through existing hole in frame and line up with hole "B", loosely secure with supplied ½"-13x1.25 bolt and washer (Fig.8). **[NOTE: Only one bolt will be used with this nut plate.]**
- 14) Beginning at the bottom, snug all three bolts, then torque to 75~80 ft-lbs.
- 15) Bend bottom nut plate tab flush with bracket, Fig.9 shows final install.
- 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 ½" 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.10).]**
- 18) Beginning with front bracket, assemble misalignment spacers onto rod end, squeeze together and insert into bracket (Fig.11). 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.1



Fig.2

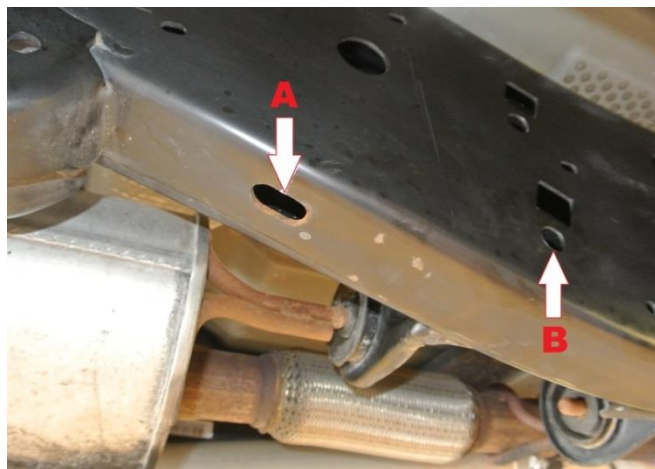


Fig.3



Fig.4



Fig.5

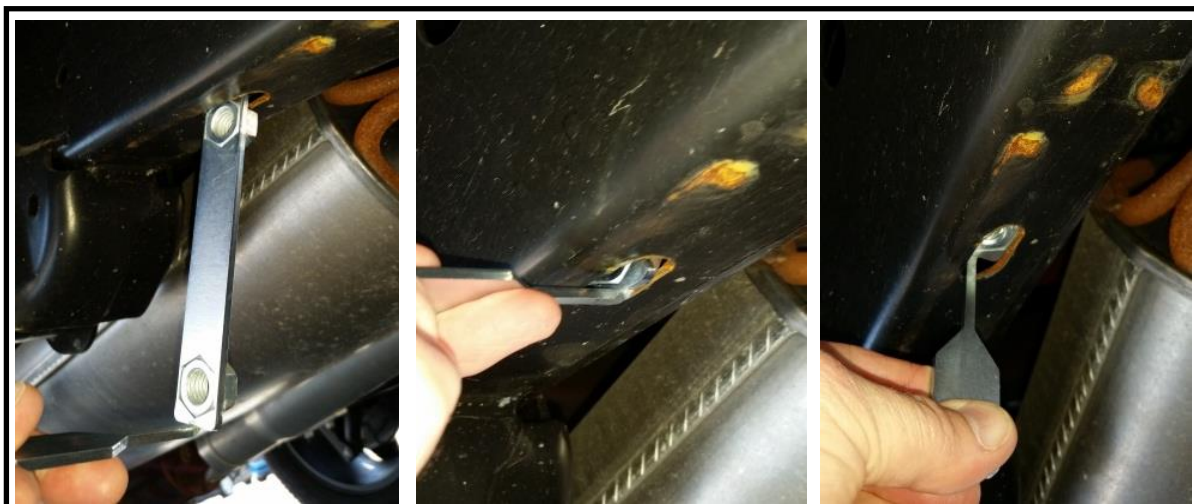


Fig.6



Fig.7



Fig.8



Fig.10



Fig.9

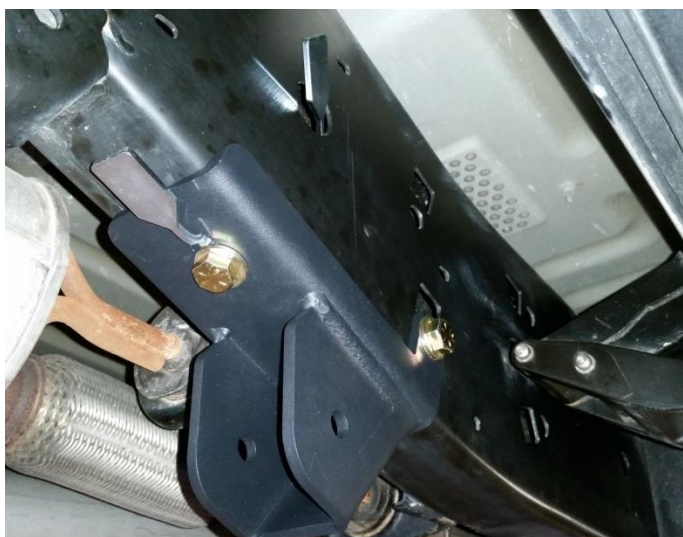


Fig.11

