

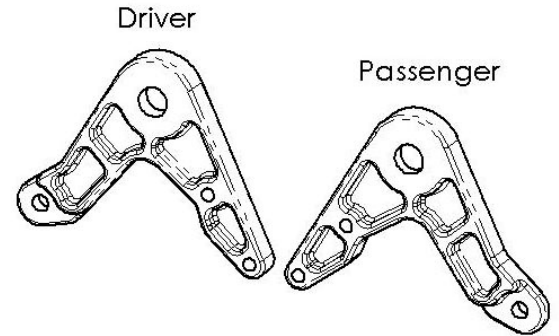
Rize Industries, LLC.

Leverage Link Installation Instructions

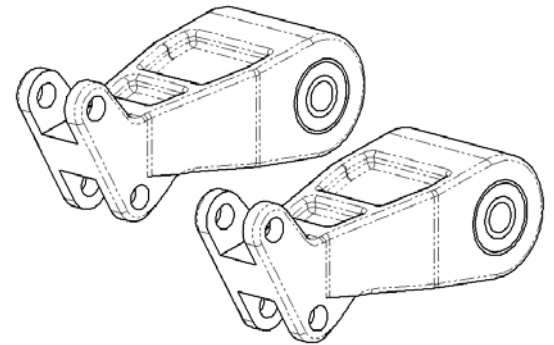
'99 - '04 Ford SuperDuty/Excursion 4x4

Contents / Packing List

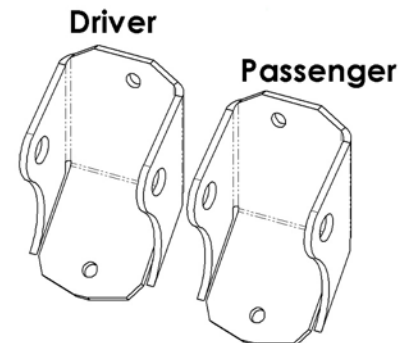
Item #	Qty	Description
1.	(1)	Driver Side Shock Hoop
2.	(1)	Passenger Side Shock Hoop
3.	(1)	Driver Side Leverage Link
4.	(1)	Passenger Side Leverage Link
5.	(1)	Driver Side Travel Limiter
6.	(1)	Passenger Side Travel Limiter
7.	(2)	Aluminum Swing-Arm
8.	(8)	5/8" Swing-Arm Tapered Heim Spacers (Short)
9.	(2)	5/8" Leverage Link Tapered Heim Spacers (Long)
10.	(4)	5/8" to 1/2" Reducing Stepped Heim Stainless Spacers
11.	(2)	Upper Steel Actuator Rods (7.5")
12.	(2)	Lower Aluminum Actuator Rods (5") For 6" Lift Kit 7" Rods Needed for 8" Lift, Call for Availability 9" Rods Needed for 10" Lift, Call for Availability
13.	(4)	5/8" Left Hand Male Heim Joints
14.	(4)	5/8" Left Hand Jam Nuts
15.	(4)	5/8" Right Hand Male Heim Joints
16.	(4)	5/8" Right Hand Jam Nuts
17.	(2)	5/8"-13 x 3" Countersink Bolt
18.	(4)	5/8"-13 X 3.5" Bots For Swing Arm Top & Bottom
19.	(6)	5/8"-13 Nylock Nuts
20.	(2)	1/2"-13 x 1.5" Hex Bolts for Travel Limiter
21.	(4)	1/2"-13 X 4" Hex Bolts For Mounting Shocks
22.	(4)	1/2"-13 X 2.5" Hex Bolts For Mounting Shocks
23.	(10)	1/2"-13 Nylock Nuts
24.	(20)	1/2" Flat Washers
25.	(2)	M20-2.5 x 160mm bolt for Swing-Arm Pivot
26.	(2)	M20-2.5 x 120mm bolt for Leverage Link Pivot
27.	(4)	M20-2.5 Nylock Nut
28.	(4)	Leverage Link Bearing Spacers (20mm ID, Stainless Steel)
29.	(4)	Swing-Arm Bearing Spacers (20mm ID, Powderdercoated)
30.	(4)	1/2" ID, 1" OD, 3/16" Thick Aluminum Shock Spacer
31.	(2)	1/2" ID, 2" OD, 1/4" Sway-Bar Mount Spacer



Leverage Links



Swing-Arms



Travel Limiter

BEFORE BEGINNING INSTALL VERIFY CONTENTS OF THE PACKING LIST, IDENTIFY COMPONENTS, THOROUGHLY READ, & UNDERSTAND ALL INSTRUCTIONS.

If you have any questions, comments, or concerns please call or email our support department and let us know.

Rize Industries, LLC.

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Shock Hoop Installation

1. Begin install of the Leverage Link Dual Shock System on the driver's side.
2. Remove shocks and factory shock mount from frame. Retain factory hardware.
3. Factory lower shock mount tabs must be drilled out to 1/2"
4. Remove rear-most bolt from front spring hanger. Retain factory hardware. (Fig-1 A)
5. Remove sway-bar mounting bolt, drill hole out to 1/2". Retain factory hardware. (Fig-1 B)
6. Install "Leverage Link" on hoop using the M20 x 120mm bolt, (2) Leverage Link Bearing Spacers, and an M20 Nylock Nut and torque to 65 FT-LB.

NOTE: the bearing cap goes to the inside of the vehicle, the leg with the two shock mounting holes points down, and the leg with the single mounting hole for the actuator rod points to the front of the vehicle. (Fig-2)

7. Assemble the upper actuator rod assembly by using a 7.5" steel actuator rod, a left hand threaded heim, a left hand threaded jam nut, a right hand threaded heim, and a right hand threaded jam nut. (Fig-3)
8. Attach one end of the upper actuator rod assembly to the outside of the "Leverage link" using the 5/8" Countersink Bolt, a long tapered spacer, and a 5/8" Nylock Nut. (Fig-4)
9. This kit requires **(1) 8" & (1) 10" travel shock per side** with valving that allows the shocks to operate in a horizontal position (Most popular shock manufacturers can supply these). Mount shocks with the main body towards the front of the vehicle and on the outside of the hoop using (2) 1/2"x 2.5" bolts & (2) 1/2" Nylock Nuts. Mount the shock shaft towards the rear of the vehicle to the inside of the leverage link using (2) 1/2"x 4" bolts, (2) 1/2" Nylock Nuts, and (2) 1/2" ID Aluminum Shock Spacers. (Fig-5) When installing shocks with heim type ends, use the Shock Mfg supplied spacers on the inside of the leverage link in addition to the aluminum spacer that are supplied in this kit.
10. Install hoop assembly onto vehicle with factory hardware using the front spring hanger rear most bolt (Fig-6 A), the top (2) factory shock mount bolts (Fig-6 B), and the factory sway-bar mounting bolt (Fig-6 C), and snug up but do not tighten at this time.

NOTE: On trucks with the sway-bar mounted in the stock configuration use the supplied spacer between the hoop and frame (Fig-7). On trucks with lift kit type relocating bracket use the bracket in place of the supplied 1/4" spacer. (Fig-8)

11. Install travel limiter bracket with factory hardware using the lower factory shock mount bolt (Fig-9) Snug up but do not tighten at this time.
12. Install aluminum swing-arm using the (2) supplied 20mm powdercoated spacers inside the travel limiter (Fig-10) using the M20 x 160mm bolt and a M20 Nylock Nut. Torque swing-arm pivot bolt to 65 FT-LB and **tighten all remaining hardware at this time.**
13. Attach the bottom end of upper actuator rod assembly to top of the swing-arm using a 5/8" Bolt, (2) short tapered spacers, and a 5/8" Nylock Nut. (Fig-11)
14. Assemble lower actuator rod assembly in the same manner as the upper actuator rod assembly using an aluminum rod.
15. Attach one end of the lower actuator rod to the bottom of the swing-arm using a 5/8" Bolt, (2) short tapered spacers, and a 5/8" Nylock Nut. Attach the other end of the actuator rod to the stock lower shock tabs on the axle housing using (2) stepped reducing spacers, and the stock hardware. (Fig-12)
Repeat Install on Drivers Side.

Actuator Rod Adjustment

16. Adjust the upper actuator rod so that the overall length is **11.5"** inches. (Fig-13)
17. Adjust the lower actuator rod so at ride height the lower shock has **5"** of shaft showing. If shock has a bump stop on shaft it is to be included in the measurement. (Fig-14)

NOTE: The actuator rod lengths give above are for base settings only. Fine-tuning of actuator rod lengths and how they affect shock travel will vary per vehicle. It is the responsibility of the installer to ensure that the set-up is correct. In general suspension compression as up-travel is the most important thing to dial in. As suspension rebound or down-travel is kept at a safe level with the supplied travel limiters. Make sure that the actuators rods are adjusted so that at the vehicle full suspension up-travel the shocks are not completely bottomed out. As little as 1/16" of shaft showing is all that is required to prevent shock system damage.

Fig-1

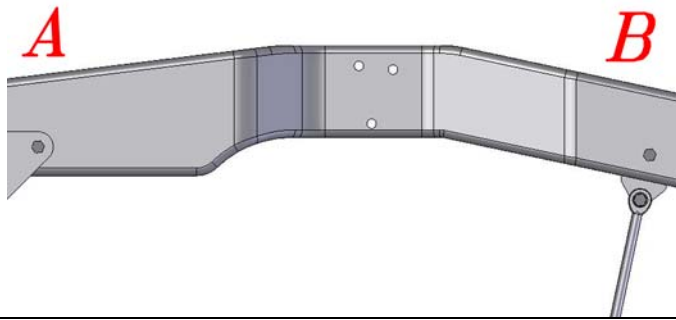


Fig-2

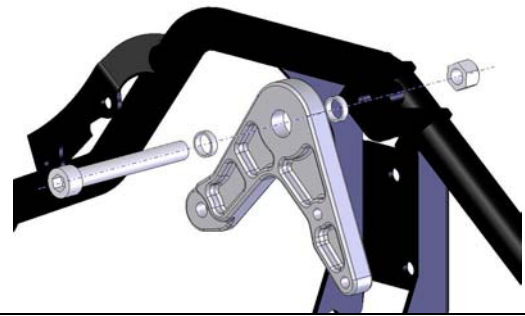


Fig-3



Fig-4

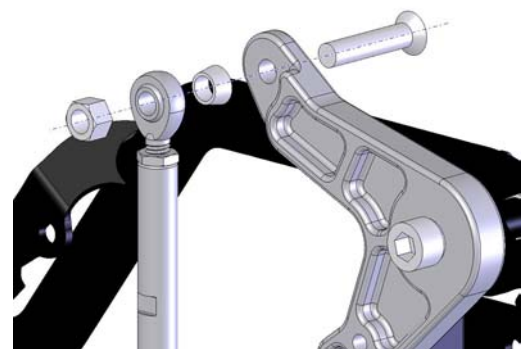


Fig-5

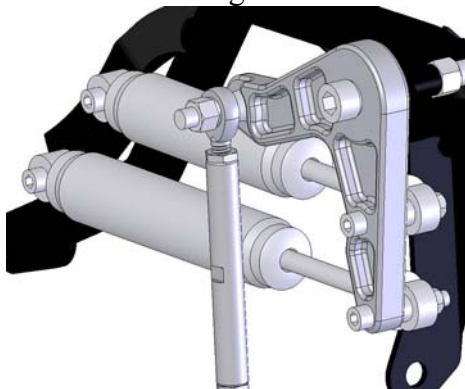


Fig-6

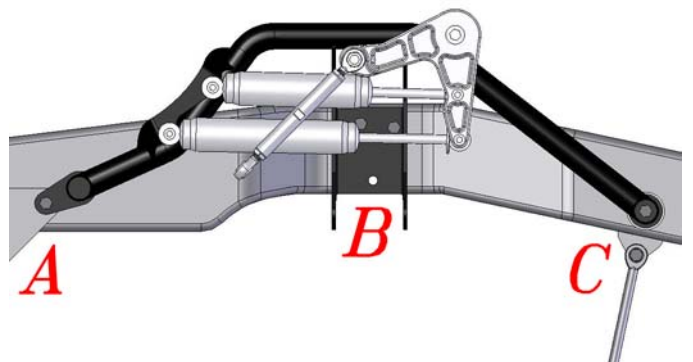


Fig-7

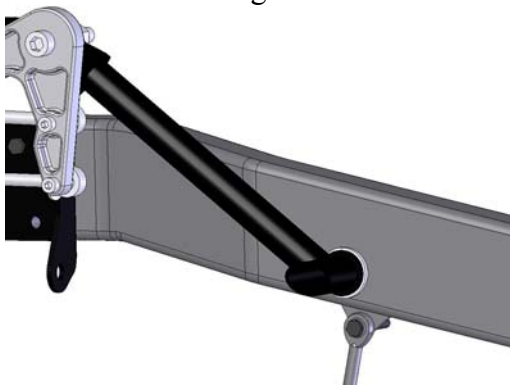


Fig-8

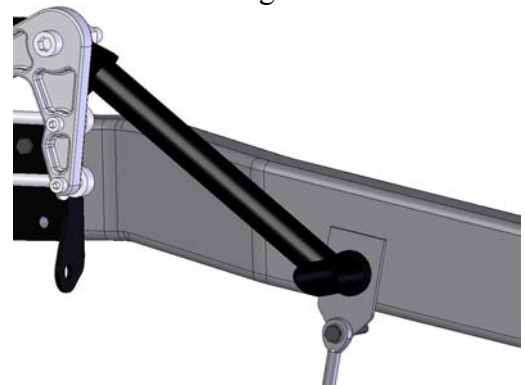


Fig-9

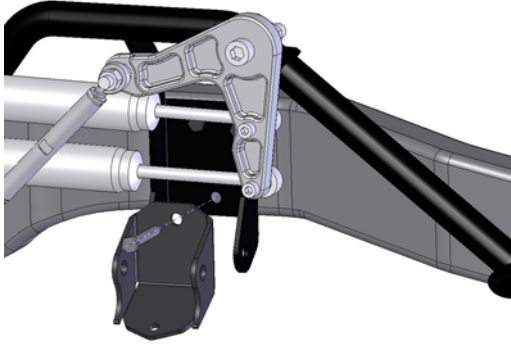


Fig-10

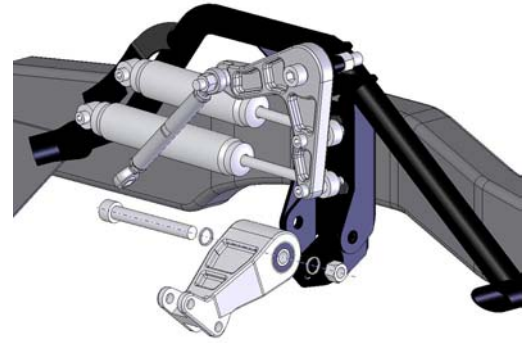


Fig-11

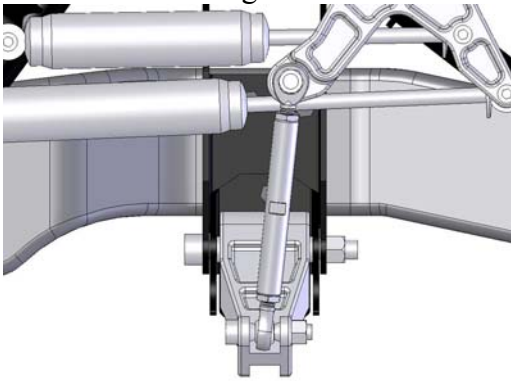


Fig-12

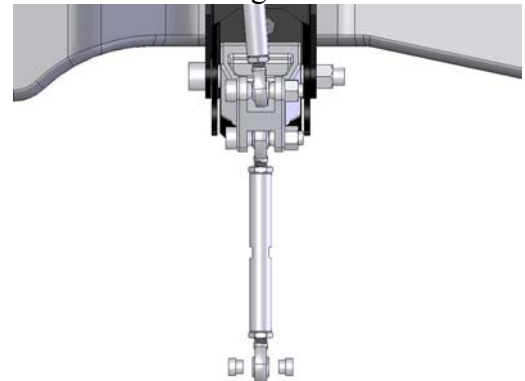


Fig-13

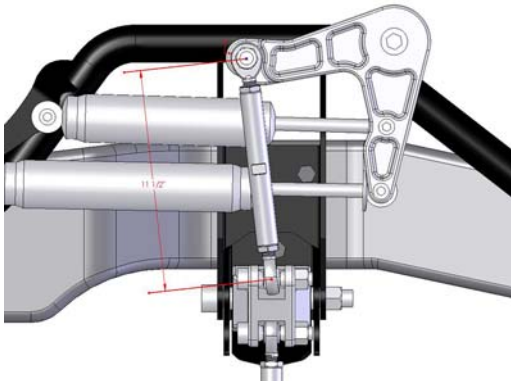


Fig-14

