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Part # 103 SH

Del-A-Lum Bushing & Shackle Kit Installation Instructions

Parts List:

- 4-Shackle halves
- 4- 1/2x20-stove lock nuts
- 4- Aluminum spring eye bushings
- 2- Aluminum frame bushings
- 4 -Shackle bushing inserts
- 2 - Ft. spring eyelet inserts with pins
- 4- (.225") thick thrust washers 1/2 inch
- 4 - .150" thick thrust washers
- 4- (.225") thick thrust washer's 3/4 inch hole
- 6 -Long grease fittings



We recommend that a competent shop install this bushing and shackle kit. Presswork and special tools are required to install this kit.

1. Remove rear springs from the vehicle. A Mitchell or Chiltons manual can be helpful, if you require assistance.
2. The gas tank must be dropped in order to press fit the rear frame bushings. **Make sure** to plug all fuel lines coming from the tank before removing it from the vehicle.
3. Remove the original rubber shackle bushings from the car's frame and thoroughly clean the frame hole, removing all rust and dirt to allow for easy installation of the new bushings.
4. The two small diameter aluminum bushings with no step are the frame bushings. Both rear frame bushings must be pressed in from the outboard side of the car. **Do not** attempt installation from the inboard side because you will have an interference problem. When installing the bushing in the frame point the grease-fitting hole towards the front of the car at about the 5 o'clock or 7 o'clock position depending on what side of the car you are on. **Remember the grease fittings must be located on the inboard side of the vehicle.** Place grease in the frame hole before pressing in the bushing. For presswork we use 1/2 inch All-thread. This is threaded rod you can purchase from a hardware store and two flat plates for installing the bushing. Cut the treaded rod about 7-1/2 inches long. Place a jam nut and plate on one end of the All-thread and slide the rest of the All-thread through the

bushing and frame. Place the other plate and jam nut on the other side of the assembly. Align the grease hole in the frame correctly and start tightening down the nuts on the All-thread rod. Push the bushing in until the bushing is flush with the edge of the frame housing. After completion remove the All-thread assembly.

5. Remove the spring eyelet bushings from your leaf.

6. To insure proper spring alignment, the **front** eyelet bushing must be pressed in so that the ends of the bushing on both sides of the spring are equal about (3/8"). **The grease fittings must be located on the inboard side of the vehicle.** We recommend pointing the grease fitting down and on a slight angle towards the split in the spring eye.

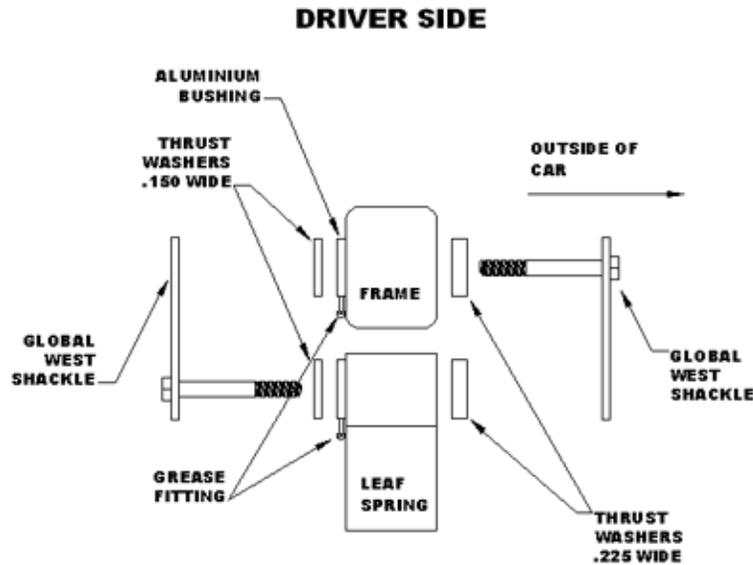
7. The rear leaf spring bushing presses in with the grease fitting to the inside of the car. At this point you will notice that all the grease fittings should be towards the inside of the car when everything is assembled correctly. Before pressing in the bushing, slightly screw the grease fitting in the bushing. Press the bushing into the rear spring eye so the grease fitting is towards the split (end of the roll of the spring eyelet) in the leaf. The fitting will actually be pointed down and towards the front of the car. Press the bushing in until the grease fitting just touches the leaf spring.

7. Next, install the inserts. The front inserts have a steel pin inside of them. Slide the pin out of the insert and lubricate the insert inside and out. Slide the pin back in the insert and install it in the bushing housing. Next locate in your kit 2 white thrust washers with a $\frac{3}{4}$ ID. Install one thrust washer on each side of the bushing over the protruding pin. These thrust washers generally tap on with a dead blow hammer.

The frame inserts and rear leaf spring inserts are the same length. Lubricate the inside of the bushings (frame and rear spring eyelet) and inside of the insert. Slide the inserts into the bushing housings.

8. At this time install the factory front spring eye mount. Slide the spring up into the mount and install the factory $\frac{1}{2}$ inch bolt. Torque the bolt to 70 foot-pounds and then install the assembly on the car.

8. White plastic thrust washers must be installed on the shackles before installing on the car. The following chart shows the locations of the thrust washers at the shackle location.



Note: Shackle halves are installed as follows: The bolt on the outboard shackle half goes through the frame and the bolt on the inboard shackle half goes through the spring eyelet bushing.

Place grease on each side of the thrust washers during assembly. Slide a shackle half through the leaf spring and one through the frame with the appropriate thrust washer installed. Swing the leaf up into position and with thrust washers installed slide the halves together. Install the locking nuts.

10. Once the shackles are installed and the leaf spring is hanging, tighten the shackle nuts down until the shackle assembly just has contact between the thrust washers, shackle halves, bushing, and leaf. There should be no air gaps. Then tighten the nut 1/8 of a turn or 1 flat on the nut. Do not torque the shackles to any number. This product acts like a bearing. Adjustment is somewhat similar to a wheel bearing. If you over tighten the shackle, the bushing will lock up.

11. Once both sides are completed the rear end can be re –installed and fuel tank.