

Installation and Adjustment Instructions for The New and Improved Adjustable Lower Support (LL 300-002)

1. When installing with the Humpback ball return and you are converting from kickers, you will first need to drill out the 1/4" holes on your ball lift tube using the installation template (see pages 1 and 1A of the installation guide for humpbacks).

Note: Due to variances in equipment, it may be necessary to drill out these holes on the tube slightly oversized to allow for smooth positioning of the lower support.

2. Place the lower support onto the ball lift tube and secure with the 1/4" bolts. Make sure that it is slid down as far as it will go. See figure 1.

3. Drill a 3/8" hole through the top part of the tube only, using the lower support as a template. See figure 2.

4. Remove the lower support and turn it 180° and drill out a 3/8" hole on the opposite side of the ball lift tube. Remove the lower support.

5. Secure the 5/16" X 4" bolt onto the ball lift tube using the 3/8" holes drilled. See figure 3.

6. Slide the lower support over the 5/16" bolt and insert the 1/4" bolts through the tube (leave the 1/4" nuts loose). Adjust the 5/16" bolt so that the 1/4" bolts sit at the lowest point of the slots (this is your starting position). Tighten the 5/16" nuts. See figure 4.

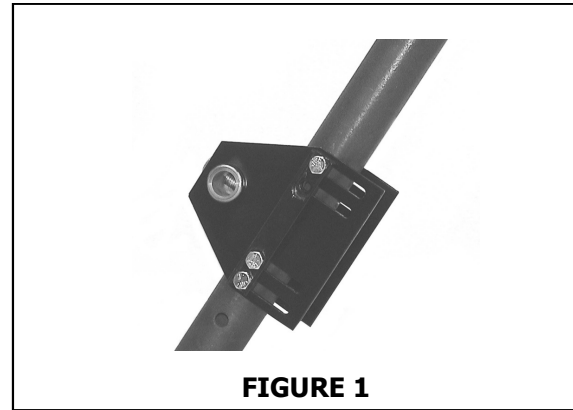


FIGURE 1

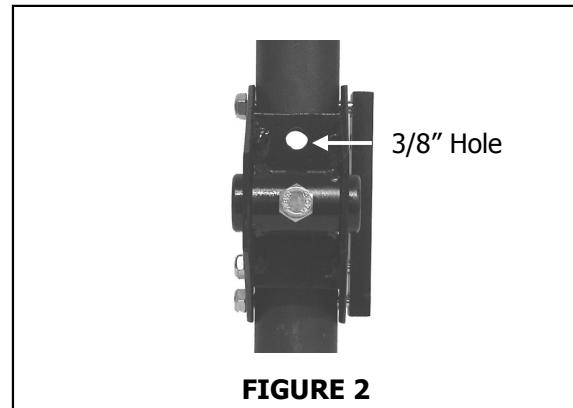


FIGURE 2

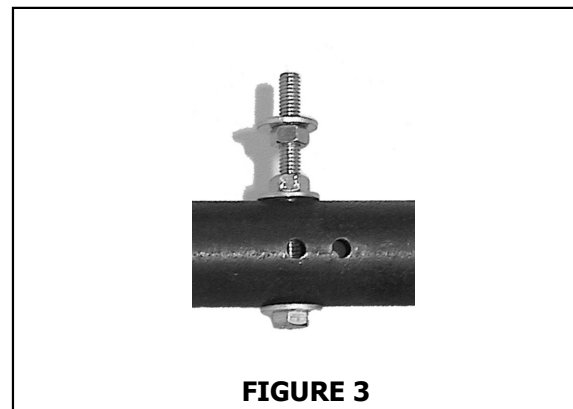


FIGURE 3

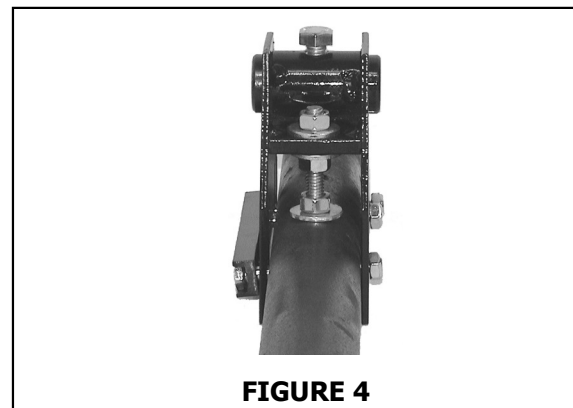


FIGURE 4

ADJUSTING THE ANGLE OF THE BALL LIFT

1. To achieve the perfect angle on the ball lift, adjust the rubber bumpers to create the desired distance from the uprails. See figure 1.

Distance from the top of the bumper to the plate it screws into should be no higher than 1 1/4 inch.

2. It is now very simple to get the ball to drop in freely with 1/8" belt clearance over the ball.

3. Release the spring tension from the carpet drive belts. See figure 2.

4. Loosen the top 5/16" nut a few turns. See figure 3.

5. Lifting up on the ball lift tube will raise the lower support upward toward the 5/16" top nut just loosened, releasing pressure off the lower 5/16" nut.

6. You can now spin the lower 5/16" nut up or down with your finger. Spinning it downward will bring the bottom of the ball lift toward the rear of the machine, allowing more clearance for the ball. Spinning the nut upward will bring the ball lift closer, reducing clearance. See figure 3.

7. When you let go of the ball lift tube, the lift will rest on the rubber bumpers and the lower support will rest on the lower 5/16" nut again. Check clearance for the ball. When you have achieved the desired clearance, tighten the top 5/16" nut and the three 1/4" nuts to lock the unit in place. See figure 4.

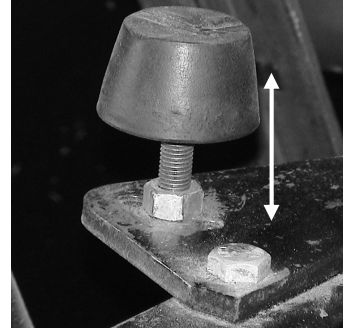


FIGURE 1



FIGURE 2

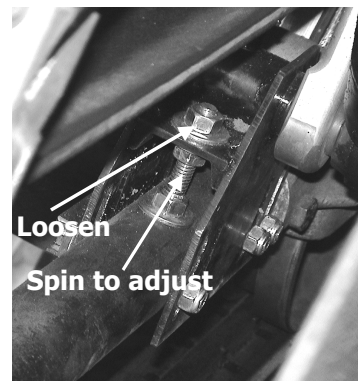


FIGURE 3

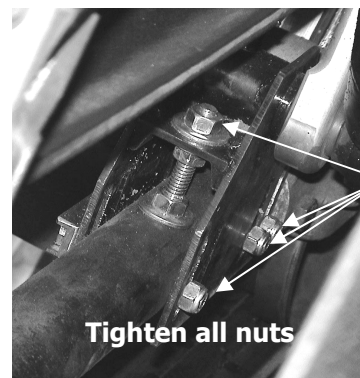


FIGURE 4