

HYDRA FIGURE 8 INSTALLATION GUIDE

This guide will assist you in the installation of the **Hydra Figure 8** system. Read over all instructions prior to installation to familiarize yourself with the installation process.

Parts are as follows:

| Item No. | Part No. | Description | Qty | |
|----------|------------------------------|--------------------------|--------|---|
| 1 | | Hydra Figure 8 | 1 |  |
| 2 | HA-4M3K-75.0 HA-4M3K-78.5 | 75" Hose 78-1/2" Hose | 1 1 |  |
| 3 | HA-6M3K-104.0A | 104" Hose | 2 |  |
| 4 | HA-6M3K-38.5 | 38-1/2" Hose | 2 |  |
| 5 | HA-HOSEBLOCK BODY RL | HYDRAULIC BLOCK RL | 2 |  |

| | | | | | |
|----|-----------------------------|---------------------------------------|--------|--|---|
| 6 | AD-6400-6-8 | #6 JIC to #8 ORB | 4 | |  |
| 7 | AD-6400-8-8 | #8 JIC to #8 ORB | 1 | |  |
| 8 | VA-1108F | HF8 Check Valve | 1 | |  |
| 9 | AD-FEM-502-8F0MALE | Male Flat Face Quick Coupler | 2 | |  |
| 10 | AD-6815 8-8 | O-Ring Street Elbow | 2 | |  |
| 11 | AD-6801-6-6 | #6 JIC to #6 ORB Elbow | 2 | |  |
| 12 | HD-CL TW500CL HD-CL TW500CP | TWIN CLAMP, 8M3K COVER PLATE, 8M3K | 1 1 | |  |

| | | | | |
|----------------------------|--|-----------------------------------|--------|--|
| 13 | Dummy Coupler HD-HF8-N42 7/8 x1/8 Qty. (2) BO-#8x3/4 Qty. (2) BO-#8 Nylock Nut Snap Ring HD-RSE .05x1.387 | Dummy Couplers Snap ring | 2 2 |  |
| 14 | Hose Bracket FP-HF8-HoseBrkt Qty. (1) FP-RL-RTVL Hole Loop Qty. (1) | Hose bracket | 1 |  |
| 15 | FP-HF8-HBM | Hydraulic Block Mount | 1 |  |
| 16 | CY-HF8-Cylinder | | 1 |  |
| 17 | BO-1/2x1 HCS | Bolt, 1/2" x 1 | 2 | |
| 18 | BO-1/2 LW | 1/2" Lock Washer | 2 | |
| 19 | BO-3/4x6 | Bolt, 3/4" x 6" | 1 | |
| 20 | BO-3/4 HNN | 3/4" Nyloc Nut | 3 | |
| 21 | BO-5/16x1 3/4 | Bolt, 5/16" x 1 3/4" | 1 | |
| 22 | BO-5/16 LW | 5/16 Lock Washer | 1 | |
| 23 | BO-1/4x3-1/4 HCS | Bolt, 1/4" x 3-1/4" | 2 | |
| 24 | BO-1/4 FW | 1/4" Flat Washer | 2 | |
| 25 | BO-3/4x3-1/4 HCS | Bolt, 3/4" x 3-1/4" | 1 | |
| 26 | BO-3/4x5 HCS | Bolt, 3/4" x 5" | 1 | |
| 27 | BO-5/16x3/4 FLAT HEAD BOLT | Bolt, 5/16" x 3/4" FLAT HEAD BOLT | 1 | |
| 28 | 3/4 Thrust FW | Thrust FW | 1 | |
| 29 | HD-HF8-Rectangle Grip | | 1 | |
| 30 | HD-HF8-Red Finger Grip | | 1 | |
| 31 | HD-HF8-Red Round Grips | | 1 | |
| Signature _____ Date _____ | | | | |

1. Position and align the holes of the **Hydra Figure 8** pivot base onto the Reel lift arm with the pivot base between the two ears at the end of the arm. Thread the 3/4x6 bolt (**ITEM 19**) through the hose bracket (**ITEM 14**), through the outer ear, pivot base and inner ear and thread the 3/4 nut (**ITEM 20**) onto the bolt but do not tighten yet. Position the front tab of the pivot base on top of the threaded anchor plate and align the holes. Thread two (2) 1/2"x1 bolts (**ITEM 17**) and lock washers (**ITEM 18**) through the front tab and into the anchor plate. Tighten the installed bolts. **Figure 3**

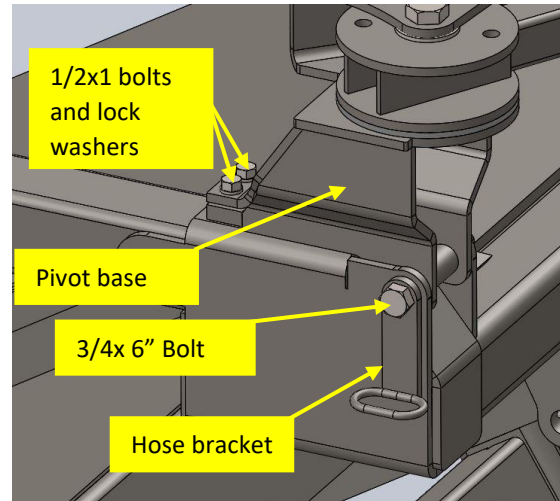


Figure 3

2. Thread and tighten the check valve adapter (**ITEM 8**) into the single port side of one of the hydraulic blocks (**ITEM 5**). Thread and tighten the four #6JIC to #8ORB adapters (**ITEM 6**) into each side of the hydraulic blocks with the double ports and thread and tighten the #8JIC to #8ORB adapter (**ITEM 7**) into the remaining single port on the remaining hydraulic block. **Figures 4 & 5**

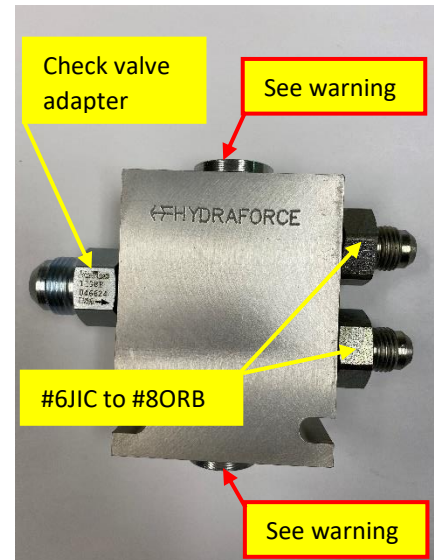


Figure 4



WARNING: Verify that end cap fittings are tight prior to installation of hydraulic block.

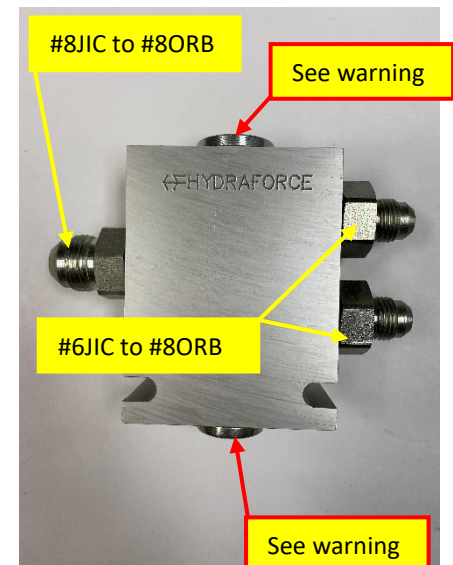


Figure 5

WARNING: To prevent accidental injury or loss, ensure that all persons and obstacles are clear of Reel Lift arms before operating.

3. Move the Reel Lift arms to the unload position to gain access to the hose clamp bracket(s) under the rear assembly. Locate the bracket for the hydraulic blocks (**ITEM 5**) on the passenger side of the rear assembly welded onto the cover sheet. **Figure 6**

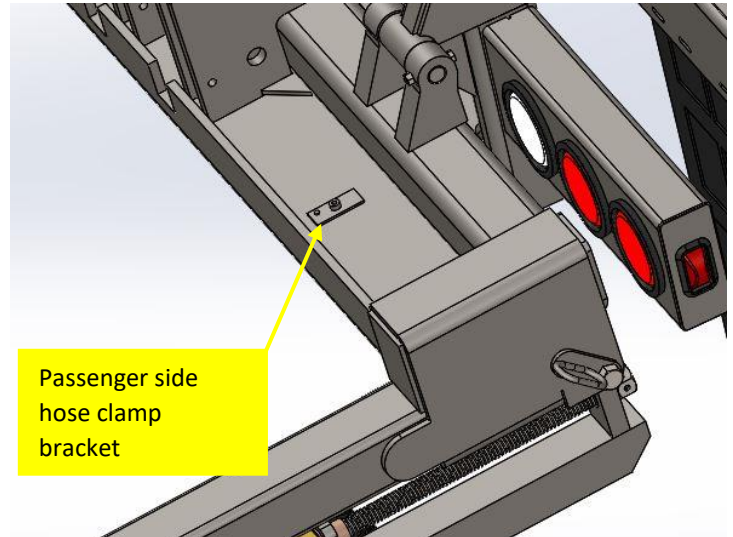


Figure 6

4. Place the hydraulic block mount (**ITEM 15**) on the bracket with the locating hole on the underside of the mount lined up with the locating pin on the bracket. Insure that the threaded holes in the hydraulic block mount are facing toward the front of the vehicle. Use the 5/16x3/4 flat head bolt (**ITEM 27**) to fasten the mount to the welded bracket. **Figure 7**

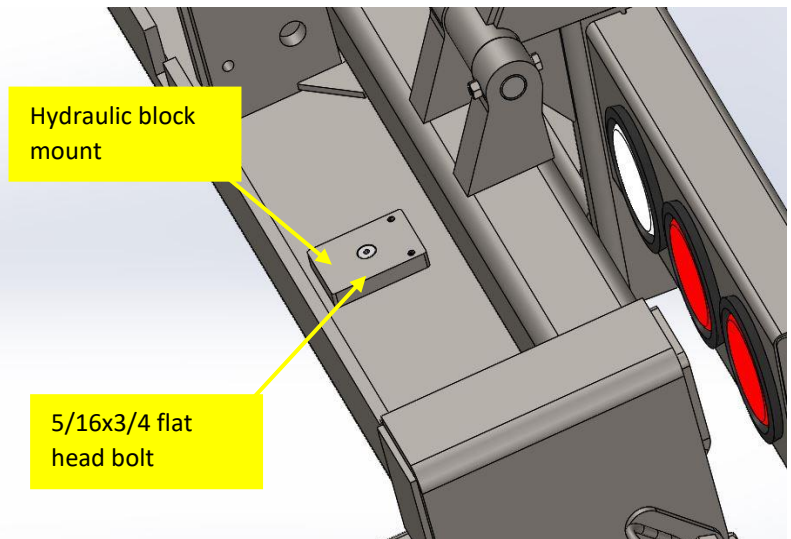


Figure 7

5. Place both hydraulic blocks on top of the hydraulic block mount with their single ports facing towards the center of the vehicle ensuring that **the block with the check valve is at the bottom**. Thread both 1/4 x 3-1/4" bolts (**ITEM 23**) and flat washers (**ITEM 24**) through the hydraulic blocks and into the block mount and tighten. **Figure 8**

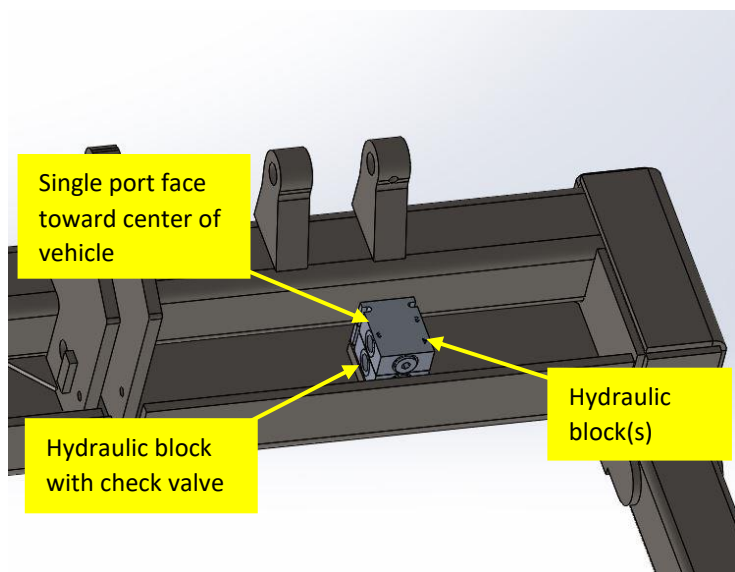


Figure 8

6. Install one half of the hose clamp (**ITEM 12**) onto the driver side weld-on clamp plate. Connect the 104-inch hose (**ITEM 3 - green**) to the bottom port, where the check valve should be, on the hydraulic block. Route the hose between the linkage plates and the cover plate, through the saddle of the hose clamp furthest away from the cab, and then through the hose bracket to the motor port closest to the ground. Connect the other 104-inch (**ITEM 3 - blue**) hose to the remaining hydraulic block port. Route the hose following the same route as the first 104-inch hose but to the hose clamp saddle closest to the cab, and to the remaining motor port. Remove the slack between the hose clamp and the hoses connected to the hydraulic blocks and install the other half of the hose clamp (**ITEM 12**) onto the driver side clamp, install hose clamp cover plate and use the 5/16"x1 3/4" bolt (**ITEM 21**) and 5/16" lock washer (**ITEM 22**) to hold the hoses in place. **Figure 9**

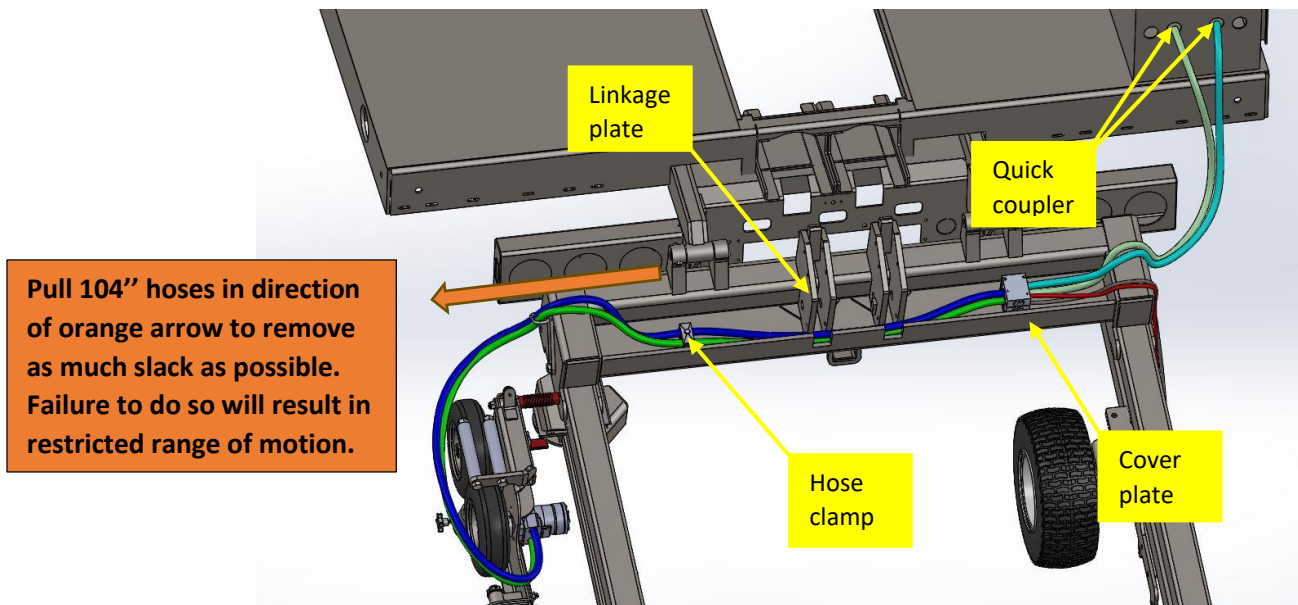


Figure 9

7. Connect the O-ring street elbows (**ITEM 10**) to the male flat face quick couplers (**ITEM 9**) and connect assembled quick couplers and elbows to each of the 38-1/2-inch hoses (**ITEM 4**).

8. Connect the open end of the 38-1/2-inch hoses to the #6JIC fittings on the hydraulic blocks closest to the 4" tube on the rear assembly installed in Step 4. **Figure 10**

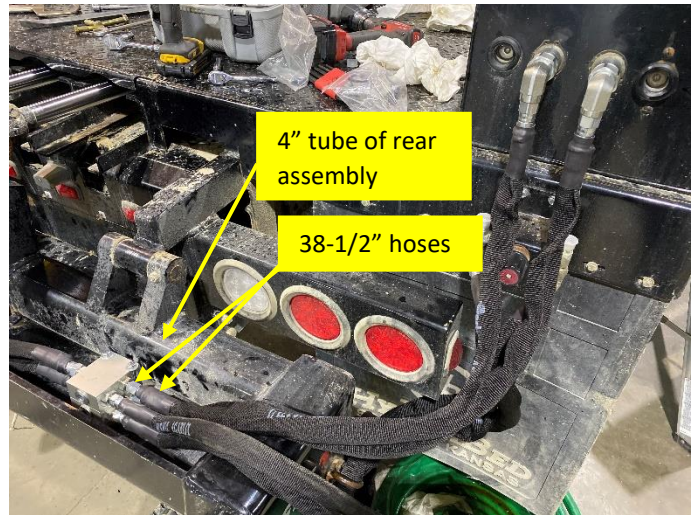


Figure 10

9. Connect the 75-inch hose (**ITEM 2**) to the remaining open port on the bottom hydraulic block and the 78-1/2-inch hose (**ITEM 2**) to the remaining open port on the top hydraulic block installed in step 4. **Figure 11**

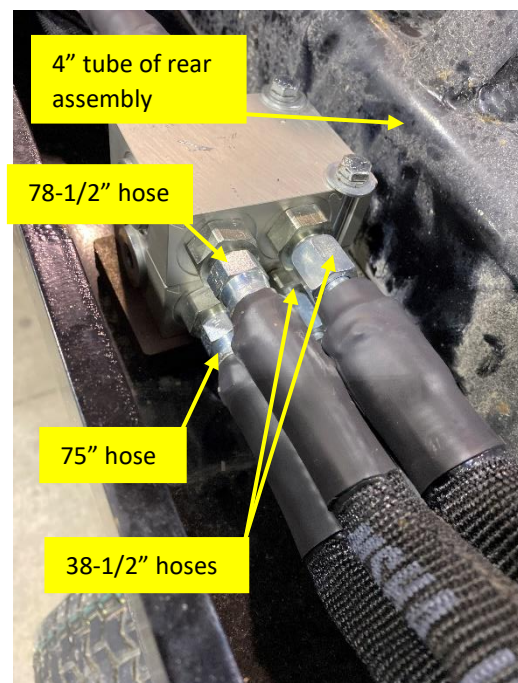


Figure 11

10. Install the dummy couplers (**ITEM 13**) into each of the drilled holes and secure with a snap ring (**ITEM 13**) on the inside of the control box. **Figure 13**



Figure 13

11. The quick coupler connected to the 38-1/2-inch hose on the top hydraulic block should be connected to the outside female quick coupler on the Reel Lift control box and the bottom 38-1/2-inch hose should be connected to the inside female quick coupler on the Reel Lift control box. The Tool Circuit lever will operate the **Hydra Figure 8**.

If the Reel Lift bed is equipped with a **HydraWinder**, follow the steps below to install the hydraulic cylinder onto the **HydraWinder** to enable the braking capabilities.

12. Move the Reel Lift arms back onto the bed to gain access to the **HydraWinder**.



WARNING: To prevent accidental injury or loss, ensure that all persons and obstacles are clear of Reel Lift arms before operating and make sure hoses installed in step 8 are free from being pinched by the movement of the Reel Lift arms.

13. Where applicable, remove the motor bracket pivot stop and reinstall the bolt and nut holding it into place. Loosen the pivot bolt nut prior to removing the pivot stop to aid in removal. **Figure 14**

Note: Wheel removed for clarity.

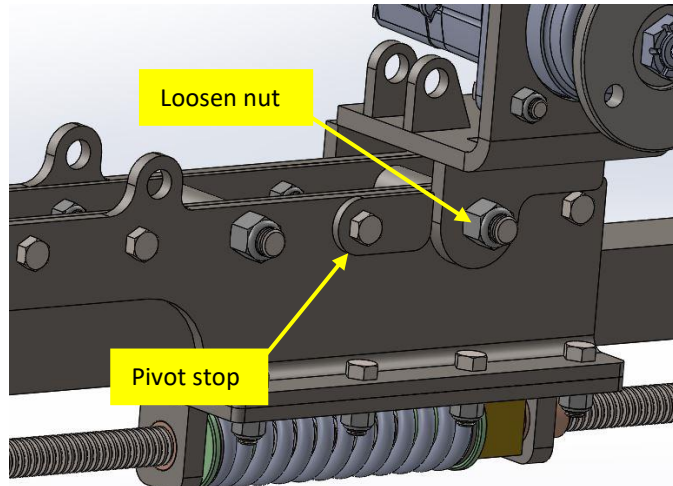


Figure 14

14. Locate the hydraulic cylinder mounting holes on the **HydraWinder**. **Figure 15**

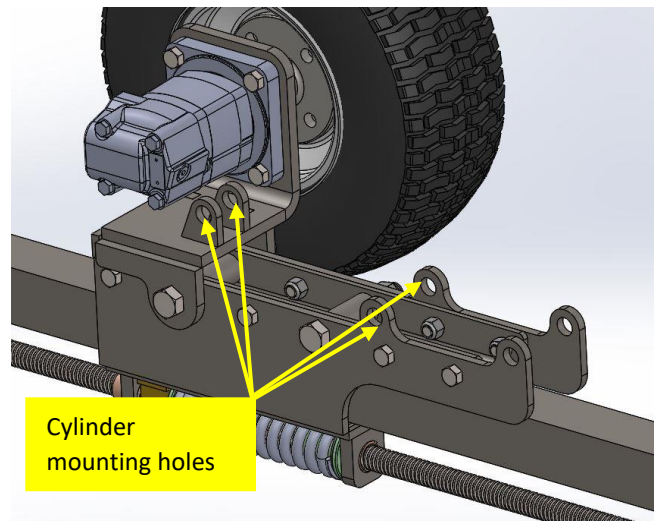


Figure 15

15. Place the hydraulic cylinder (**ITEM 16**) with the base of the cylinder between the two mounting holes of the **HydraWinder** with the grease zerks of the cylinder facing up and the fitting ports facing towards the outside of the vehicle. Thread the $\frac{3}{4}$ -10 X 5" bolt (**ITEM 26**) through holes and cylinder with the head of the bolt toward the outside of the vehicle. Thread a $\frac{3}{4}$ " nyloc nut (**ITEM 20**) onto the bolt but do not tighten until the rod end of the cylinder is mounted. **Figure 16**

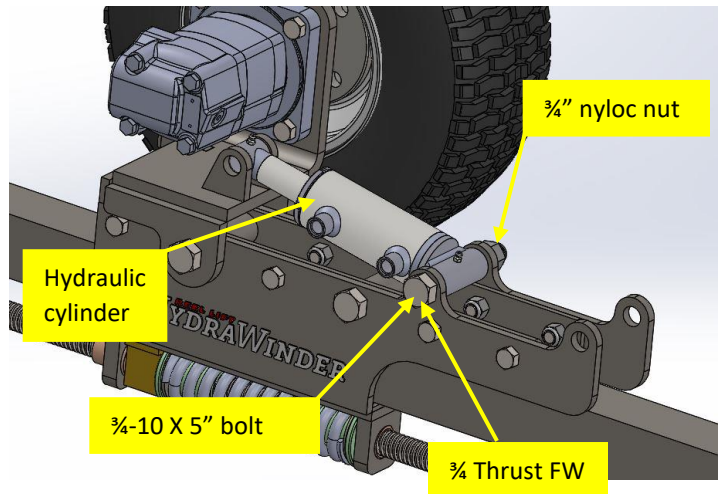


Figure 16

16. Thread the $\frac{3}{4}$ -10 X 3-1/4" bolt (**ITEM 25**) through the motor pivot bracket and through the rod end of the cylinder with the head of the bolt toward the outside of the vehicle. Thread a $\frac{3}{4}$ " nyloc nut (**ITEM 20**) onto the bolt and tighten both the rod end and base end nuts. **Figure 17**

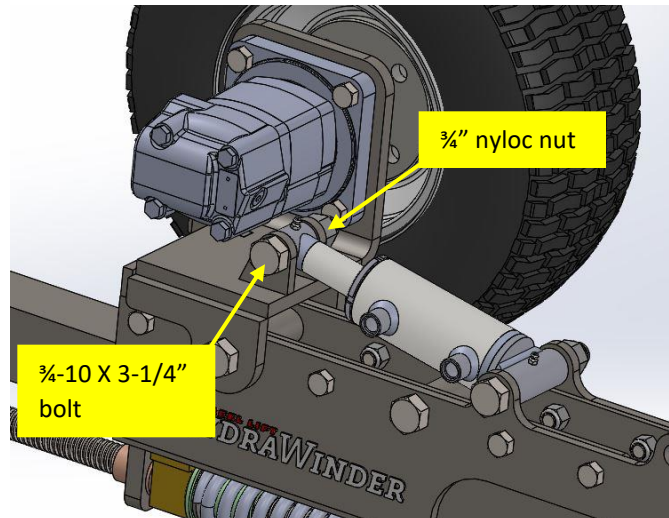


Figure 17

17. Thread both #6 JIC to #6 ORB 90° (**ITEM 11**) elbows into the ports on the side of the cylinder with their open ends facing rearward. Leave them loose to help line up the hydraulic hoses during the hose installation procedure. **Figure 18**

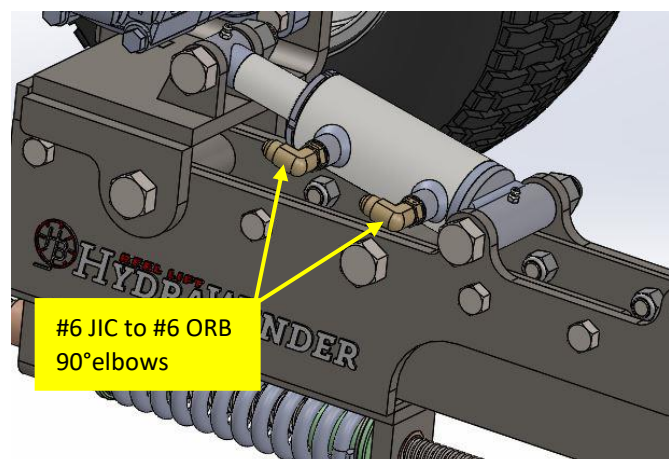


Figure 18

18. Connect the 78-1/2-inch hose (**ITEM 2**) installed in step 8 to the fitting closest to the base end of the cylinder and the remaining 75-inch hydraulic hose installed in step 8 to the fitting at the rod end of the cylinder. Route the hoses along the existing hoses of the **HydraWinder** and secure them with heavy tie straps. **Figure 19 & 20**

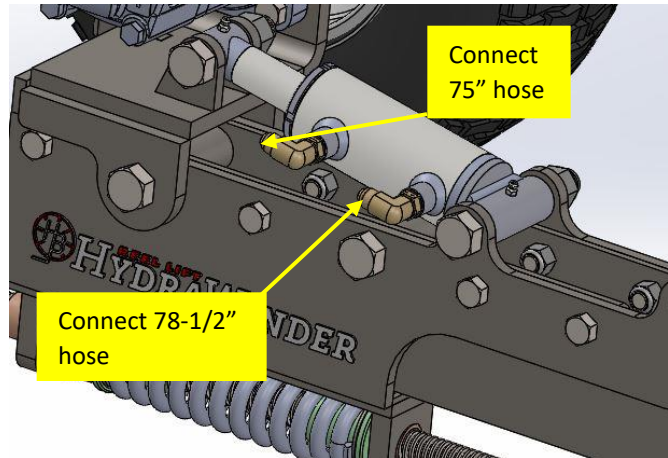


Figure 19

19. Ensure that the 78-1/2-inch and 75-inch hydraulic hoses (**ITEM 2**) are routed to look like **Figure 20**. Failure to do so could result in hoses being pinched when the rear assembly is lowered onto the bed.



Figure 20



WARNING: To prevent accidental injury or loss, ensure that all hoses are clear of pinch points on bed. Load/Unload arms to confirm hoses are properly routed.