QUIC-LIFT™ Horizontal Ladder & Portable Tank Systems
Model HLAS/Model HPTS
Hydraulic Power Unit (Pump & Motor) Replacement

ZICO®

3097PM21

Note: This manual should be used alongside manual 3097PM6 (to download a copy visit ziamatic.com). For all part numbers in parenthesis, refer to Chart 1 HLAS Parts Listing on page 26 of that manual. The Figure numbers in this manual are the same as that manual with the exception of Figure 1A and 1B.

WARNING: *The Hydraulic system is a closed loop system. Hydraulic fluid in this system may be under pressure. Always wear safety glasses and protective clothing (Personal Protective Equipment (PPE)). No one, other than a qualified hydraulic pump technician, should attempt to remove any fittings or hoses from the system. The system contains one orifice which is restricted to .025" (30) Figure 19. Removal of this fitting or not properly disconnecting the hydraulic lines could cause bodily injury.*

I. Hydraulic Fluid Specifications

- SAE 5W20, or other clean hydraulic fluid with a viscosity of 150 to 300 SUS at 100 degrees Fahrenheit.
- System capacity (dry) is 50 ounces.

II. Removal of Old Hydraulic Power Unit

1. If possible, lower the booms and remove the ladder(s) and the ladder rack first. If not, the ladder(s) and the ladder rack must be carefully removed in the upright position.

2. Take note and tag the terminals of the yellow and red electric wires to the hydraulic power unit (7). Now disconnect them.

CAUTION: *The hydraulic lines must be disconnected slowly to relieve pressure within the lines. Hydraulic fluid may spray out of the fittings. Wear proper Personal Protective Equipment (PPE) while doing this.*

Note: Have container(s) ready to catch any leaking fluid from the disconnected hydraulic lines.

3. Slowly disconnect the hydraulic line (27) to relieve pressure from the hydraulic cylinder (8) fitting (31). See Figure 19.

4. Take note and tag the order of the hydraulic lines that are attached to elbow (25) before removal. Slowly disconnect the hydraulic lines from the elbows (25) on the front side of the pump. See Figure 22.

5. Remove the plastic breather elbow (48) with the breather, if new ones are not supplied, from the power unit. See Figure 22.

Note: Before disassembling the power unit (7) from the mounting bar (32) in the next 2 steps, see Figures 1A and 1B for specific bolt locations which are essential for proper reassembly. Figure 1A shows the plate to the base casting. Figure 1B shows the plate mounted to the power unit.

6. Remove the 4 bolts (45) and 4 lock washers (73) holding the power unit mounting bar (32) to the base casting (1).

7. Remove the hydraulic power unit (7) from the power unit mounting bar (32).

III. Installation of New Hydraulic Power Unit

For steps 1 and 2, see Figures 1A and 1B for specific mounting holes.

1. Fasten the hydraulic power unit (7) to the power unit mounting bar (32).

2. Fasten the power unit mounting bar (32) to the base casting (1) using 4 bolts (45) and 4 lock washers (73).

3. Attach the hydraulic lines to the elbow fittings (25) to the front side of the pump.

4. Connect the electric wires to the hydraulic power unit (7).

5. Connect the hydraulic line (27) to the hydraulic cylinder (8) fitting (31).

IV. Adding Hydraulic Fluid

1. Put 32 ounces of fresh hydraulic fluid into the pump through the breather/fill hole where plastic breather elbow (48) is normally located.

2. Run the booms up and down three or four times. Bleed air from the lines the first time. Wait approximately 5 minutes with the booms down, check the fluid level. Approximately 18 ounces of fluid will have been replaced into the lines and hydraulic cylinder.

3. Add approximately 14 ounces of fluid to the reservoir, cycle the system a few more times and then recheck fluid level. 1/4" to 1/2" below breather/fill hole is a good level.

4. A couple more ounces of fluid may have to be addded to bring the fluid up. When the full level is obtained, install breather elbow (48) with the breather. Fluid and power unit replacement are complete.

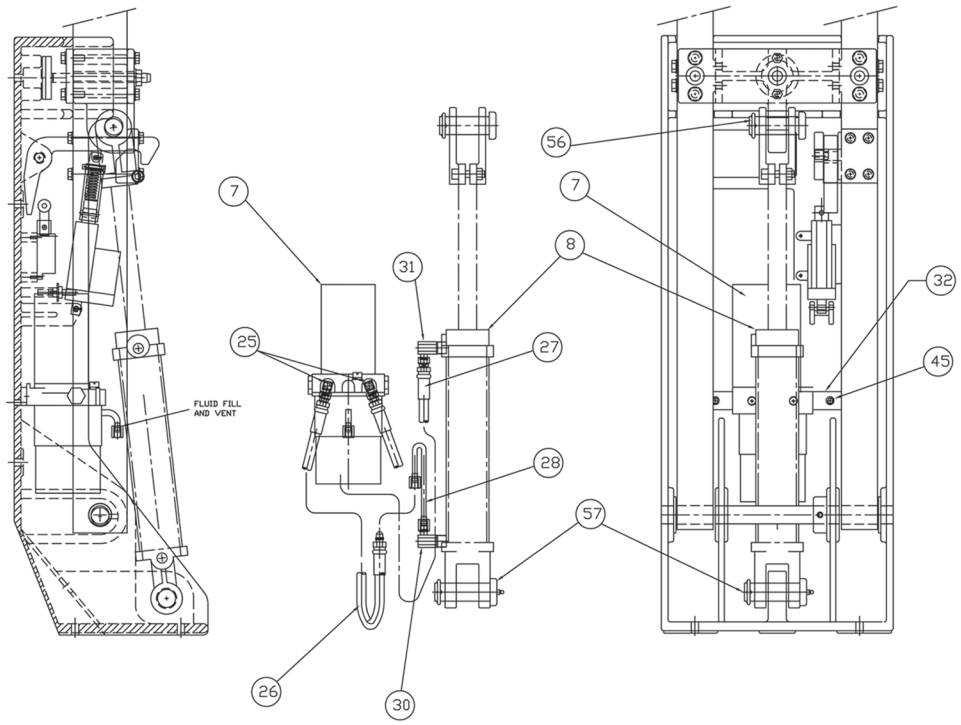


FIGURE 19
HYDRAULIC SYSTEM COMPONENTS

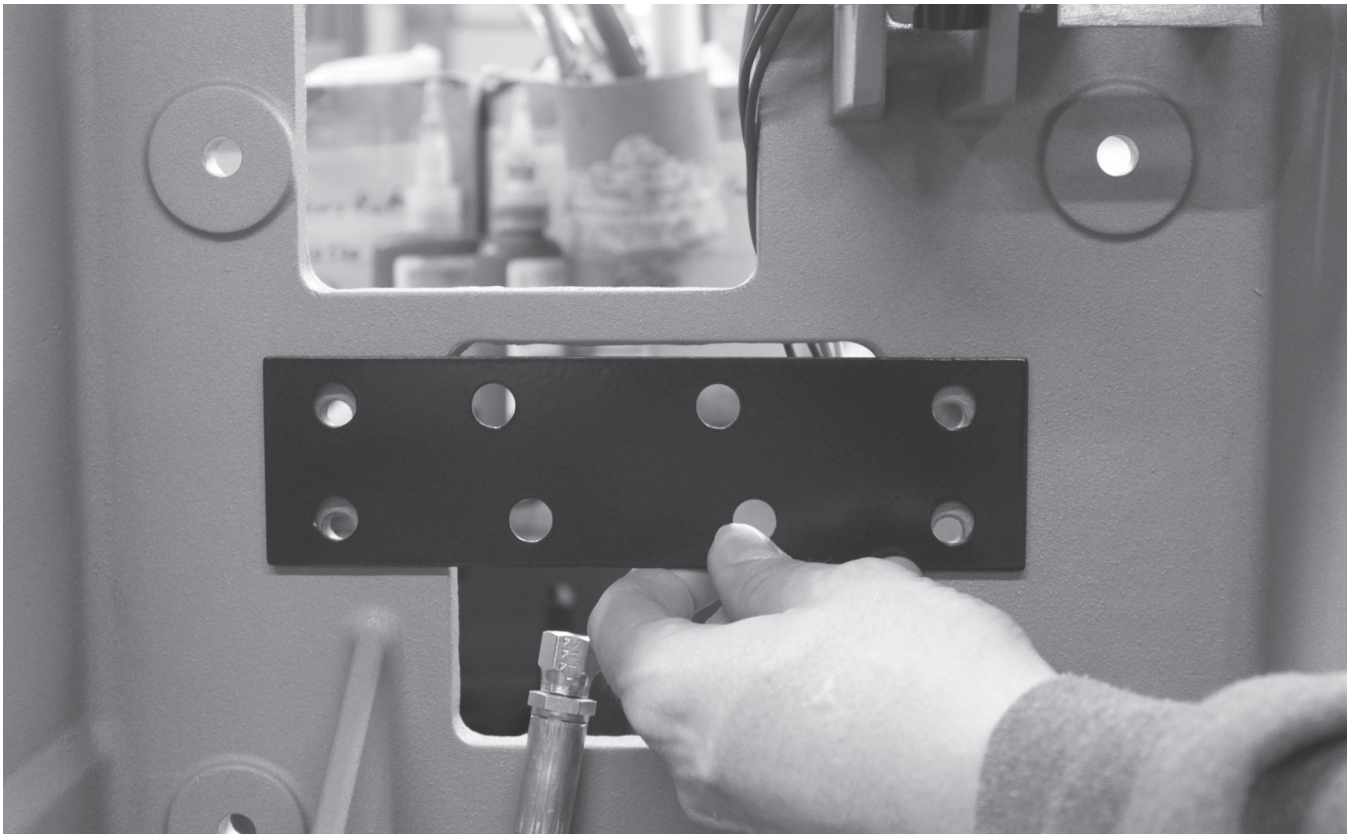


FIGURE 1A

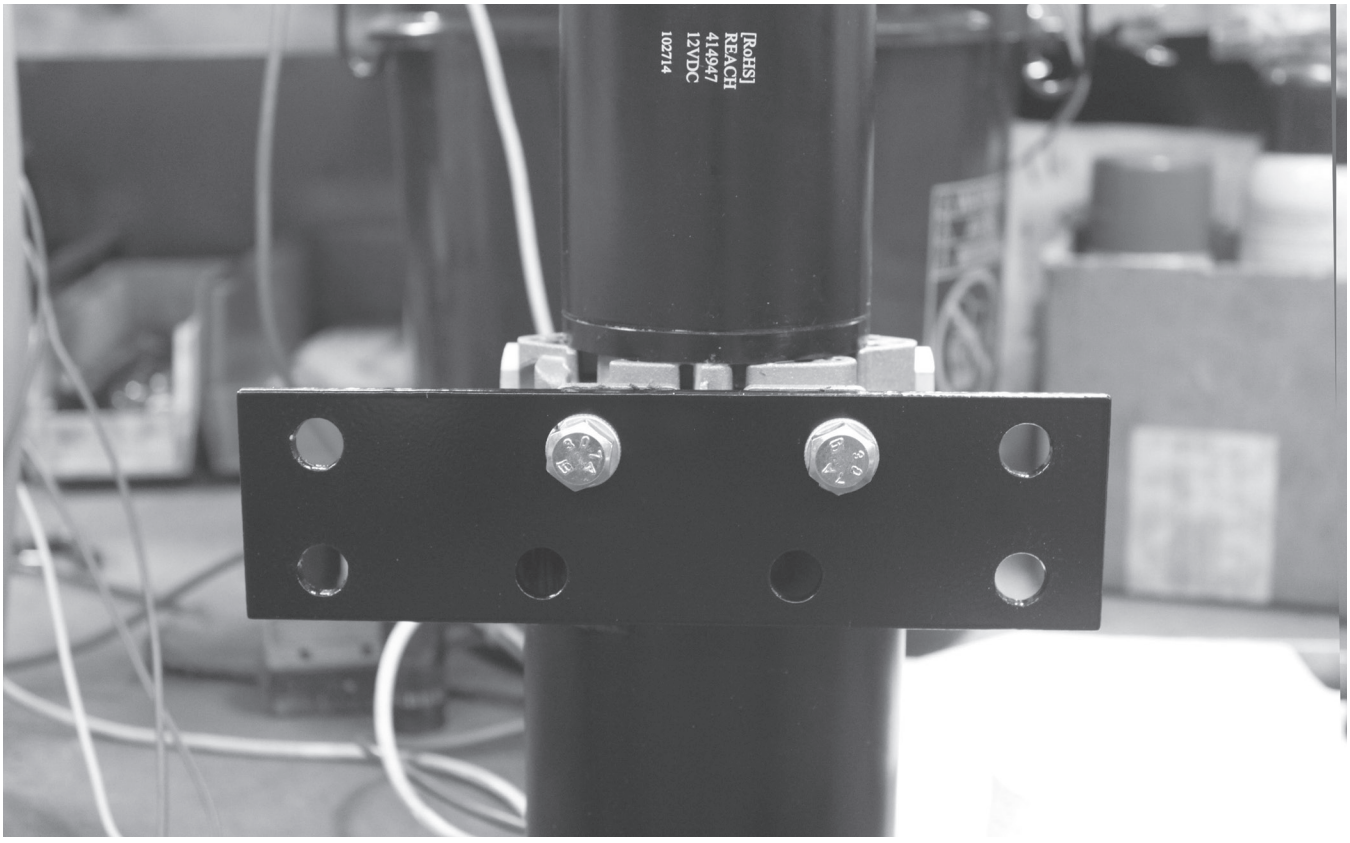


FIGURE 1B

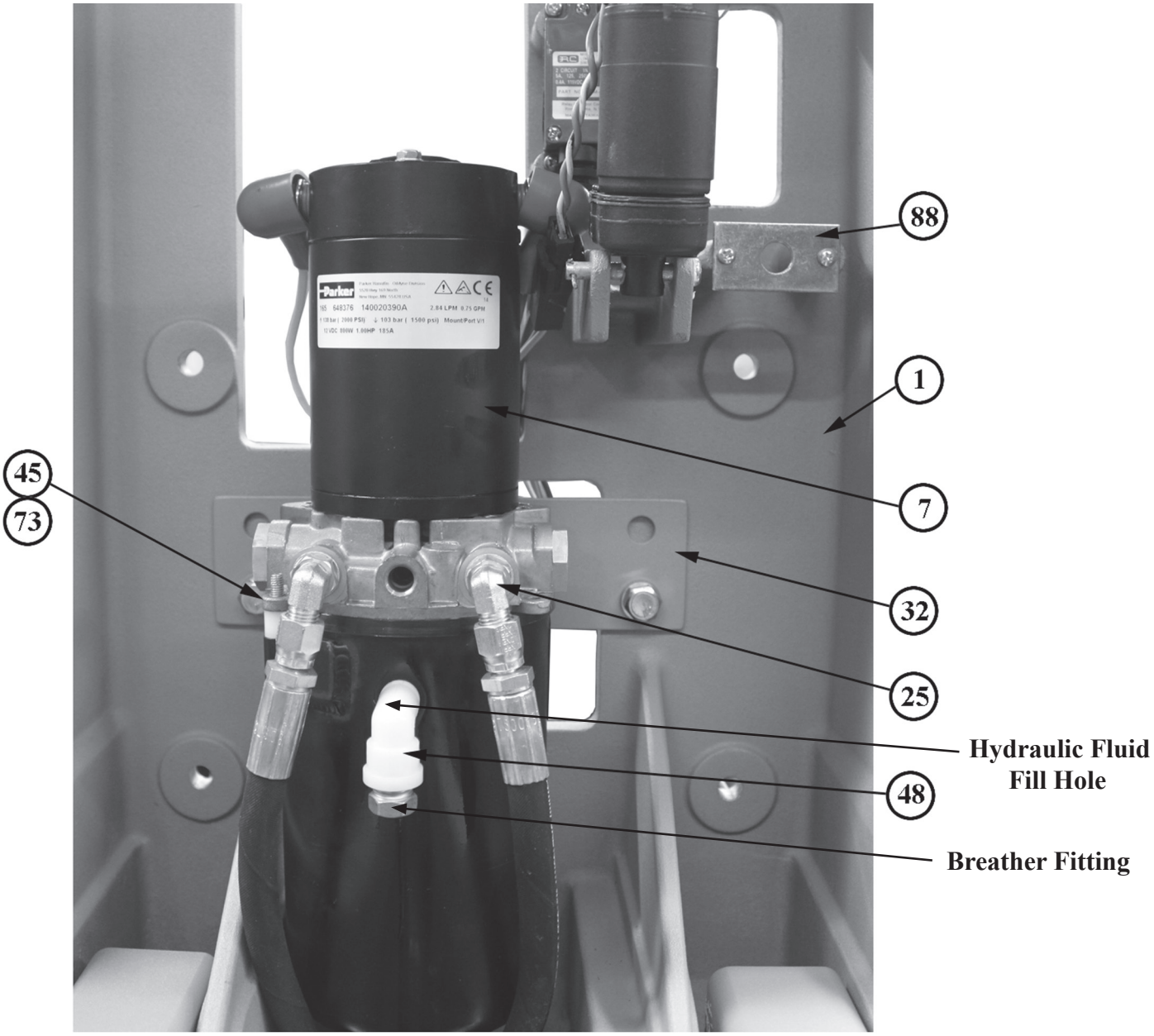


FIGURE 22
HYDRAULIC COMPONENTS WITH HYDRAULIC POWER UNIT

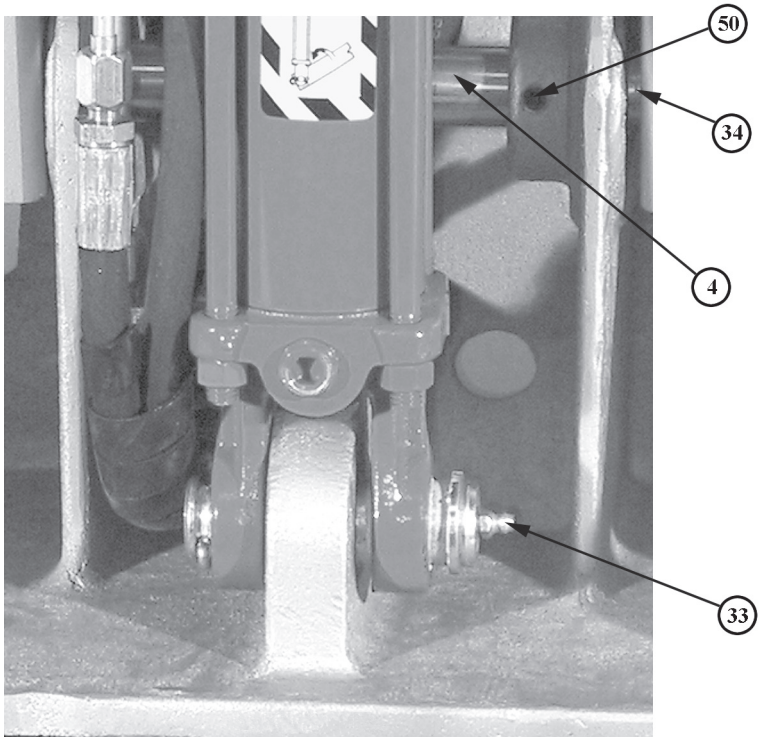
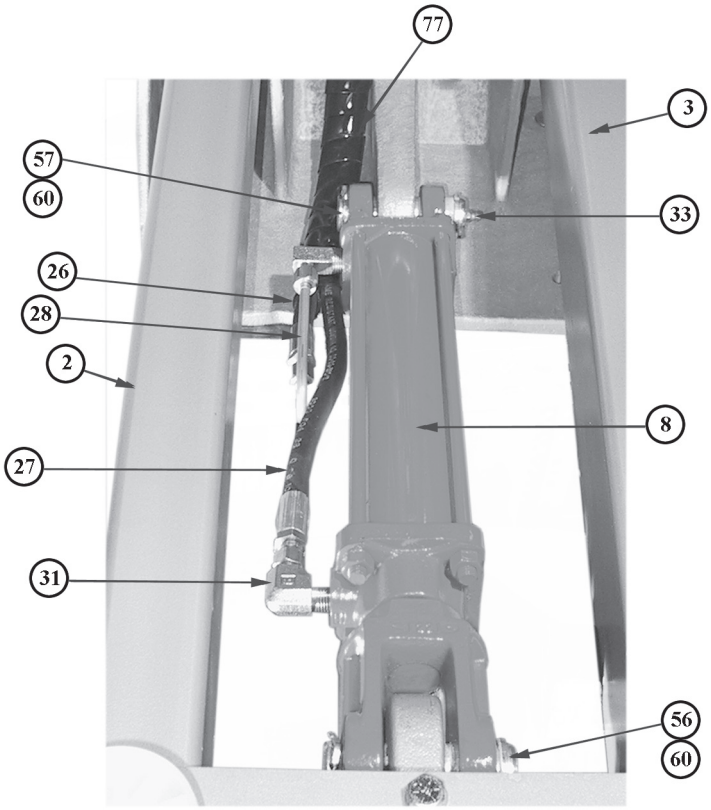
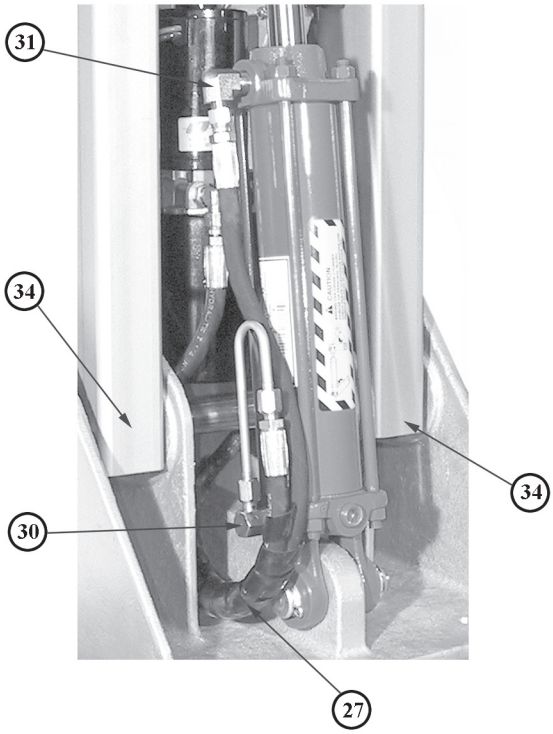


FIGURE 21
HYDRAULIC COMPONENTS WITH HYDRAULIC CYLINDER





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