

QUIC-LIFT™ HYDRAULIC PORTABLE TANK SYSTEM

MODEL PTS-HA

PARTS AND INSTRUCTION MANUAL

I. STANDARD EQUIPMENT

The following items are included with each complete PTS-HA system:

A. Instruction Packet

1. Installer Copy - Includes all information required to install a complete system, including wiring diagram and parts list.
2. Customer Copy - Includes all information provided to installer plus "Warning" labels that must be affixed to apparatus prior to operating the PTS-HA.

B. Control Switch and Motor Reversing Module

A single pole, double throw, momentary switch, single pole, single throw toggle switch and motor reversing module are provided for operation of system.

C. Flashing Light Kit (Model PTS-FLK)

NFPA 1901-96 requires flashing lights be mounted to all Systems, and must remain activated whenever the System is out of the stored position. You may purchase an optional audio-visual alarm (see P/N 8047-125-000, Model AVA), but it is not provided.

II. OPTIONAL EQUIPMENT

The following equipment may be added to any PTS-HA:

A. Audio-Visual Alarm (Model AVA)

An audio-visual alarm may be added to any PTS-HA. See Section I. C. above.

B. Horizontal Hard Sleeve Mount with One 10' Solid Tray (Model HHS-TM-1)

Mounts to top of system to store an additional single 10' hard sleeve.

C. Horizontal Hard Sleeve Mount with One 10' Split Tray (Model HHS-TM-1-ST)

Mounts to top of system to store an additional single 10' hard sleeve (tray ships in two sections).

D. Center Hinge Hardware Kit (Model PTS-HA-CH)

Required for mounting of a tank cover.

E. Elliptical tank Adapter (Model PTS-HA-ETA)

Required for mounting system to elliptical tanker.

III. GENERAL INSTALLATION INFORMATION

PLEASE NOTE: The PTS-HA is NOT a direct, bolt-on replacement for the standard PTS.

When the portable tank is placed into the tank box (9 & 10), there should be approximately 2 inches of space left over top of the tank.

A. Mounting Points for Base Castings

Mounting holes have been provided on both the vertical and horizontal mounting surfaces. Although the device may be securely mounted from the horizontal surface only, it is of great advantage to use mounting bolts on the vertical surface as well. If using only the vertical or horizontal hole sets for mounting, one-half inch thick aluminum backing plates should be used (see page 14).

All bolts should have a reinforcement structure added underneath the mounting surface whenever possible.

B. Electrical Circuit

The control switches (supplied) are a single pole, single throw toggle switch and single pole double throw momentary 25 amp switch. They should be placed in such a position that the operator has full view of the PTS-HA and any personnel that might come in contact with it. The control switches and motor reversing module should be mounted in waterproof compartments. The motor reversing module is activated by the momentary switch. Using wiring of equal length between power source and the hydraulic actuators will help keep the actuators running in synchronization (see page 18). We recommend that all electrical connections be soldered.

Several "Lock Out" circuits may be considered to prevent accidents from occurring. An ideal "Lock Out" system would only permit operation when the ignition switch is on, the transmission is in park, and any obstructing compartment doors are shut. Because of the higher amperage required to operate the PTS-HA, a separate "Lock Out" circuit should be used. The "Lock Out" circuit should be separated from the PTS-HA circuit by a relay. This will prevent damage to the existing wiring system. The PTS-HA circuit should be protected by an 80 amp fuse.

After all electrical connections are complete and system has been tested, protect connections with a weather proofer like liquid tape.

The NFPA 1901-96 standard requires flashing lights be provided, facing the front and rear of the apparatus. Lights must flash whenever the System is out of the stored position. An audio-visual alarm may be ordered as an option (see Model AVA, P/N 8047-125-000 in catalog).

C. Synchronization of Actuators

It is important to the operation of the PTS-HA that the actuators work in synchronization. The actuators may operate out of synch a considerable amount before binding occurs, however, reducing this occurrence will increase the life of the actuators and prevent damage to the existing wiring system.

Do not permit personnel to hang, sit or stand on portable tank while stored on the PTS-HA. If the unit *is* overloaded, it will reach peak pressure and begin to bypass the internal fluid, producing an audible whine.

Whenever the operator raises or lowers the unit, they should let it run until both units reach their extent, so that the actuators re-synchronize and are ready to run in the opposite direction.

IV. INSTALLING THE HYDRAULIC PORTABLE TANK SYSTEM

A. Preparation for Mounting

Plan and lay out the entire installation before making any cuts or drilling any holes in the body of the fire apparatus. This will keep "out of service" time to a minimum and also help to minimize mistakes. See Section IV. C. (Electrical System) before any holes are drilled into the apparatus. Check both halves of unit to verify they have the same Serial Number on their tags.

The PTS-HA was designed for use on a shelf with a minimum depth of 8-1/2". The total depth of the PTS-HA is 9-3/4". To determine the total length required to mount the PTS-HA, measure the length of the collapsed portable tank and add 21". We are allowing 10-1/2" for each device on the end of the tank which includes 1" at each end or a total of 2" of "play" for the tank to move within the boxes (9 & 10). This 2" must be provided or the tank may bind during raising or lowering (see page 11).

B. Mounting the System

Double check your measurements making sure to add 21" to the collapsed length of the portable tank. Mark this total length on your mounting surface (as a reference) and then set the two devices in place on the shelf. Mark absolute locations on shelf using measurement guides on pages 14 & 15. Note the minimum clearance required for the hinge to pivot (detail drawing in top right corner, page 15). Mark the outside edges of each device on the mounting surface.

The tank boxes (9 & 10) are shipped separate from the devices. The neoprene pads (14) and 14-20 x 1" flat head screws (20) are also shipped loose.

B. Mounting the System (continued)

Check for any obstructions behind or below the selected mounting locations. Also be sure you can run your wiring unobstructed through the back of the base castings. The outboard ends of the devices cannot be obstructed as access is necessary for mounting, emergency operation, and adjustment of the actuators.

You are now ready to mount the devices as follows (refer to page 9 for item numbers in parenthesis):

1. The flat surface, between the three ears on the base castings (1 or 2) should be flush and parallel with the edge of the mounting surface. Both devices should be parallel and in-line to within 1/16" of each other.
2. Pull cotterless pin (35) and lower the shelf casting (4 or 5).
3. Mark eight base holes and two lower back holes. Remove devices.
4. Drill ten holes for 3/8" mounting bolts (not supplied). Replace devices, insert bolts and snug up on nuts.
5. Pull cotterless pin (34) and remove the shelf arm casting (3).
6. Lay hydraulic actuator (13) forward and also lay Back Arm Casting (6) forward.
7. Mark two top holes in base casting (if used). Also mark hole location for electrical wiring through bottom rear of base casting.
8. Remove device and drill holes for the two top holes in base casting and for the wiring.
9. Re-position devices on shelf and mount in place with 3/8" bolts and nuts.
10. Wiring should be run through lower hole in base casting at this time. We suggest the wire be run in a protective sheath to prevent chaffing. The wire should be run under the actuator adjuster casting (7) and up to the wire harness.
11. Flip the back arm casting (6) and hydraulic actuator (13) back. Connect wires to actuator and check clearance through full swing of actuator. Replace shelf arm casting (3) and pin the three units together using cotterless pin (34). Flip up the shelf casting (4 or 5) and place cotterless pin (35) through the shelf casting and shelf arm casting (3).

B. Mounting the System (continued)

12. Attach the flashing light kit (Model PTS-FLK) at this time (see pages 12 & 13), following the "Wiring System" directions on page 18.
13. Connect the electrical system at this time (see Section IV. C.) so the system may be tested.
14. With the electric connected, run the devices up and down through a couple of cycles. The units should run in synchronization. The units may appear to be a little loose at this time.
15. Lower the devices so the neoprene pads (14) may be attached using 1/4-20 x 1" flat head screws (20). Tighten the screws so they depress approximately 1/16" into the neoprene.
16. Run the units to the up position until they both reach their extent. The units should now be tight.
17. Lower the units 15 to 20 degrees and attach tank boxes (9 & 10) to the shelf casting (3). Use 5/16-18 x 5/8" button head socket screws (42) through front of casting and 5/16-18 x 7/8" button head socket screws (30) through base of casting.
18. The PTS-HA is now operational and you are ready to mount the portable tank.

C. Electrical System

A "WARNING" label (48) is provided with each PTS-HA. The pressure sensitive label must be mounted by the electrical control switch (43). All apparatus operators must be instructed to keep area in front of the PTS-HA clear of personnel when the PTS-HA is being raised or lowered.

An additional "WARNING" label (49) is also provided. This pressure sensitive label must also be mounted by the electrical control switch. This label is a reminder to the operator to check for any deviation from standard operation that may signal a problem in the System.

V. TROUBLESHOOTING

All units are tested after final assembly to ensure proper operation and adjustment. You should not have to make any adjustments when mounting the devices.

The following procedures are offered in the event of problems in the field. We strongly urge you to contact Ziamatic if any problems are encountered before attempting to correct them yourself.

A. Actuator Adjuster

The actuator adjuster (7) is factory set and should not be touched unless you are replacing a failed actuator. The following sequence should be used for adjusting the actuator (see drawing on page 10):

1. Loosen 3/8-16 x 1-3/4" hex head clamp bolt (24).
2. Back out 1/2-13 x 1" socket set screw (23) until actuator adjuster casting (7) drops as low as it will go.
3. Tighten socket set screw (23) until actuator adjuster casting (7) begins to raise.
4. Tighten clamp bolt (24).
5. Bring device to full up or raised position. Actuator is properly adjusted when the bottom of the shelf casting (4 or 5) is resting firmly on the neoprene pad (14). NOTE: Four flat head screws in neoprene pad should be 1/16" below the surface of the neoprene pad.
6. If there is play between the shelf casting and pad, continue raising the actuator adjuster casting with set screw (23). Use 1/2 turn of screw at a time.
7. Always re-tighten clamp bolt (24) before checking adjustment.

B. One Actuator Running Two Seconds or More Slower Than the Other

When one actuator is running more than two seconds behind the other, it is normally due to some type of resistance in the wiring system. Check all wire connections to make sure they are secure. Make sure to bring both actuators to their extent at the end of each up and down cycle. If they are still greatly out of synch after checking the security of the wires and bringing the units to their extent at the end of each cycle, you may switch the actuators to confirm that the problem is in the wiring system itself. With the portable tank removed, and the devices in the lowered position, pull cotterless pins (34 & 35) and remove shelf arm casting (3). Remove 1/2" x 2-1/4" shoulder bolt (37) and 3/8-16 nut (38) to remove hydraulic actuator (13). Switch the two actuators and reassemble. If the rear actuator was running slower before switching, and is still running slower after, then there is a problem in the wiring.

VI. INSTALLING PORTABLE TANK COVER AND HARD SLEEVES

A. Preparation for Mounting

Follow installation instructions for the Hydraulic Portable Tank System (Section IV. A. & B.).

B. Mounting

A tank cover (not provided) and up to two hard sleeves may be mounted directly to the tank boxes of the PTS-HA.

NOTE: Measure the tank box (see page 17) to determine the "A & B" dimensions. This will determine the size of your tank cover. The length of the cover will also vary depending on the mounting distance between the casting sets.

VII. MAINTENANCE

A. Periodic

Any time the tank boxes (9 & 10) appear to be "loose", refer to Actuator Adjuster (Section V. A.).

B. Semi-Annually or at Scheduled Apparatus Lube Service

1. Actuator Adjuster (7) (page 10) - Check for loose bolts; refer to adjustment directions (Section V. A., page 6).
2. Lubrication - We suggest that all pivoting surfaces be sprayed in the joints and pivot points with CRC brand Stor&Lube long-term lubricant and rust preventative #03032. Excess lubrication should be wiped off.
3. Hydraulic Actuator - We suggest the exposed shaft be cleaned and sprayed with WD-40 or a similar light, moisture-repelling silicon-type lubricant.

C. Pressure Washing

Do not operate pressure washer on or anywhere around the hydraulic actuators. Excessive pressure may allow soap and water to blow past the seal, damaging the actuator.

VIII. SERVICE

If you experience any problems with your Hydraulic Portable Tank System, please call us at 1-800-711-FIRE (3473) for assistance. Please have the serial number of your System available.

IX. DRAWINGS AND DIAGRAMS

- **Model PTS-HA Hydraulic Portable Tank System**

1. Parts List (page 9)
2. Assembly Drawing (pages 10 & 11)
3. Side View of System (page 10)
4. Flashing Light Kit (pages 12 & 13)
5. Alignment (page 14)
6. Elliptical Tank Adapter (page 14)
7. Dimension Drawing (page 15)
8. Tank Cover (pages 16)
9. Tank Boxes (page 17)
10. Wiring Diagram (page 18)
11. Stack Height and Max. Weight Limits (page 19)
12. Left Side Assembly Photos (page 20)
13. Right Side Assembly Photos (page 21)
14. Light Kit Components Photo (page 22)
15. Tank Box Component Photos (page 23)

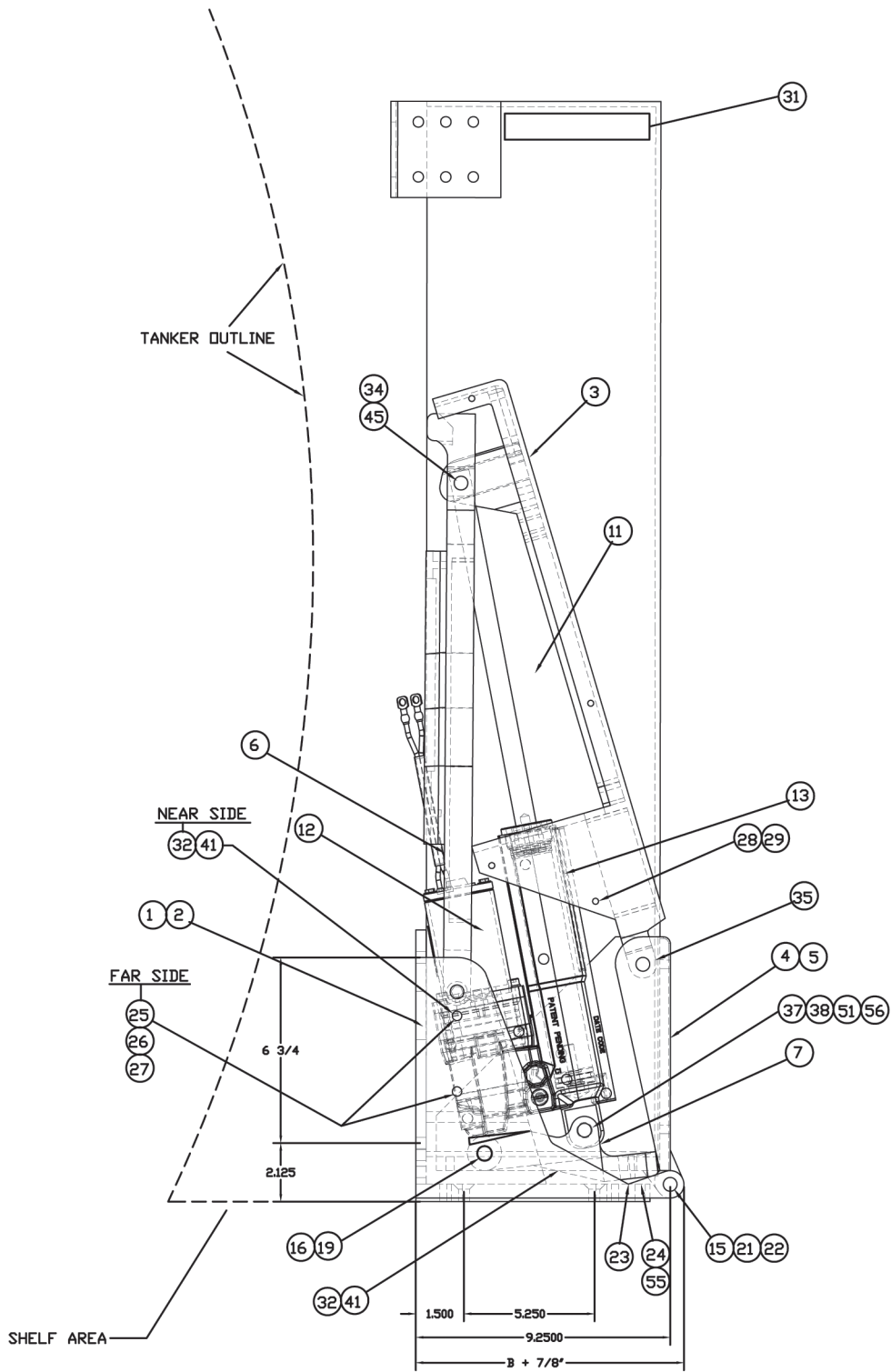
X. WARRANTY

A copy of the warranty registration **MUST** be returned to ZICO to ensure registration of your System (page 26). You may mail the copy or fax it to (215) 493-1401.

CHART 1. PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY.
1	3098-400-101	Base Right Casting	1
2	3098-400-102	Base Left Casting	1
3	3098-400-106	Shelf Arm Casting	2
4	3098-105-103	Shelf Right Casting	1
5	3098-105-104	Shelf Left Casting	1
6	3098-400-105	Back Arm Casting	2
7	3098-400-107	Actuator Adjuster Casting	2
8	3098-105-108	Tank Stop .187 Thick Steel	2
9	3098-110-000	Tank Box Right .187 Thick Aluminum	1
10	3098-112-000	Tank Box Left .187 Thick Aluminum	1
11	3098-105-111	Shelf Arm Cover .062 Thick Aluminum	2
12	3098-105-112	Base Cover .062 Thick Aluminum	2
13	3098-400-113	Actuator	2
14	3098-105-114	Neoprene Pad	2
15	3098-105-115	Shaft 1/2" Dia. x 16-7/8"	2
16	3098-105-116	Pin 1/2" Dia. x 4-1/2" (not shown)	2
17	3098-105-117	Box Liner Top 7-5/8" x 7-7/8" x 3/6"	2
18	3098-105-118	Box Liner Bottom 7-5/8" x 7-7/8" x 3/6"	2
19	9140-101220	Spring Pin 1/8" Dia. x 1/4" (not shown)	2
20	9010-152516	Flat Head Screw 1/4-20 x 1"	8
21	9114-105000	Washer 1/2" I.D. x 1/16" Thick	4
22	9140-101214	Spring Pin 1/8" Dia. x 7/8"	4
23	9110-395016	Socket Set Screw Flat Point 1/2-13" x 1"	2
24	9115-103728	Hex Head Bolt 3/8-16 x 1-3/4"	2
25	9110-103116	Hex Head Bolt 5/16-18 x 1"	4
26	9114-203100	Lock Washer 5/16" I.D.	4
27	9112-103100	Hex Head Nut 5/16-18	4
28	9110-222008	Pan Head Screw Phillips 10-32 x 1/2"	8
29	9113-101900	Hex Head Lock Nut 10-32 Nylon	8
30	9110-353114	Button Head Socket Screw 5/16-18 x 7/8"	8
31	4005-000-105	Reflective Tape	2
32	9110-222510	Pan Head Screw 1/4-20 x 5/8"	4
33	9113-172500	Hex Head Lock Nut 1/4-20 Nylon	8
34	9050-135090	Cotterless Pin 5.6 Lg.	2
35	9050-1050128	Cotterless Pin 8 Lg.	2
36	9010-625028	Hex Head Shoulder Bolt 1/2" Dia. x 1-3/4"	4
37	9010-315040	Shoulder Bolt 1/2" Dia. x 2-1/2"	2
38	9113-173700	Hex Head Lock Nut 3/8-16 Nylon	6
39	9114-103800	Flat Washer, Narrow, 3/8" I.D.	1
40	9110-162512	Flat Head Screw 1/4-20 x 3/4"	8
41	9114-202500	Lock Washer 1/4" I.D.	4
42	9110-353110	Button Head Socket Screw 5/16-18 x 5/8"	8
43	3097-500-156	Switch (not shown)	1
44	3097-105-145	Boot, Toggle Switch (not shown)	2
45	3098-400-109	Spacer 1" O.D., .505" I.D., .203" thick	4
48	3098-105-148	Label - Warning Keep Clear (not shown)	1
49	3098-105-149	Label - Warning Vibration (not shown)	1
50	3098-160-000	Flashing Light Kit (see page 22)	1
51	9114-115000	Flat Washer 1/2" I.D. (not shown)	10
53	3098-400-115	Forward/Reverse Relay Mod. (not shown)	1
54	3098-400-117	Forward/Reverse Relay Mod. Cover (ns)	1
55	9014-353700	Spherical Washer Set	1
56	9114-113700	Flat Washer 3/8"	1
57	3097-500-157	Switch, On/Off	1

NOTE: ITEMS 9 & 10 ARE THE ONLY PARTS THAT VARY BETWEEN SYSTEMS



TRUCK END VIEW

FIGURE 2. TRUCK END VIEW COMPONENT PARTS

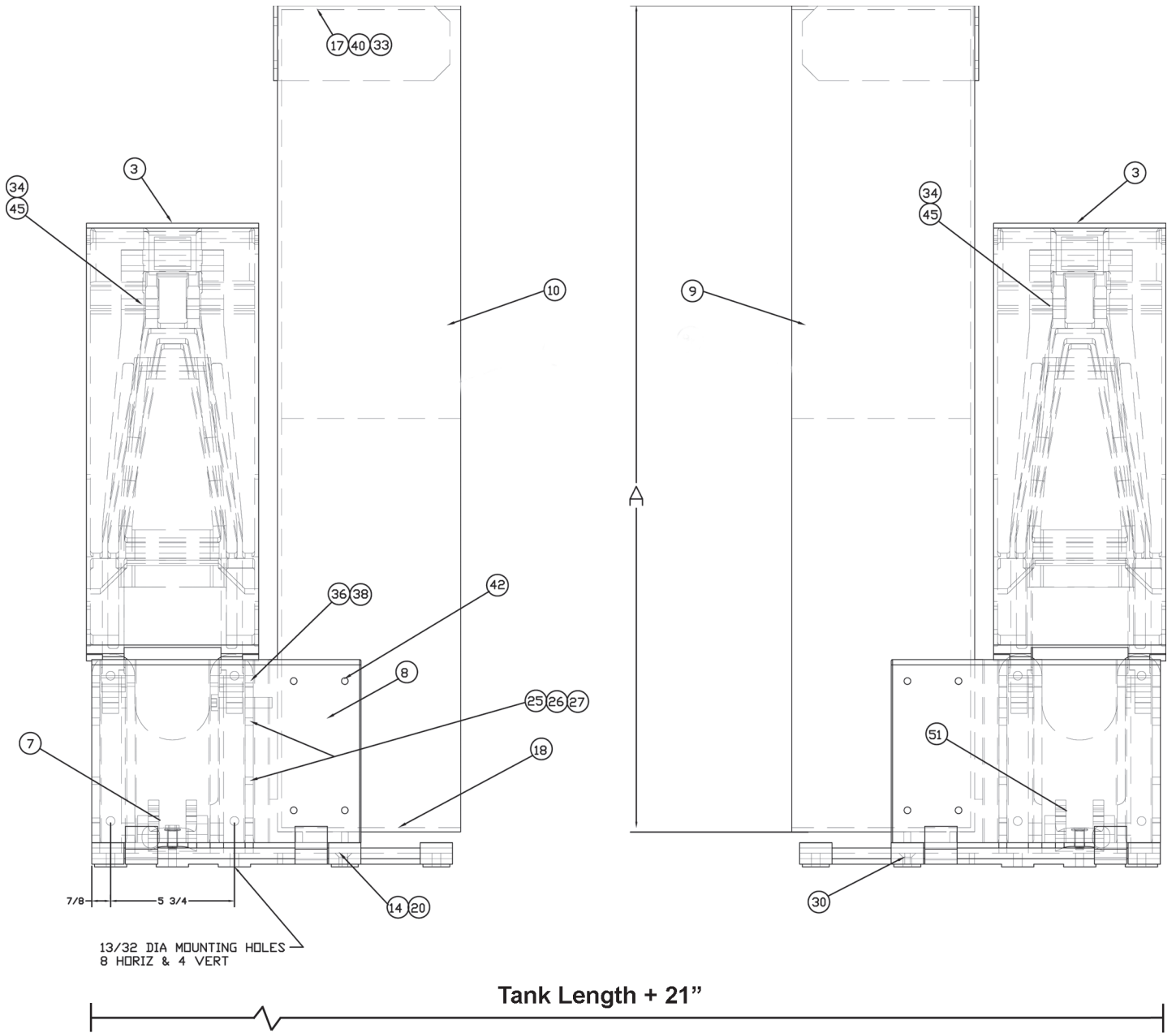
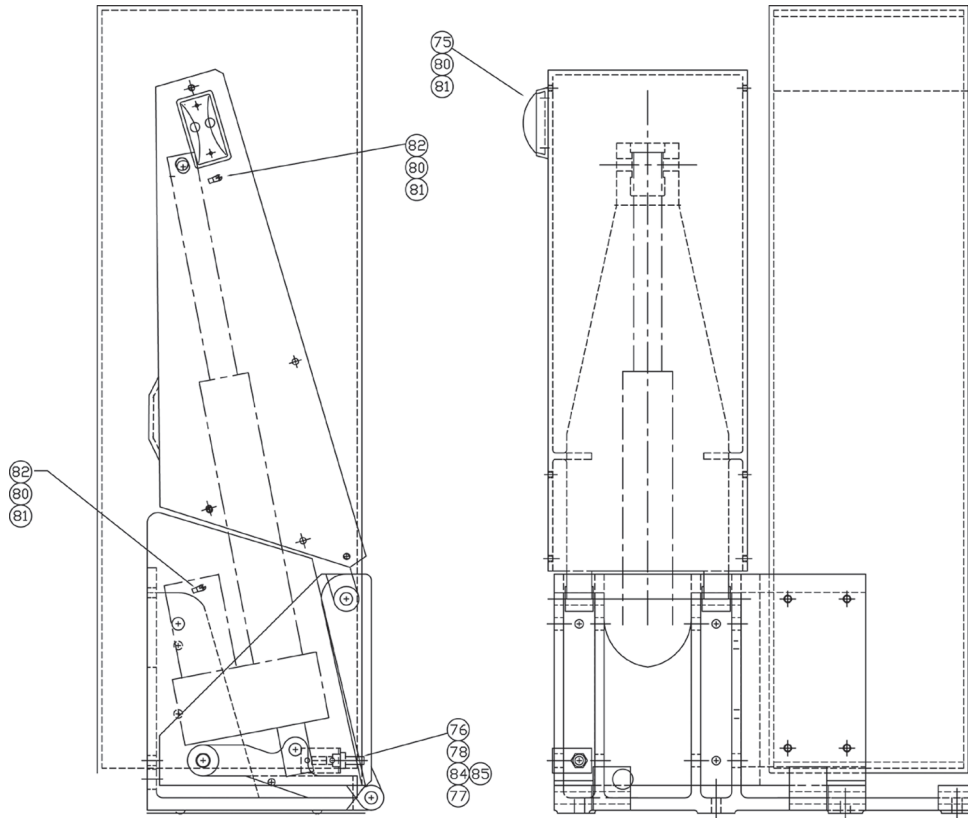
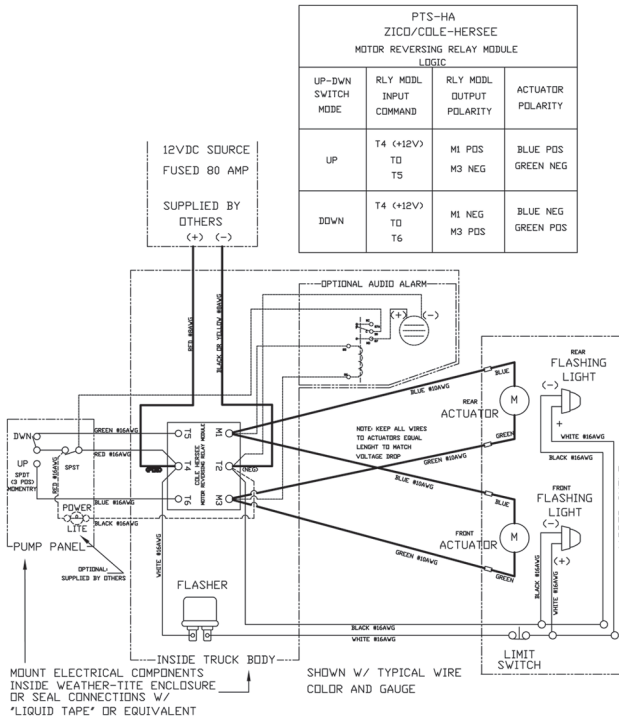


FIGURE 2. TRUCK SIDE VIEW



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
75	3097-270-101	Clearance Light	2
76	3097-270-205	Switch, Limit	1
77		Harness, Limit Switch (provided/item 76)	1
78	3098-105-164	Bracket, Limit Switch	1
79	3097-270-109	Flasher (see page 14 - not shown)	1
80	9010-221108	Screw, 4-40 x 1/2 Pan Hd Phillips SMS	8
81	9012-171100	Nylok Hex Nut 4-40, ZPS	8
82	3097-270-111	Cable Tie	4
83	3097-270-113	In Line Splice (see page 14 - not shown)	7
84	9010-221908	10-32 x 1/2 Pan Hd. Phil. M/S	2
85	9113-171900	10-32 Nylok Hex Hd. Nut	2
86	3097-270-115	Snap Plug Connector (see page 14 - not shown)	4
87	3097-270-119	16 ga. Lead Wire - Black	4 Ft
88	3097-270-120	16 Ga. Lead Wire - White	4 Ft
89	3075-175-105	Delrin Tool Clip (not shown)	1
90	3097-270-122	Butt Connector (use/items 87 & 88)	2
91	3097-270-121	Female Spade Connector (use w/# 79)	2

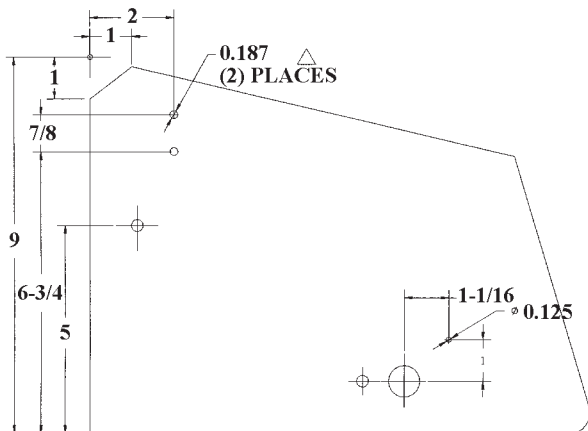
**FIGURE 3. FLASHING LIGHT KIT
MODEL PTS-FLK**



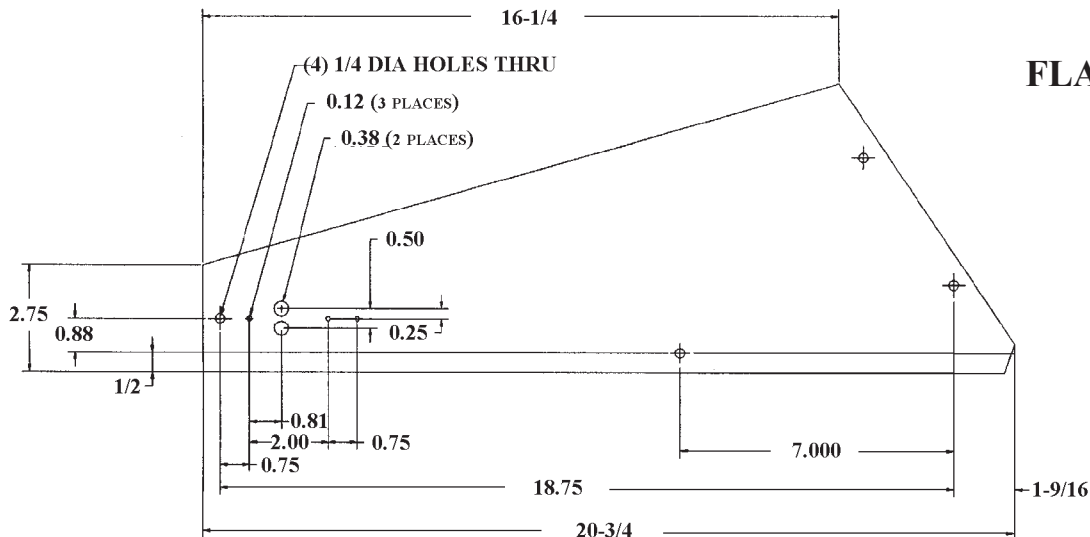
Wiring System:

1. One white wire 4' long (88) and one black wire 4' long (87) are provided for each light (75).
2. Snap plug connections (86) will be attached to each wire, ready to plug into lights prior to mounting, or wires may be soldered to the light.
3. In-line splices (83) are provided. Seventh splice to be connected to third wire in the limit switch harness (77). This wire may be used for indicator light in the cab.
4. Flasher (79) should be mounted in a weather-proof location and mounted in the clip (89) provided.

Note: See page 18 for larger schematic

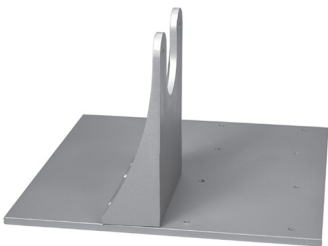
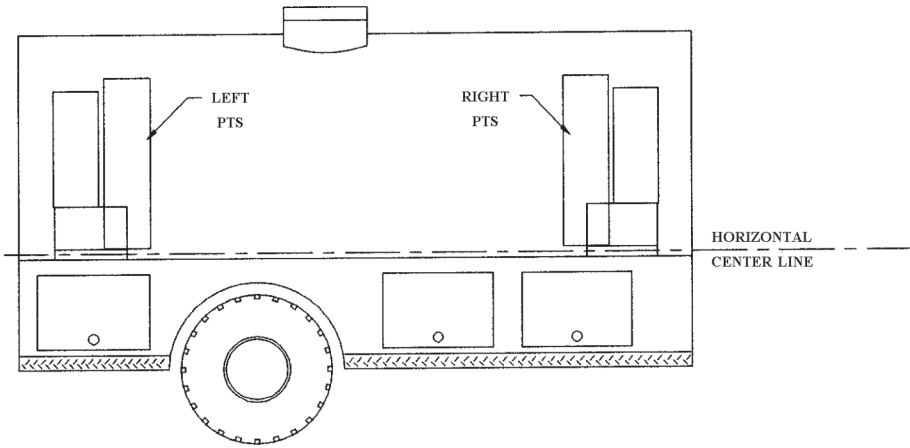


Limit switch (76) makes contact with the shelf (right or left) casting to shut off the lights.



**FIGURE 4.
FLASHING LIGHT KIT**

**FIGURE 5.
ALIGNMENT OF
CASTING SETS**

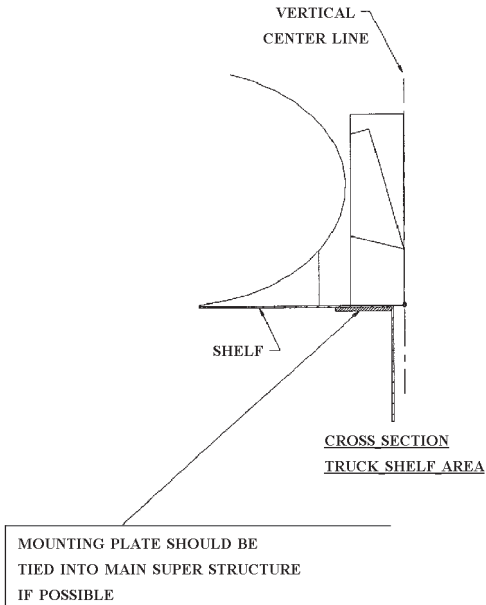
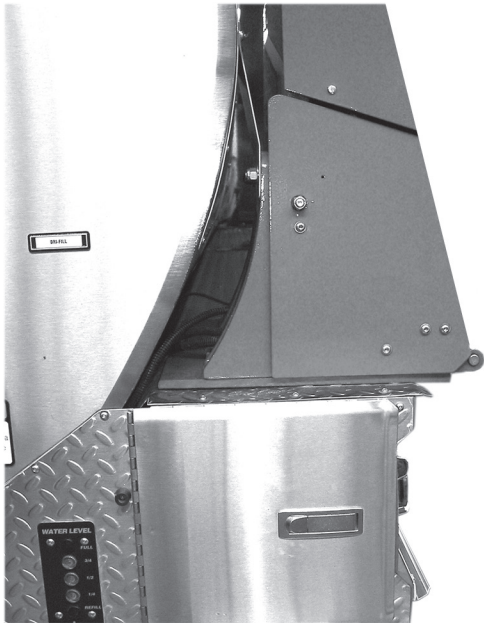


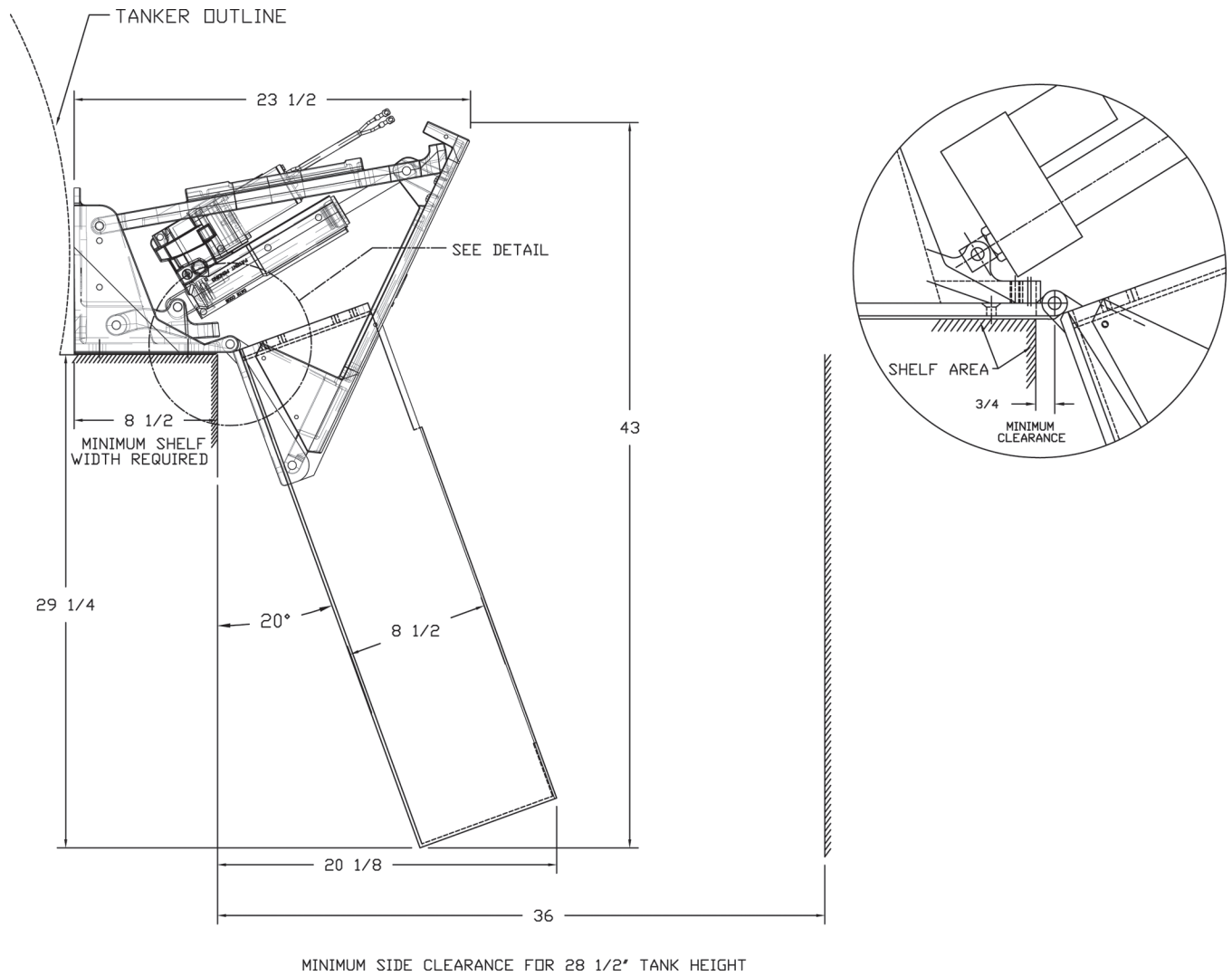
Mounting plate with support casting. Mounting plate 3/8" thick aluminum x 16-3/4" W x 16" D. Aluminum support is 9-3/4" H x 7-1/2" W x 3" D.

**FIGURE 6.
ELLIPTICAL TANK
ADAPTER**

Note: If tank cover is to be used, order Hinge Extension (3098-115-113) in addition to Center Hinge Kit required.

MODEL	DESCRIPTION	WT. IN LBS.
PTS-HA-ETA	Complete Adapter Set/Hardware	29.0/set
3098-115-105	Support Casting - Each	4.4/ea.
3098-415-110	Mounting Plate - Each	10.1/ea.





**FIGURE 7. TRUCK END VIEW
FULL EXTENDED DOWN POSITION**

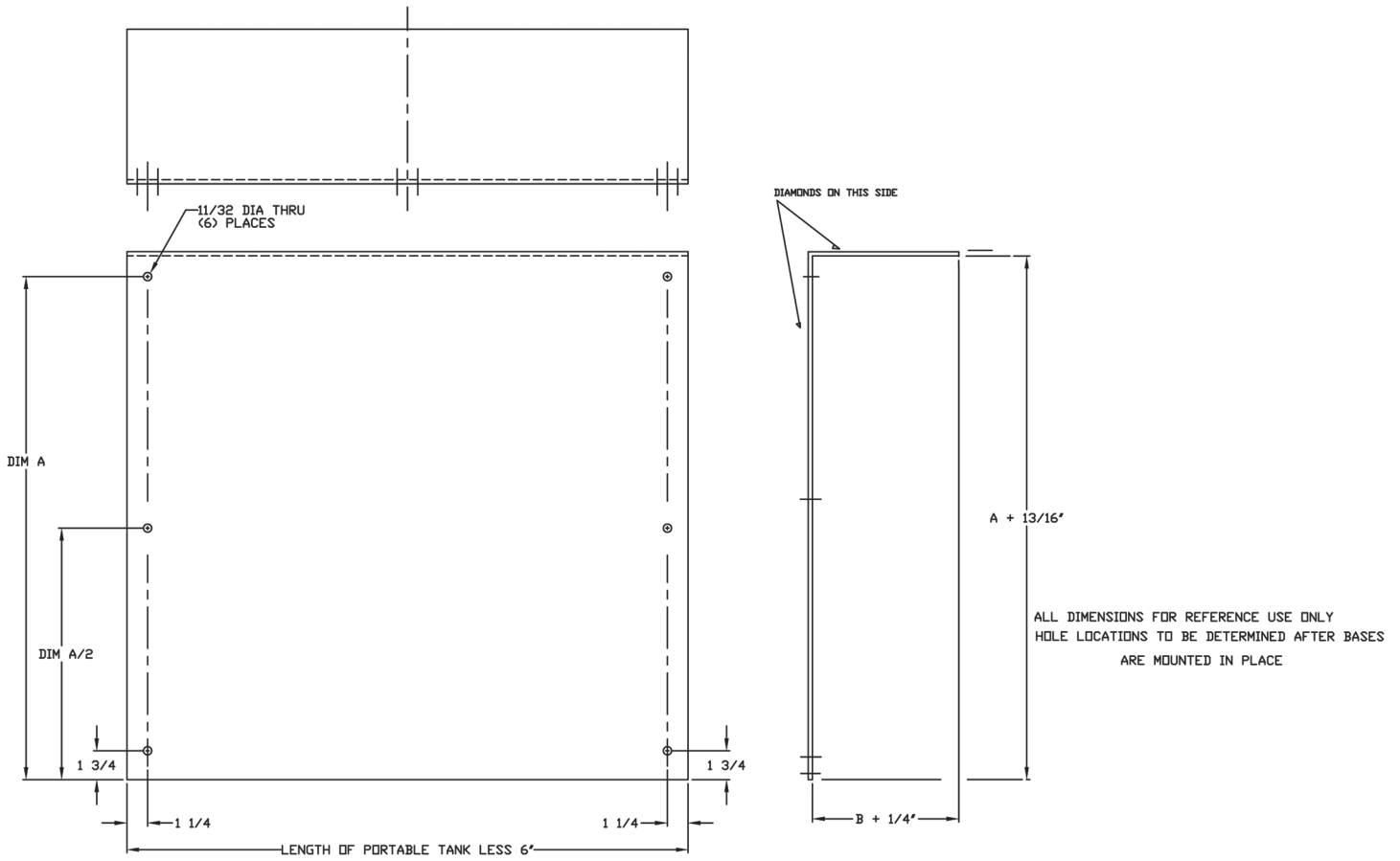
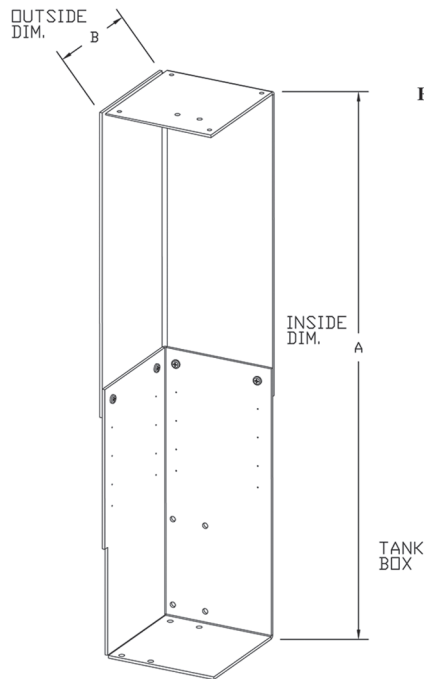
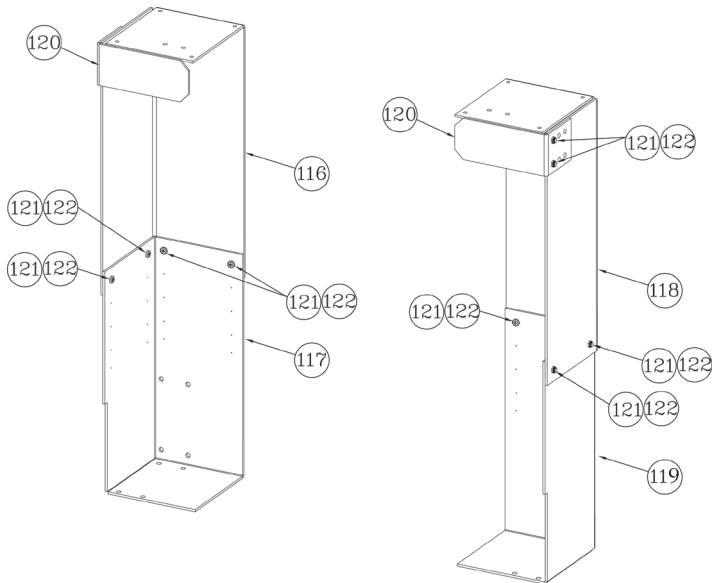


FIGURE 8. TANK COVER (NOT PROVIDED)



ALL DIMENSIONS FOR REFERENCE USE ONLY
 HOLE LOCATIONS TO BE DETERMINED AFTER BASES
 ARE MOUNTED IN PLACE



QUANTITIES PER ASSEMBLY

ITEM NO.	PART NO.	DESCRIPTION	QTY.
116	3098-110-109	PTS Box Right Top	1
117	3098-110-108	PTS Box Right Bottom	1
118	3098-112-111	PTS Box Left Top	1
119	3098-112-110	PTS Box Left Bottom	1
120	3098-110-113	PTS Bracket	1
121	9110-503110	Btn Hd, Socket 5/16-18 x 5/8" SS.	6
122	9113-103100	5/16-18 Low Pro. Nylock Nut SS.	6

NOTE
 #117 & #119 REQUIRE
 11/32" HOLE DRILLED
 TO SET REQUIRED SIZE

FIGURE 9. TANK BOXES

PTS-HA ZICO/COLE-HERSEE MOTOR REVERSING RELAY MODULE LOGIC			
UP-DWN SWITCH MODE	RLY MODL INPUT COMMAND	RLY MODL OUTPUT POLARITY	ACTUATOR POLARITY
UP	T4 (+12V) T0 T5	M1 POS M3 NEG	BLUE POS GREEN NEG
DOWN	T4 (+12V) T0 T6	M1 NEG M3 POS	BLUE NEG GREEN POS

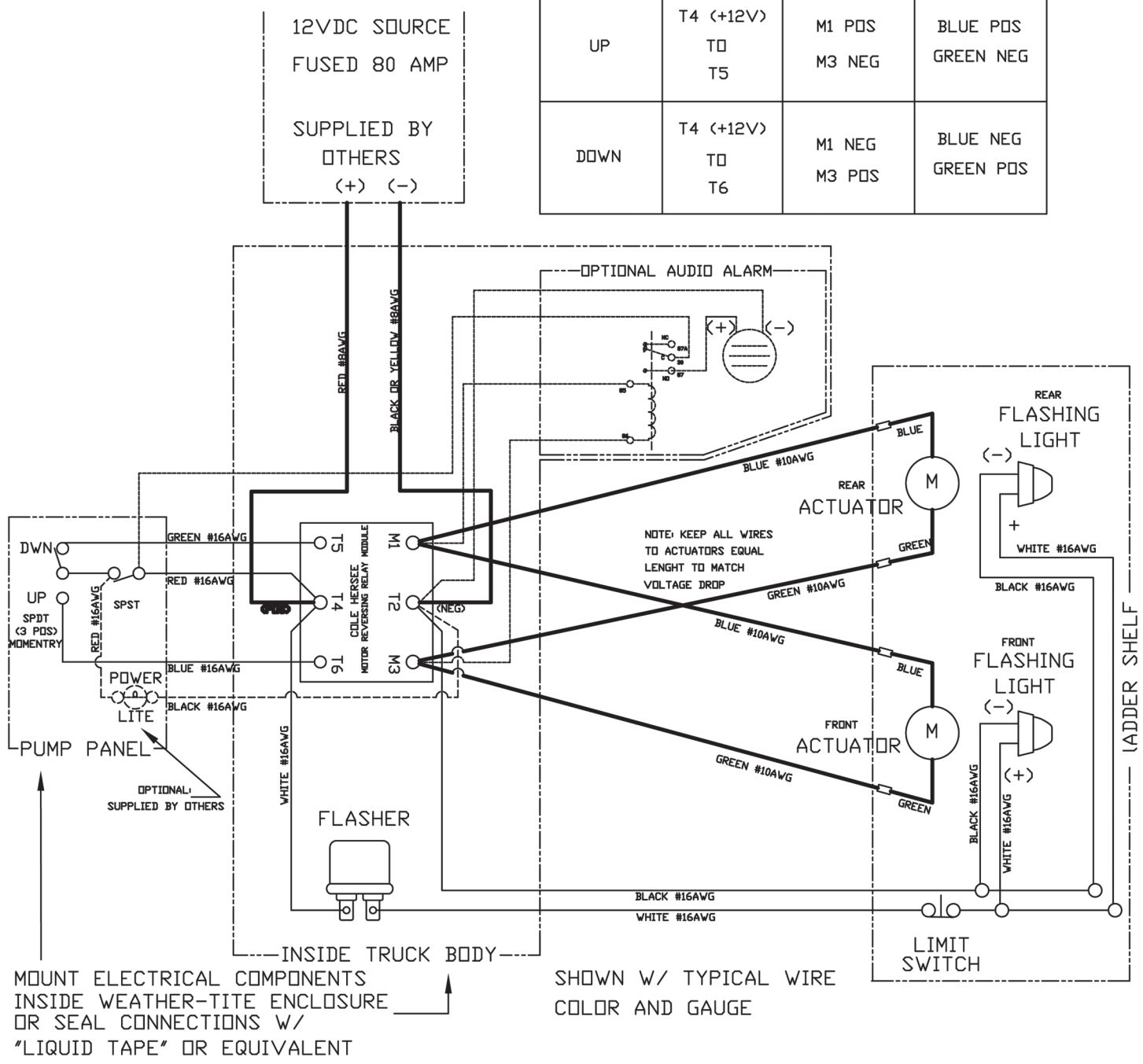
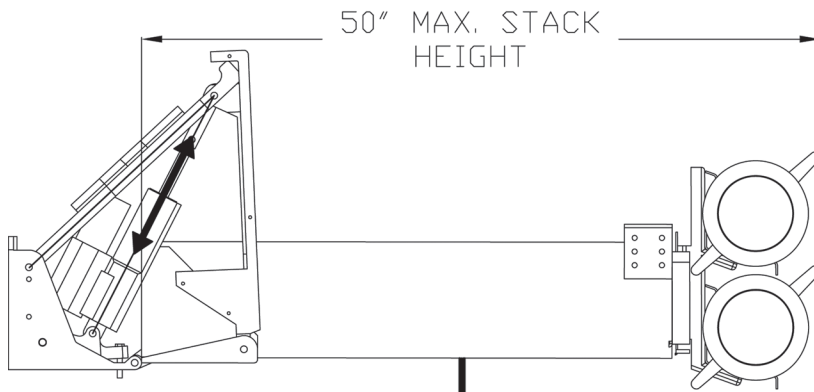


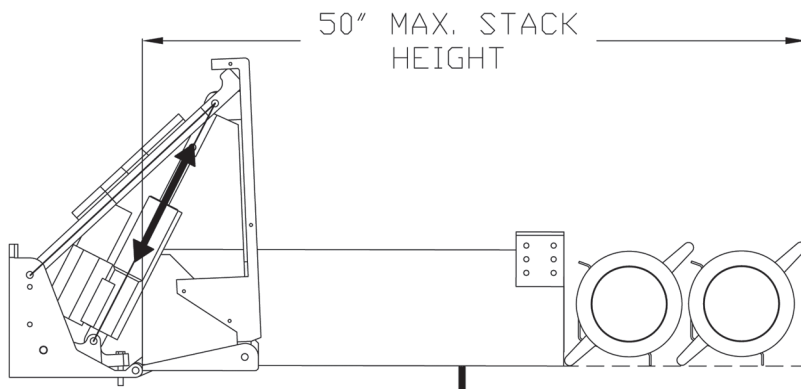
FIGURE 10. WIRING SYSTEM

STACK HEIGHT AND MAX. WEIGHT LIMITS FOR THE HYDRAULIC PTS SYSTEM



BRACKET FOR THIS CONFIGURATION AVAILABLE FROM ZIAMATIC.

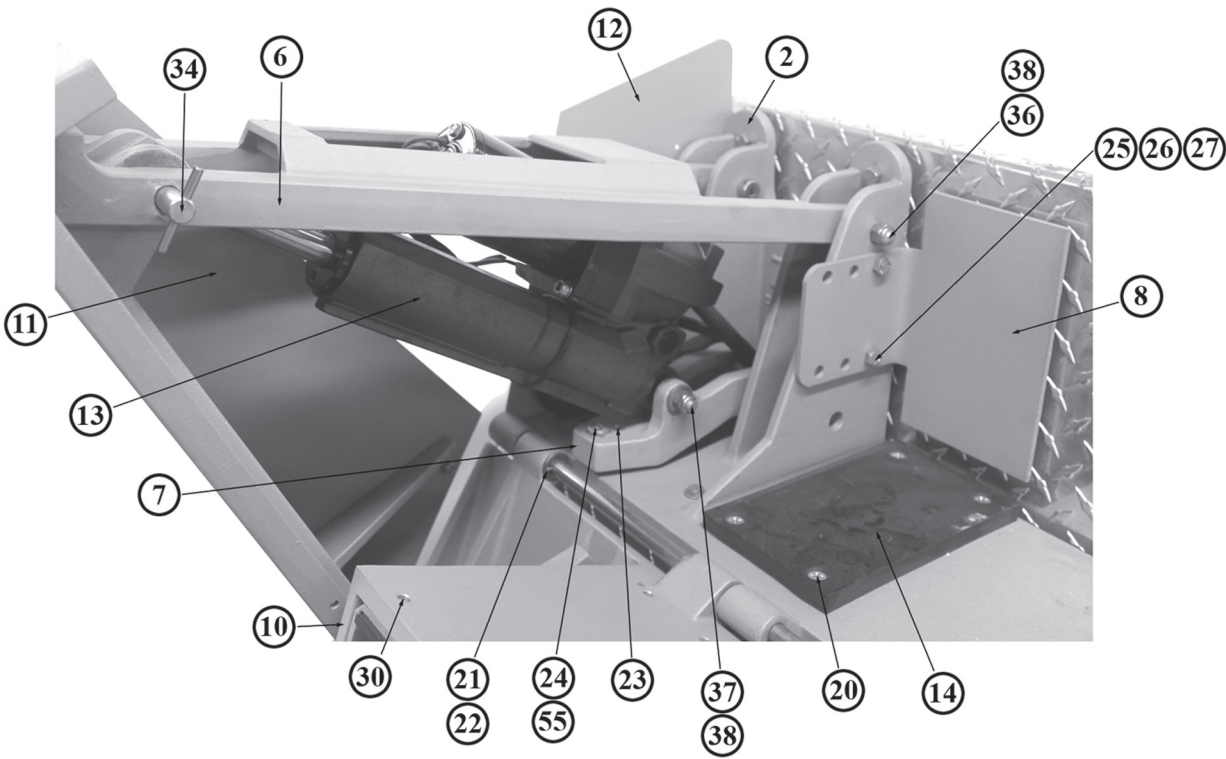
500 LB. MAX PAYLOAD (TANK, TANK BOXES, SUCTION HOSES AND MISC. BRACKETS)



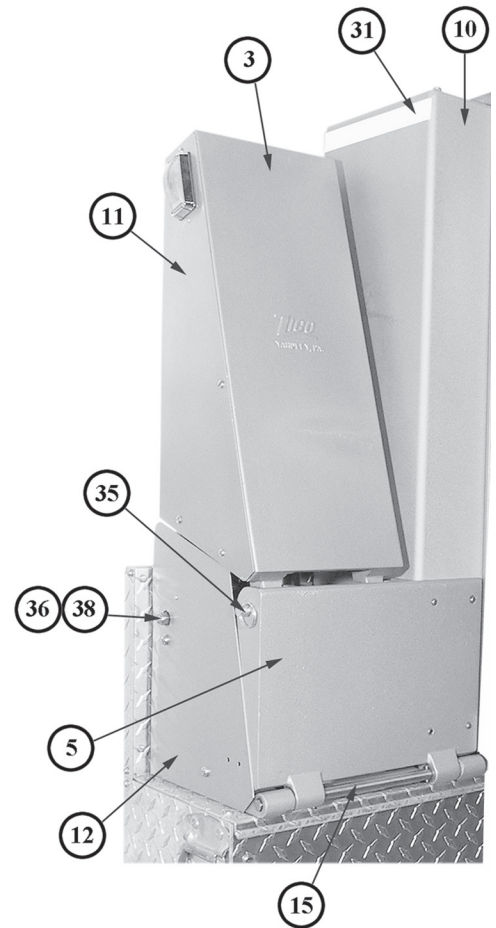
THIS CONFIGURATION REQUIRES A COMPARTMENT TO BE BUILT BY OTHERS. TRAYS AVAILABLE FROM ZIAMATIC.

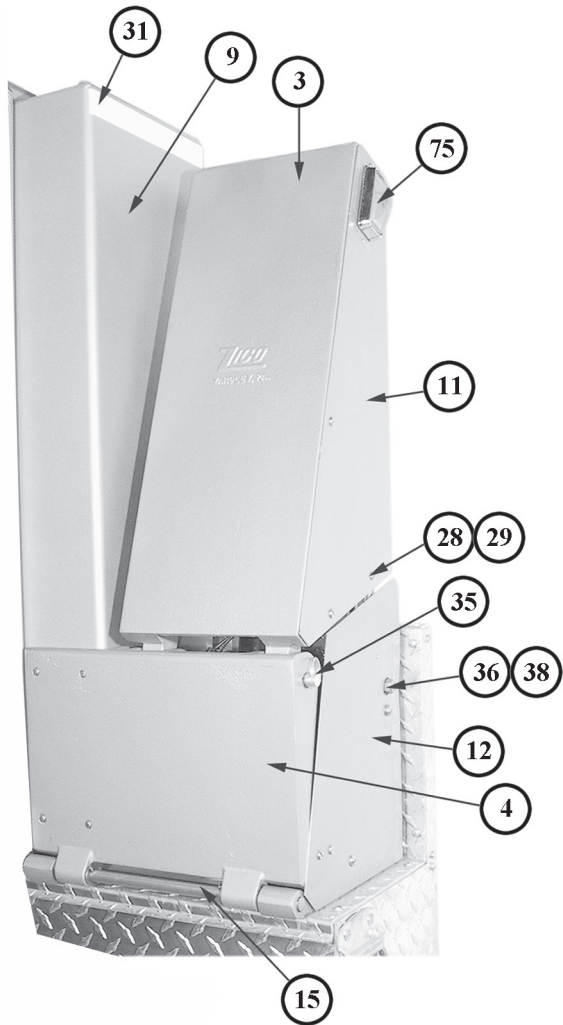
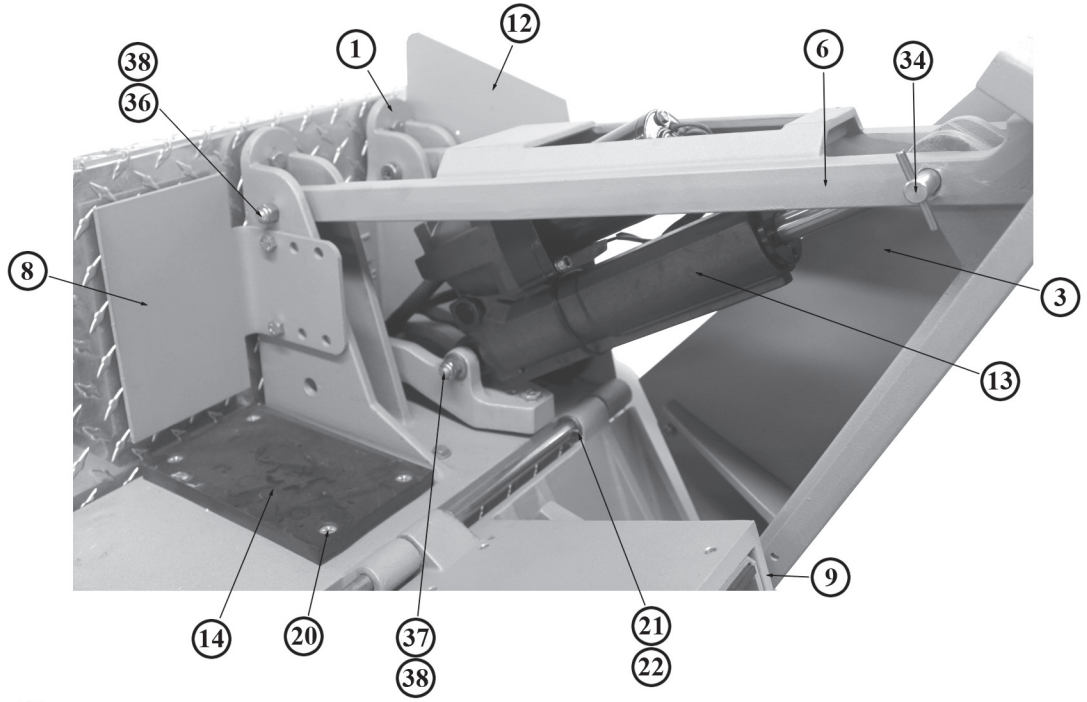
500 LB. MAX PAYLOAD (TANK, TANK BOXES, SUCTION HOSES AND MISC. BRACKETS)

FIGURE 11. Stack Height and Max. Weight Limits

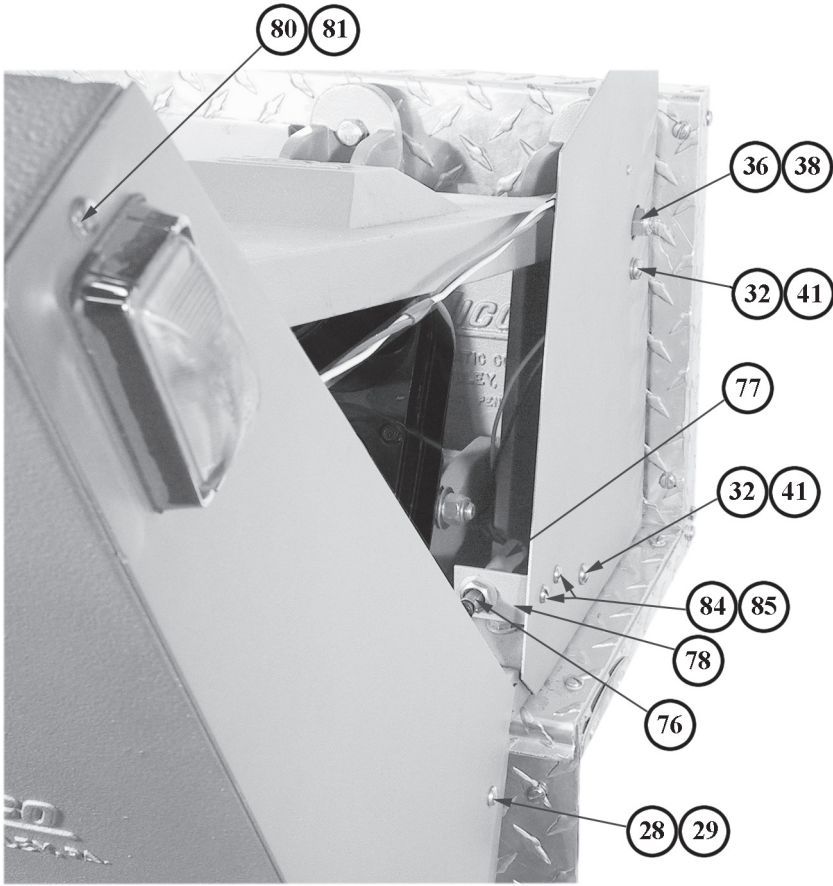


**FIGURE 12.
LEFT SIDE ASSEMBLY**

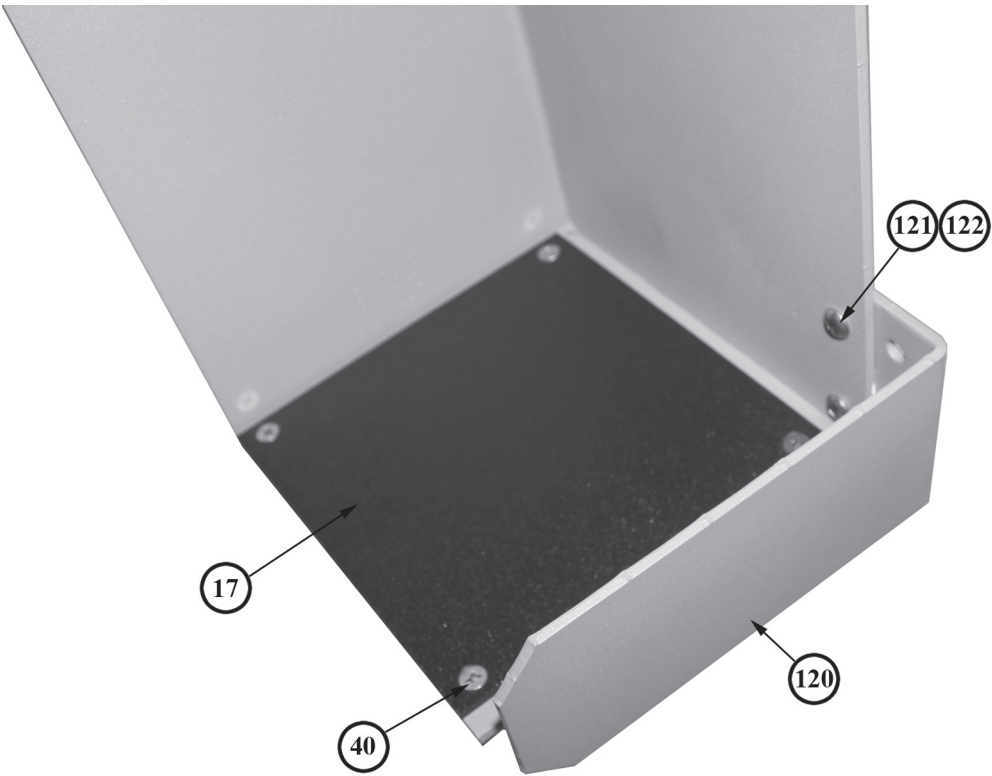
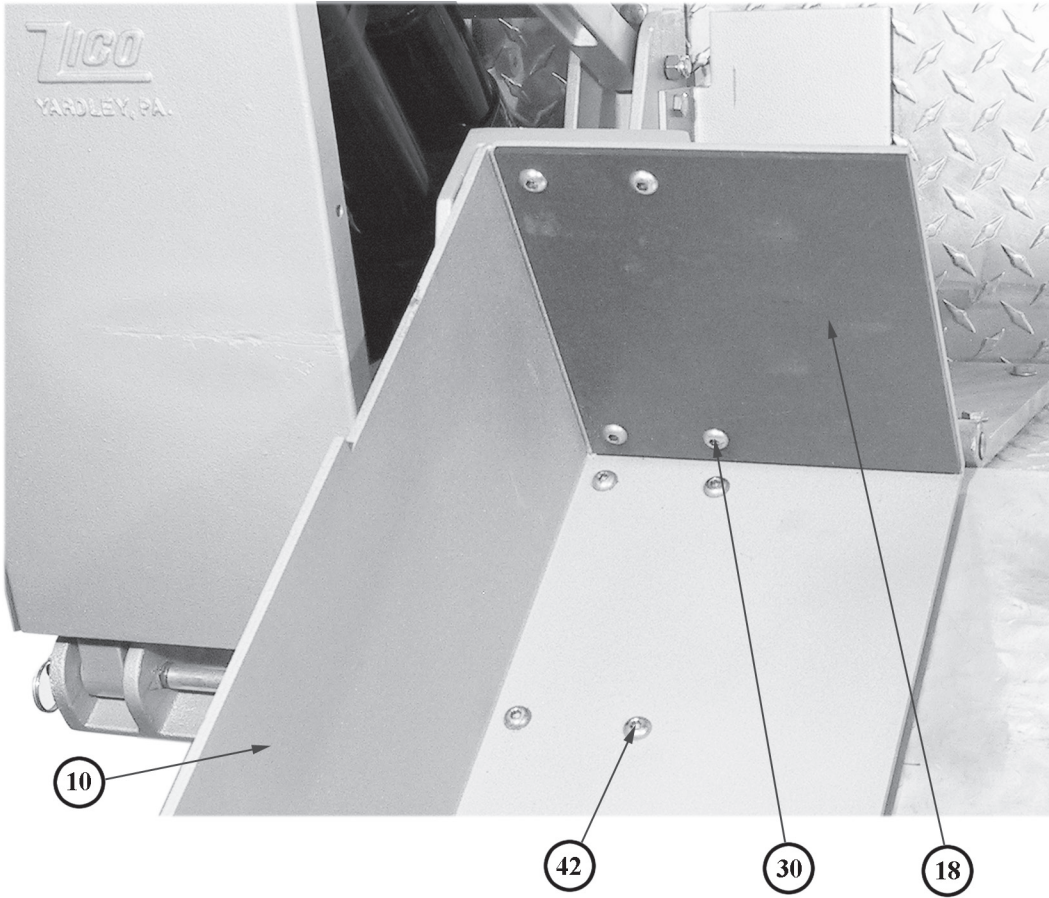




**FIGURE 13.
RIGHT SIDE ASSEMBLY**



**FIGURE 14.
LIGHT KIT
COMPONENTS**



**FIGURE 15.
TANK BOX
COMPONENTS**

(This page intentionally left blank.)

(This page intentionally left blank.)

WARRANTY REGISTRATION

Please Mail or Fax a Copy to ZICO to Register Your Unit

FIRE DEPARTMENT NAME: _____ CONTACT PERSON: _____

PHONE NO. _____ FAX NO. _____

STREET ADDRESS: _____ P.O. BOX: _____

CITY: _____ STATE: _____ ZIP: _____

SERIAL NO. ON UNIT: _____

INSTALLED ON: (VEHICLE MFG.) _____ DELIVERED: (DATE) _____

WAS UNIT INSTALLED ON: _____ NEW VEHICLE

_____ RETROFITTED ONTO EXISTING VEHICLE

WAS A HARD COVER INSTALLED OVER THE PORTABLE TANK? _____ YES _____ NO

MANUFACTURER OF PORTABLE TANK:

SIZE OF TANK:

_____ FOL-DA-TANK

_____ GALLONS (U.S.)

_____ FIRL

_____ LENGTH (COLLAPSED)

_____ BURCH

_____ WIDTH (COLLAPSED)

_____ OTHER (SPECIFY) _____

_____ HEIGHT (COLLAPSED)

WHERE DID YOU HEAR ABOUT OUR PRODUCT?

_____ MAGAZINE AD (SPECIFY) _____

_____ DEALER (SPECIFY) _____

_____ VEHICLE MFG. (SPECIFY) _____

_____ ANOTHER DEPARTMENT (SPECIFY) _____

_____ OTHER (SPECIFY) _____



Ziamatic Corp.

10 West College Avenue, P.O. Box 337, Yardley, PA 19067-0587 • (215) 493-3618 • FAX: (215) 493-1401

www.ziamatic.com

TOLL FREE: 800-711-3473

*ZICO is a registered trademark for fire, safety and marine products made by Ziamatic Corp.

Copyright Ziamatic Corp. 6-13