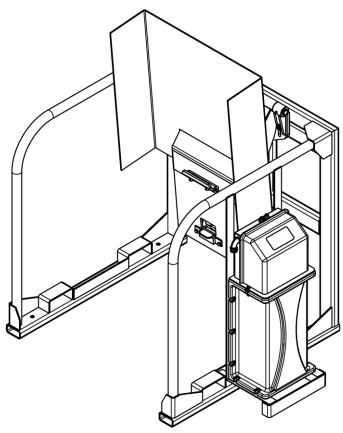


# Installation & Operational Manual Model D6035 Hydraulic Cart Lifter D6030 w/stand & power pack



Perkins Manufacturing Company
Creators of the TuckAway® Cart Lifter
www.perkinsmfg.com

800-882-5292 Revised: 4/20/22

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### **D6035 Lifter Specifications**

Cart Compatibility	ANSI Type B, US-Style two-bar carts having a bar to bar dimension of 14 ¾ - 15 ¼".		
Typical Mounting Application	Mounted to Industrial Stand		
Mounting Type	Stationary or Wheeled, specify on order		
Flow Rate Requirement	2.8 gpm		
Cycle Time	13-14 seconds (up and down)		
Recommended Pressure Setting*	1,950 psi at the pressure relief valve		
Maximum System Pressure	sure 2,500 psi		
Weight Capacity**	400 lbs		
Dump Angle	45 degrees from the horizon		
Maximum Dump-Over Height	Clears a 56" wall/surface.		
Approximate Unit Weight (not counting packaging)	870 lbs		
Hydraulic Package	Available Battery-Powered Hydraulic kit, 115v, 230v,or 460v as specified		
Warranty	***		

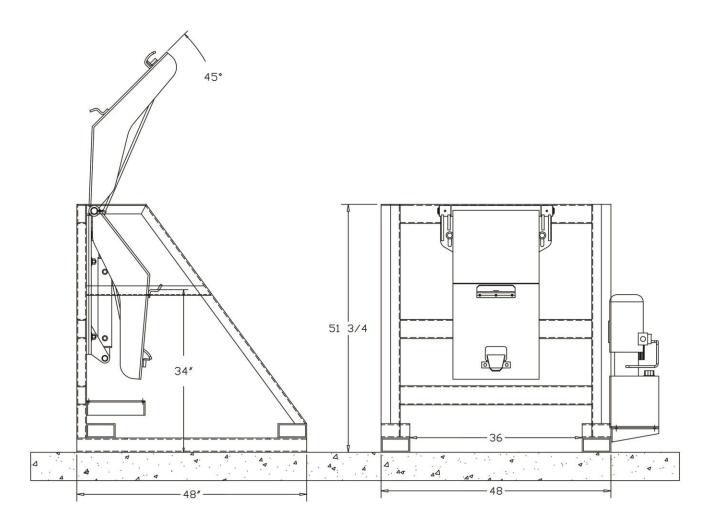
Perkins regularly makes product improvements. Specifications are subject to change without notice.

<sup>\*</sup> Actual pressure required to lift a load can vary.

<sup>\*\*</sup> Do not lift more than the recommended amount printed on the cart by the cart manufacturer or damage or injury may result.

<sup>\*\*\*</sup> See Warranty page for full details of coverage

### **Overall Dimensions**



Perkins regularly makes product improvements. Construction may vary depending on options choosen. Dimensions are subject to change without notice.

### **Cart Types**



ANSI Type B carts
(US-Style two-bar carts) with a dimension of 14 ¾ - 15 ¼" bar to bar spacing.



ANSI Type C Carts
(European-type)
Using an upper lip for
lifting. Height to
ground varies with size
of cart.



ANSI Type D Carts (Diamond-Type)



ANSI Type G Carts (Automated Collection) Having a rounded body ideal for gripper arms to clasp around.

Note: Some ANSI Type B carts are also Type G compatible, but some carts, particularly older designs, are not. This affects gripper-arm type of lifters that rely on grasping the cart around it's body. If using a gripper arm type of lifter, check your carts and see if they have rounded corners (look for approximately 6" radius). If so, they are likely ANSI Type G compatible.

Note: Follow the maximum weight capacity listed on the cart by the cart manufacturer (typically around 250 lbs).

### **Key Hydraulic Components**



Adjustable Flow Control



**Hand Valve** 



PO Check Valve

Valves are sold separately or as part of a tap-in kit. The valves are shown for reference / identification purposes only. Your specific installation may require other equipment not shown.

### Installation/Repair Safety

Please read this manual prior to installing, repairing or using this cart lifter.

- Installation of this equipment requires welding, painting, grinding, torching and working with high-pressure hydraulic systems. The appropriate safety equipment should be used at all times.
- Always follow OSHA specified lock-out procedures while working with a truck.
- Your lifter with industrial stand will come assembled and ready to run. Just add electrical plug and hydraulic oil.
- If this is a stationary unit, do not operate this lifter unless the stand has been anchored to the floor with the appropriate concrete anchor bolts.
- Cart lifters weigh, on average, between 185 to 300 lbs. Do not lift the lifter onto the mounting plate by hand. Always use proper lifting equipment.
- Always use a chain or strap to secure the lifter in the upright position during any repairs. Unsecured lifters may fall suddenly causing injury.
- On not open/loosen any hydraulic lines unless the system is off and depressurized.
- Always double-check hydraulic fittings and hoses for tightness prior to reactivating the pump.
- ◆ All painting of the truck/lifter after installation is complete should be done with proper ventilation and per local regulations. Do not paint over caution and warning labels.
- If there are any questions about the proper installation or use of the cart lifter not covered in the manual, it is recommended to call Perkins at 800-882-5292.

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Please be aware of the risks of working with welding equipment and consumables. Always use safety protection equipment. The sparks may ignite fire, always clean the area from flammable material or flammable chemicals, do not weld close to gas lines or on top of electrical cords or installations. Disconnect battery cables from the battery and make sure the vehicle is perfectly grounded prior to attempt to do any weld. Always weld in a ventilated area.



WHEN WELDING, WEAR APPROPRIATE EYE AND SKIN PROTECTION. WELDING LIGHT CAN BLIND. WELDING LIGHT CAN SUNBURN THE SKIN. LONG TERM EXPOSURE TO WELDING LIGHT CAN CAUSE CANCERS. ALWAYS WEAR PPE WHEN WELDING. PROPER PPE SHOULD ALSO BE WORN BY ANYONE IN THE THE WORK ZONE WHO MIGHT ALSO BE EXPOSED.









HYDRAULIC SYSTEMS CAN LEAK OUT HIGH PRESSURE WHICH CAN CAUSE SERIOUS INJURY, GANGRENE OR DEATH. DO NOT CHECK FOR LEAKS WITH YOUR BARE HANDS AND AVOID CONTACT WITH LEAKING OIL STREAMS.

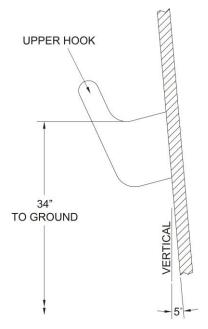
HYDRAULIC OIL CAN ENTER THE BLOODSTREAM. SEEK MEDICAL ATTENTION IMMEDIATELY IF YOUR SKIN IS PUNCTURED BY HYDRAULIC OIL.

HYDRAULIC SYSTEMS CAN BECOME HOT (GENERALLY UP TO 170-180 DEG. F.) TO AVOID BURNS, DO NOT TOUCH VALVES, ACTUATORS, CYLINDERS, AND OTHER HOT COMPONENTS, EVEN AFTER THE SYSTEM IS SHUT OFF IT WILL REMAIN HOT AND TAKE TIME TO COOL DOWN.

ALWAYS TURN OFF A SYSTEM BEFORE SERVICING IT. DEPRESSURIZE THE CIRCUIT BY ACTIVATING THE CONTROLS WITH THE SYSTEM OFF TO RELIEVE ANY BUILT UP PRESSURE.

NEVER WORK UNDER A RAISED LOAD. RAISED EQUIPMENT CAN SUDDENLY FALL WHEN A VALVE OR LINE IS OPENED (LIKE A MOUSETRAP). IF THE EQUIPMENT MUST BE SERVICED IN THE RAISED POSITION, SECURE THE EQUIPMENT WITH CHAIN OR STRAP TO HOLD IT UP SAFETY.

### **Determine the Mounting Height**



Upper hook mounting height

The mounting height is critical to the proper function of any cart lifter. The ideal location for the upper hook is 34" off the ground, when the lifter is positioned so that the faceplate is 5 degrees tilted back from vertical as shown in the diagram at left.

Although the lifter comes preassembled to the stand, it is possible to adjust the mounting height thru the use of the slotted mounting plate. Loosen the locknuts and adjust height as desired and re-tighten locknuts.

A cart lifter which has been positioned too low may kick carts away before successfully engaging them.

A cart lifter which is mounted too high will make it difficult for the operator to latch the cart at all, causing the operator to have to lift the cart onto the latch.

A good mounting height will make latching carts effortless with no lifting or holding the cart in place.

**Hydraulics** 

### **Hydraulic Oil**

The most important component of any hydraulic system is the oil. Perkins cart lifters use standard seal materials and should therefore be compatible to most grades of hydraulic oils, operating in typical weather conditions for most of North America. However, the condition of the oil is an important consideration that should not be overlooked.

Hydraulic oil may be dirty, contaminated, lost its viscosity, burned up, or have too high a concentration of absorbed water and/or air. While these things are unlikely to cause an immediate performance issue with your cart lifter, these issues can lead to premature wear and tear in the longer term.

Perkins would like to take this opportunity to remind you to check the quality of your hydraulic oil periodically and make sure it meets your standards. Oil that is maintained in good condition will help your equipment last longer.

#### **Lifter Speed**

The cycle time of the lifter is very important for safe operation. Perkins suggests a complete cycle time of 13-14 seconds (7-8 seconds up and 6 seconds down). Faster cycle times may be dangerous. Running a lifter too fast can damage the cart, or make a cart break loose off the lifter and fall, resulting in damage and/or injury.

The speed of the cart lifter is determined by the rate of oil (gpm) going to the unit. Typical lifters will require approximately 2.8 gpm in order to meet this speed. A gauge is recommended but not needed to determine proper lifter speed. Counting the cycle time using a stop watch is adequate to determine proper flow rate. Running a lifter too fast will void the warranty.

### **Weight Capacity**

The maximum amount of weight that can be lifted is limited by the pressure relief valve. The settings must be determined with a pressure gauge. The D6030 requires 1950 psi to lift a 400 lb load. Place a pressure gauge after the hand valve and run the actuator until it stops, continue activating the handle and note the pressure on the gauge. Adjust the relief valve according to the manufacturer's instructions.

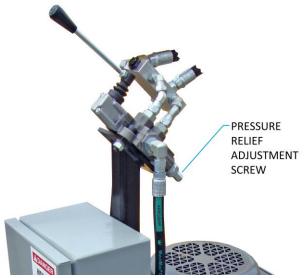
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### Adjusting the Perkins Hydraulics

### **Adjusting the Lifting Capacity**



Note: The setting for the D6030 is approximately 1950 psi to lift 400 lbs.

#### Hand Valve:

This valve directs the flow to the lifter to make it move up or down. It features a "deadman" stop. Release the handle and the lifter should stop moving.

The valve has a built-in pressure relief valve. To increase the lifting capacity, loosen the locking nut and turn the adjusting screw clockwise. It is recommended to use a pressure gauge to achieve the right setting. Raise the lifter until it stops and continue to pull the handle. Note the pressure on the gauge and adjust the screw accordingly.

When the pressure is correct, retighten the locking nut.

### **Troubleshooting the Hand Valve**

This valve does not affect lifter speed!

Only adjust this valve if the lifter won't pick-up the desired weight, or if a chattering noise is heard.

Don't be fooled! Containers full of water, concrete, rocks, dirt, wet grass of other materials can easily weigh far more than the capacity of the lifter. Just because the lifter doesn't pick up that heavy cart, doesn't mean the lifter needs adjustment! If there is doubt, try weighing the container in question.

### **Maintaining the Hand Valve**

This valve requires no periodic maintenance.

If a problem is traced to the hand valve, turn the system off and remove the cartridge. Clean and inspect the cartridge. Make sure the handle returns to center on it's own. If it doesn't, it may need a spring kit.

### **Maintaining the PO Check Valve**

PO Check Valve: D63580

The valve locks the oil from escaping unless the hand control is activated. This locks equipment in position and prevents drifting when equipment is idle. It also acts as a safety, in the event of a broken hose, the valve stops the movement of the equipment.

This valve is not adjustable.

This valve requires no periodic maintenance.

If a problem is traced back to the PO check, turn off the system and remove the cartridge. Clean and inspect for damage. Replace cartridge if needed, flush the valve, rebuild and install.



### **Maintaining the Adjustable Flow Control**



Adjustable Flow Control Valve: D63575

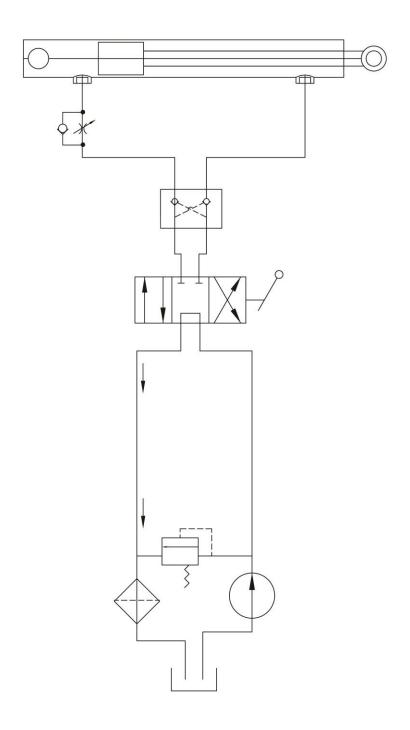
The valve is located on the left-hand side port of the rotary actuator. It's purpose is to restrict oil coming out of the actuator when the lifter is moving back down. By restricting the oil, the lifter is prevented from "getting ahead" of the oil and slamming into the ground.

This valve only works in one direction, so adjusting it does not affect the speed of the upwards direction.

The valve has a small arrow stamped into its body. The arrow should point away from the actuator.

If the lifter comes down too quickly, try turning this valve in clockwise ¼ turn at a time until the down direction is smooth and under control.

### **Perkins Single Lifter Hydraulics Schematic**



### Operating the Lifter

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### **Operating Instructions**

The recommended cycle is 7-8 seconds to travel up and 6 seconds to travel down. This cycle time is based on the safe and smooth movement that the plastic cart can be swung about at without risking damage to the cart or injury to the operator. Therefore, operating the lifter faster than this time will void the warranty.

It is recommended that the lifter be visually inspected on a daily basis to ensure that there is nothing obviously in need of repair. Broken or missing parts/hardware should be attended to immediately to avoid risk of further damage to the lifter, damage to the cart, or injury to the operator. Operating a cart lifter that is not properly maintained is hazardous.

Step 1: Turn the key on the control box to start the power pack.

Step 2: Roll a loaded cart to the lifter and position the upper bar of the cart on the upper saddle of the lifter or in a position where the lifter will engage the bar once it starts it's motion. (It is not necessary to lift the cart onto the upper saddle)

Step 3: Look and make sure no one is in the area of the lifter or cart, then operate the hand valve by pulling up on the handle. The lifter will rotate and engage the cart and raise it to 45 degrees above the horizon.

Safety Note: The hand valve operates like a deadman switch. Releasing the handle at any time will stop motion of the lifter. Normal operation may be resumed by operating the handle again.

Step 4: Check again that no persons are in the work area before lowering the cart to the ground by reversing the handle (pushing down) until the cart is safely back on the ground and the lifter has disengaged the cart.

Step 5: Remove the empty cart and repeat the process as needed.

#### **Safe Operating Tips**

Always follow your company's safety policy during the use of this lifter, including use of proper clothing/ personal protective gear, reflective clothing, etc. Always be aware of your surroundings and watch for people who may be working on or around the equipment prior to using the lifter.

Do not lift anything with the lifter other than ANSI approved carts which are in good condition. Non-approved carts may not lock properly, causing them to fall from the lifter, which can cause damage or injury and will void the warranty.

Do not use the lifter for any purpose other than lifting a cart. Lifters are not meant as steps, or used to crush/breakdown an item. Doing so can cause serious damage or injury and will void the warranty.

Speeding up the lifter beyond the recommended cycle time of 13-14 seconds and/or adjusting the relief valve to pick up weights heavier than 400 lbs can lead to damage or injury and will void the warranty.

Lifters can be damaged by operator abuse. A common mal-practice is to shake a cart violently to try to remove every last bit of material in the bottom of the cart. This puts great strain on the lifter components, the plastic cart, and the hydraulics. Never shake the carts! Shaking will void the warranty and can cause injury if the lifter or cart breaks while it's in motion.

Do not operate the lifter unless the area around it is clear of personnel. This means do not touch the lifter while it is in operation and do not stand or sit under/near the lifter while it is moving. Lifters have pinch points which can cause serious injury. Stay clear at all times.

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If the lifter is damaged by collision, the damage will not be covered by warranty.

### Adjusting the Lifter

#### **Correct Position of the Lower Latch**

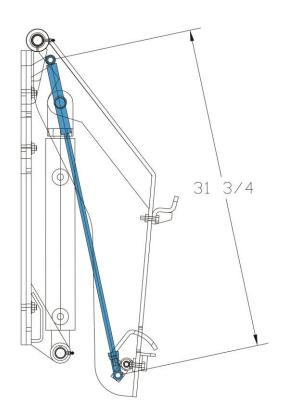
Shown at right is the correct position of the lower latch when the plunger assembly and threaded rod assembly are both adjusted properly and when the faceplate is 5 degrees prior to vertical.

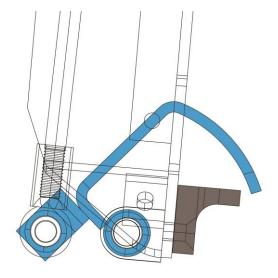
The key is to make sure the tip of the latch is above the lower edge of the lower stop.

This position ensures that the latch is still open at the time of cart engagement to the lower bar.

The latch may be adjusted to be slightly higher than shown, but not lower, or else carts may not latch.

### **Adjust the Plunger Assembly Length**





The plunger assembly from center to center must be  $31\,\%$ " when left unstretched in the down position.

Adjust the rod-eye to this dimension and then tighten the jam-nut to secure the rod eye in place.

### **Other Adjustments**

Make sure all hardware is firmly tightened. If any hardware loosens they may be affixed with Blue Loctite type 242 thread locker.

There is a wide variety of carts, some of which do not meet ANSI standards. Customers may experience engagement issues with some particular brands of carts and in circumstances like these, spacers can be added behind the upper saddle or behind the lower stop to extend them out from the faceplate. This helps certain brands/sizes of carts to lock to the lifter better. If you experience any difficulties with the cart type you have, please call Perkins at 800-882-5292 to discuss the problem and Perkins will advise the best solution to meet your needs.

**Troubleshooting Guide** 

Lifter operation is erratic, lifter does not move smoothly

When the lifter does not move smoothly, there is typically air in the system. This is usually an issue after the initial installation or a recent repair where the hydraulic lines may have been opened. Bleed air out of the system by loosening a fitting very slightly and running the hand valve to create flow. Excess air

should bleed out of the opening in the fitting. Retighten when complete done.

Another possibility is the adjustable flow control, D63575 not functioning properly. Check the arrow printed on the valve body. The valve should be installed so the arrow points away from the cylinder.

Adjust, clean, or replace the adjustable flow control valve as needed.

Cart lifter will not pick up the weight

The cart may be overweight. If the cart is obviously very heavy and hard to move, try removing a few

items from the top to lighten the load.

The hand valve relief pressure setting may be set too low. Check and adjust the pressure using a

pressure gage. Note the pressure being delivered and adjust accordingly.

If all pressures are set properly and the hand valve works, then the cylinder may have internal leakage. Test for internal leakage by running the lifter all the way up and dead-head the lifter up. Note the pressure gage and see that the pressure stays constant as the hand valve is held depressed. If the

pressure falls, you may have internal leakage and the actuator should be repaired/rebuilt with new

seals.

Lifter operates slowly

Check the flow using a flow meter to make sure the pump is delivering approximately 2.8 gpm. Older  $\,$ 

pumps can loose efficiency and flow drops as a result.

The hand valve may be faulty. Check, clean and/or replace as needed.

In rare instances, debris within the oil may be clogging components. Check and clean the valves as

needed.

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Hand valve lever sticks, does not return to center

A worn or broken spring on the spool will cause the handle to fail to return to center. This is dangerous,

since this means the deadman stop feature is not working. Check and replace the spring

If the spring is not the problem, check and clean the hand valve of any rust/corrosion and debris in or

around the spool or the external parts.

On new installations, this is the result of having the pressure and tank lines reversed. Check and make

sure that the pressure line goes to the "IN" port and the tank line goes to the "OUT" port.

Hand valve is leaking oil

This is typically caused by worn or damaged seals. Install new seals, or in some cases, the spool itself is

worn. If so, replace the hand valve.

Lifter breaks the lower bars of carts

First, make sure there is no damage to the lifter. Replace damaged components as needed.

Check adjustment of plunger assembly and threaded rod assembly. Check function of plunger. Adjust

as needed.

On new installations, check the mounting height. It is common for brand new lifters to break lower bars

if the lifter is installed too low. Remove the lifter and remount at the correct height.

Lifter breaks upper bar of carts

The upper bar of the cart is typically broken when the cart is lifted while it is excessively loaded, or while

the lifter is operated too quickly. Adjust the speed of the lifter to bring the cycle time to 6-8 seconds.

Make sure the pressure is set no higher than 1950 psi.

Make sure the lifter is not damaged. Bent or broken lifter parts can contribute to cart damage.

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Lifter drops carts

A common problem is the lower latch is not adjusted correctly or the latch is damaged or unable to

move freely. Check, clean and grease the parts as necessary to achieve free motion of the latch and

appropriate latch timing.

Make sure the upper hook is not damaged and make sure the lower stop is in place. Some customers

have been known to remove the lower stop, but this leads to dropping carts and latch damage.

Carts which are damaged or have missing lower bars will obviously not latch properly and should be

repaired or replaced.

Some carts do not meet ANSI standards. Measure the problem cart and see that the bar to bar spacing

is within 14 ½ - 15 ¼.

Lifter slams down to the ground or comes down too quickly

On the way down, the lifter can get ahead of the oil and free fall. Check that the adjustable flow control

is mounted to the left side of the actuator, with the arrow pointed away from the actuator, and that the

valve is adjusted properly. Try ¼ turn adjustments until the lifter returns to ground level smoothly.

Lifter drifts out of position when not in use

Make sure the PO Check valve is installed. If it is and the lifter still drifts, remove the PO check and

remove and clean the cartridge. If the valve is damaged, replace it.

If the problem does not seem to be the PO check, the hand valve may have internal leakage. Replace

the hand valve seals and/or spool as needed.

If the problem persists, then the cylinder may be leaking internally. Check for internal leakage by

running the lifter up and holding the hand valve while reading a pressure gage. If the pressure falls, then

the cylinder is leaking internally and should be rebuilt with a new seal kit or replaced.

Lifter is in good condition, latch is adjusted, but lifter still breaks carts

In this case, the lifter is most likely being operated too fast, or the carts are overweight. Excessively

hard shaking of the carts by the operators can also lead to cart damage. Train your operators to operate

the lifters properly.

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### Making a Warranty Claim



For complete warranty coverage details, please see the warranty page at the end of this manual.

If you suspect that failure of the lifter to operate is due to a defect, please take a moment to locate the serial number of your lifter.

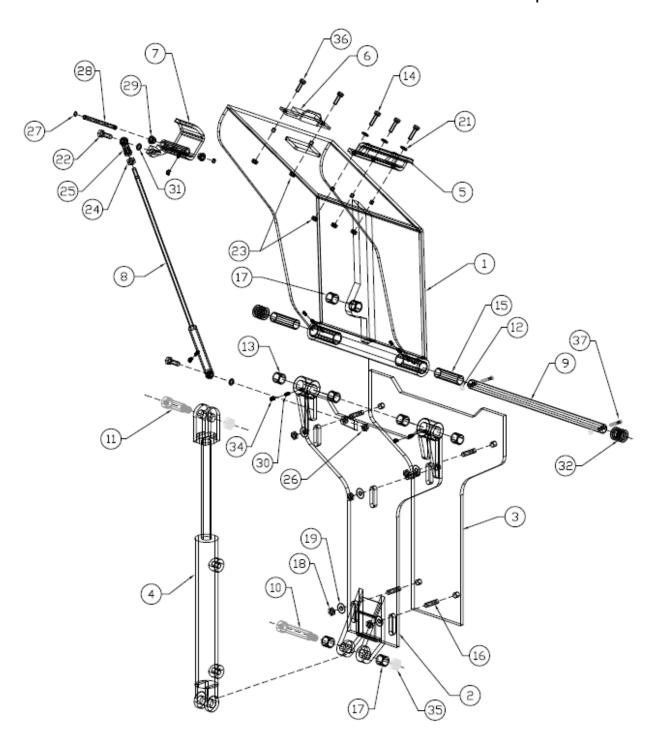
Warranty cannot be honored on lifters or individual pieces unless a serial number is provided. Since the tag is frequently lost, damaged, or painted over, it is a good idea to note the serial number in this manual at the time of installation.

At right is an example of the serial number plate. It will be stamped with a model number and serial number.

Once you have the number, please call Perkins Manufacturing at 800-882-5292 for additional instructions.



## D6030 Exploded View



### D6030 Lifter Parts Key

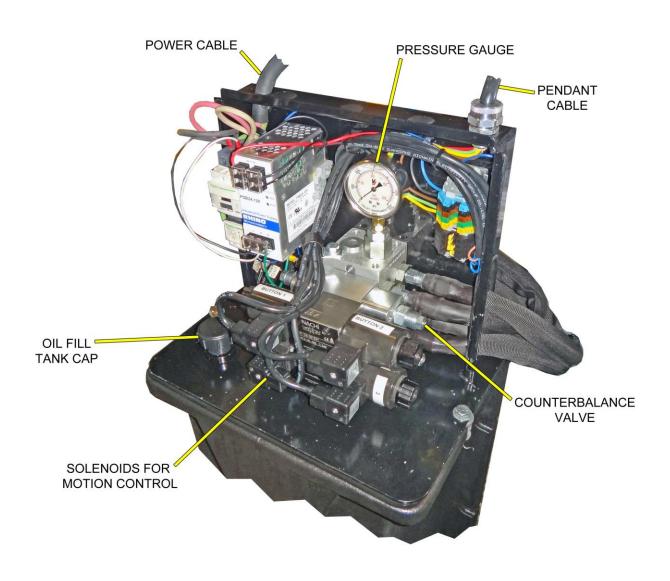
1	D66001	Faceplate Weldment	1
2	D66010	Mounting Plate Weldment	1
3	D67235	Rear Mounting Plate	1
4	D63041	Cylinder Weld	1
5	D65255P	Plastic Upper Hook	1
6	D75043	Lower Stop Weld	1
7	D65805	Lower Latch	1
8	D66027	Plunger Assembly	1
9	D66126	Main Pivot Pin	1
10	D72231	Shoulder Bolt 1 x 4.5	1
11	GC3483	Shoulder Bolt 1 x 2.5	1
12	D62030	Locknut 5/16-18 grade 8	2
13	D66021	1 ¼" Dia. Bearing	4
14	D62085	Bolt HHCS 3/8-16 X 1 3/4 lg	3
15	DC4434	1/4" Spacer Plastic Tube	2
16	D62448	Stud 5/8-11 X 2 lg	5
17	D66013	1" Dia. Bearing	3
18	D62001	5/8-11 Locknut	5
19	D62467	5/8 Flatwasher	5
20		N/A	
21	D62060	Flatwasher 3/8ID x 13/16 OD x 1/8 <sup>th</sup>	3
22	D62073	Bolt BHCS ½-13 X 2 lg	2
23	D62080	Locknut 3/8-16	5
24	D62009	½-20 Jam Nut	1
25	D63019	Rod-Eye ½-20	1
26	D62081	Locknut ½-13	1
27	D72003	Snap Ring 5/8	2
28	D75115	Latch Pivot Pin	1
29	D78814	Bearing	2
30	D62014	Grease Zerk 1/8" straight	5
31	D62008	½" Split Lockwasher	2
32		N/A	
33		N/A	
34	D63029	Plastic Grease Zerk Cap	5
35	D72132	Locknut ¾-10 zinc plate grade 8	2
36	D62420	FHCS 3/8-16 x 1 ½ Grade 8	2
37	D72247	HHCS 5/16-18 x 2	2

# #SOLD SEPARATELY\*



# Hydraulic Power Pack \*SOLD SEPARATELY\*

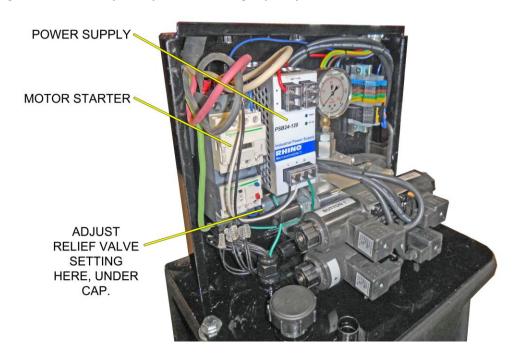
**Glossary of Terms** 



# Hydraulic Power Pack \*SOLD SEPARATELY\*

Adjusting the Hydraulics

Adjusting the maximum system pressure (lifting capacity)



The pressure adjustment is hidden under a cap, as indicated. The pressure is pre-set at the factory to the desired pressure. Should further adjust be necessary, remove the cap shown. Inside is an adjustment screw. Turn in for more pressure, turn out for less pressure. Make adjustments ¼ turn at a time.

Remember, maximum pressure is as measured when the system is encountering a load and is pushing. When the system is on, pressure will not be at maximum pressure. The "idle" pressure will be low, maybe 100-300 psi or thereabouts. When the system is operated, you can read the gauge and see how much pressure is being used to move a load. (This is still not the maximum.)

To read the maximum pressure, operate the machine up until it stops moving (All available stroke is used and motion stops). Continue to hold the button and read the gauge now. The gauge will now display the maximum system pressure the relief valve is set to.

Do not set higher than 2100 psi.

There is no adjustment on the power pack that affects the speed.



# \*SOLD SEPARATELY\*

### **Operation Instructions**

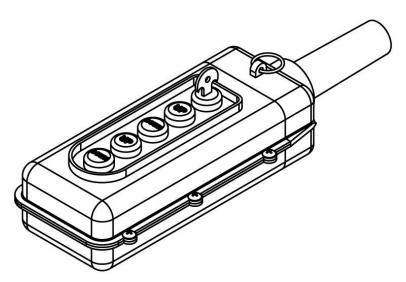
Step 1: To start the power pack, turn the key on the pendant. You should be able to hear the power pack whir to life.

Step 2: Operate the lifter according to the instructions provided in the lifter manual.

Standard controls are deadman style, requiring the operator to hold the button for motion to continue.

Optional walkaway controls also the operator to push the button and walk away while the motion continues. An audio alarm will beep during motion when active.

Step 3: Once the desired motions are complete, turn the key on the pendant off. It is not recommended to leave the unit on continuously as this will build up heat and consume unnecessary power.



#### **SAFETY NOTE:**

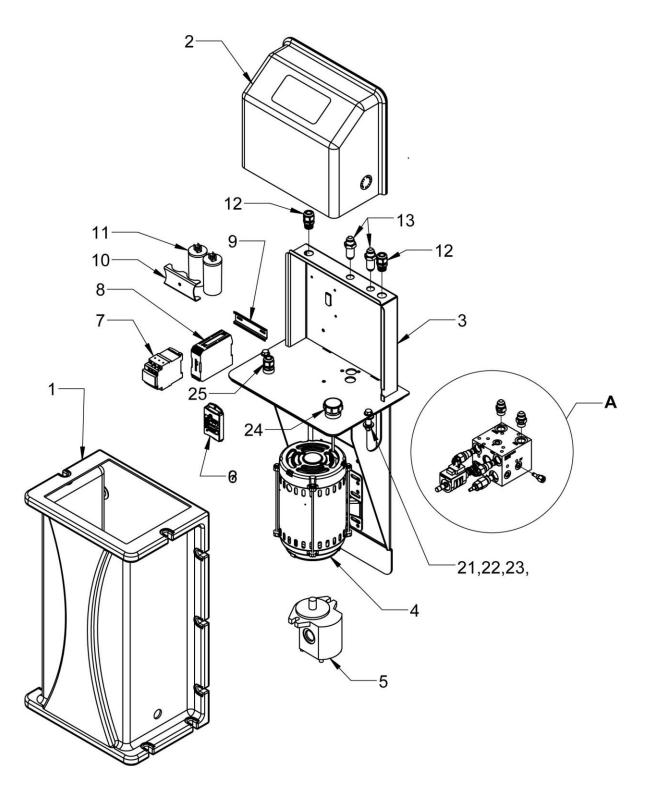
Hydraulics are very powerful and can lift very heavy loads. The operator must stand clear of all moving components and follow instructions located in the equipment manual. The operator must pay close attention to the work area and ensure no one enters the area where the load or machine is moving, and stop all motion if anyone enters the work area immediately.

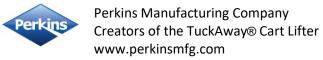
The system comes with a red button Emergency Switch. Pressing the red button turns the system completely off. Twisting the button resets the button and resets the system.



### Exploded Parts View – Base Portion

### FOR EXAMPLE ONLY, IMAGES MAY DIFFER FROM ACTUAL PRODUCT

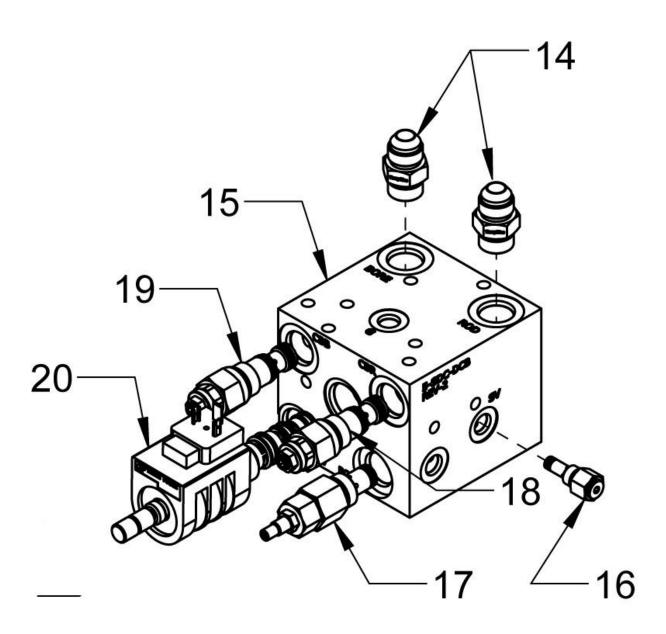




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### FOR EXAMPLE ONLY, IMAGES MAY DIFFER FROM ACTUAL PRODUCT



# **DETAIL A**

Perkins provides each finished cart lifter with ANSI-specified caution labels. They are clearly placed directly on the machine for easy viewing by the operators.

Should the cart lifter ever be re-painted, or if the labels are damaged beyond recognition, it is advised to replace the labels immediately to help keep your crew safe.

OHSA always requires these labels to be in clear sight on the machine. Responsibility to maintain proper caution and warning labels is the responsibility of the end-user.



You should make sure that all pressure is bled/released from the hydraulic or pneumatic system; for some systems it may be possible to work on a part of the system by using line-breaking or blanking procedures. Never loosen or tighten a hydraulic connection when the system is under pressure. The connection could fail catastrophically and cause an injection injury and/or damage to property. Inspect hoses regularly for wear then replace hoses before leaks can develop. Hydraulics systems should look clean and dry. You can typically see leaks where the machine is collecting dirt and debris that is sticking to the oil. Look for wetlooking areas that are collecting dirt. Check for abraded/scuffed hoses, loose or damaged fittings, or worn out seals, or other physical damage that may have led to creating the leak.





Punta Peligrosa. Mantenga las manos alejadas.



### **ACAUTION**

Pinch point hazard.
Keep hands clear.

Perkins Manufacturing Company 800-882-529

Label # D724



Manténgase alejado del levantador. Un golpe causaria lesiones o la muerte.



### **A DANGER**

Stand clear of lift. Contact will cause injury or death.

Label # D

### NOTICE

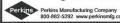
### **Maintenance Requirements**

Read and understand manual prior to operating this equipment.



Follow maintenance guidelines per the manual. Inspect machine daily prior to use and report any problems to service immediately.

Failure to operate and maintain the unit within guidelines will void the warranty.



Perkins Manufacturing Company

Label # D724



Pinch points and crush hazards.

Stand clear during operation.

Worker can be injured by moving parts.

PERKINS MANUFACTURING CO. 708-482-9500



### **ATENCIÓN**

Puntos de pellizco y riesgos de aplastamiento.

Manténgase alejado durante la operación.

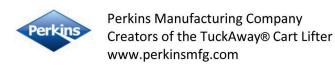
El trabajador puede resultar lesionado por Partes que se mueven.

D62474

Dress appropriately for work with pants and sleeves that are not too long or too loose. Shirts should be fitted or tucked in. Avoid wearing loose and dangling jewelry. Tie back long hair and tuck braids and ponytails behind you or into your clothing. Wear the appropriate, well-fitting gloves for your job.

Look for possible pinch points before you start a task. Take the time to plan out your actions and decide on the necessary steps to work safely. Read and follow warning signs posted on equipment.

Machinery can pose a hazard with moving parts, conveyors, rollers, and rotating shafts. NEVER reach into a moving machine. Turn equipment off and use lockout/tagout procedures before adjusting, clearing a jam, repairing, or servicing a machine.



800-882-5292

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# **NOTICE**



# Grease all zerks on a weekly basis to maintain warranty.

# Re-grease after power washing.

Visit www.perkinsmfg.com for important updates.

Please read the manual prior to operating or adjusting this machine for important information.

Perkins Manufacturing. Company 708 482 9500

Label # D72163

Maintaining the lifter is vital to ensure proper operation of the equipment and for warranty to be valid. Inspection of the lifter is also important to make sure there are no loose parts and that the lifter is properly grease. Not inspecting or maintaining the machine regularly can pose a hazard of parts coming loose, parts not moving properly or wear items to become too worn to not move properly. If any issues occur, please contact service immediately.

### Safety Labeling and Training Requirements

Perkins provides safety labeling on all outgoing product per ANSI regulations, seen below.

### 19-01 Warning, Label and Safety Instructions.

Include standard safety instructions as one of the first items in a manual. This helps emphasize safe use of the product and can help the user understand the hazards, the consequences of the hazards and how to avoid the hazards. Priority placement also increases the likelihood that the information will be read. Any symbols or pictograms physically on the product should be included in the appropriate section of the manual to reinforce the association between the nature and severity of the hazard and the correct behavior.

The American National Standards Institute (ANSI) standard Z535.6, Product Safety Information in Product Manuals, Instructions, and Other Collateral Materials, should also be applied.

To help ensure the product user sees and understands warnings and safety instructions, you should make them conspicuous. It is critical that you make proper use of the signal words "danger", "warning", "caution" and "notice" and their corresponding signal colors red, orange, yellow, and blue.

Choosing the appropriate signal words and colors are based on an estimate of the likelihood of exposure to the hazardous situation and what could happen as a result of exposure to the hazard. The American National Standards Institute (ANSI) standard Z535.4, *Product Safety Signs and Labels*, defines the hazard signal words as follows:

<u>DANGER</u>: Indicates an imminently hazardous situation which, if not avoided, "will" result in death or serious injury. This signal word is to be limited to the most extreme situations.

<u>WARNING</u>: Indicates a potentially hazardous situation which, if not avoided, "could" result in death or serious injury.

<u>CAUTION</u>: Indicates a potentially hazardous situation, which, if not avoided, "may" result in minor or moderate injury. It may also be used to alert against unsafe practices.

<u>NOTICE:</u> Indicates information considered important, but not hazard related (e.g., messages relating to property damage).

It is the responsibility of owner of this product to maintain the safety labels, keep them clear & visible to all users, and replace the safety labels when they become worn or missing.

All users must read and understand this manual and the safety precautions before using this product.

800-882-5292

Revised: 08/08/23

Addendum

### **Manufacturing Company**

### Perkins Warranty Procedure

This procedure for claiming warranty must be followed or warranty will not be approved, credit will not be issued, and replacement parts will not be shipped. This document is not a replacement for the warranty policy. Please refer to the last page of your manual, which describes the warranty policy in detail.

If you believe your Perkins lifter has suffered from a failure that could be covered by warranty, immediately lock out any equipment that has failed per OHSA guidelines.

Take photographs of the lifter, including overall views of the unit and some close-ups, as necessary to properly record the failure in a way our engineering staff can examine. While taking photos of the lifter, record the serial number of the lifter.

Call Perkins at (800) 882-5292 and ask to speak to the service department. Requests for warranty can also be emailed to <a href="mailed">svaldez@perkinsmfg.com</a>. Attach any photos to the email, as necessary. The service department will use the photos to determine if the return of parts for inspection is necessary or not. If the return of parts is required, the service department will issue you an RGA number.

Your replacement parts will be shipped at the time of your warranty request, but they will require a purchase order number/payment in order to ship. (Credit will be issued later, after warranty status is determined.) Your replacement parts will feature RGA numbers on the documentation referencing your warranty request. Replacements are sent UPS ground. For faster shipping, the customer will be charged.

Clearly mark the box of any returns with the provided RGA number in a prominent place. This helps our shippers identify your items. When your returned parts arrive, our service and engineering teams will inspect your shipment and determine if the failure is a defect covered by the warranty or not. If the item(s) are covered by warranty, credit will be issued. If the item(s) were not covered by warranty, a report will be generated that fully describes the reasoning behind the decision.

### Common Warranty Mistakes:

Please do not ship lifters/parts to Perkins without first obtaining an RGA number. Parts received without prior authorization or without RGA markings will be discarded and credit will not be issued.

Orders that are placed without discussing warranty status will be treated as a typical order and will be billed accordingly. Credit will not be issued for warranty requests after the order is placed.

No warranty is allowed on lifters/parts not having a serial number.

Email: tuckaway@perkinsmfg.com

(708) 482-9500 Fax: (708) 354-5878

Email: tuckaway@perkinsmfg.com

### **Manufacturing Company**

### Perkins Return Policy:

If, within 30 days of receipt of the item(s), a customer would like to return an unused item(s), the customer may contact Perkins for a return authorization (RGA#). The item must be shipped within 2 weeks of the return authorization. The customer will pay the return freight and a 15% restocking fee on the return(s). The item must be in new / unused condition, and any damage or clean up required to restore the product to resalable condition will be charged to the customer.

Packages received without an RGA# on the packaging identifying who the product is from may be discarded or refused and credit may not be issued. Always make sure the RGA# is displayed on the box and on any included paperwork.

If Perkins shipped the wrong item(s), the incorrect item(s) may be returned within 30 days of receipt of the item by contacting Perkins for a return authorization (RGA#). The item(s) must be shipped within 2 weeks of the return authorization. Perkins will pay the return freight and waive the restocking fee.

If the return results in a net debit, the customer will be invoiced. If the return results in a net credit, the credit can be used against the replacement item(s) or a future purchase.

### Special Notes:

Perkins does offer customized solutions and due to the customization of these items, Perkins cannot accept returns or refunds on anything custom ordered. This includes industrial units, cane lifters, and other items which have been specially fabricated to the customer's specifications. Unfortunately returns on these products cannot be accepted.

### Perkins Manufacturing One-Year Limited Warranty

PERKINS MANUFACTURING COMPANY warrants its products to be free from defects in material and workmanship under normal use for a period of **one (1) year** from the date of delivery to the first purchaser.

Any claim under this warranty must be handled in accordance with PERKINS' warranty procedure.

This warranty is expressly limited to the repair or replacement in PERKINS' discretion of any component or part of any PERKINS product unit manufactured by PERKINS which is brought to PERKINS attention promptly after discovery and is proven to PERKINS' satisfaction to have been defective in material or workmanship.

This warranty shall not obligate PERKINS to bear the cost of labor or transportation charges in connection with the repair or replacement of defective parts, and it shall not apply to a product upon which repairs, or alterations have been made unless authorized in writing by PERKINS.

Any damage, wear & tear or improper use, substitution of parts not approved by PERKINS, modifications other than those done by PERKINS or as authorized in writing by PERKINS, or any alteration or repair by others in such a manner which, in PERKINS' judgment, materially and adversely affects the product shall void this warranty. Operation at an actuator cycle time of less than six seconds shall void this warranty. Wear items used for anti-friction purposes are not covered by this warranty.

Periodic maintenance is required in order to maintain warranty but is not covered by warranty. Please refer to the maintenance section of the service manual for instructions.

PERKINS makes no warranty of products manufactured by others and supplied by PERKINS, the same being subject to warranties, if any, of their respective manufacturers.

PERKINS shall not assume any liability for any incidental, consequential, direct, or indirect damage, loss or delay of any kind, including, but not limited to, the loss of profits, product or downtime.

PERKINS warrants any service parts it may sell for a period of ninety (90) day from the date of delivery for replacement only. The item being replaced must be returned to PERKINS for evaluation upon its request. The cost of labor to replace such part shall be the responsibility of the owner. PERKINS does not warrant any used parts.

PERKINS, whose policy is one of continuous improvement, reserves the right to improve its products through changes in design or materials as it may deem desirable without obligation to incorporate such changes in products of prior manufacture.

THE ABOVE WARRANTY SUPERCEDES AND IS IN LIEU OF ALL OTHER EXPRESS OR IMPLIED WARRANTIES INCLUDING, WITHOUT LIMITING, ANY IMPLIED WARRANTIES OF MERCHANABILITY OR FITNESS FOR A PARTICULAR PURPOSE. NO EMPLOYEE OR ANY OTHER REPRESENTATIVE OF PERKINS IS AUTHORIZED TO CHANGE THIS WARRANTY IN ANY WAY OR TO GRANT ANY OTHER WARRANTY. THESE TERMS WILL BE CONSTRUED ACCORDING TO THE LAWS OF THE STATE OF ILLINOIS WITHOUT REGARD TO ITS CONFLICTS OF LAWS PROVISIONS. ALL ACTIONS OR PROCEEDINGS IN ANY WAY, MANNER OR RESPECT ARISING OUT OF OR RELATED TO THE GOODS WILL BE LITIGATED ONLY IN STATE OR FEDERAL COURTS, AS APPROPIRATE, LOCATED IN WILL COUNTY, ILLINOIS. BUYER CONSENTS AND SUBMITS TO JURISDICTION IN THE STATE OF ILLINOIS AND WAIVES ANY RIGHT TO TRANSFER THE VENUE OF ANY SUCH ACTION OR PROCEEDING.