



P E R K I N S
MANUFACTURING COMPANY

CREATORS OF THE
TUCKAWAY® LIFTER

Instruction Manual



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WWW.PERKINSMFG.COM

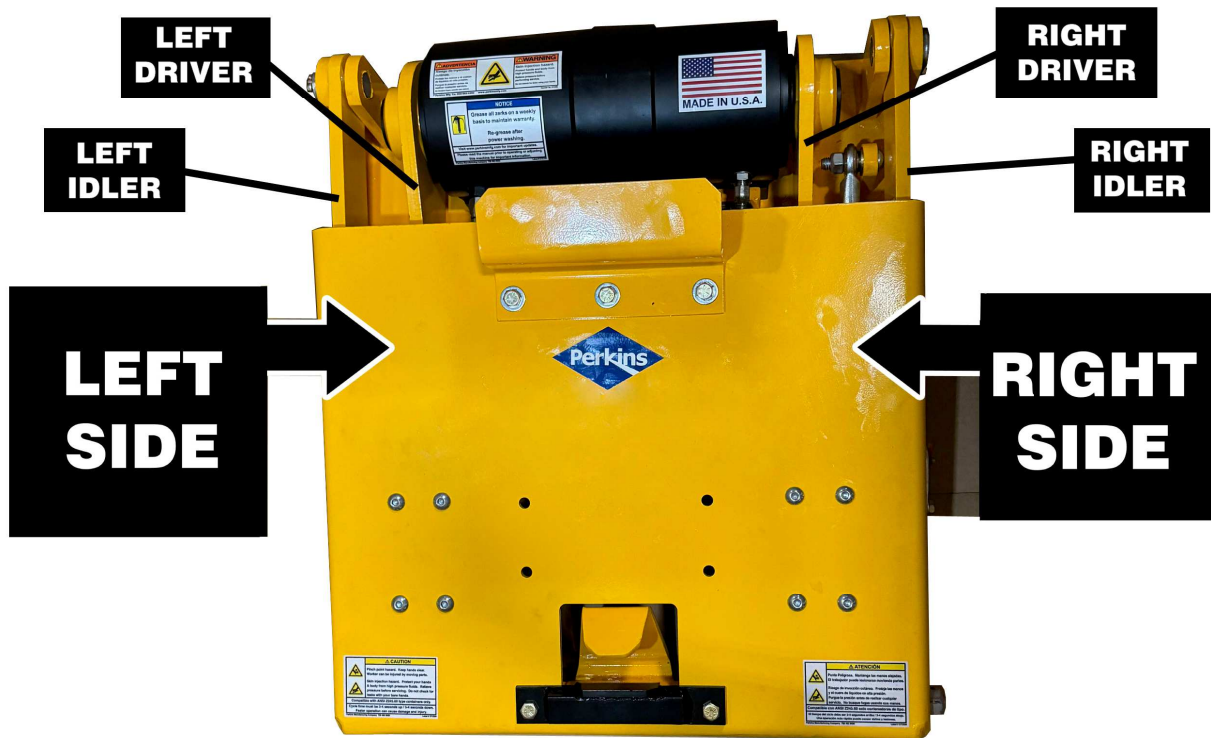
Updated March 3, 2025
Model TL4wk
An ISO 9001:2000 Company

Perkins Manufacturing Company
380 Veterans Parkway Ste 110
Bolingbrook, IL 60440
Local (708) 482-9500
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ORIENTATION OF LEFT AND RIGHT HAND SIDES

To eliminate any confusion when discussing “left” and “right”, please see graphic below. Left and Right is that of the observer, when viewing the machine from the front of the machine.

**AS VIEWED WHEN LOOKING
AT THE FRONT OF THE LIFTER.**



Drivers are always connected to the actuator hubs.

Idlers are not connected to the actuator.

Lifter shown is for example only. Your model may vary in appearance.



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Creators of the TuckAway® Cart Lifter
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800-882-5292

Revised: 11/15/23
Addendum

Hardware Glossary



**FLOW DIVERTER
VALVE
PART # D63237S**



**SAFTY LOCK
VALVE
PART # D63828**



**DUAL FLOW
DIVERTER VALVE
PART # D63411S**



**50/50 SPLITTER
/COMBINER
VALVE
PART # D63595**



**4-WAY
DIRECTIONAL
HAND CONTROL
PART # D63228**



**ADJUSTABLE
FLOW CONTROL
PART # D63575**



**4-WAY
DIRECTIONAL
HAND CONTROL
(2 - SPOOL)
PART # D63519**



**PINON GEAR
PART # CA1046**



**PRESSURE RELIEF
VALVE
PART # D63612**

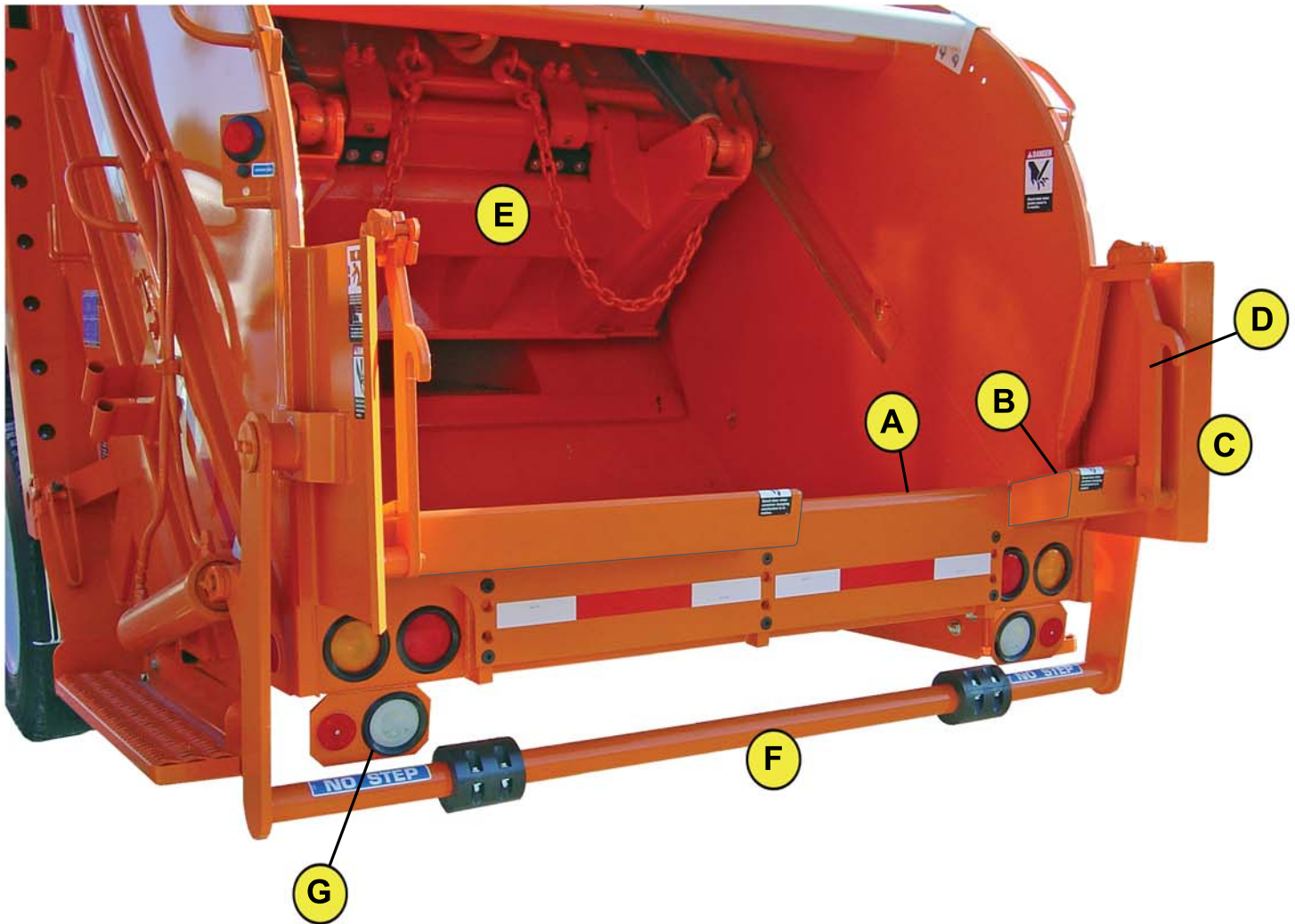


**HYDRAULIC
CYLINDER W/
BUILT-IN PO
CHECK VALVE
PART # CA1060C**



**RACK - CYLINDER
MOUNTED HEAD
PART # CA1047**

Truck Component Glossary



- A ORIGINAL SILL / MOUNTING HEIGHT
- B SILL EXTENSION / BUMPER
- C ELEPHANT EAR
- D CONTAINER LOCKS
- E PACKER BLADE
- F KICK BAR / TIPPER BAR
- G LIGHT PANEL

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Installation Preparation

1) PLEASE READ THIS MANUAL COMPLETELY AND FAMILIARIZE YOURSELF WITH ALL THE NECESSARY PROCEDURES. CONTACT PERKINS MANUFACTURING IF AT ANY TIME THERE IS A QUESTION.

MAIN CONTACT LINE: 1-708-482-9500

2) CORRECT INSTALLATION DIMENSIONS DEPEND ON AN EMPTY TRUCK, PARKED ON A SMOOTH AND LEVEL SURFACE.

3) REMOVE ANY FLAMMABLE MATERIALS FROM THE WORK AREA AND HOPPER.

4) DO NOT WELD ON THE TRUCK UNLESS THE GROUND IS IN PLACE AND THE BATTERY IS DISCONNECTED.

5) ALWAYS USE A HOIST TO LIFT AND SECURE THE LOCKERS AND/OR LIFTERS INTO POSITION.

6) DURING INSTALLATION, LOCK-OUT THE TRUCK CONTROLS TO PREVENT OPERATION WHILE THE TRUCK IS BEING WORKED ON.

7) TURN THE TRUCK OFF AND DEPRESSURIZE THE HYDRAULIC LINES BEFORE LOOSENING ANY FITTINGS OR HOSES.

8) ALWAYS USE APPROPRIATE PERSONAL SAFETY GEAR.

9) ONE INSTALLATION MAY BE VERY DIFFERENT FROM THE NEXT. DUE TO THIS VARIANCE, HOSE LENGTHS MAY HAVE TO BE ADJUSTED, FITTINGS MAY VARY, AND CUSTOM-MADE STRUCTURAL SUPPORTS WILL HAVE TO BE FABRICATED. THE KIT'S CONTENTS ARE CONSIDERED TO BE WHAT A TYPICAL INSTALLATION MAY REQUIRE, HOWEVER, IT MAY BE NECESSARY TO ADD OR SUBTRACT SOME PIECES TO SUIT YOUR PARTICULAR INSTALL.

10) THE INSTRUCTIONS ARE BASED ON USING PERKINS HYDRAULICS AND PERKINS CONTROLS. IF OTHER COMPONENTS ARE USED, IT IS NECESSARY TO CONSULT THE MANUFACTURER OF THOSE COMPONENTS FOR INSTRUCTIONS ON THEIR PROPER USE AND ADJUSTMENT.

11) FOLLOW LOCAL CODES FOR DISPOSAL OF ANY WASTE OILS. PLEASE RECYCLE!

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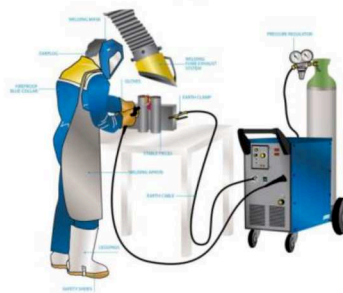
Please be aware of the risks of working with welding equipment and consumables. Always use safety protection equipment. The sparks may ignite fire, always clean the area from flammable material or flammable chemicals, do not weld close to gas lines or on top of electrical cords or installations. Disconnect 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.



Correct and safe electric welding station



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.



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Installation



START BY EXAMING THE TRUCK YOU WILL BE WORKING ON. THE EXTENT OF WORK NEEDED TO COMPLETE THE INSTALLATION WILL VARY.

IF INSTALLING LIFTERS, PLEASE FOLLOW THE INSTRUCTIONS IN THE LIFTER MANUAL. IT WILL BE NECESSARY TO ADD SILL EXTENSIONS TO ENSURE THE LIFTER IS WELL PROTECTED FROM CONTACT WITH THE COMMERCIAL BINS.

IT IS BETTER TO INSTALL THE SILL EXTENSIONS FOR THE LIFTERS FIRST, THEN YOU CAN POSITION THE LOCKER BASED OFF THIS LOCATION.

IF THE TRUCK ALREADY HAS MANUAL CONTAINER LOCKS, THEY NEED TO BE TORCHED OFF AND THE SURFACE PREPARED FOR ATTACHING THE LOCKER EARS.



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Installation



**ORIGINAL MANUAL
CONTAINER LOCKS**



**VIEW OF LOCKS
TORCHED OFF**



- 1) LOCATE THE CUT-AWAY POINT BY FINDING THE PLACE WHERE THE CONTAINER LOCKS MEET WITH THE FIXED LOCKING MECHANISM ON THE TRUCK SIDEWALL.**
- 2) DRAW A VERTICAL LINE EXTENDING DOWN FROM THIS POINT.**
- 3) BE WARY OF ANY CONTROLS, STRUCTURE, VALVES, HOSES, LINES, FITTINGS, OR ANY OTHER OBSTRUCTION TO THE TORCH PROCESS.**
- 4) ADJUST THE POSITION OF THE VERTICAL CUT LINE IF NEEDED TO CLEAR THESE OBSTRUCTIONS, OR REMOVE THEM TEMPORARILY FROM THE CUTTING PATH.**
- 5) TORCH AWAY THE ORIGINAL CONTAINER LOCKS DOWN THIS LINE.**
- 6) USE A GRINDER TO CLEAN UP THE EDGES AND CLEAR OFF PAINT TO CLEAR THE WAY FOR A GOOD WELD BEAD.**

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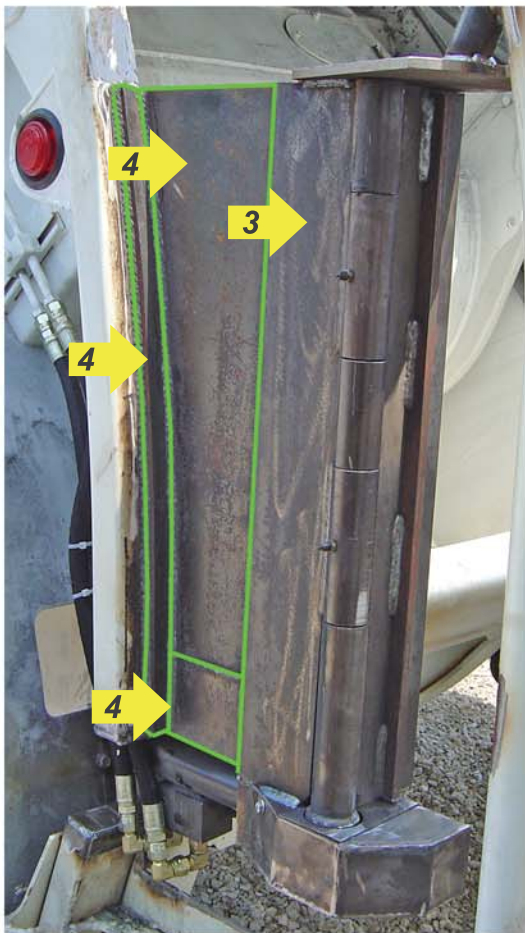
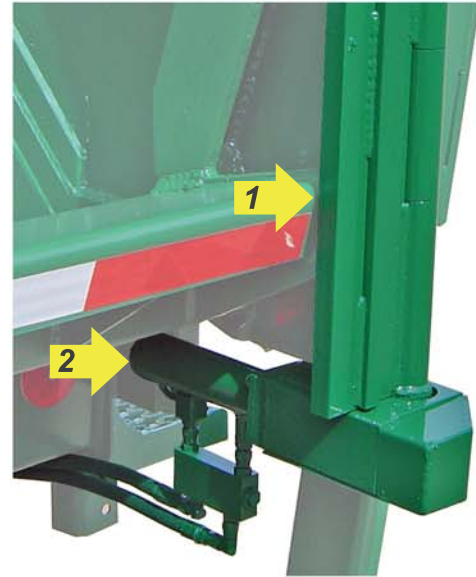
Commercial Installation

POSITION THE LOCKER EAR SO THAT WHEN IT IS CLOSED, THE EAR IS WITHIN 1/4" OF THE EXTENDED SILL, AS SHOWN BY ARROW 1.

POSITION THE LOCKER VERTICALLY SO THAT THE CYLINDER CLEARS THE TRUCK COMPONENTS AS BEST AS POSSIBLE AS SHOWN BY ARROW 2.

THE FIXED PORTION OF THE LOCKER EAR SHOULD OVERLAP THE ORIGINAL TRUCK'S SIDEWALL AND BE WELDED IN AND OUT ONCE CORRECT POSITION IS DETERMINED.

NOTE: IT MAY BE NECESSARY TO TRIM A PORTION OF THE TRUCK'S UNDERSUPPORT OR A LIGHT-PANEL IN ORDER TO ACHIEVE THE CLEARANCE NEEDED.



WITH THE LOCKER POSITIONED AND TACKED IN PLACE, IT IS NOW NECESSARY TO ADD THE REINFORCEMENT PIECES THAT WILL HELP BLEND THE LOCKER INTO THE SIDEWALL OF THE TRUCK.

ARROW 3 POINTS TO THE FIXED PORTION OF THE LOCKER EAR. THE FIXED PORTION OVERLAPS THE ORIGINAL SIDEWALL.

THE ARROWS MARKED 4 POINT OUT REINFORCEMENT PIECES ADDED TO MAKE THE LOCKER FIT THIS PARTICULAR TRUCK. THESE PIECES ARE CUSTOM MADE AND ARE NOT INCLUDED IN YOUR LOCKER KIT.

EACH INSTALLATION IS DIFFERENT. THE SIZE AND AMOUNT OF REINFORCEMENT PIECES REQUIRED WILL VARY FROM TRUCK TO TRUCK AND MAY NOT APPEAR THE SAME AS THOSE IN THE PHOTO.

IT IS BEST TO USE GOOD JUDGEMENT WHEN ADDING THE REINFORCEMENT. TRY TO BLEND THE EDGES IN FOR A CLEAN, FINISHED LOOK. A COMPLETED LOCKER IS DIFFICULT TO DISTINGUISH FROM THE REST OF THE TRUCK ONCE IT IS PAINTED.

Installation

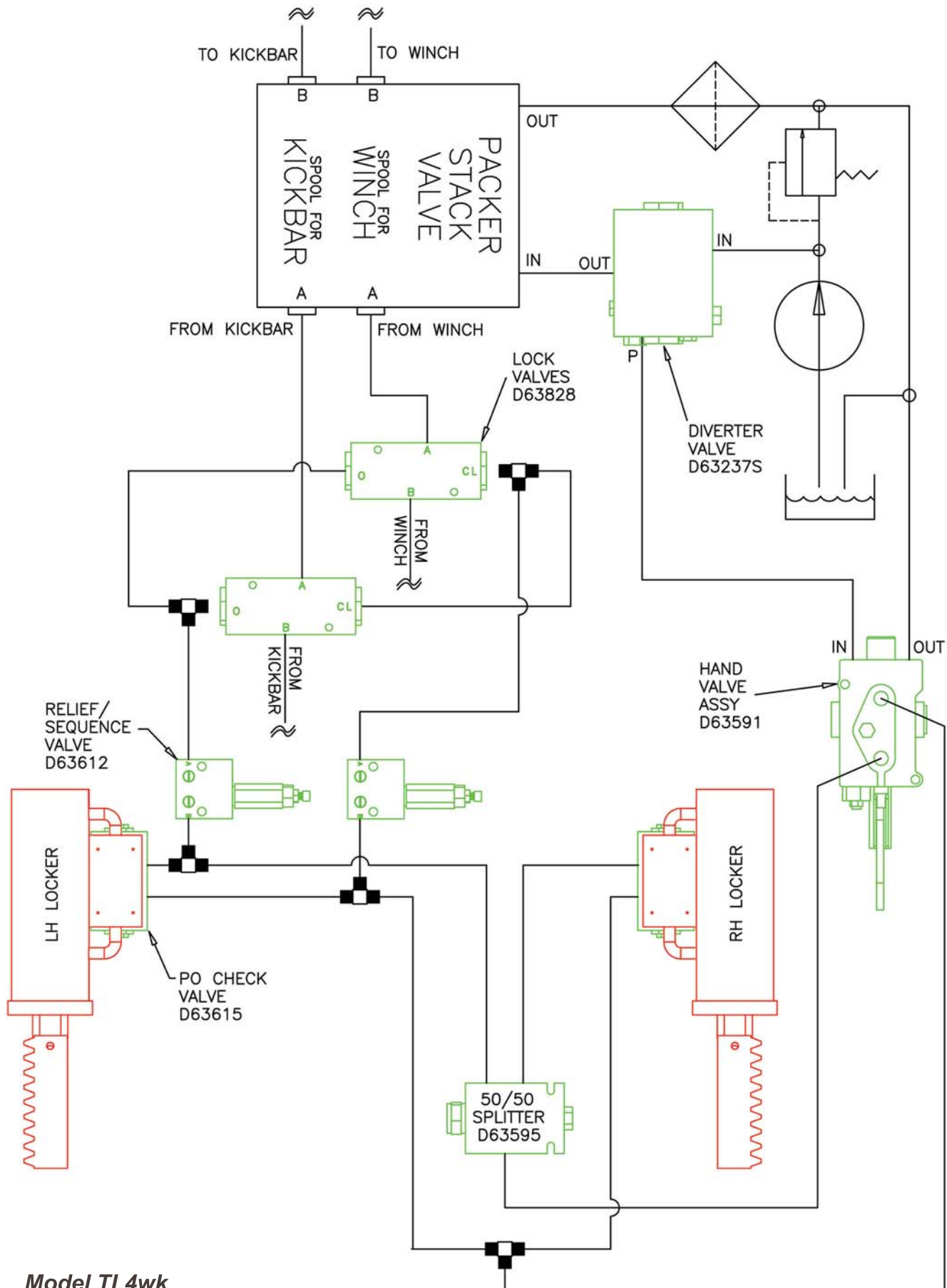
THE FINISHED PRODUCT OPENS AND CLOSSES SIMULTANEOUSLY, IS PROPERLY REINFORCED WITH CUSTOMIZED STEEL PLATES TO PREVENT MOVEMENT, CLOSES NEARLY TO THE SILL EXTENSION, AND DOES NOT BLOCK ANY LIGHTS. GREASE THE UNIT PRIOR TO FIELDING THE FIRST TIME, AND PERIODICALLY, AS NEEDED. THE REMOVED MANUAL LOCKING BAR CAN BE USED AS YOUR "COLOR CHIP" FOR PURCHASING MATCHING PAINT FROM A LOCAL SUPPLIER.

CAUTION LABELS ARE PROVIDED. WHEN PAINT IS DRY, PLEASE REMEMBER TO PLACE THEM IN A HIGHLY VISIBLE AREA.



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Hydraulic Schematic - No Lifter



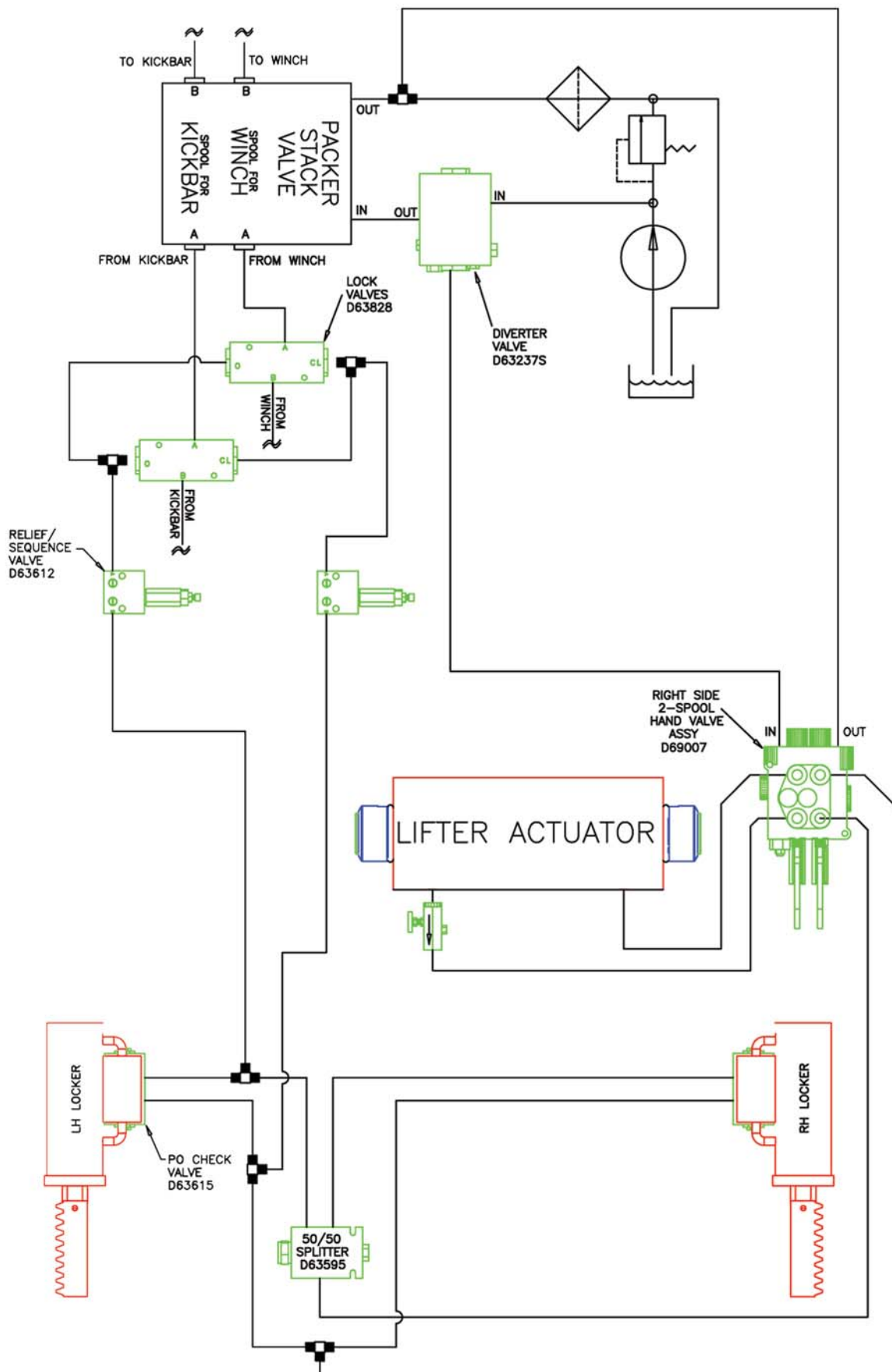
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Hydraulic Schematic - One Lifter



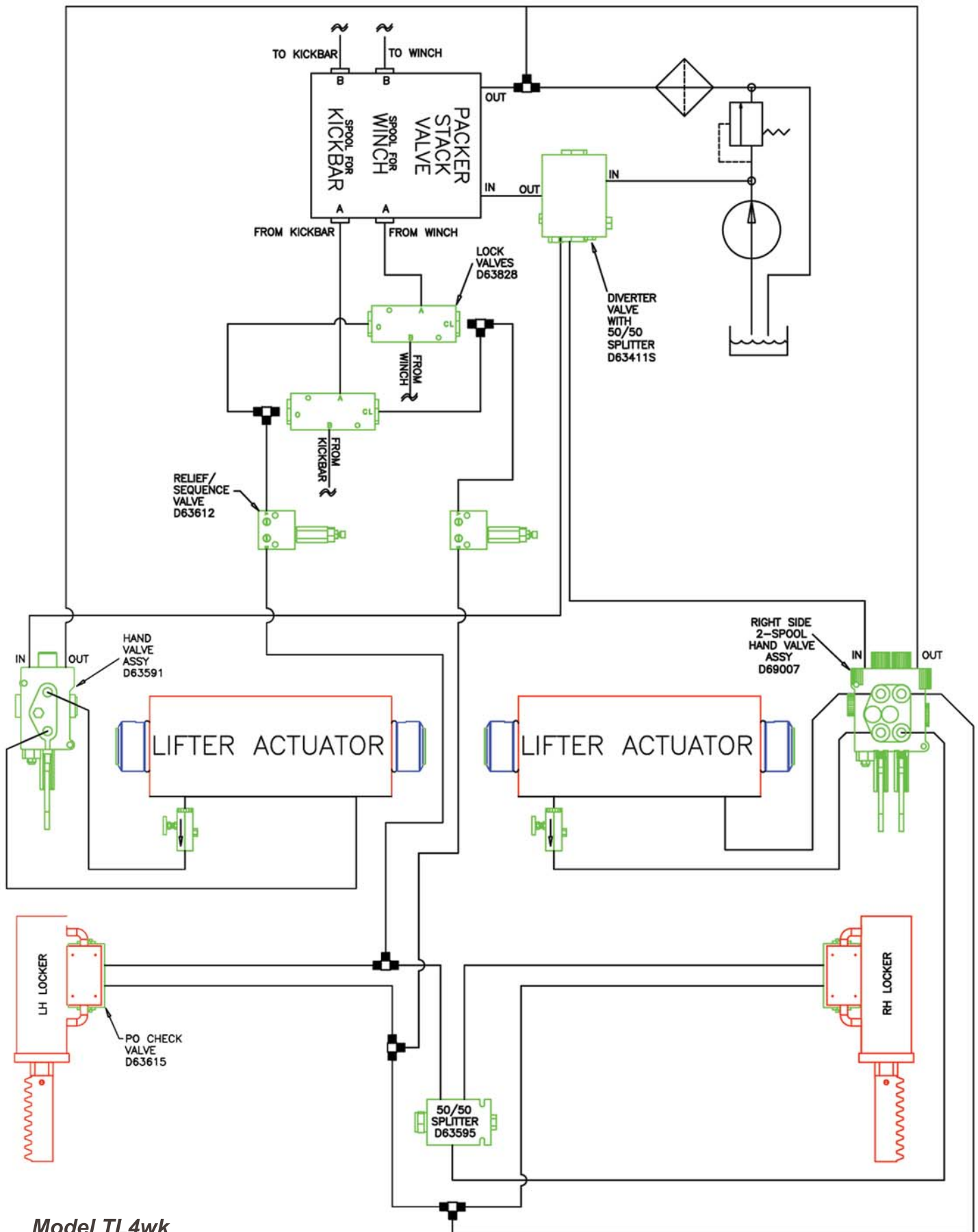
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Hydraulic Schematic - Two Lifters



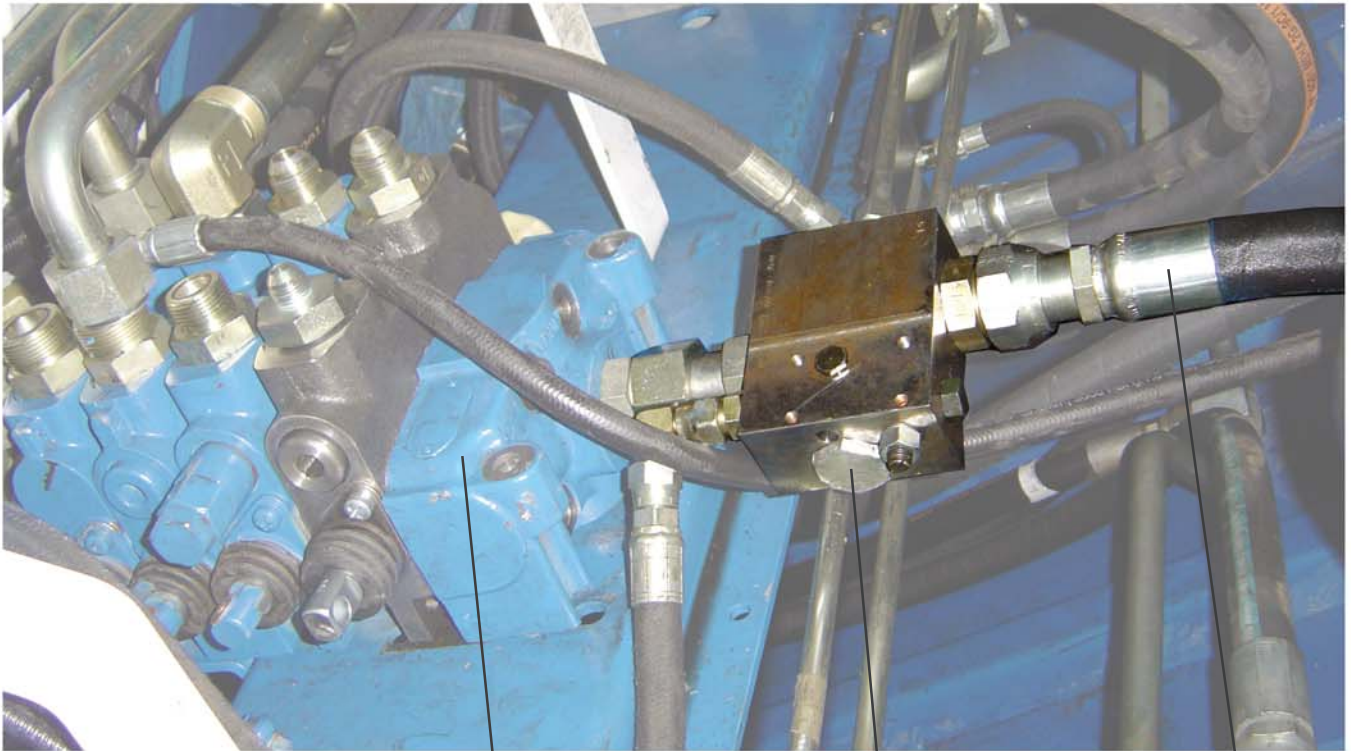
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Hydraulic Installation



**PACKER BLADE
CONTROL VALVE**

DIVERTER VALVE

PRESSURE LINE

STEP 4

LOCATE THE PACKER CONTROL VALVE ON THE TOP OF THE TAILGATE. (SEE PICTURE) DISCONNECT THE PRESSURE LINE THAT FEEDS THE PACKER VALVE AND ATTACH IT TO THE PERKINS DIVERTER VALVE'S "IN" PORT. ATTACH THE "OUT" PORT BACK TO THE PACKER BLADE CONTROL VALVE.

STEP 5

ATTACH THE PRESSURE LINE (S) THAT WILL FEED THE LOCKER, AND RUN THAT LINE DOWN TO THE HAND VALVE'S "IN" PORT.

NOTE: FOR INSTALLATIONS WITH TWO LIFTERS, YOU WILL NEED TO USE A D63411S DUAL DIVERTER VALVE AS SHOWN AT RIGHT. THIS WILL HAVE A 50/50 SPLITTER MOUNTED ON TOP.



USE PORT "P" TO FEED THE HAND VALVE UNLESS YOU HAVE THE 50/50 SPLITTER INSTALLED. THEN PLUG PORT "P" AND USE THE TWO PORTS ON THE 50/50 SPLITTER INSTEAD.

DO NOT USE PORT "T" FOR TANK RETURN UNLESS THERE IS NO OTHER ALTERNATIVE.

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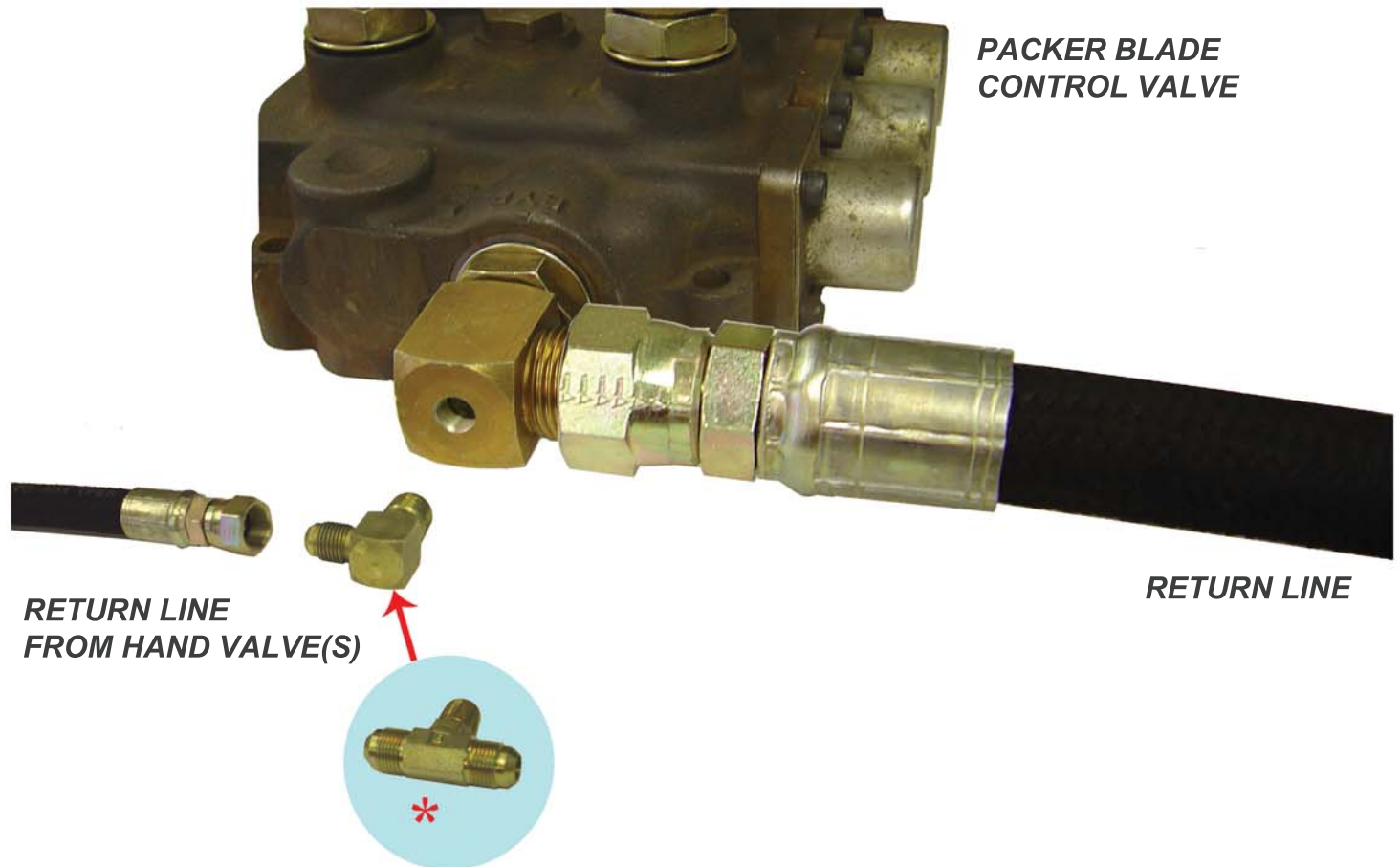
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Hydraulic Installation

STEP 6 (OPTION A) ** PREFERRED METHOD OF OIL RETURN **

RUN THE RETURN LINE FROM THE HAND VALVE (S) (OUT" PORT (S) UP TO THE PACKER BLADE CONTROL VALVE. LOCATE THE PACKER BLADE CONTROL VALVE'S RETURN TO TANK LINE. SELECT A LARGE FITTING ON THE RETURN LINE AND DRILL AND TAP INTO IT'S BODY FOR 3/8 NPT INSTALL A ELBOW OR TEE TO ATTACH THE RETURN LINES.



STEP 6 (OPTION B) **ALTERNATE METHOD **

RUN THE RETURN LINE FROM THE HAND VALVE (S) (OUT" PORTS UP TO THE DIVERTER VALVE AND CONNECT TO THE "T" RETURN PORT. THIS OPTION ALLOWS THE OIL TO BE RETURNED TO THE PACKER BLADE, KEEPING THE BLADE SPEED THE SAME AS IT WOULD BE WITHOUT THE DIVERTER VALVE, BUT AT THE EXPENSE OF A SLIGHT INCREASE IN OPERATING TEMPERATURE/BACK PRESSURE.

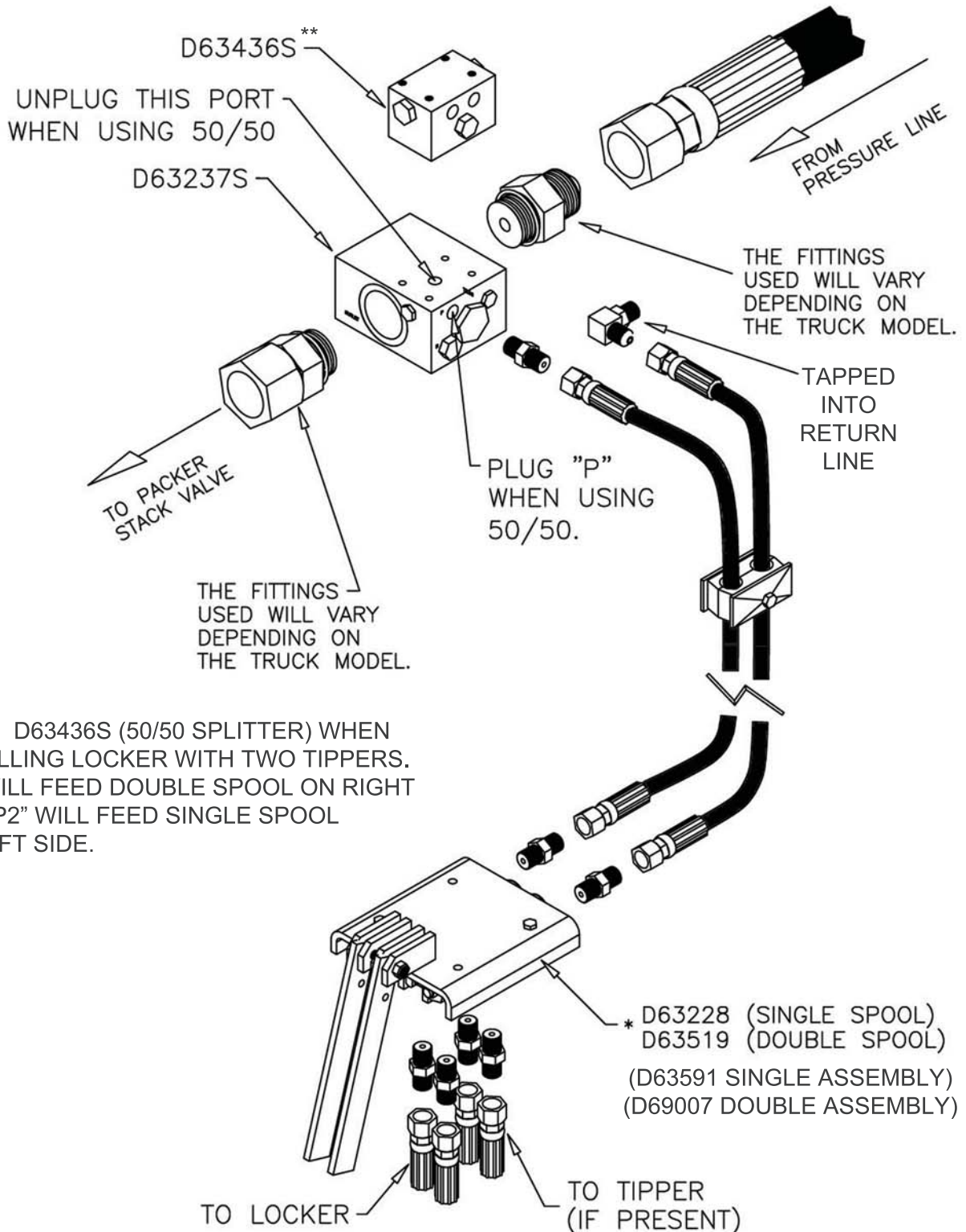
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Tap-In Kit Installation *(sold separately)*



** USE D63436S (50/50 SPLITTER) WHEN INSTALLING LOCKER WITH TWO TIPPERS. "P1" WILL FEED DOUBLE SPOOL ON RIGHT AND "P2" WILL FEED SINGLE SPOOL ON LEFT SIDE.

*LOCKER ONLY = SINGLE SPOOL HAND CONTROL
 LOCKER + ONE TIPPER = DUAL SPOOL
 LOCKER + TWO TIPPER = DUAL ON RIGHT, SINGLE ON LEFT.

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Final Installation

TEST THE ABILITY TO LOCK-UP A COMMERCIAL CONTAINER.

WHEN SATISFIED, WELD FULLY ALL NECESSARY LOCATIONS AROUND CONTAINER LOCKS, BUMPER EXTENSIONS, LIFTER MOUNTING PLATE, HOSE CLAMPS, BRACKETS AND SUPPORT PIECES.

WHEN PAINTING, MASK CAUTION LABELS SO THEY WILL BE VISIBLE AFTERWARDS. ADDITIONAL CAUTION LABELS ARE AVAILABLE BY CALLING CUSTOMER SERVICE.

REINSTALL BATTERY TERMINAL CONNECTION AFTER ALL NECESSARY WELDING IS COMPLETE.

TIGHTEN ALL HYDRAULICS AND CHECK FOR LEAKS.



INSTALLER'S NOTE: NEVER CHECK FOR HYDRAULIC LEAKS WITH YOUR BARE HANDS. A PIN-HOLE LEAK CAN BE PRESSURIZED ENOUGH TO PIERCE THE SKIN AND CAUSE INFECTION / INJURY.

ERRATIC MOTION MAY BE CAUSED BY AIR IN THE SYSTEM. CYCLE THE LOCKER AND/OR TIPPERS SEVERAL TIMES IN ORDER TO PURGE THE AIR FROM THE LINES.

HYDRAULIC SETTINGS:

SET RELIEF TO 1900 PSI

ADJUST FLOW TO THE LOCKER TO 4 GPM.

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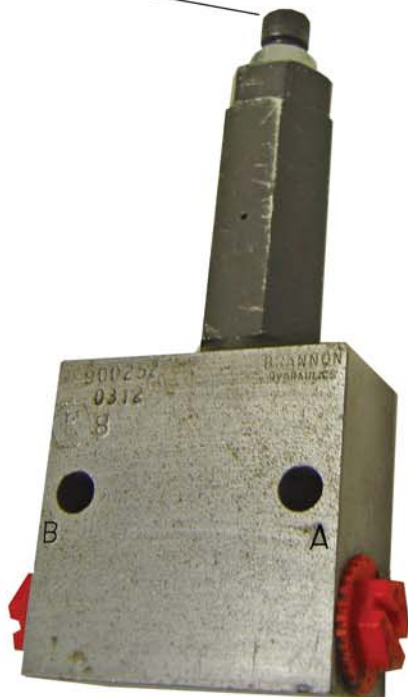
Photo Gallery



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Adjusting the Hydraulics

ADJUSTMENT
SCREW



**RELIEF VALVE - FLOW CONTROL
#D63612**

PORT "A" CONNECTS BACK TO THE LOCKER COMPONENTS. THE VALVE PREVENTS FLOW TO PORT "B" UNTIL THE SET PRESSURE IS REACHED. ADJUSTING THE SCREW CLOCKWISE TURNS IT IN AND RAISES THE PRESSURE REQUIRED. WHEN THE LOCKER IS CLOSED, PRESSURE FROM LOCKING OPENS THE VALVE AND ALLOWS FLOW THRU, ON TO THE SAFETY LOCK VALVES, WHICH WILL SIGNAL THEM TO OPEN AND ALLOW FLOW TO THE WINCH AND KICK-BAR COMPONENTS. IF THE WINCH OR KICK BAR OPERATE WITHOUT CLOSING THE LOCKER, IT IS NECESSARY TO ADJUST THIS VALVE 1/4 TURN AT A TIME IN, UNTIL NEITHER THE KICK BAR OR WINCH FUNCTION UNLESS THE THE LOCKER IS CLOSED.

SAFETY LOCK VALVE, D63828

50/50 SPLITTER COMBINER VALVE #D63595

CYLINDER MOUNTED PO CHECK VALVE (PART OF CA1060C)

THESE VALVES DO NOT REQUIRE ADJUSTMENT.

HOWEVER, SOMETIMES CORRECT FUNCTION CAN BE RESTORED BY TAKING APART AND CLEANING THE VALVES.

50/50 SPLITTER / COMBINER VALVE

CARTRIDGE KIT #D63595-1

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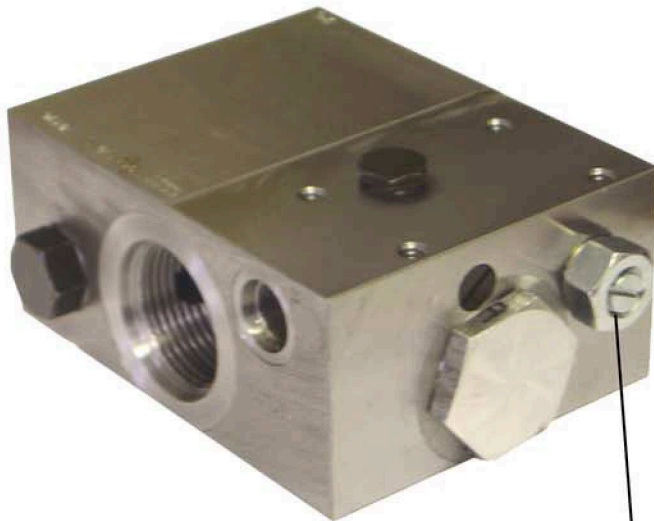
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Adjusting the Hydraulics

*** CAUTION * ADJUST THIS VALVE WITH THE HYDRAULIC PUMP OFF OR VALVE DAMAGE COULD OCCUR**



ADJUSTMENT SCREW

**DIVERTER VALVE - FLOW CONTROL
#D63237S**

OPEN THE ADJUSTABLE FLOW CONTROL, COMPLETELY. LOOSEN THE LOCKING NUT ON THE DIVERTER. USING A SCREWDRIVER, TURN THE ADJUSTMENT SCREW CLOCKWISE UNTIL FLOW TO THE LIFTER STOPS. THEN SLOWLY TURN COUNTER-CLOCKWISE 1/2 TURN AT A TIME UNTIL FLOW IS APPROX. 3 GPM PER LIFTER, OR THE LIFTERS HAVE A COMPLETE CYCLE TIME OF 6-10 SECONDS. RE-TIGHTEN THE LOCKING NUT.

**SEAL KIT #D63477
ADJUSTABLE SCREW #D63579**

SET FLOW TO 4GPM



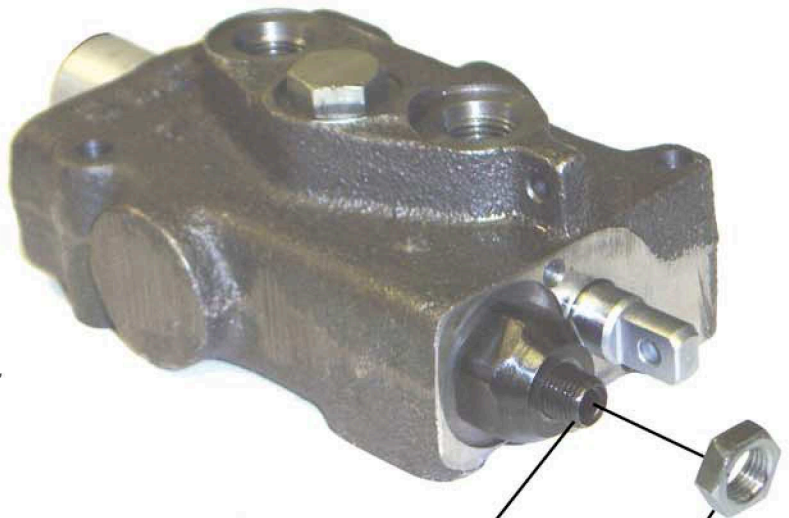
**FLOW=LIFTER SPEED. ADJUST WITH DIVERTER VALVE
PRESSURE = LIFTING POWER. ADJUST WITH HAND VALVE**

**HAND VALVE'S BUILT-IN RELIEF
D63228 SINGLE SPOOL
D63519 DOUBLE SPOOL**

LOOSEN THE LOCKING NUT. TURN THE ADJUSTING SCREW CLOCKWISE TO INCREASE THE PRESSURE, LIMITED BY THE TRUCK'S MAIN RELIEF SETTING. THE RELIEF SHOULD BE SET TO ALLOW THE LIFTER TO DUMP A 350LB LOAD. THE ACTUAL PSI REQUIRED WILL VARY FROM MODEL TO MODEL. THE HAND VALVE'S RELIEF MUST BE SET AT LEAST 100 PSI LESS THAN THE TRUCK'S MAIN RELIEF OR THEY MAY "CHATTER". RE-TIGHTEN THE LOCKING NUT.

**SEAL KIT #D63127
SPRING KIT #D63192
CARTRIDGE KIT#D63672**

SET RELIEF TO 1900 PSI



ADJUSTING SCREW

LOCKING NUT

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Operating Instructions

START THE ENGINE AND ACTIVATE THE PUMP.

BACK TRUCK UP TO THE LOADED CONTAINER YOU WISH TO DUMP. NOTE: IF YOU HAVE A CART TIPPER, MAKE SURE IT IS POSITIONED ALL THE WAY DOWN BEFORE HOOKING UP OR LIFTING A COMMERCIAL CONTAINER.

THE SAFETY LOCK VALVES WILL PREVENT OPERATION OF THE WINCH AND/OR KICK BAR UNLESS THE LOCKER IS CLOSED.

PULL HANDLE OF HAND VALVE TO CLOSE THE LOCKER.

DUMP THE CONTAINER AS NORMAL.

ONCE WASTE IS DUMPED AND THE CONTAINER HAS RETURNED TO THE GROUND, IT IS SAFE TO OPEN THE LOCKER BY OPERATING THE HAND CONTROL IN THE OPPOSITE DIRECTION.

REPEAT AS DESIRED.



ONE OF THE MOST COMMON WAYS TO DAMAGE A CART TIPPER IS TO BACK-UP INTO AN OBJECT SUCH AS A COMMERCIAL BIN, OR TO CRUSH THE LIFTER WITH THE COMMERCIAL BIN.

MAKE SURE THE LIFTER IS COMPLETELY DOWN / TUCKED AWAY BEFORE BACKING UP TO CONNECT TO A LARGE BIN.



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Safety Procedures



ALWAYS KEEP YOUR HANDS AND BODY AWAY FROM THE LOCKER AND/OR LIFTER WHILE IT IS IN OPERATION.



DO NOT ATTEMPT TO LIFT AN UNLOCKED CONTAINER.



MAKE SURE ALL PERSONS ARE CLEAR OF LOCKER AND CONTAINER DURING ALL OPERATIONS.



DO NOT LIFT CONTAINERS IN NEED OF REPAIR OR CONTAINERS NOT COMPATIBLE FOR USE WITH THE LOCKER.



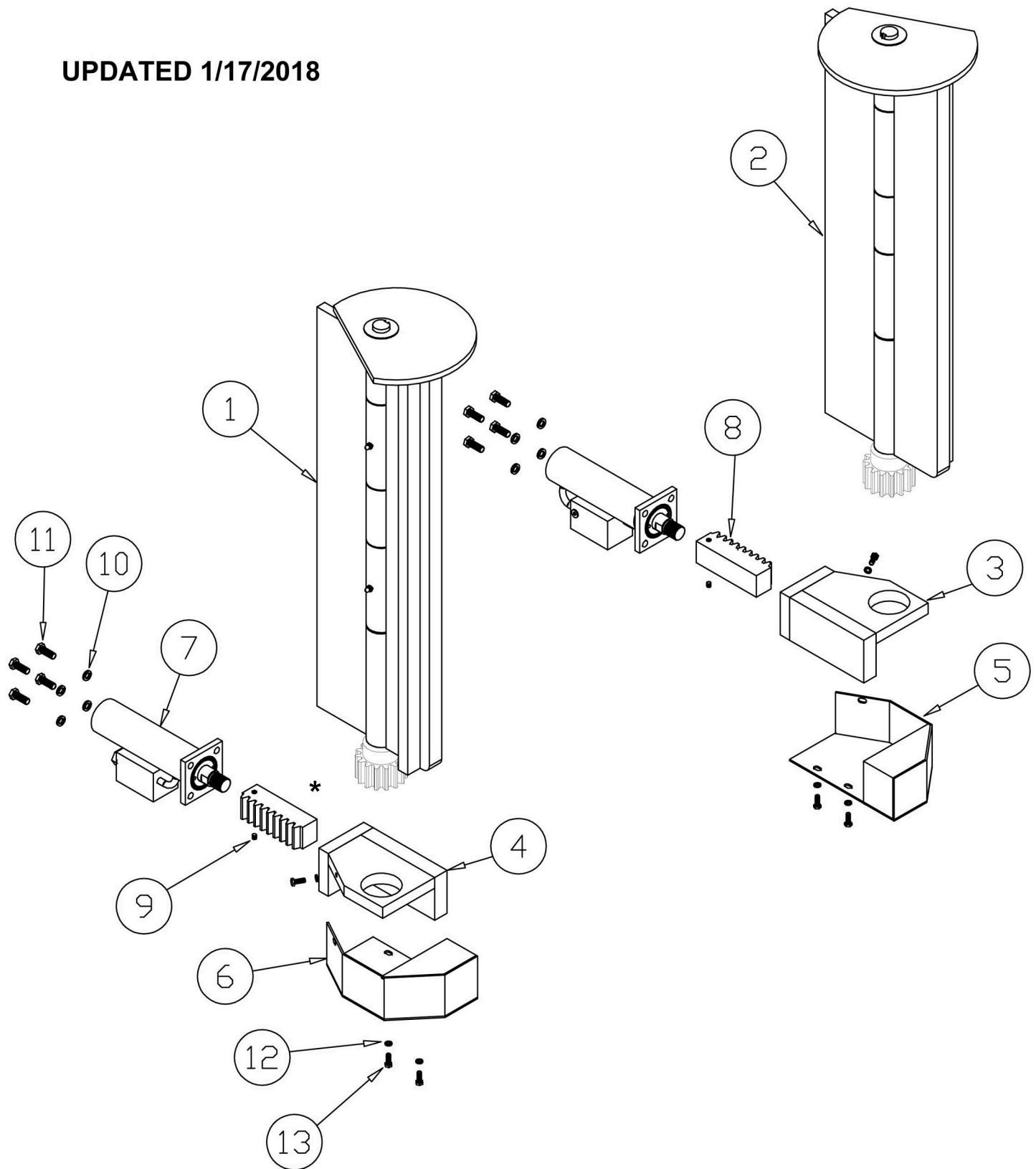
DO NOT LIFT OVER-LOADED CONTAINERS. WATCH CAREFULLY FOR DEBRIS THAT MAY SPILL OUT OF CONTAINER AS IT TILTS.



DO NOT PERFORM MAINTANANCE ON THE LOCKER UNLESS IT IS PROPERLY LOCKED-OUT FROM USE.

Exploded View

UPDATED 1/17/2018



TL4wk Parts Key

UPDATED 1/17/2018

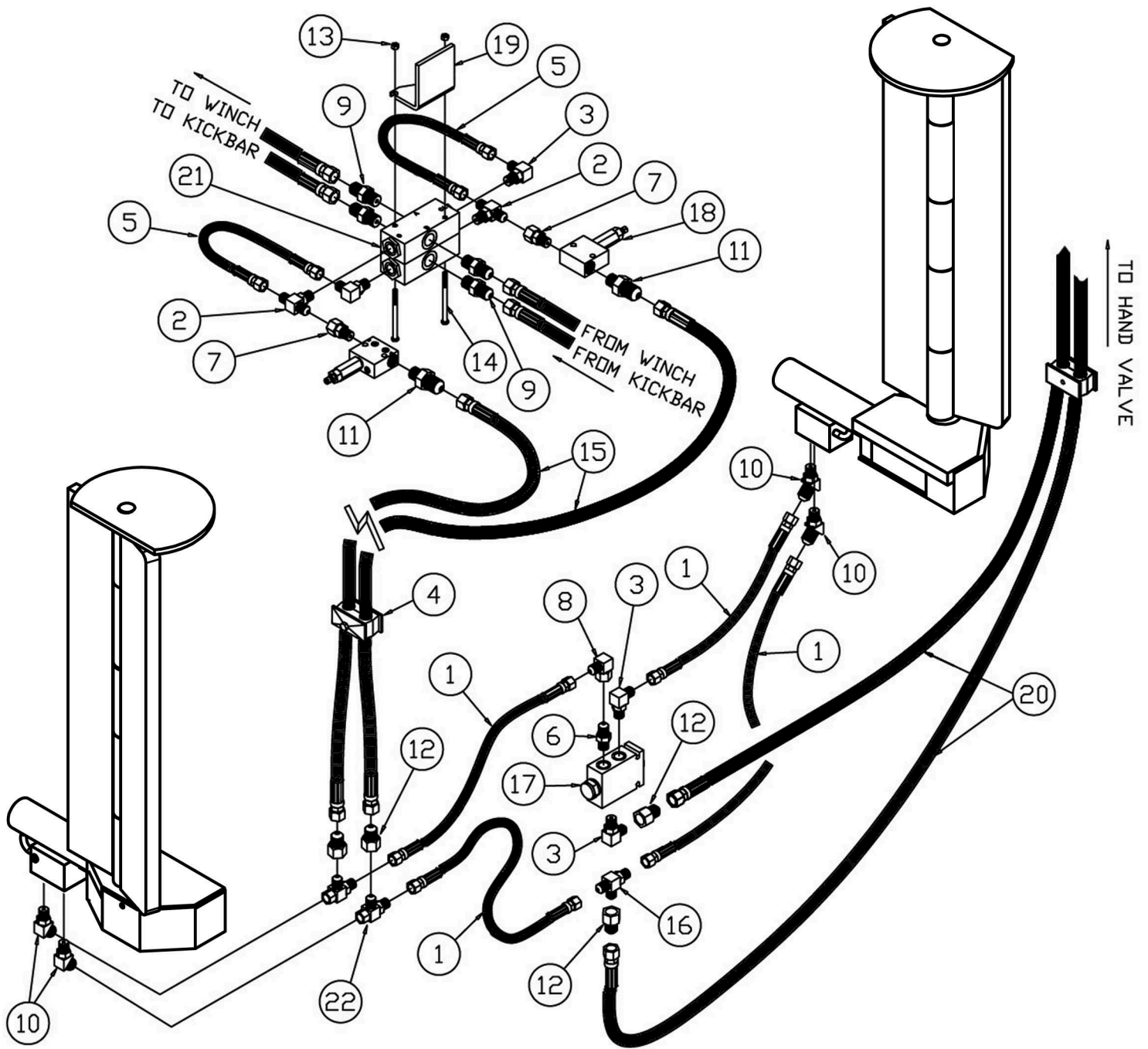
#	PART #	DESCRIPTION	QTY
1	CA1039	LH GRIPPER WELDMENT	1
2	CA1064	RH GRIPPER WELDMENT	1
3	CA1056	RH BASE WELDMENT	1
4	CA1087	LH BASE WELDMENT	1
5	CA1088	RH COVER WELDMENT	1
6	CA1057	LH COVER WELDMENT	1
7	CA1060C	HYDRAULIC CYLINDER	2
8	CA1047	RACK	2
9	D77961	1/4-20 SET SCREW	2
10	D62106	3/8" SPLIT LOCKWASHER	8
11	D62079	HHCS 3/8-16 X 1	8
12	D62018	1/4" SPLIT LOCKWASHER	6
13	A90160	HHCS 1/4-20 X 1/2	6
14	[^] CA1078	LABEL – CAUTION LOCKER	2
15	* CA1046	ROUND SPUR GEAR (PINION)	1

[^] = NOT SHOWN IN DIAGRAM

* = SOLD SEPARATELY

Hydraulic Exploded View

UPDATED 1/17/2018



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TL4wk Misc. Parts Key

#	PART #	DESCRIPTION	QTY
1	D63004	HOSE #6 X 48" LONG	4
2	D72166	TEE 6MT 6MO 6MT	2
3	D63011	ELBOW 90 6MT-6MO	4
4	D63014	#6 DUAL HOSE CLAMP SET	7
5	D63763	HOSE #6 X 16" LONG	2
6	D63074	ADAPTER 6MT-6MO	1
7	D72165	ADAPTER 6MO 6FT	2
8	D63106	ELBOW 90 6MT-6FT	1
9	D63090	ADAPTER 8MT – 8MO	4
10	D63147	ELBOW 45 DEG 6MO 6MT	4
11	D63430	ADAPTER 8MT – 6MO	2
12	D63431	REDUCER 6FT-8MT	4
13	D62457	LOCKNUT ¼-20	2
14	D62449	BOLT HHCS ¼-20 X 3 1/2	2
15	D63535	HOSE #8 X 175"	2
16	D63589	TEE 6MT-6MT-6MT	1
17	D63595	50/50 SPLITTER/COMBINER VALVE	1
18	D63612	RELIEF VALVE	2
19	D72167	BRACKET-SAFETY VAVLE MTG.	1
20	D63760	HOSE #8 X 80"	2
21	D63828	SAFETY LOCK VALVE	2
22	D63419	TEE 6MT 6MT 6FT	2
* =	NOT SHOWN IN DIAGRAM		



P E R K I N S

Trouble Shooting Guide



PERKINS

MANUFACTURING COMPANY

Perkins Manufacturing – Locker Trouble Shooting Guide

	Symptom	Possible Causes	Solution
a.	Locker operation is very erratic.	1. Air is trapped in the system. 2. Low flow in the system.	1. Bleed all air from lifter hydraulic system. 2. Increase flow from the diverter valve.
b.	Locker open's with Container	1. Broken hose 2. Locker system hydraulic pressure is too low. 3. Faulty hand valve. 4. Cylinder leaking internally (bypassing oil) 5. Faulty check valve	1. Replase damaged hoses 2. Check and adjust pressure on hand valve. 3. Replace or Rebuilt hand valve 4. Rebuild or send to Perkins for rebuild. 5. Replace check valve
c.	Locker operates slowly.	1. Adjustment screw is closed to far in the diverter valve. 2. Engine idle is too low. 3. Faulty hand valve. 4. Faulty truck hydraulic pump. 5. Trash in the diverter valve.	1. Adjust the drive screw on the diverter valve to increase the flow in to the lifters. 2. Adjust engine idle. 3. Replace hand valve. 4. Check the truck maintenance manual. 5. Carefully clean all components and the orifice of the diverter valve, or replace.
d.	Locker operates fast.	1. Adjustment screw is open to far out. 2. Engine idle is too high.	1. Adjust the drive screw on the diverter valve to decrease the flow in to the lifter. 2. Adjust the engine idle.
e.	Diverter valve is leaking oil around cartridges.	1. Worn or damaged seals on cartridge valves.	2. Replace seal kit for diverter valve (replacement seal kit P/N D63477).
f.	Hand valve lever sticks in the up or down position.	1. Worn or broken spring center device. 2. Trash or rust in or around the hand valve shift spool. 3. Pressure (in) and tank (out) ports are hooked up backwards.	1. Install spring center kit (replacement spring kit P/N D63192). 2. Disassemble and clean spool and housing. 3. Make sure all hoses are plumbed according to the hydraulic schematic.

Perkins Manufacturing Co.

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PERKINS

MANUFACTURING COMPANY

Perkins Manufacturing – Lifter Trouble Shooting Guide

	Symptom	Possible Causes	Solution
g.	Hand valve is leaking oil around the shift spool.	1. Worn or damaged seals. 2. Worn spool.	1. Install hand valve seal kit (replacement seal kit P/N D63217). 2. Replace hand valve.
h.	Not able to set pressure settings of rotary type units to 1,950 p.s.i.	1. Truck settings are between 1,500 and 1,700 p.s.i.	1. Need to install a pressure speed up switch (customer must request).
i.	Not able to set pressure settings of cylinder type units to 1,200 p.s.i.	1. Truck pressure is lower than 1,400 p.s.i.	1. Call the manufacturer.
j.	Locker speed must be 5 to 6 sec. cycle time.	1. Flow setting may not be set at 7.0 g.p.m.	1. Adjust Perkins diverter valve to 7.0 g.p.m. If operated w/ other, call Perkins for alternatives.
l.	One gripper closing before the other.	1. Dirt in 50/50 splitter 2. Damaged 50/50 splitter 3. Locked gripper	1. Carefully clean components 2. Replace 50/50 splitter 3. Grease and move manually until gets free or replace gripper.

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Protective Safety Labeling

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 wet-looking 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.

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.

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 greased. 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.



⚠ CAUTION

**Pinch point
hazard.
Keep hands clear.**



⚠ ATENCIÓN

**Punta Peligrosa.
Mantenga las
manos alejadas.**

Label # CA1078

© Perkins Manufacturing Company 800-882-5292



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

800-882-5292

Revised: 8/11/23

 ADVERTENCIA		 WARNING
Riesgo de inyección cutánea. Proteja las manos y el cuerpo de líquidos en alta presión. Purgue la presión antes de realizar cualquier servicio. No busque fugas usando sus manos.		Skin injection hazard. Protect hands and body from high pressure fluids. Relieve pressure before performing service. Do not search for leaks using your hands.
© Perkins Mfg. Co. 800-882-5292 www.perkinsmfg.com Reorder No. D72498		

 ADVERTENCIA		 WARNING
Peligro puede ser aplastado. Manténgase alejado cuando la caja esté bajando.		Crush hazard. Stay clear when box is lowering.
© Perkins Manufacturing Company D72500		

	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	



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:

DANGER: 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.

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

CAUTION: 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.

NOTICE: 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.



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Revised: 08/08/23
Addendum

Before claiming warranty for an issue, a customer should call our service team and perform a reasonable amount of guided troubleshooting with our service technician to rule out any simple problems / easy fixes / user error.

The majority of issues are usually resolved after a few simple double checks. The goal of troubleshooting is to get your equipment up and running as soon as possible, saving time and money.

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 OSHA 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 svaldez@perkinsmfg.com. 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.

**Manufacturing Company***Updated 9/18/2026***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 20% 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 reserves the right to refuse a return.

Perkins Manufacturing 90 Day Limited Warranty

PERKINS MANUFACTURING COMPANY warrants its products to be free from defects in material and workmanship under normal use for a period of **90 Days** 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 MERCHANTABILITY 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 APPROPRIATE, 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.