



P E R K I N S
MANUFACTURING COMPANY

CREATORS OF THE
TUCKAWAY™ LIFTER

Instruction Manual



Check out our website!
WWW.PERKINSMFG.COM

Model D6300-26k
Patented 6,988,864 & 7,128,515
An ISO 9001:2000 Company

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Hardware Glossary

(HYDRAULICS SOLD SEPARATELY)



**FLOW DIVORTER
VALVE**
PART # D63237S



**P.O. CHECK
VALVE**
PART # D63580



**DUAL FLOW
DIVORTER VALVE**
PART # D63411S



**ADJUSTABLE
FLOW CONTROL**
PART # D63575



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



**AEROQUIP
HYDRAULIC
HOSES**



**FLOW DIVORTER
WITH PRESSURE
RELIEF VALVE**
PART # D63471



**HOSE
CLAMP**
PART # D63014



**SEQUENCE
VALVE**
PART # D63612



**ASSORTED
FITTINGS**



Cart Glossary



US CART
ANSI TYPE "B"



EUROPEAN CART
ANSI TYPE "C"



DIAMOND CART
ANSI TYPE "D"



AUTOMATED CART
ANSI TYPE "G"



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



INSTALLERS NOTE: IF YOUR TRUCK HAS A KICK BAR / TIPPER BAR, MAKE SURE YOUR LIFTER IS COMPATIBLE. THE LIFTER SHOULD NOT MAKE CONTACT WITH THE BAR. IT MAY BE NECESSARY TO MODIFY OR LOWER THE BAR TO CLEAR THE LIFTER. SEE INSTRUCTIONS.





Rearload Configurations

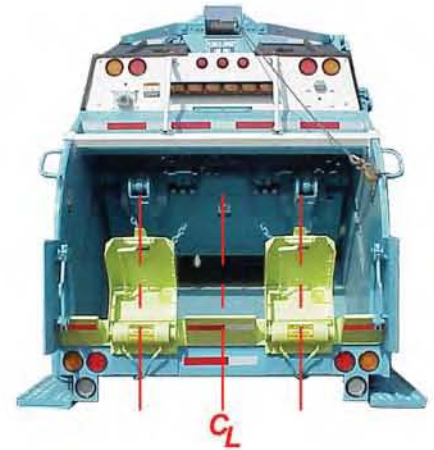
CENTER MOUNT



OFFSET MOUNT



DOUBLE MOUNT



LIFTERS ARE SPACED 17 1/2" OFF CENTERLINE OF TRUCK



INSTALLERS NOTE: AT LEFT IS A D6226 ADAPTABLE LIFTER. THE ADAPTABLE IS NECESSARY IN THE INSTALLATION AT LEFT BECAUSE THE HOPPER WALL & LIGHT BAR HANG DOWN IN EXCESS OF 12". THE ADAPTABLE CAN HUG TIGHTLY UP AGAINST A HOPPER WALL WHERE A STANDARD TUCKAWAY CANNOT BE USED. BEFORE YOU BEGIN INSTALLATION, MEASURE THE DISTANCE FROM THE MOUNTING EDGE TO THE BOTTOM OF THE LIGHT BAR / HOPPER. IF THE DISTANCE IS LESS THAN 12", THE D6080C ADVANCED TUCKAWAY WILL WORK.





Installation Preparation & Safety

- 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.**
- 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) LIFTERS AVERAGE ABOUT 200 LBS. ALWAYS USE A HOIST TO LIFT AND SECURE THE LIFTERS INTO PLACE.**
- 6) DURING INSTALLATION, SECURE THE LIFTER WITH A CHAIN TO PREVENT ACCIDENTS.**
- 7) TURN THE TRUCK OFF AND DEPRESSURIZE THE HYDRAULIC LINES BEFORE LOOSENING ANY FITTINGS OR HOSES.**
- 8) ALWAYS USE APPROPRIATE PERSONAL SAFETY GEAR.**



INSTALLERS NOTE: IT IS NOT RECOMMENDED TO INSTALL A LIFTER ONTO A TAILGATE THAT IS NOT ALREADY MOUNTED TO A CHASSIS. THIS CAN LEAD TO LIFTERS MOUNTED TOO LOW OR TOO HIGH, DUE TO CHASSIS HEIGHT VARIATIONS.



INSTALLERS NOTE: THE REAR MOUNTING PLATE IS INCLUDED WITH EVERY LIFTER AND IS ATTACHED TO THE LIFTER FOR SHIPPING PURPOSES. REMOVE THE REAR PLATE TO INSTALL IT TO THE TRUCK.



INSTALLERS NOTE: YOUR LIFTER WILL COME WITH AN ADJUSTABLE FLOW CONTROL VALVE ATTACHED UNDER THE LEFTHAND SIDE OF THE ACTUATOR. ALL OTHER HYDRAULICS ARE SOLD SEPARATELY.



Installation

NOTE: THE LIFTER PICTURED MAY BE DIFFERENT THAN YOUR MODEL.



**TYPICAL RESIDENTIAL-ONLY
INSTALLATION**



**EXTENDED SILL AND CONTAINER
LOCKS ALLOWS BOTH RESIDENTIAL
AND COMMERCIAL PICKUP**

STEP 1

**CHOOSE YOUR LIFTER CONFIGURATION (CENTER MOUNT, OFFSET, OR DOUBLE)
& CHOOSE WHETHER THIS TRUCK WILL BE USED FOR COMMERCIAL CANS.**



INSTALLERS NOTE: DUE TO THE VARIETY OF TRUCK TYPES AND CUSTOM FABRICATION REQUIRED, MOST INSTALLATIONS REQUIRE SUPPORT PIECES NOT INCLUDED. BUMPER EXTENSION KITS ARE AVAILABLE AND ARE SOLD SEPARATELY.



INSTALLERS NOTE: TRUCK MANUFACTURERS START WITH AN ORIGINAL STRUCTURAL MEMBER ACROSS THE SILL OF THE TAILGATE. WHEN THEY ADD CONTAINER LOCKS, THEY ADD A SILL EXTENSION. WHEN RECESSING A LIFTER INTO THE SILL, IT IS OKAY TO CUT INTO THE EXTENSION, BUT NEVER CUT THE ORIGINAL STRUCTURAL MEMBER OR THE TAILGATE WILL LOSE SIGNIFICANT STRENGTH AND COULD EVEN BOW.



Residential-Only Installation

TYPICAL RESIDENTIAL-ONLY CONFIGURATION

- A REAR MOUNTING
PLATE**
- B ADD-ON STRUCTURAL
TUBE TO RAISE SILL**
- C MOUNTING HEIGHT:
FROM TOP OF PLATE
TO GROUND, AS
FOLLOWS:**

38" FOR D6240X

40" FOR D6098

**38 1/2"-41" FOR MODELS
D6080, D6080C, D6220,
D6226, D6245/50,
D6400/05 & D6300**



STEP 2

**CENTER AND LEVEL THE REAR MOUNTING PLATE AND TACK WELD IN PLACE
AT THE SUGGESTED MOUNTING HEIGHT FOR YOUR LIFTER.**

STEP 3

**IN SOME CASES, THE REQUIRED HEIGHT WILL BE HIGHER THAN THE EXISTING
SILL. SIMPLY ADD A STRUTURAL TUBE ACROSS THE SILL TO RAISE THE SILL
HIEGHT TO MEET WITH THE TOP OF THE MOUNTING PLATE.**

STEP 4 (DOUBLE INSTALLS ONLY)

**LOCATE THE MOUNTING PLATES
17 1/2" OFF THE CENTER OF
HOPPER. RELOCATE ANY TAIL-
LIGHTS THAT ARE OBSCURED BY
THE LIFTER LOCATION.**





Commercial Installation

TYPICAL FINISHED COMMERCIAL / RESIDENTIAL INSTALLATION

STEP 1

LOCATE YOUR MOUNTING PLATE(S) AND MARK A CUT-OUT LINE 4" WIDER THAN THE WIDTH OF YOUR MOUNTING PLATE. THIS SHOULD ALLOW FOR A 2" GAP ON EACH OF THE LIFTER. CUT INTO THE OEM SILL EXTENSION, BEING CAREFUL TO NOT CUT THE STRUTURAL SILL UNDERNEATH.



STEP 2

USE PAGE 7 TO DETERMINE YOUR MOUNTING PLATE HEIGHT REQUIREMENTS, LEVEL THE PLATE AND TACK IN PLACE INSIDE THE CUT-OUT. TEMPORARILY MOUNT THE LIFTER TO THE PLATE. IF THE MOUNTING PLATE IS HIGHER THAN YOUR SILL, BUILD THE SILL UP WITH A PIECE OF STRUCTURAL TUBE TO MATCH UP TO THE LIFTER.



STEP 3

POSITION THE BUMPER KIT (SOLD SEPARATELY) SO THAT IT PROTECTS THE LEADING EDGES OF THE LIFTER BY AT LEAST AN 1". THE LIFTER SHOULD NOT MAKE CONTACT WITH THE COMMERCIAL CONTAINER.

STEP 4

TRIM THE BUMPER KIT TO FIT AND TACK WELD IN PLACE. ADD BUMPER END-CAPS TO SEAL OFF ENDS. ADD REINFORCING SUPPORT PIECES AS NEEDED TO PREVENT FLEXING AND PROPERLY SUPPORT THE LIFTER'S MOUNTING PLATE.





Commercial Installation

STEP 5

MEASURE THE DISTANCE YOUR NEW BUMPER EXTENDS PAST THE ORIGINAL. TORCH OFF THE CONTAINER LOCKS AND EXTEND THEM THE SAME DISTANCE.

NOTE: NOTICE HOW IN THE FINISHED PICTURE THE LOCK HAS BEEN EXTENDED ABOUT 3" FOR THIS INSTALLATION.

STEP 6

PRIOR TO WELDING FULLY, TAKE A COMMERCIAL CAN AND MAKE SURE IT CAN STILL LOCK INTO THE CONTAINER LOCKS AFTER THE MODIFICATIONS.

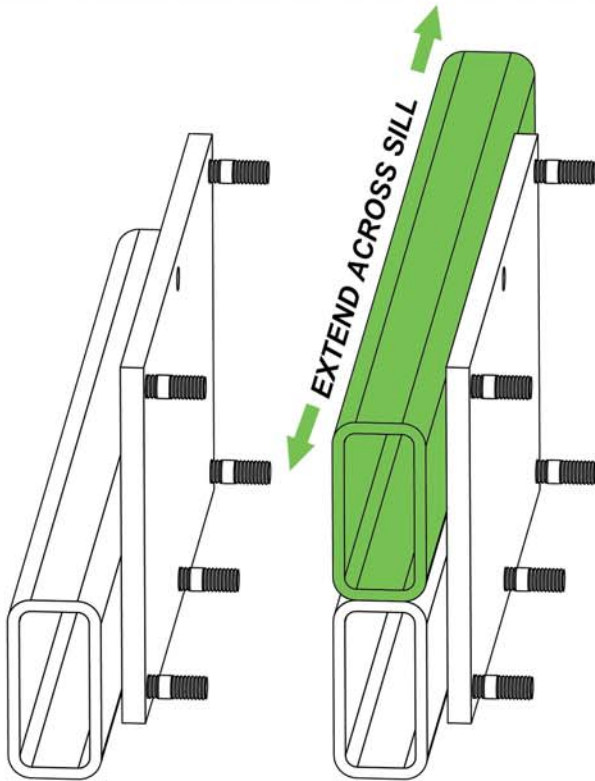


STEP 7

IF YOUR TRUCK COMES EQUIPPED WITH A KICK BAR / TIPPER BAR IT MAY BE NECESSARY TO LOWER THE BAR. MEASURE THE DISTANCE YOU WILL NEED TO CLEAR THE BAR BY AT LEAST 1/2" WHEN THE LIFTER IS ALL THE WAY DOWN. TORCH OFF THE KICK BAR AND EXTEND IT THE AMOUNT REQUIRED, ADDING REINFORCEMENTS AS NEEDED.



Welding the Rear Mounting Plate



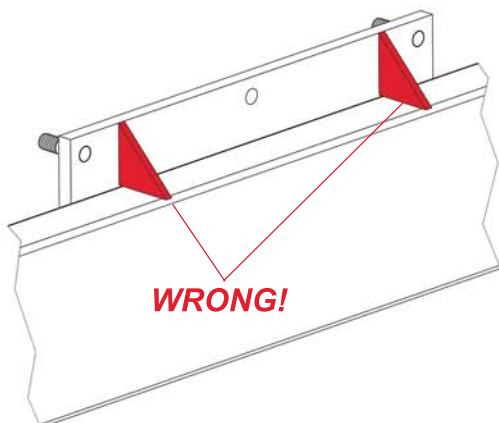
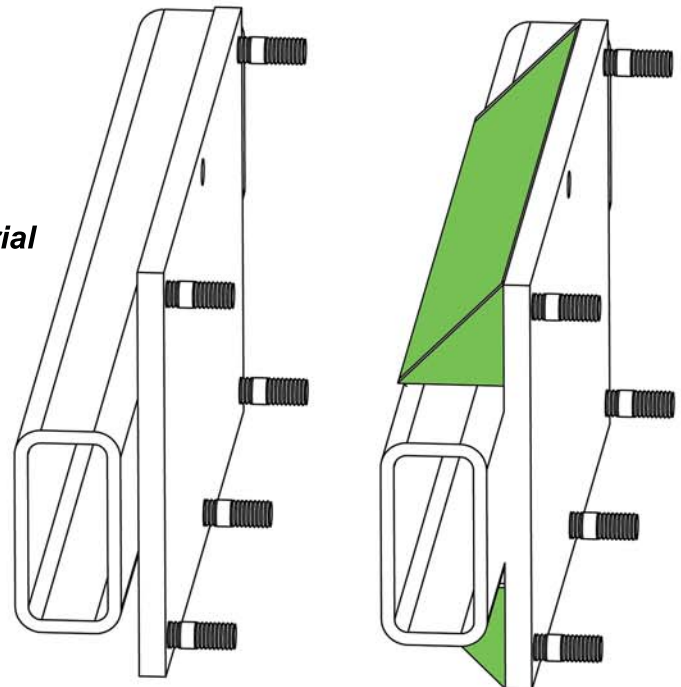
The Rear Mounting Plate of all lifters must be completely supported around all edges of the plate.

Unsupported plates will lead to premature lifter failure.

In the example at left, the mounting plate is well above the original height of the sill. A steel tube of appropriate size is cut and placed on top of the sill, extending it up and meeting with the top edge of the mounting plate. This additional piece would extend across the entire length of the hopper sill. Weld fully, leaving no portion of the mounting plate hanging above or below the original sill without support

In the example at right, the mounting plate is shown to be slightly above (or slightly below) the sill edge. In this case, add a strip of material and endcaps to the exposed mounting plate rear and weld fully.

Installations will vary from truck to truck. Custom cut pieces will likely be required to properly support the mounting plate.



The drawing at left is an example of inadequate support. The gussets will not help add rigidity to the mounting plate and the mounting plate will deform over time, leading to premature lifter failure. Never leave any portion of the mounting plate hanging without proper backing material.



Hydraulic Installation

STEP 1

FIND A SUITABLE LOCATION FOR THE HAND VALVE BRACKET. THE VALVE SHOULD BE LOCATED TO PREVENT ACCIDENTAL ACTIVATION, WITHIN ARMS REACH OF THE LIFTER AND AT A COMFORTABLE HEIGHT. MAKE SURE THAT IF YOU ARE USING THE HOSES PROVIDED IN THE TAP-IN KIT THAT THEY WILL REACH BOTH LIFTER AND DIVERTER VALVE FROM THIS LOCATION. TACK WELD HAND VALVE BRACKET IN PLACE.



HAND VALVE CONTROL



STEP 2

RUN THE HYDRAULIC HOSES ALONG THE TAILGATE AND HOPPER UNDERBELLY, MARK SUITABLE LOCATIONS FOR THE HOSE CLAMPS. TACK WELD THESE IN PLACE.



INSTALLER'S NOTE: RUN THE HOSES SO THEY CAN BE PROTECTED AS MUCH AS POSSIBLE FROM CASUAL ABRASION. HOSES SHOULD HAVE MINIMAL MOVEMENT AND NOT REST ON ANY SHARP EDGES.

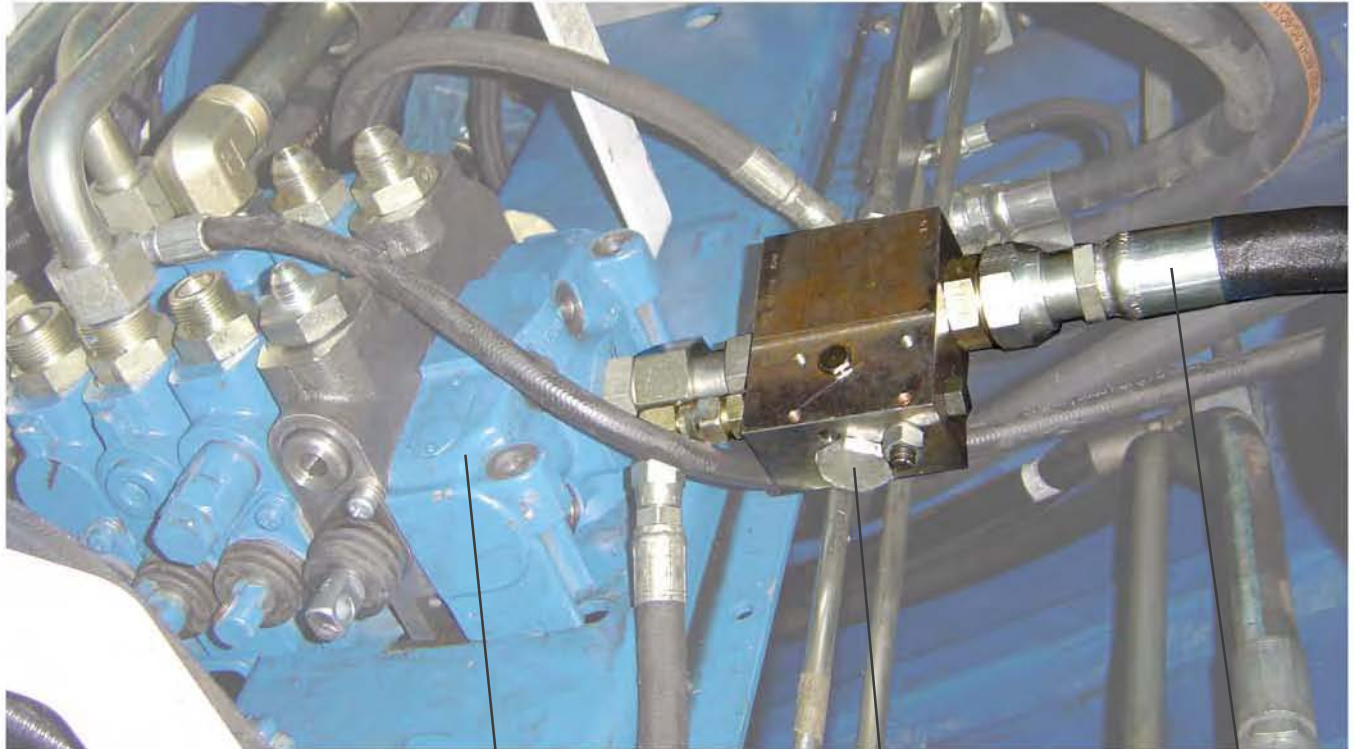
STEP 3

ATTACH TWO HOSES FROM BOTTOM OF LIFTER TO HAND VALVE. PORT "A" OF HAND VALVE GOES TO LEFT-HAND ACTUATOR PORT. PORT "B" GOES TO RIGHT-HAND ACTUATOR PORT.





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 LIFTER. IF YOU ARE INSTALLING TWO LIFTERS, THE DIVERTER VALVE WILL HAVE A 50/50 SPLITTER MOUNTED ON TOP OF IT. FOR ONE LIFTER, USE PORT "P" OF DIVERTER VALVE TO HAND VALVE "IN" PORT. FOR TWO LIFTERS, PORT "P" IS PLUGGED. INSTEAD USE PORTS "1" & "2" ON THE ATTACHED 50/50 SPLITTER.

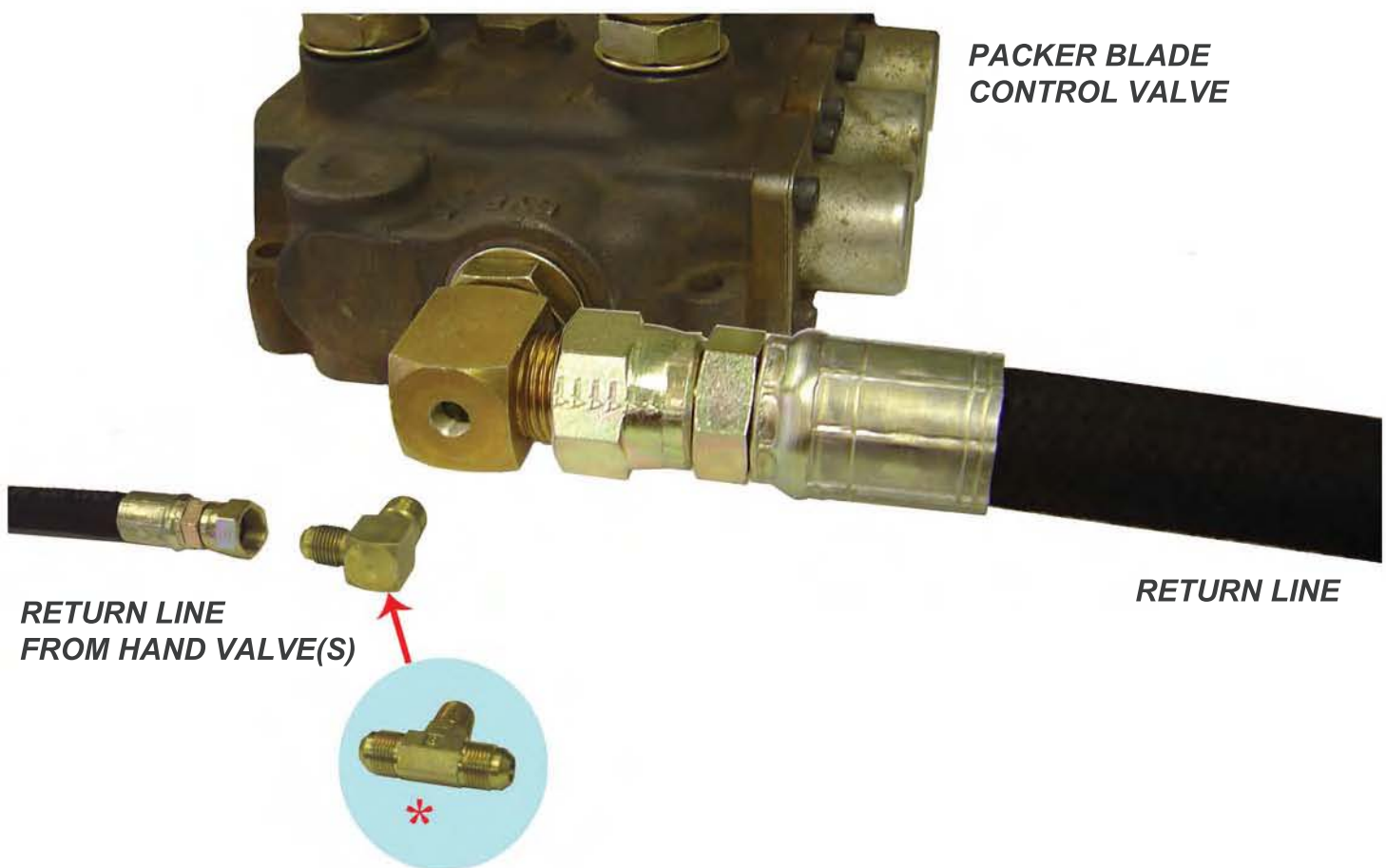




Hydraulic Installation

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.

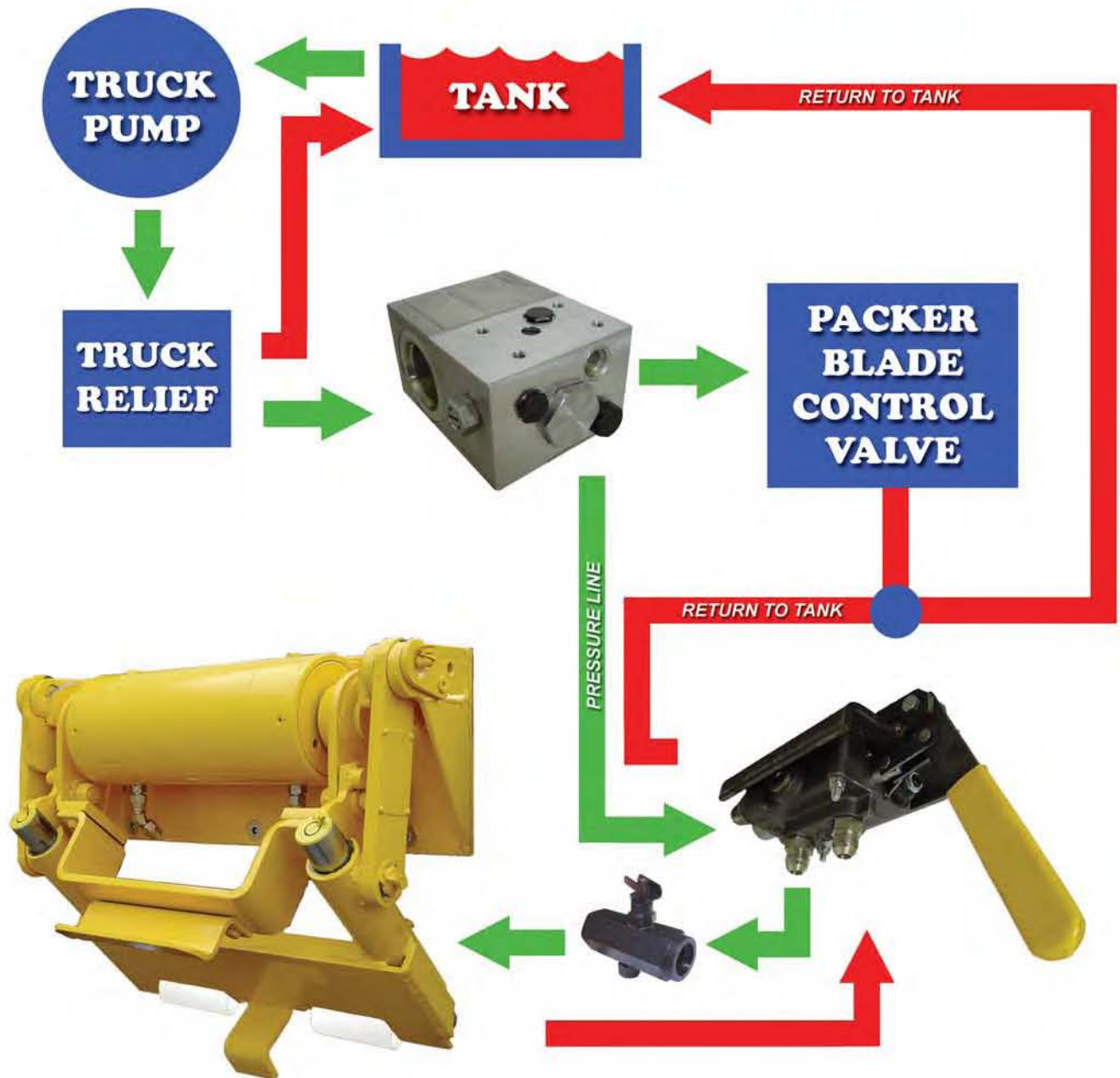


STEP 6 (OPTION B) **ALTERNATE METHOD **

RUN THE RETURN LINE FROM THE HAND VALVE (S) (OUT" PORTS UP TO THE DIVERTER VALVE AND CONNECT TO THE "R" 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.

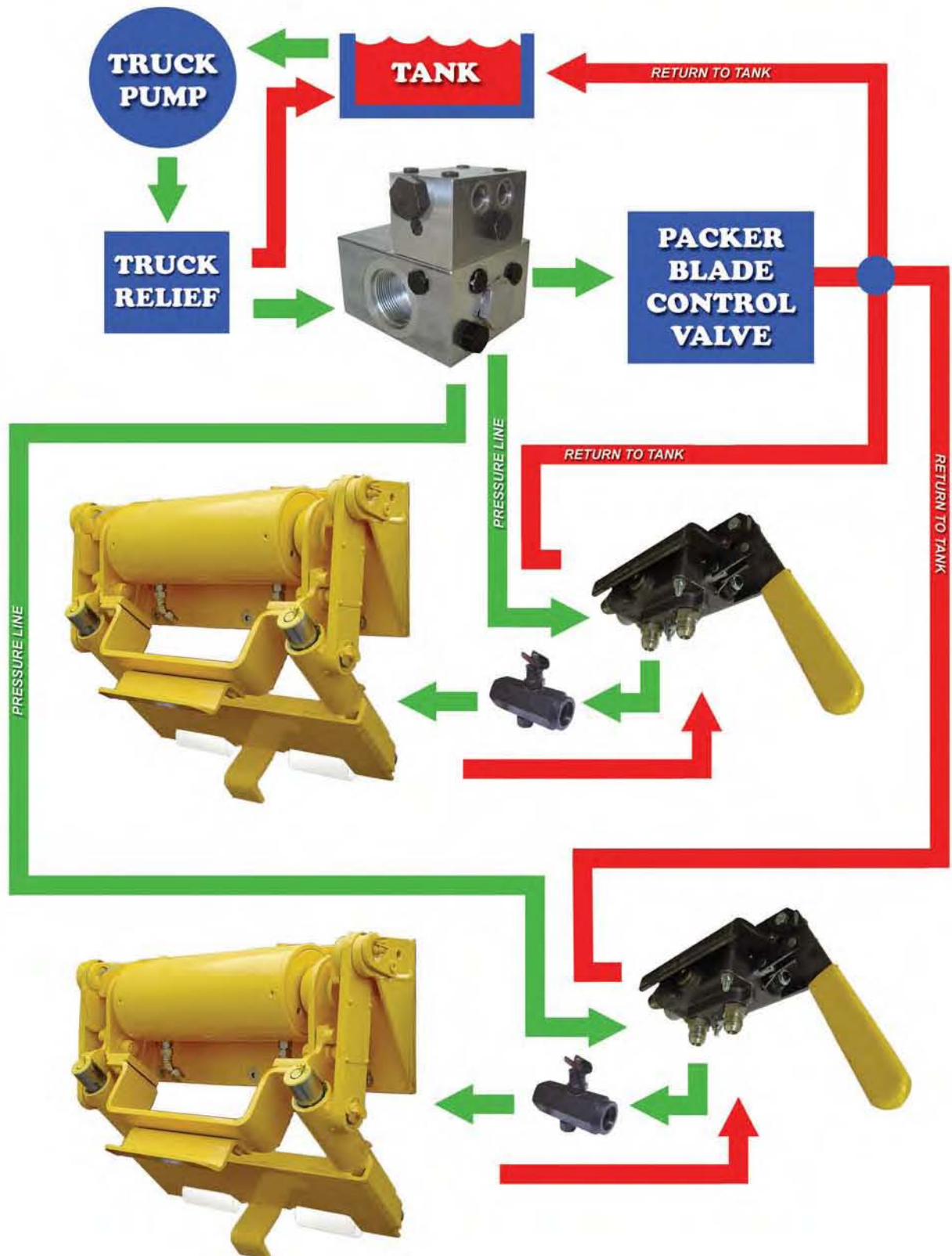


Hydraulic Schematic - Single





Hydraulic Schematic - Double





Hydraulic Parts Kit (Sold Separate)



- 1 D63236
- 2 D63237S
- 3 D63606
- 3a D63292
- 4 D63044
- 4a D63291
- 5 D63429
- 6 D63591
- 7 D63580
- 8 D63639
- 9 D63430
- 10 D63490
- 11 D63051
- 12 D63489
- 13 D63550
- 14 D63416
- 15 D63635
- 16 D63074
- 17 D63431
- 18 D63014
- 19 D63535
- 20 D63760
- 21 D63534
- 22 D62460
- 23 D62063

	LEACH			HEIL/NUWAY			LOADMASTER EZ-PACK DEMPSTER PAK-MOR MCNEILUS		
	SINGLE - OFFSET KIT # D60311 / (-2R3)	DOUBLE INSTALL KIT # D60321 / (-2R3)	SINGLE - CENTER KIT # D60393 / (-2R3)	SINGLE - OFFSET KIT # D60312	DOUBLE INSTALL KIT # D60322	SINGLE - CENTER KIT # D60394	SINGLE - OFFSET KIT # D60313	DOUBLE INSTALL KIT # D60323	SINGLE - CENTER KIT # D60395
1		1			1			1	
2	1	1	1	1	1	1	1	1	1
3	1	1	1				1	1	1
3a	1	1	1						
4	1	1	1				1	1	1
4a	1	1	1						
5				2	2	2			
6	1	2	1	1	2	1	1	2	1
7	1	2	1	1	2	1	1	2	1
8	2	4	2	2	4	2	2	4	2
9	2	4	2	2	4	2	2	4	2
10				1	1	1			
11							1	1	1
12				1	1	1			
13	1		1	1		1	1		1
14		1			1			1	
15	1	1	1	1	1	1	1	1	1
16		1			1			1	
17		1			1			1	
18	5	10	5	5	10	5	5	10	5
19	2	4	2	2	4	2	2	4	2
20			2			2			2
21	2	4		2	4		2	4	
22	1	2	1	1	2	1	1	2	1
23	5	10	5	5	10	5	5	10	5



Final Installation

TEST THE LIFTER WITH THE FULL VARIETY OF CARTS YOU EXPECT TO USE WITH THIS TRUCK. MAKE SURE THEY ALL WORK AS INTENDED.

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.

OPERATE THE LIFTER. IT'S MOVEMENT WILL BE ERATIC THE FIRST FEW CYCLES BECAUSE OF AIR IN THE SYSTEM. CONTINUOUS BACK AND FORTH CYCLING SHOULD CLEAR THE LAST OF THE BUBBLES AFTER A DOZEN CYCLES.

AFTER THE AIR IS PURGED, IT IS TIME TO ADJUST THE HYDRAULIC VALVES.



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. LOSEN 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



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

HAND VALVE'S BUILT-IN RELIEF #D63228

LOOSEN THE LOCKING NUT. TURN THE ADJSUTING 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



ADJUSTING SCREW

LOCKING NUT



Operating Instructions

START THE ENGINE AND ACTIVATE THE PUMP.

ROLL A CART TO THE LIFTER, PLACING IT SO THE UPPER HOOK WILL GRASP THE TOP BAR / POCKET OF THE CART.

PULL HANDLE OF HAND VALVE TO RAISE AND DUMP CART.

ONCE WASTE IS DUMPED, REVERSE THE HANDLE TO RETURN THE CART TO THE GROUND.

REPLACE THE EMPTY CART WITH A LOADED CART AND REPEAT.



OPERATOR'S NOTE: GIVING THE CART A SHAKE BACK AND FORTH IS A COMMON WAY TO HELP GET ALL THE GARBAGE OUT. IT IS ALSO A COMMON WAY TO CAUSE DAMAGE TO THE CART IF DONE EXCESSIVELY. SHAKING A DAMAGED CART CAN CAUSE IT TO FALL OR BE THROWN. USE CAUTION AND COMMON SENSE.



OPERATOR'S NOTE: THE MOST COMMON WAY TO DAMAGE YOUR CART INVESTMENT IS TO RUN THE LIFTERS TO FAST. MAINTAIN THE LIFTER CYCLE OF 6-10 SECONDS. USE LOCK-OUT PROCEDURES TO PREVENT IN-FIELD ADJUSTMENTS.



OPERATOR'S NOTE: OVER-LOADED CARTS, BROKEN CARTS, CARTS NOT WITHIN ANSI STANDARD, AND BULK ITEMS SHOULD NOT BE LIFTED WITH THE CART LIFTER.



Safety Procedures



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



NEVER REACH INTO THE HOPPER WHILE LIFTER IS IN OPERATION.



MAKE SURE ALL PERSONS ARE CLEAR OF LIFTER BEFORE AND DURING OPERATION.



DO NOT LIFT BROKEN CARTS OR BULK ITEMS WITH THE LIFTER.



DO NOT OPERATE THE LIFTER FASTER THAN 6 SECONDS PER CYCLE.



DO NOT LIFT OVER-LOADED CARTS. THEY CAN BREAK AND FALL OR BE THROWN/DROPPED AFTER BREAKING.



DO NOT LIFT CARTS THAT ARE NOT MEANT FOR THIS LIFTER.



DO NOT PERFORM MAINTANANCE ON THE LIFTER UNLESS IT IS PROPERLY SECURED WITH A CHAIN



INSPECT THE LIFTER DAILY BEFORE USE, FOR ANYTHING OBVIOUSLY IN NEED OF REPAIR OR UNSAFE.



Maintenance

WASHING

A SIMPLE AND QUICK POWER-WASH WILL REMOVE FLITH & GRIME FROM THE LIFTER'S CRITICAL COMPONENTS, MAKING THEM LAST LONGER AND MAKING INSPECTION FOR DAMAGES EASIER.

LUBRICATION

PROPER GREASING OF THE LIFTER IS IMPORTANT. CHECK THE LIFTERS WEEKLY AND GREASE AS NECESSARY ANY PIVOT OR SLIDE POINTS THAT DO NOT MOVE SMOOTHLY. SOME NEWER MACHINES HAVE FIBERGLIDE BEARINGS THAT DO NOT REQUIRE GREASE. YOUR LOCAL WEATHER CONDITIONS WILL VARY THE FREQUENCY OF YOUR NECESSARY GREASING.

BEARINGS

THE LIFTER SHOULD MOVE FREELY, BUT SNUGLY. ANY PLAY OR LOOSENESS INDICATES BEARING WEAR. BEARINGS THAT ARE WORN OR SCARRED SHOULD BE REPLACED IMMEDIATELY.

BREAKAWAY FEATURE

IF YOU LIFTER HAS A BREAKAWAY FEATURE, THERE MAY BE A SHEAR BOLT ON THE DRIVER ARM. MAKE SURE THE BOLT IS IN PLACE BEFORE USE DAILY.

LIFTER COMPONENTS

USE THE WEEKLY GREASING AS A TIME TO PERFORM A SPOT CHECK OF THE PARTS ON THE LIFTER, ENSURING NOTHING IS BENT OR SHOWING FATIGUE. A DAMAGED LIFTER MAY STILL DUMP CARTS, BUT IT MAY DAMAGE THEM TOO. PROTECT YOUR CARTS BY KEEPING YOUR LIFTERS IN GOOD CONDITION.

HYDRAULIC COMPONENTS

INSPECT ALL HOSES AND REPLACE ANY THAT ARE WORN OR FRAYED. LOOK FOR SIGNS OF LEAKS AND TIGHTEN THE APPROPRIATE FITTINGS. LIFTERS THAT DRIFT WHEN NOT IN USE MAY NEED A NEW SEAL KIT FOR THE ACTUATOR, OR HAND VALVE. DON'T FORGET TO BLEED THE AIR AFTER ANY HYDRAULIC WORK.



Maintenance (2)

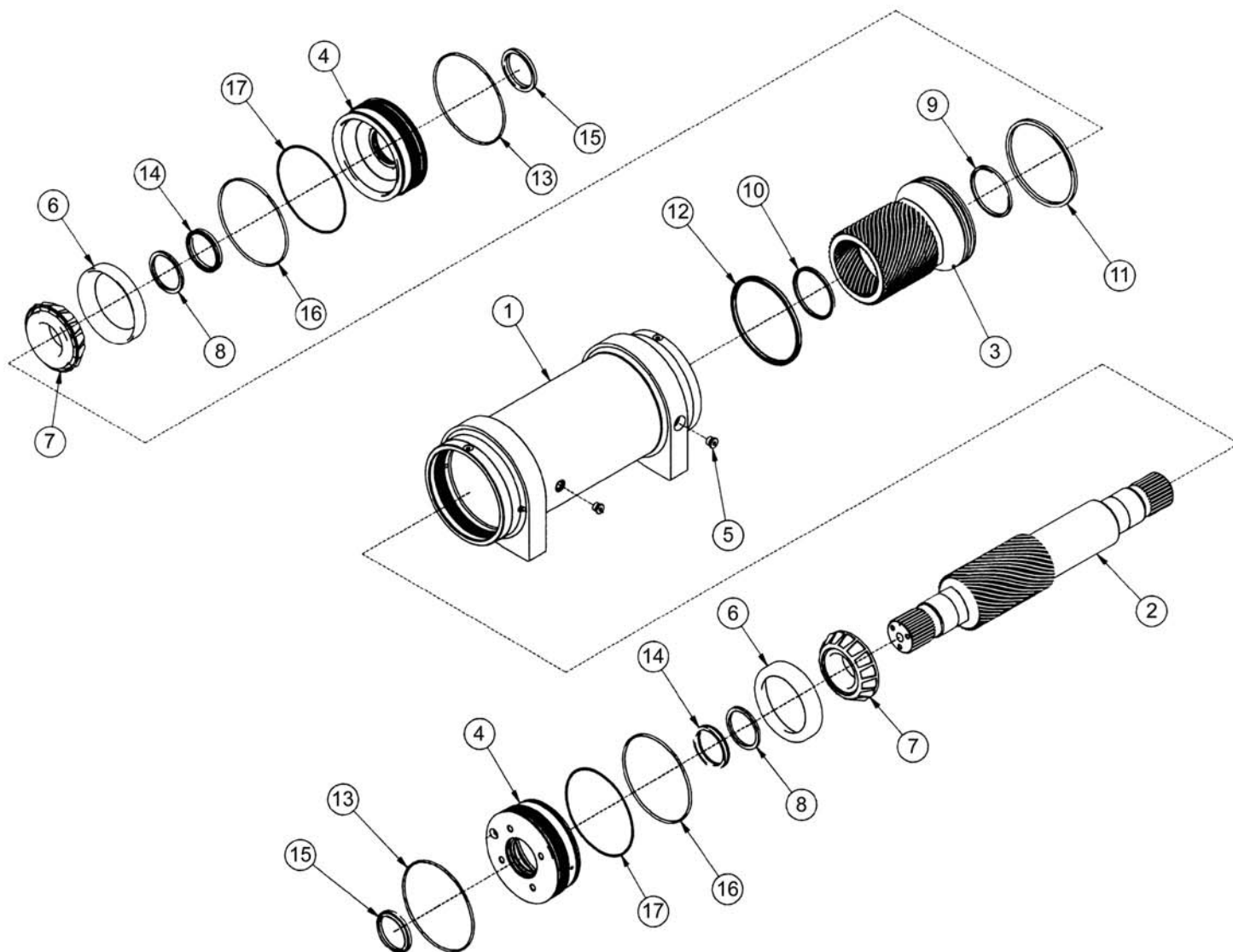
GREASING

IT IS CRITICAL TO GREASE THE LOWER SLIDE REGULARLY FOR GOOD OPERATION AND LONG LIFE. THE SLIDES CAN BE BEST LUBRICATED USING THE INCLUDED GREASE ZERKS LOCATED ON THE TIPS OF THE SLIDE PINS. THE ZERKS ARE COVERED BY A PROTECTIVE CAP. SIMPLY REMOVE CAP, GREASE UNTIL EXCESS COMES OUT EDGES, AND REPLACE.





25k Helac Actuator Parts Guide



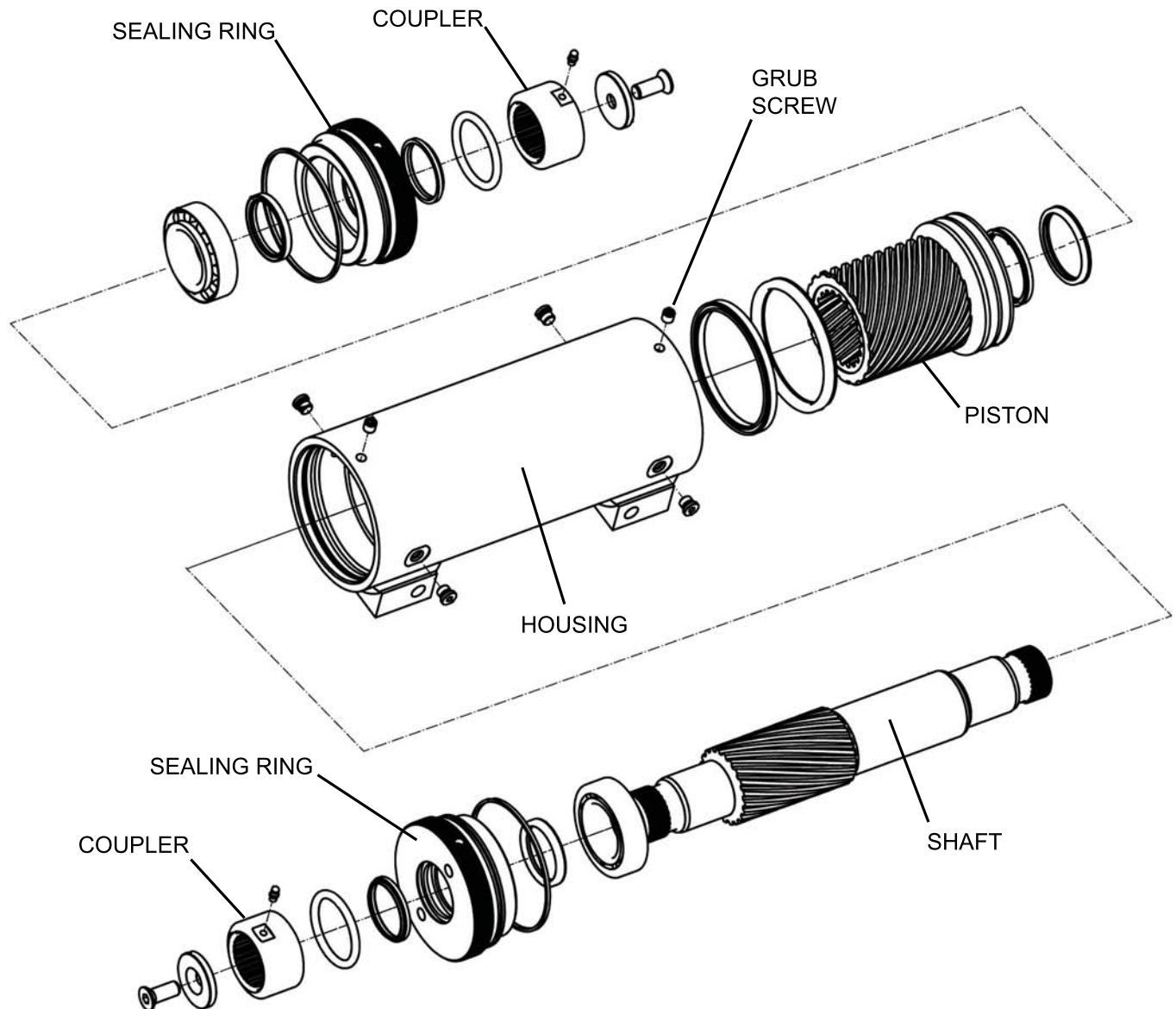
ITEM	PERKINS #	VENDOR #	DESCRIPTION	ITEM	PERKINS #	VENDOR #	DESCRIPTION
1	D73031-3	29148	HOUSING	10	D73031-2	919780	CUP SEAL
2	D63238-6	28463	SHAFT	11	D73031-2	919156	CUP SEAL
3	D73031-4	28887	PISTON SLEEVE	12	D73031-2	919796	CUP SEAL
4	D73031-5	28888	END CAP	13	D73031-2	925103	O-RING SEAL
5	D63238-4	977009	#6 PLUG	14	D73031-2	919781	CUP SEAL-SHAFT
6	D63238-4	932155	CUP BEARING	15	D73031-2	927020	WIPER SEAL
7	D63238-4	932156	CONE BEARING	16	D73031-2	925100	O-RING SEAL
8	D73031-2	28827	RING SPACER	17	D73031-2	926071	B/U RING SEAL
9	D73031-2	919492	CUP SEAL				

 SOLD AS HARDWARE KIT ONLY

 SOLD AS SEAL KIT ONLY



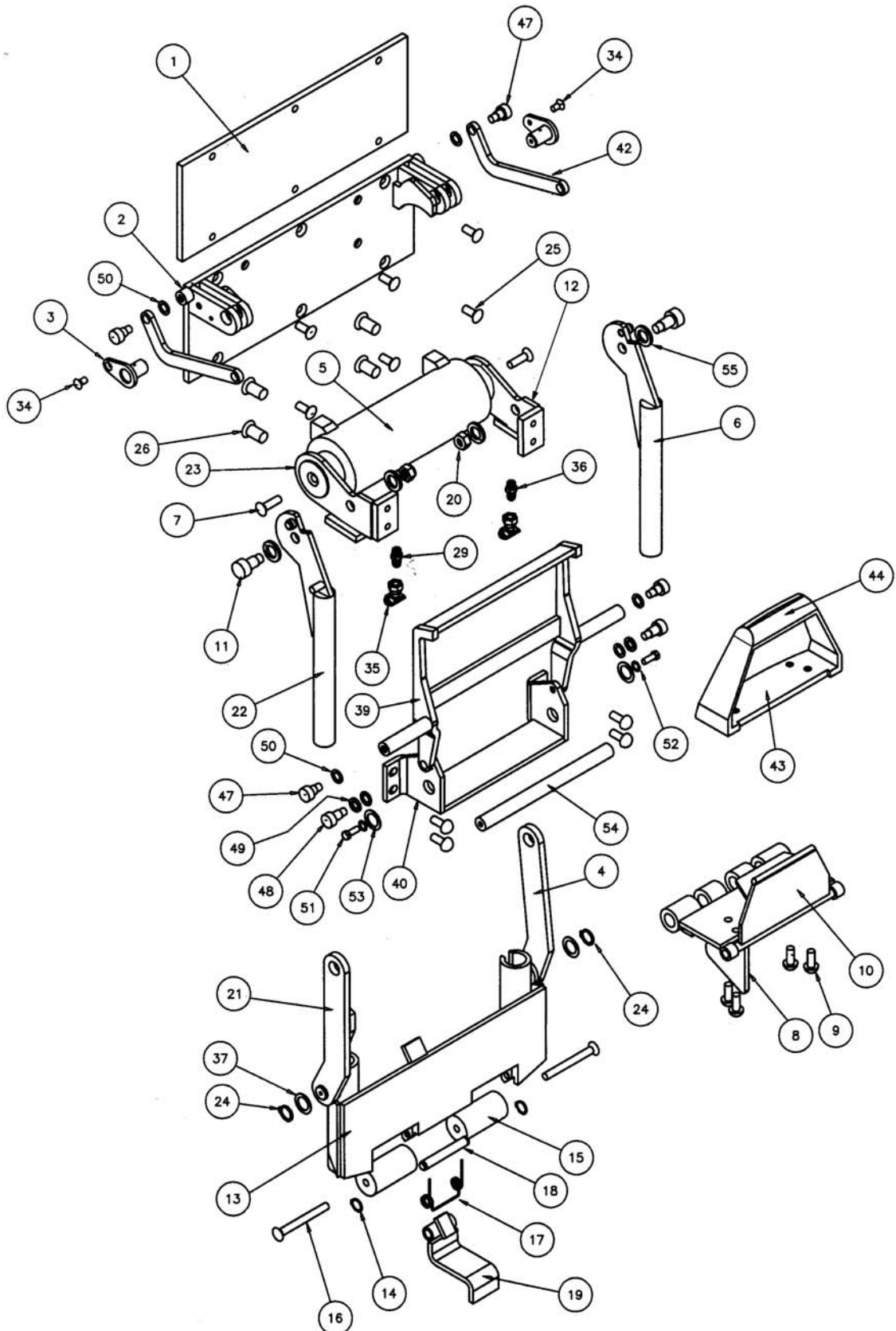
26k HKS Actuator Parts Guide



PERKINS #	VENDOR #	DESCRIPTION
D73031-12	1026822	HOUSING
D73031-16	1020742	SEALING RING
D73031-10	1020754	ACTUATOR SHAFT
D73031-11	1020762	PISTON
D63238-1	1028018	COUPLER
D73031-13	1016283	GRUB SCREW
D73031-15	1020283	SEAL KIT



Exploded View





Spare Parts Key

#	PART #	DESCRIPTION	QTY
1	D74420	BACK MOUNTING PLATE	1
2	D77900	MOUNTING PLATE WELDMENT	1
3	D77130	WELDMENT, FASTENER LUG/PIN	2
4	D77121	IDLER ARM	1
5	D63238	20 K ACTUATOR	1
6	D77139	PIN DRIVER WELDMENT RH	1
7	D62006	BOLT 1/2-13 X 1 1/2 F.H.	2
8	D77915	UPPER BRACKET WELDMENT	1
9	D72021	BOLT 1/2-13 BUTTON HEAD	8
10	D77930	UPPER HOOK WELDMENT	1
11	D72105	SHOULDER BOLT 5/8-11X3/4 X1"	2
12	D77901-20K	DRIVER ARM WELD RH	1
13	D77904	SLIDE WELD	1
14	D72003	SNAP RING	2
15	D77021	ROLLER UHMWP	2
16	D76651	BOLT 1/2-13X5 F.H	2
17	D76677	SPRING LATCH NEW	1
18	D77347	PIN, LOWER HOOK	1
19	D77140	LATCH WELD NEW	1
20	D62001	LOCK NUT 5/8	2
21	D77124	IDLER ARM WELD-LH	1
22	D77145	PIN DRIVER WELD LH	1
23	D77902-20K	DRIVER ARM WELDMENT.L.H	1
24	D63125	SNAP RING, 1"	2
25	D72086	F.H. BOLT 1/2-13 X 1	6
26	D72019	F.H. BOLT 5/8-11	4
27	D72028	GREASE FITTING	2
28	D63562	HYDRAULIC CAP	2
29	D63575	ADJ. FLOW CONTROL VALVE	1
30	D63431	REDUCER	2
31	D62461	DECAL GREASE WEEKLY	1
32	D62474	LABEL CAUTION / DUMPER	1
33	D62481	NEW PERKINS LABEL	1
34	D72029	BOLT FH 5/16-18X3/4	2



Spare Parts Key

#	PART #	DESCRIPTION	QTY
35	D63581	ELBOW SW.45	4
36	D63074	ADPT.STR. #6MT-#6MO	1
37	D72016	SPACER WASHER ZINC PLATED	2
38	Z102	STR. GREASE FITTING	5
39	D77907	CLAMP WELD	1
40	D77911	BRACKET WELDMENT	1
41	D77921	PLATE SUPPORT	1
42	D77924	CLAMP ARM	2
43	D77926	ALUMINUM DIAMOND	1
44	D77927	PLASTIC HEAD	1
45	D62080	3/8-16NYLOCK	4
46	D62044	BOLT FH 3/8-16X1	4
47	D72024	BOLT SHOULDER 5/8X3/4	4
48	D72025	BOLTSHOULDER 5/8X1/2X1/2-13	2
49	D72026	SPACER 5/8X.125	2
50	D72027	SPACER 5/8X.062	6
51	D62079	HH BOLT 3/8-16X1	4
52	D62004	FLAT WASHER 3/8	2
53	D62484	FLAT WASHER 1/2	2
54	D77925	SUPORT PIN	1
55	D62101	WASHER SAE 3/4	4



Troubleshooting

	SYMPTOM	POSSIBLE CAUSES	SOLUTION
A	LIFTER OPERATION IS VERY ERRATIC	AIR COULD BE TRAPPED IN SYSTEM. FLOW IS TOO LOW ADJUSTABLE FLOW VALVE IS NOT WORKING PROPERLY	BLEED ALL AIR OUT INCREASE FLOW FROM DIVERTER VALVE ADJUST, CLEAN OR REPLACE THE FLOW DIVERTER VALVE.
B	CART LIFTER WILL NOT PICK UP THE WEIGHT	CART IS OVERWEIGHT HAND VALVE PRESSURE SET TO LOW TRUCK PRESSURE SET TOO LOW FAULTY HAND VALVE ACTUATOR/CYLINDER HAS INTERNAL LEAKAGE	REDUCE WEIGHT OF CART CHECK AND ADJUST PRESSURE RELIEF ON HAND VALVE ADJUST TRUCK'S MAIN RELIEF (SEE MANUFACTURER'S INSTRUCTIONS) REPLACE HAND VALVE REBUILD ACTUATOR OR RETURN TO PERKINS FOR SERVICE
C	LIFTER OPERATES SLOWLY	FLOW ADJUSTMENT SCREW ON DIVERTER IN TO MUCH ENGINE IDLE IS TOO LOW FAULTY HAND VALVE FAULTY TRUCK PUMP DEBRIS CLOGGING DIVERTER VALVE	ADJUST SCREW OUT TO INCREASE FLOW ADJUST ENGINE IDLE REPLACE HAND VALVE CHECK TRUCK MANUFACTURER'S INSTRUCTIONS DISASSEMBLE AND CLEAN DIVERTER



Troubleshooting

	SYMPTOM	POSSIBLE CAUSES	SOLUTION
D	LIFTER OPERATES TOO FAST	ADJUSTMENT SCREW IS OPEN TOO MUCH ENGINE IDLE TOO HIGH	ADJUST DIVERTER FLOW DOWN ADJUST ENGINE IDLE DOWN
E	DIVERTER VALVE IS LEAKING OIL	WORN OR DAMAGED SEALS	REPLACE SEAL KIT, PART #D63477
F	HAND VALVE LEVER STICKS IN THE UP OR DOWN POSITION	WORN OR BROKEN SPRING CENTER DEVICE DEBRIS OR RUST AROUND SPOOL PRESSURE "IN" & "OUT" HOSES REVERSED	INSTALL NEW SPRING PART #D63192 DISASSEMBLE AND CLEAN SPOOL & HOUSING REVERSE HOSES TO CORRECT ORDER
G	HAND VALVE IS LEAKING OIL AROUND SPOOL	WORN OR DAMAGED SEALS WORN SPOOL	INSTALL NEW SEALS PART # D63217 REPLACE HAND VALVE
H	UNABLE TO ACHIEVE 1950 PSI	TRUCK PRESSURE TOO LOW	ADJUST PRESSURE RELIEF OF TRUCK HIGHER IF IT IS ALREADY AS HIGH AS POSSIBLE, INSTALL A PRESSURE SPEED UP SWITCH
I	UNABLE TO ACHIEVE OVER 1400 PSI	TRUCK PRESSURE TOO LOW	CALL YOUR TRUCK MANUFACTURER



Troubleshooting

	SYMPTOM	POSSIBLE CAUSES	SOLUTION
J	LIFTER BREAKS BOTTOM BAR OF CARTS	CHECK FOR DAMAGED LIFTER FACEPLATE CHECK ADJUSTMENT OF LATCH RELEASE ROD/PLUNGER CHECK PLUNGER SPRINGS AND MOVES FREELY CHECK MOUNTING HEIGHT OF LIFTER	REPLACE DAMAGED PARTS ADJUST SO LATCH RELEASES PRIOR TO CART RETURNING TO THE GROUND GREASE PLUNGER OR REPLACE AS NEEDED BRAND-NEW LIFTERS THAT BREAK LOWER BARS ARE USUALLY MOUNTED TO LOW. CHECK THE HEIGHT AND REMOUNT ACCORDINGLY
K	LIFTER BREAKS BOTTOM AND/OR TOP BAR OF CART	WARPED FACEPLATE IS STRETCHING THE HOOK SPACING WARPED LOWER LATCH LIFTER MAY REQUIRE GREASING/LATCH CONTROL JAMMED	REPLACE DAMAGED PARTS, ENSURING THE HOOK TO HOOK DIMENSION IS 14 3/4 - 15" REPLACE LATCH GREASE MOVING LATCH PARTS
L	LIFTER DROPS CARTS	CART COULD HAVE DIMENSIONS INCOMPATIBLE WITH LIFTER LOWER LATCH FAILS TO LOCK ON LOWER BAR	CHECK THAT THE CART MEETS ANSI SPECIFICATIONS ADJUST LATCH MAKING SURE IT MOVES FREELY, REPLACE DAMAGED PARTS AND GREASE



Troubleshooting

	SYMPTOM	POSSIBLE CAUSES	SOLUTION
M	LIFTER RETURNS TO GROUND TOO FAST	IN-LINE ADJUSTABLE FLOW CONTROL NOT ADJUSTED IN-LINE ADJUSTABLE FLOW CONTROL NOT POSITIONED CORRECTLY	ADJUST VALVE IN UNTIL LIFTER'S DOWNWARD MOTION IS DESIRABLE CHECK THAT IN-LINE ADJUSTABLE FLOW CONTROL IS UNDER LEFTHAND ACTUATOR PORT, SMALL ARROW POINTS AWAY FROM ACTUATOR
N	LIFTER DRIFTS OUT OF POSITON WHEN NOT IN USE	P.O. CHECK VALVE NOT PRESENT P.O. CHECK VALVE NOT WORKING INTERNAL LEAKAGE IN HAND VALVE. INTERNAL LEAKAGE IN ACTUATOR	INSTALL A P.O. CHECK VALVE CLEAN VALVE CARTRIDGE, RETEST AND REPLACE IF NECESSARY CLEAN SPOOL AND REPLACE SEAL KIT AS NECESSARY REBUILD ACTUATOR WITH NEW SEAL KIT
O	THERE IS NO LIFTER DAMAGE AND LATCH ADJUSTMENTS ARE CORRECT, BUT LIFTER STILL BREAKS LOWER BARS OF CARTS.	LIFTER OPERATING FASTER THAN 6 SECONDS OPERATOR SHAKING CART BACK AND FORTH EXCESSIVELY OVERLOADED CART	SLOW THE LIFTER BY ADJUSTING THE FLOW DOWN TRAIN USERS TO LIMIT CART SHAKING TO A MINIMUM REDUCE CART WEIGHT



Warranty Policy

TO CLAIM A WARRANTY ISSUE, CALL PERKINS AND SPEAK TO A TECHNICIAN. A SHIPMENT OF REPLACEMENT PARTS WILL BE ARRANGED AND YOU WILL BE BILLED FOR THESE PARTS. YOU WILL RECEIVE A RGA NUMBER WHICH MUST BE LABELED ONTO THE RETURN BOX. CREDIT WILL BE ISSUED AFTER THE PARTS ARE INSPECTED BY THE TECHNICIAN.

PERKINS ASSUMES NO LIABILITY FOR SHIPPING COSTS OR LABOR.

PERKINS MANUFACTURING COMPANY WARRANTS ITS LIFTERS TO BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP UNDER NORMAL USE FOR:

TWO (2) YEARS FOR ROTARY UNITS OR ONE (1) YEAR FOR CYLINDER UNITS.

THIS WARRANTY COVERS ALL LIFTERS SHIPPED AFTER JULY 1, 2006.

THIS WARRANTY IS EXPRESSLY LIMITED TO THE REPAIR OR REPLACEMENT OF ANY COMPONENT MANUFACTURED BY PERKINS, WHICH IS PROVEN TO PERKINS SATISFACTION TO HAVE BEEN DEFECTIVE IN MATERIAL OR WORKMANSHIP. THIS WARRANTY DOES 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 IMPROPER USE, SUBSTITUTION OF PARTS NOT APPROVED BY PERKINS, MODIFICATIONS OTHER THAN THOSE DONE AT THE FACTORY OR AS AUTHORIZED IN WRITING BY THE FACTORY, OR ANY ALTERATION OR REPAIR BY OTHERS IN SUCH A MANNER WHICH, IN PERKINS JUDGEMENT, MATERIALLY AND ADVERSELY AFFECTS THE PRODUCT SHALL VOID THIS WARRANTY.

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 ASSUMES NO LIABILITY FOR ANY INCIDENTAL, CONSEQUENTIAL, DIRECT OR INDIRECT DAMAGES, LOSSES, OR DELAYS, INCLUDING BUT NOT LIMITED TO, LOSS OF PROFITS, PRODUCT, OR TIME.

ANY SERVICE PARTS SOLD BY PERKINS SHALL HAVE A 90 DAY WARRANTY FOR REPLACEMENT ONLY. THE WARRANTY ITEM MUST BE RETURNED TO PERKINS FOR EVALUATION UPON IT'S REQUEST. LABOR TO REPLACE SUCH PARTS SHALL BE THE RESPONSIBILITY OF THE OWNER. THERE IS NO WARRANTY ON USED PARTS.

PERKINS, WHOSE POLICY IS ONE OF CONTINUOUS IMPROVEMENTS, RESERVES THE RIGHT TO IMPROVE IT'S 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 SUPERSEDES AND IS IN LIEU OF ALL OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS. NO EMPLOYEE OR ANY OTHER REPRESENTATIVE OF PERKINS IS AUTHORIZED TO CHANGE THIS WARRANTY IN ANY WAY OR GRANT ANY OTHER WARRANTY.