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APRIL 1998

MAINTENANCE MANUAL

TUK-A-WAY®

LIFT GATE SERIES

TKL-25

MAXON®
LIFT CORP.

11921 Slauson Avenue.
Santa Fe Springs, CA. 90670
(800) 227-4116

MAXON®
LIFT CORP.

11921 Slauson Ave.
Santa Fe Springs, CA. 90670

CUSTOMER SERVICE:
TELEPHONE (562) 464-0099 TOLL FREE (800) 227-4116
FAX: (888) 771-7713

NOTE: Check with Customer Service for updated versions of Manuals on an annual basis.

WARRANTY POLICY & PROCEDURE

NEW LIFTGATE WARRANTY

Term of Warranty: 2 Years from Date of In-Service

Type of Warranty: Full Parts and Labor

MAXON agrees to replace any components which are found to be defective during the first 2 years of service, and will reimburse for labor based on MAXON's Liftgate Warranty Flat Rate Labor Schedule. (Call MAXON Customer Service for a copy).

All claims for warranty must be received within 30 Days of the repair date, and include the following information:

1. Liftgate Model Number
2. Liftgate Serial Number
3. Detailed Description of Problem
4. Corrective Action Taken, and Date of Repair.
5. Parts used for Repair, Including MAXON Part Number(s).
6. MAXON R.M.A. # and/or Authorization # if applicable (see below).
7. Person contacted at MAXON if applicable.

All warranty repairs must be performed by an authorized MAXON warranty station. For major repairs, MAXON Customer Service must be notified and an "Authorization Number" obtained. Major repairs would generally be considered repairs made to the structural assembly of the liftgate and/or repairs not outlined in the MAXON Liftgate Warranty Flat Rate Schedule.

Major components (i.e. hydraulic pumps, cylinders, valves, or failed structural parts) must be returned, freight pre-paid, prior to the claim being processed. To ensure timely processing of these warranty claims, an R.M.A. (Returned Merchandise Authorization) number must be obtained from MAXON Customer Service prior to the return of any defective part. Defective Parts must be returned within 60 days of the claim date for consideration to:

MAXON Lift Corp.
16205 Distribution Way, Cerritos, CA 90703
Attn: RMA#__

MAXON's warranty policy does not include the reimbursement for travel time, towing, vehicle rental, service calls, oil, batteries, defects due to misuse or abuse, or loss of income due to downtime. Fabrication of parts, which are available from MAXON, are also not covered.

MAXON's Flat Rate Labor Schedule takes into consideration the time required for diagnosis of a problem.

PURCHASE PART WARRANTY

Term of Warranty: 1 Year from Date of Purchase

Type of Warranty: Part Replacement

MAXON will guarantee all returned genuine replacement parts upon receipt and inspection of parts and invoice.

Table of Contents

INTRODUCTION

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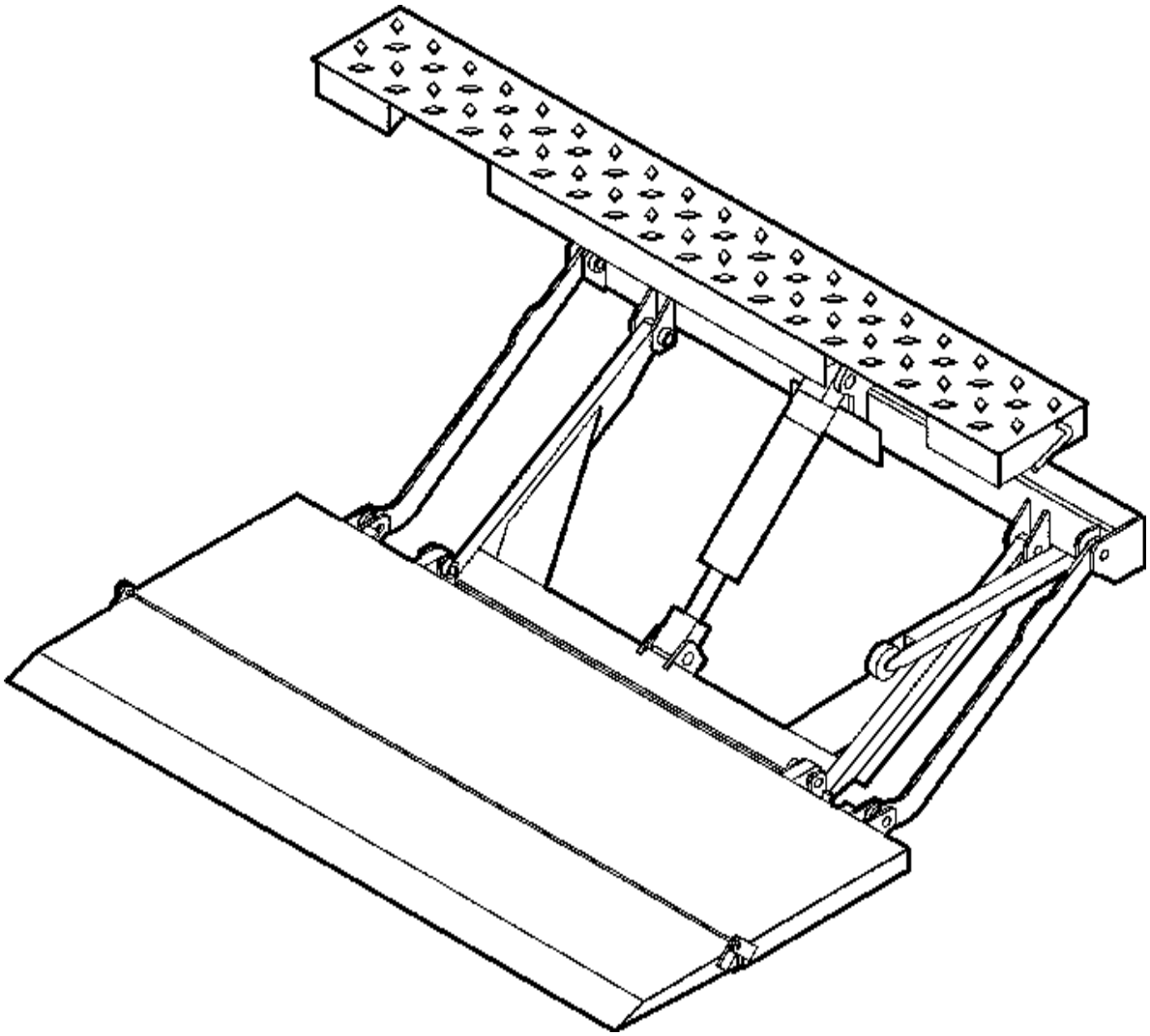
This publication contains the information required to maintain the **TKL-25.** If there is any doubt regarding the suitability of these liftgates being maintained on it's intended vehicle, or any portion of these instructions that you do not understand, please contact the **MAXON Technical Service Department** for consultation.

Unauthorized modification to this equipment may cause premature failure or create hazards in its use that are not foreseen at the time of installation. These kinds of changes should be discussed with our Technical Service Department and approved by MAXON's Engineering Department before being undertaken.



WARNING

1. Read the **Maintenance Manual** and understand it thoroughly before any maintenance of this unit is done.

2. Read the **YELLOW** urgent warning decal on the side of the vehicle close to the unit before operating.

3. If decals are dirty, clean them. If decals are defaced or missing, replace them. **Free replacements** are available from the manufacturer. See information at the end of the Warnings

4. Be aware that the safety and location of other people or objects should be considered before operation of this unit. Stand to one side of platform while operating this unit.

5. Do not stand under, or have any foreign object under the Platform when lowering. **Be sure that the lowering of the Platform and/or Flipover will miss your feet!**

6. Keep fingers, hands, arms, legs, and feet clear of moving parts when operating this unit.

7. If during your maintenance procedure, it becomes necessary to ride the platform, keep your feet and any foreign objects clear of the rear edge of the platform. Otherwise your feet or the foreign objects could become trapped between the edge of the platform and the vehicle bed.

8. Inspect all Roll Pins monthly, to insure that they are not broken. Replace if broken.

9. Inspect all hydraulic hoses and fittings annually. Check for cracks and deterioration, and replace if necessary.

10. **Disconnect battery** when replacing parts or servicing.

11. Do not allow children to ride, play with, or operate this unit.

12. In the event of an emergency while operating the unit, release the toggle switch and the unit will stop immediately.

13. A properly installed Lift should operate smoothly and the only noise during the operation of this unit should be from the Pump Unit during the raising of the Platform. Any scraping, grating or audible indications of rough operation will need investigating. The cause will need resolving before any further deterioration of performance occurs.

14. Use only **Maxon Authorized Parts** for replacement. Replacement parts should be ordered from:

MAXON LIFT CORP. Parts Department
11921 Slauson Ave., Santa Fe Springs, Ca. 90670
Phone: (800) 227-4116

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PERIODIC MAINTENANCE CHECKLIST

Quarterly

Check the oil in the Pump Reservoir. The oil should be Grade ISO-(32) Hydraulic Fluid. ***See below for Cold Weather operation.**

Check Hoses and Fittings for scuffing and leaks. Replace if necessary.

Check the electrical wiring for worn insulation, and the terminals for corrosion and secure fit.

Check all bolts for tightness.

Check that all Warning Decals are in place and readable.

Check that all roll pins are properly installed. Replace if necessary.

Inspect the Hook & Chain Assembly for proper operation.

Six Months

Visually check the Platform Hinge Pins for excessive wear or broken welds. For parts replacement, see the Assembly Breakdown Drawings.

Annually

Visually check the complete unit for excessive wear, worn parts or broken welds. Check <u>all</u> Hinge Pins for excessive wear or broken welds. For parts replacement, see the Assembly Breakdown Drawings.

*** COLD WEATHER OPERATION**

OIL SPECIFICATIONS:
Grade ISO-(32)
Gravity, API - 29.5 Degrees
Pour Point, F- (-54 Degrees)

VISCOSITY:
@ 40 Degrees C - 31.2 cSt
@100 Degrees C - 6.2 cSt
VISCOSITY INDEX - 154 VI
Flash Point, F - 325 Degrees

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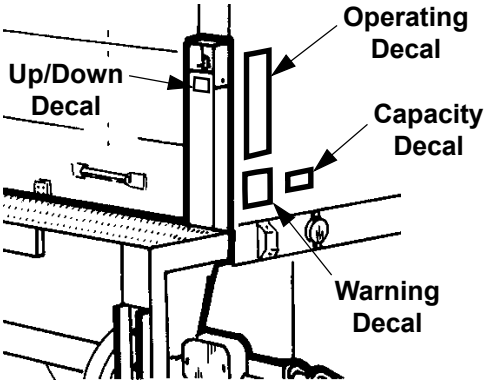
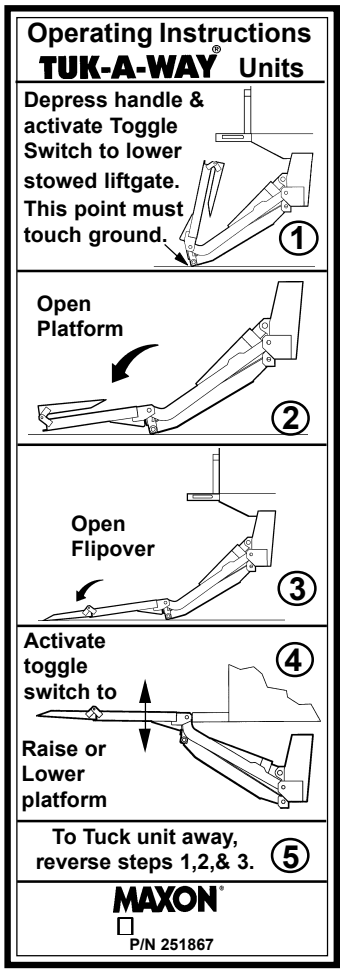


Sugessted Decal Locations

DECALS

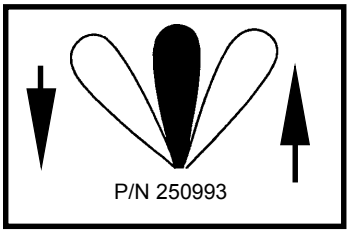
These Decals should be read and completely understood before operating the unit. They should also be kept clean and readable at all times. If any decal should become detached from the vehicle, or defaced, it must be replaced. Free replacements are available from: MAXON Lift Corp., Parts Department.



WARNING
READ CAREFULLY

- Improper operation of this Lift can result in serious personal injury. Do not operate unless you have been properly instructed and have read, and are familiar with the operating instructions. If you do not have a copy of the instructions, please obtain them from your employer, distributor, or lessor, before you attempt to operate Lift.
- Be certain that the vehicle is properly and securely braked before using the Lift.
- Always inspect this Lift for maintenance or damage before using it. If there are signs of improper maintenance, damage to vital parts, or slippery Platform surface, do not use the Lift until these problems have been corrected.
- Do not overload the Lift. The load limit is based on evenly distributed cargo over the entire Platform surface. If you are using a pallet jack, be sure it can be maneuvered safely. Do not operate a forklift on the Platform or travel with the platform in an open position at any time.
- Load should be placed in a stable position close to the edge of the Platform nearest the truck. The heaviest portion of the load should never be placed beyond the center of the Platform away from the truck.
- Never allow yourself, a helper, or bystander to stand in a position where a falling load could land on either of you. Also do not allow your's or your helper's feet to be placed under any portion of the lowering Lift.
- If a helper is riding the Platform with you, make sure you are both doing so safely and that you are not in danger of coming in contact with any moving or potentially moving obstacles. USE GOOD COMMON SENSE. If load appears to be unsafe, do not lift or lower it.

MAXON LIFT CORP.
PART NO. 260008



P/N 250993

THE MAXIMUM CAPACITY OF THIS LIFT IS

2500 LBS.

WHEN THE LOAD IS CENTERED ON THE LOAD CARRYING PLATFORM

P/N 220382

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SAFETY HOOK

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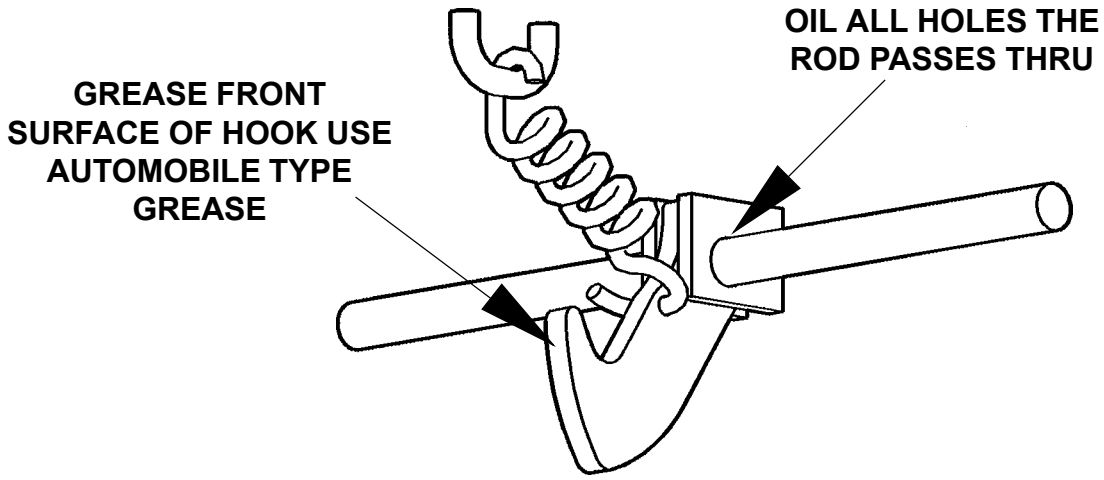
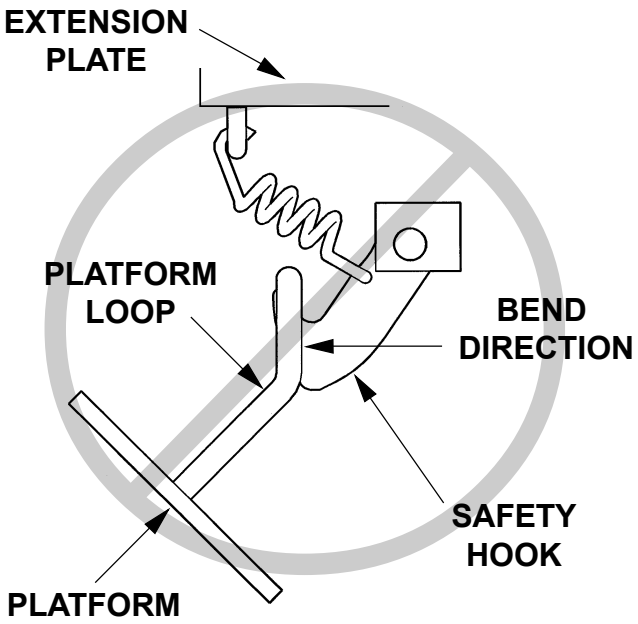
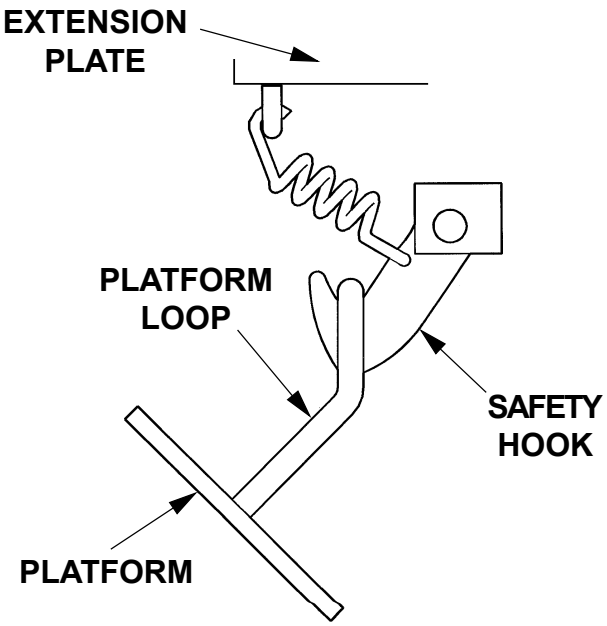


When the Platform is raised to full "Stowed" position, there should be an audible snap of the **Safety Hook** engaging the **Platform Loop**. Visually check to see that the loop is positioned over the Safety Hook.



INCORRECT

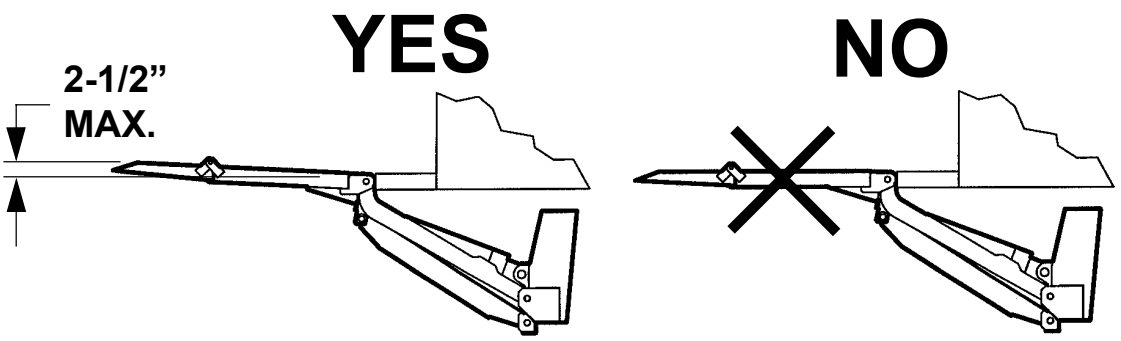


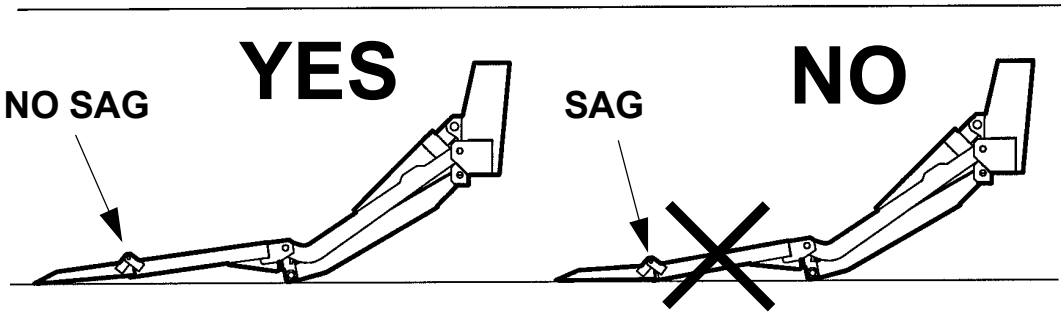
CORRECT

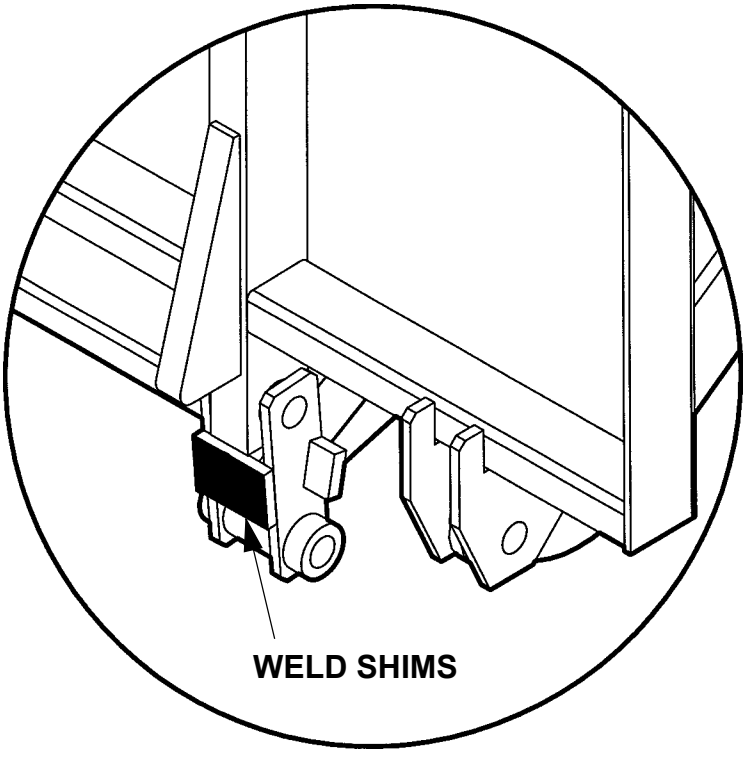
To insure that the Hook is seated as described, test by activating the Toggle Switch in the "Down" mode. Gate should not go down. If it does, adjust the loop as shown in, to achieve adjustment shown.

PLATFORM ADJUSTMENT

The Platform should reflect the “YES” illustrations below, with the Platform as much as 2-1/2” higher than the vehicle bed. There should be no “sag” in the Platform as illustrated below.







Lower the Platform to the ground so that the Shackles also rest on the ground. If the Platform is straight, no shimming is required. If Platform sags, appropriate shims must be added to both sides of the Platform. Shims can be placed in position shown on the left.

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REPLACING PLATFORM TORSION SPRING

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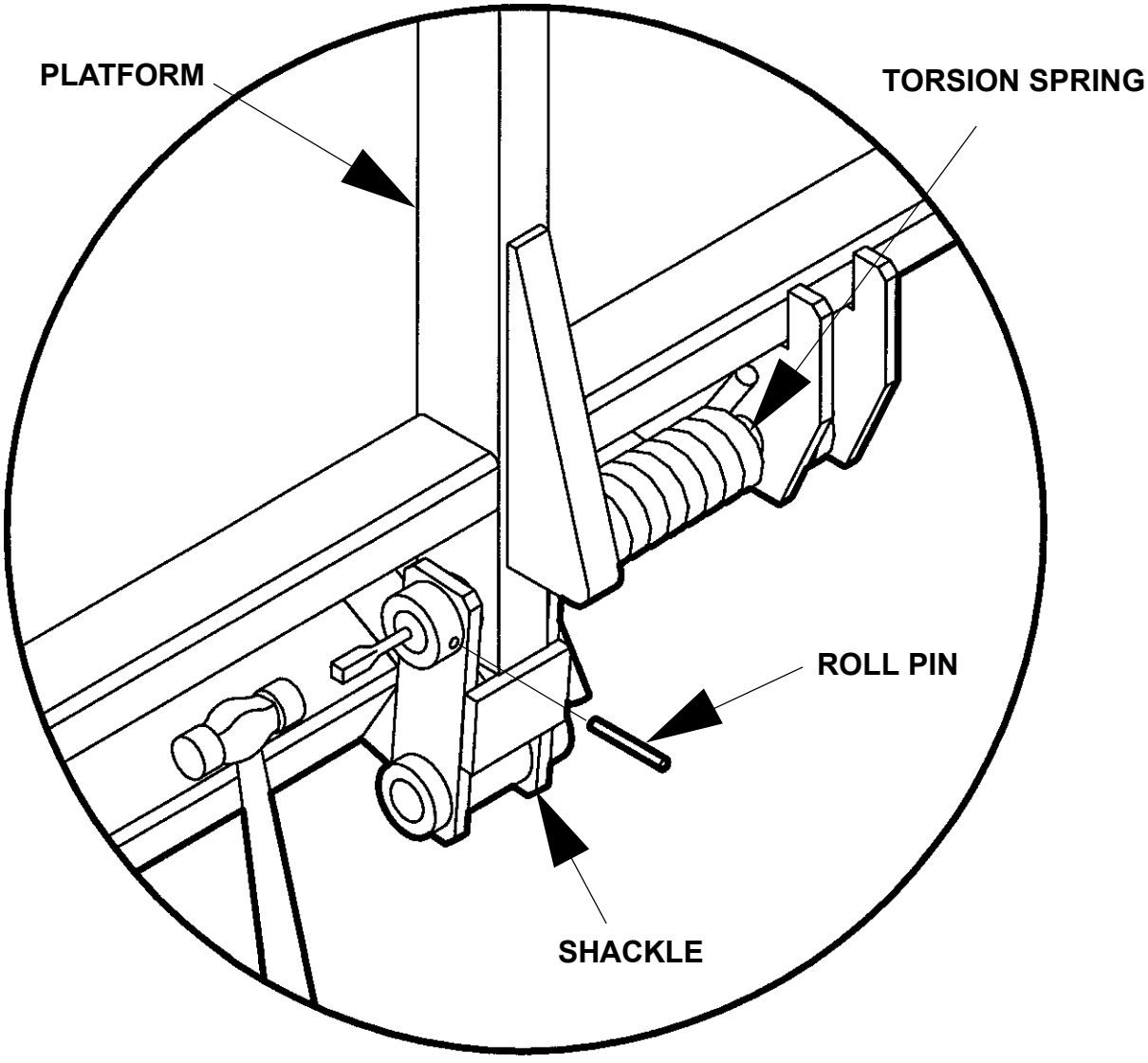
Fold Flipover onto Platform. Lift Platform to a folded position with the Shackles still on the ground.

Raise unit about 6” off ground. Place a 4” x 4” wood block under both Shackles. Lower unit onto block.

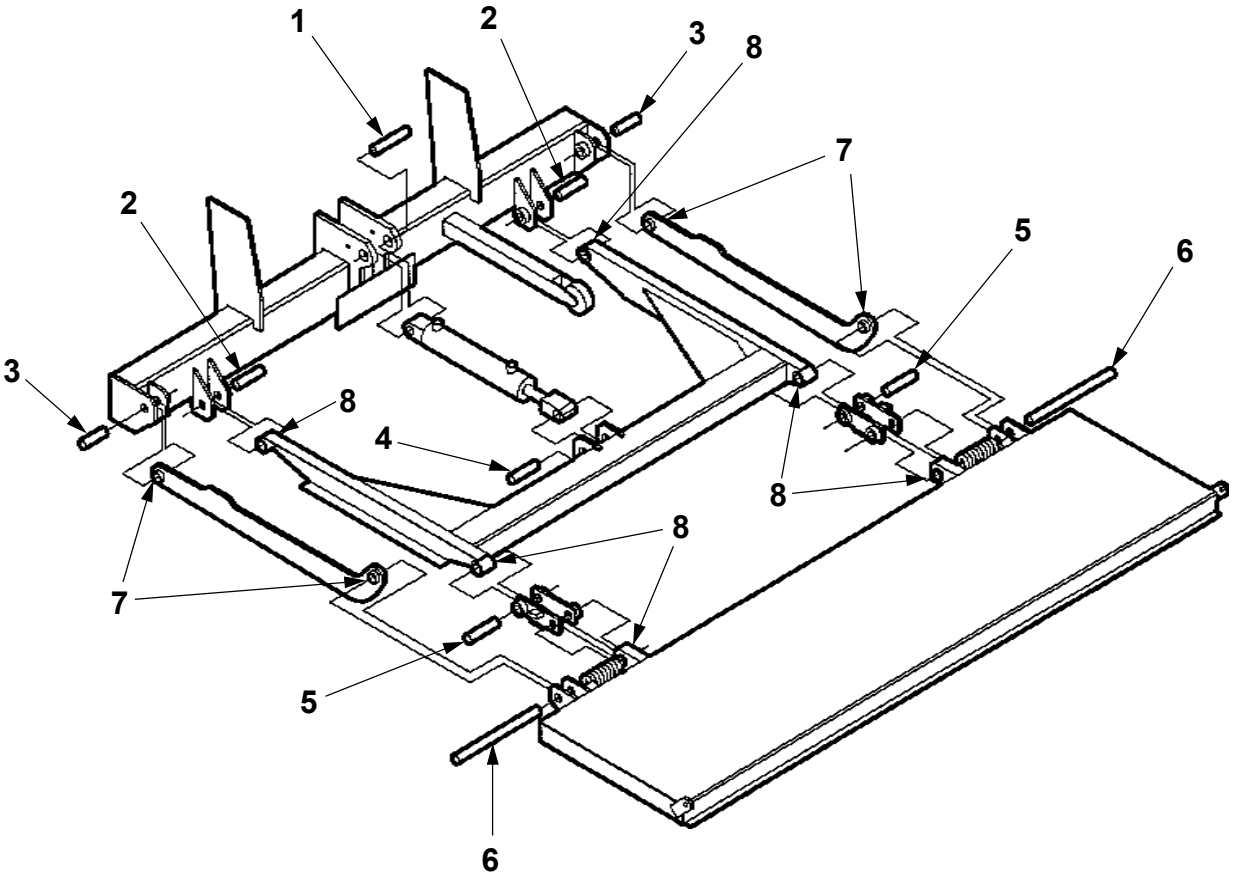
Remove Roll Pin from pin collar on Shackle. Using a hammer and a punch, drive the Platform Hinge Pin out just enough to allow the Torsion Spring to drop loose. Remove Spring.

Reverse the process to replace the Spring, being sure to place the Spring in the same position as it was removed.



PIN & BEARING LOCATION

Annually inspect both Hinge Pins and Bearings for excessive wear. If Pins or Bearings are worn, replace with **MAXON** authorized parts. See Pin & Bearing part list below for Part Numbers.



PINS				BEARINGS			
ITEM	QTY.	PART NO.	DESCRIPTION	ITEM	QTY.	PART NO.	DESCRIPTION
1	1	263017	PIN x 5-3/8"	7	4	260916-02	BEARING SELF LUBE 1' x 1-1/2"
2	2	262342-02	PIN x 4"	8	6	260916-03	BEARING SELF LUBE 1" x 2"
3	2	262342-03	PIN x 3-1/2"				
4	1	263018	PIN x 4-1/8"				
5	2	262342-01	PIN x 4-1/2"				
6	2	262343	PIN x 13"				

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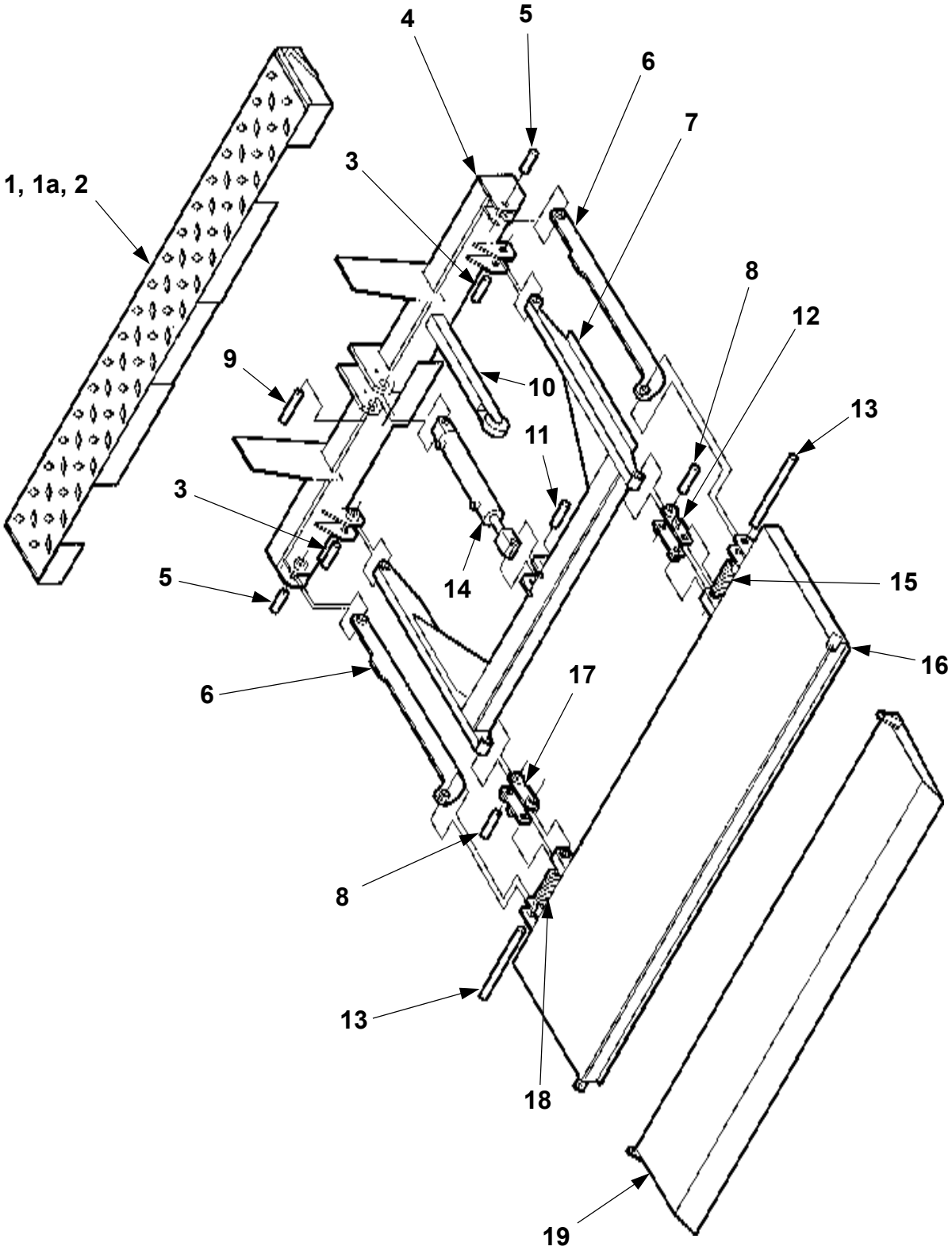
TKL-25LM ASSEMBLY



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TKL-25LM ASSEMBLY

ITEM	QTY.	PART NUMBER	DESCRIPTION
1	1	263068	EXTENSION PLATE WELDMENT
*1a	1	263052	SAFETY HOOK WELDMENT
*2	1	215341	SPRING SAFETY HOOK
3	2	262342-02	PIN, 4"
4	1	262382	MAINFRAME WELDMENT
5	2	262342-03	PIN, 3-1/2"
6	2	263058	PARALLEL ARM ASSEMBLY
7	1	262383	LIFT FRAME WELDMENT
8	2	262342-01	PIN, 4-1/2"
9	1	263017	PIN, 5-3/8"
10	1	263092	OPENER WELDMENT
11	1	263018	PIN, 4-1/8"
12	1	263049-02	SHACKLE, R.H.
13	2	262343	PIN, 13"
14	1	260372	CYLINDER, DBL. ACTING 3" x 10"
*14a	1	260372-SK	SEAL KIT
15	1	225269	TORSION SPRING, R.H.
16	1	263060-01	PLATFORM, 84" WIDE
		263060-02	PLATFORM, 72" WIDE
17	1	263049-01	SHACKLE, L.H.
18	1	201640	TORSION SPRING, L.H.
19	1	263054-01	FLIPOVER, 84" WIDE
		263054-02	FLIPOVER, 72" WIDE

* NOT SHOWN

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PUMP ASSEMBLY, GRAVITY DOWN

ITEM	QTY.	PART NUMBER	DESCRIPTION
1	1	229272	MOTOR, 12 VOLTS DC
2	1	253353	VALVE, SOLENOID 2-WAY
*2a	1	226594	O-RING KIT, 2-WAY VALVE
3	1	229200	COUPLING
4	1	260261	OIL SEAL
5	1	251885	CHECK VALVE KIT
5a	1	260234	VALVE CAP
5b	1	260255	RETAINER
5c	1	260231	SPRING
5d	1	260257	STEEL BALL
5e	1	260256	SOCKET HEAD CAPSCREW
6	1	260229	RELIEF VALVE KIT
6a	1	260232	ADJUSTING SCREW
6b	1	260234	VALVE CAP
6c	1	260235	O-RING
6d	1	260231	SPRING
6e	1	260233	SPRING GUIDE
6f	1	260230	STEEL BALL
7	1	229193	FILLER/BREATHER CAP
8	1	251882	RESERVOIR, 3 QT.
9	1	260250	FILTER
10	1	260272	PUMP ASSEMBLY
11	1	251884	0-RING
12	1	260273	DRIVEPLATE ASSEMBLY 5"
13	1	262966	BUS BAR
14	1	262939	SOLENOID SWITCH
*15	4	229202	CAPSCREW, HEX. WASHER HD.

*** NOT SHOWN**

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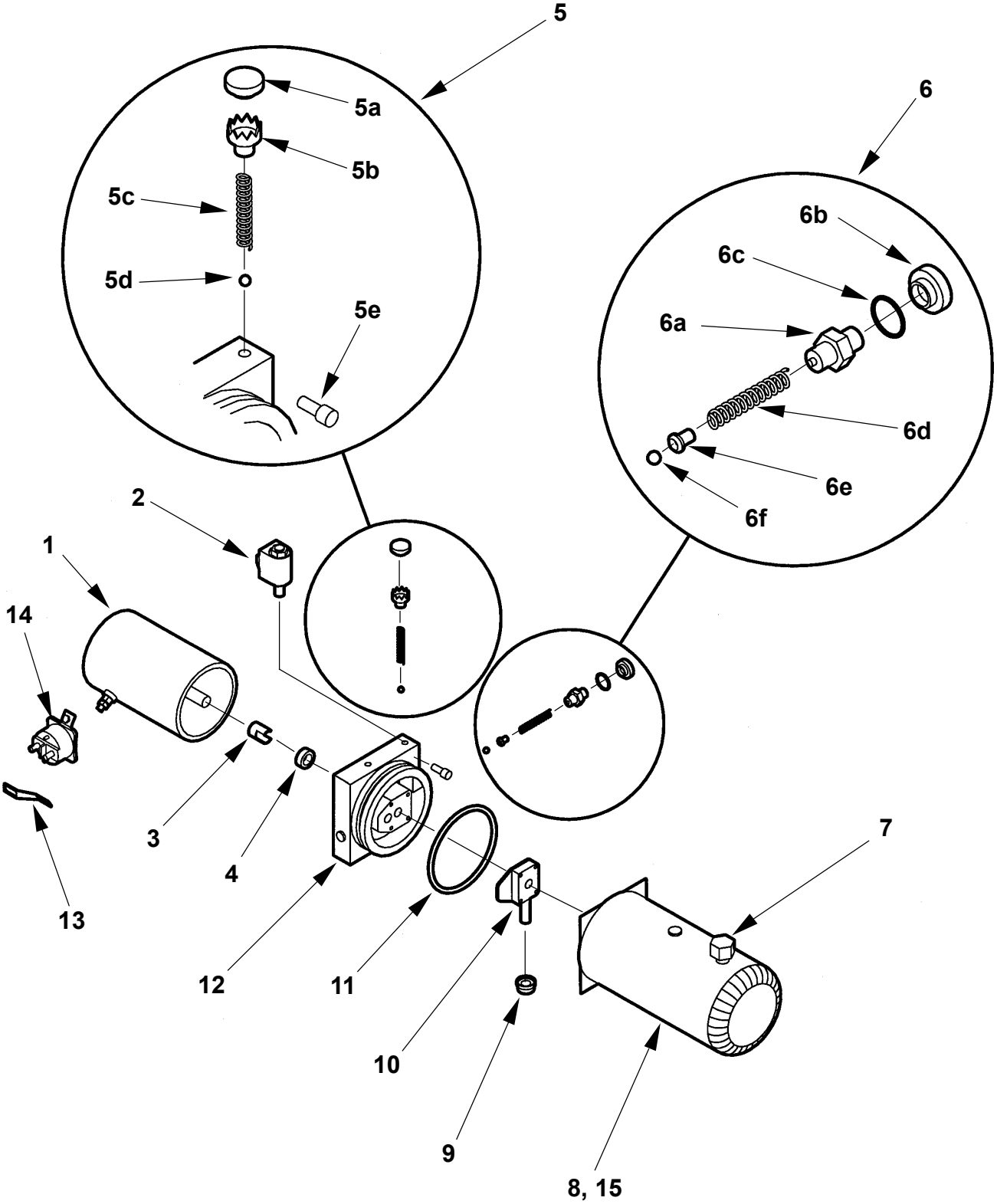
PUMP ASSEMBLY, GRAVITY DOWN



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HYDRAULIC ASSEMBLY

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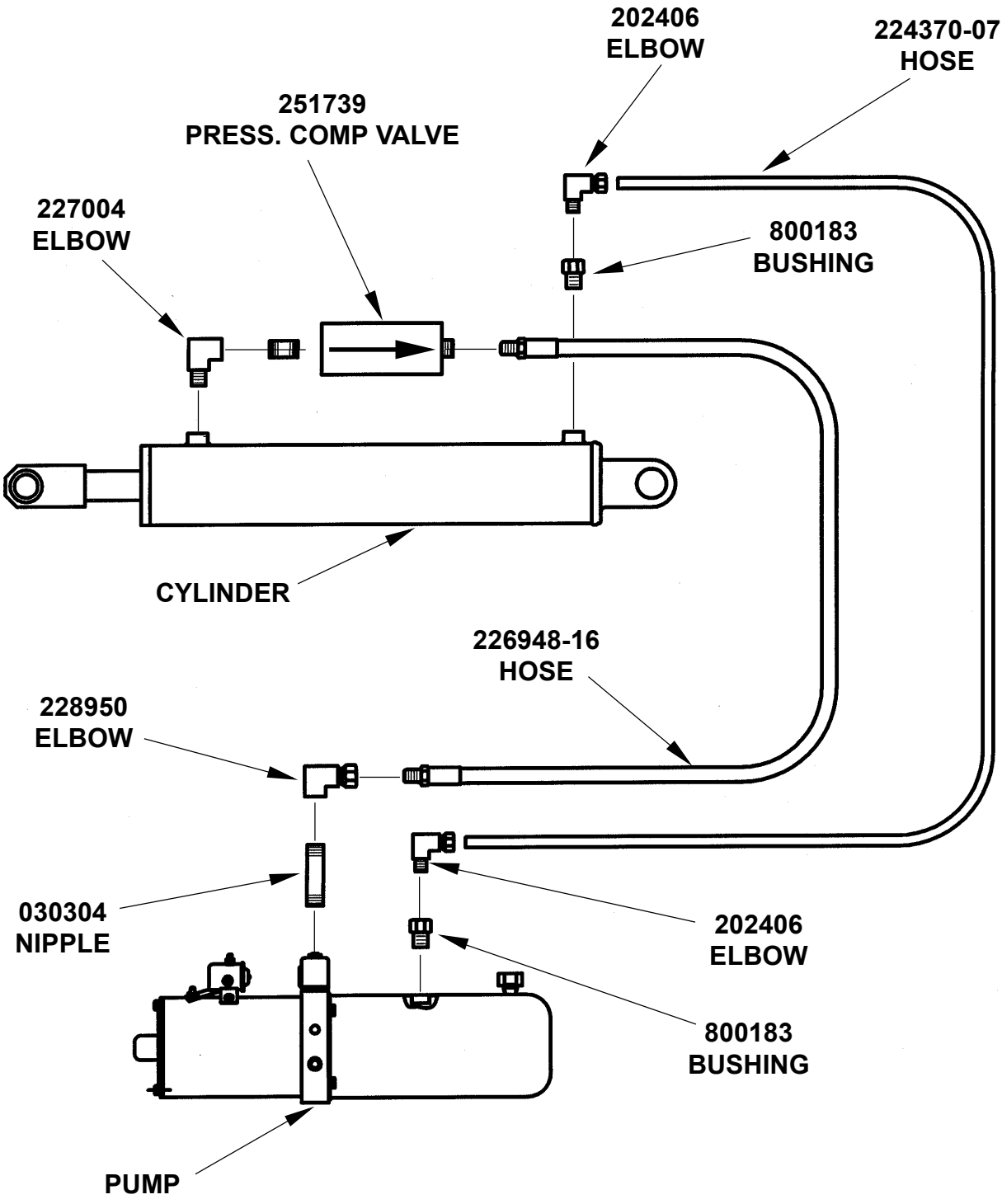
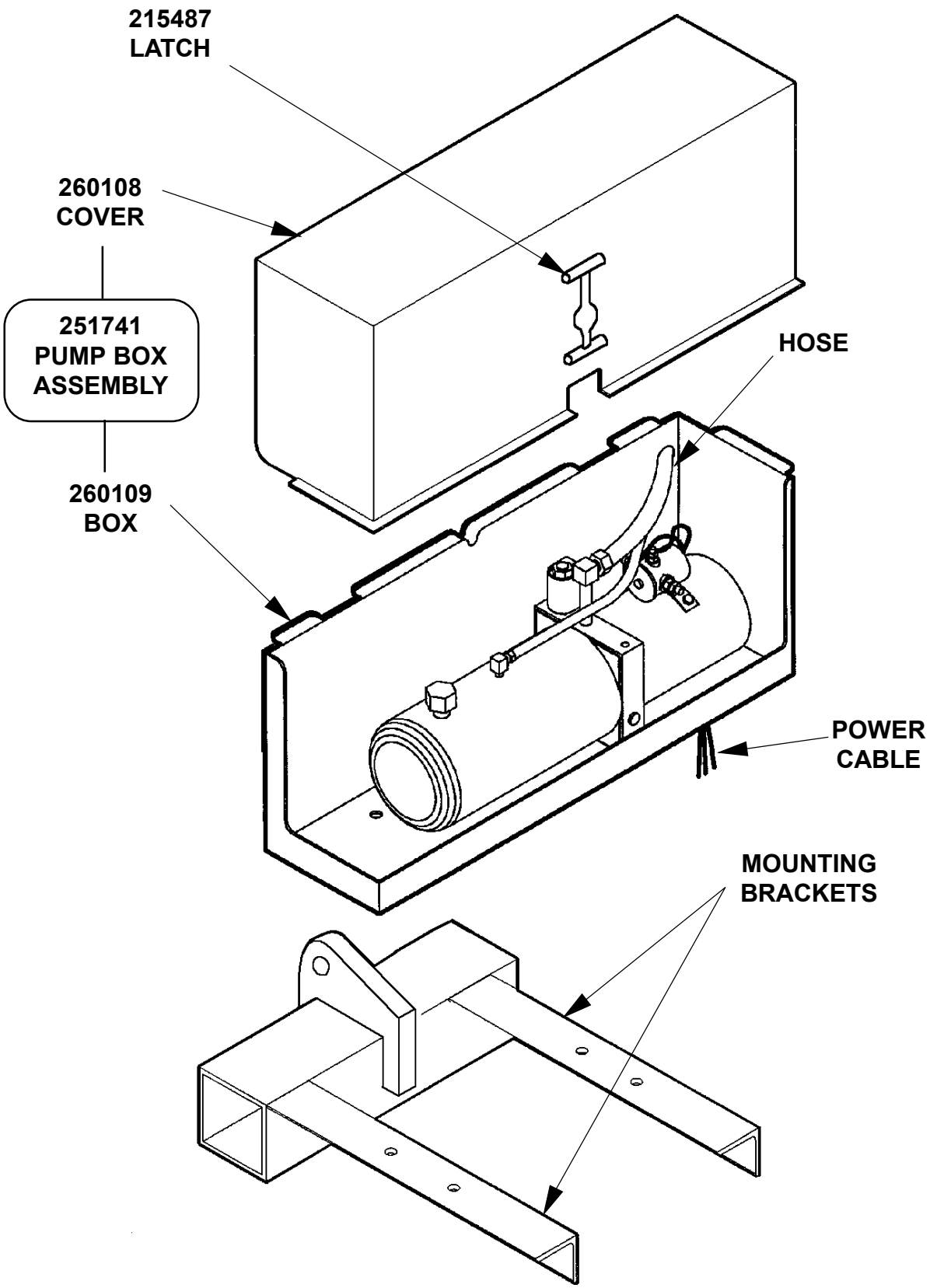


PUMP ENCLOSURE



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CONTROL SWITCH

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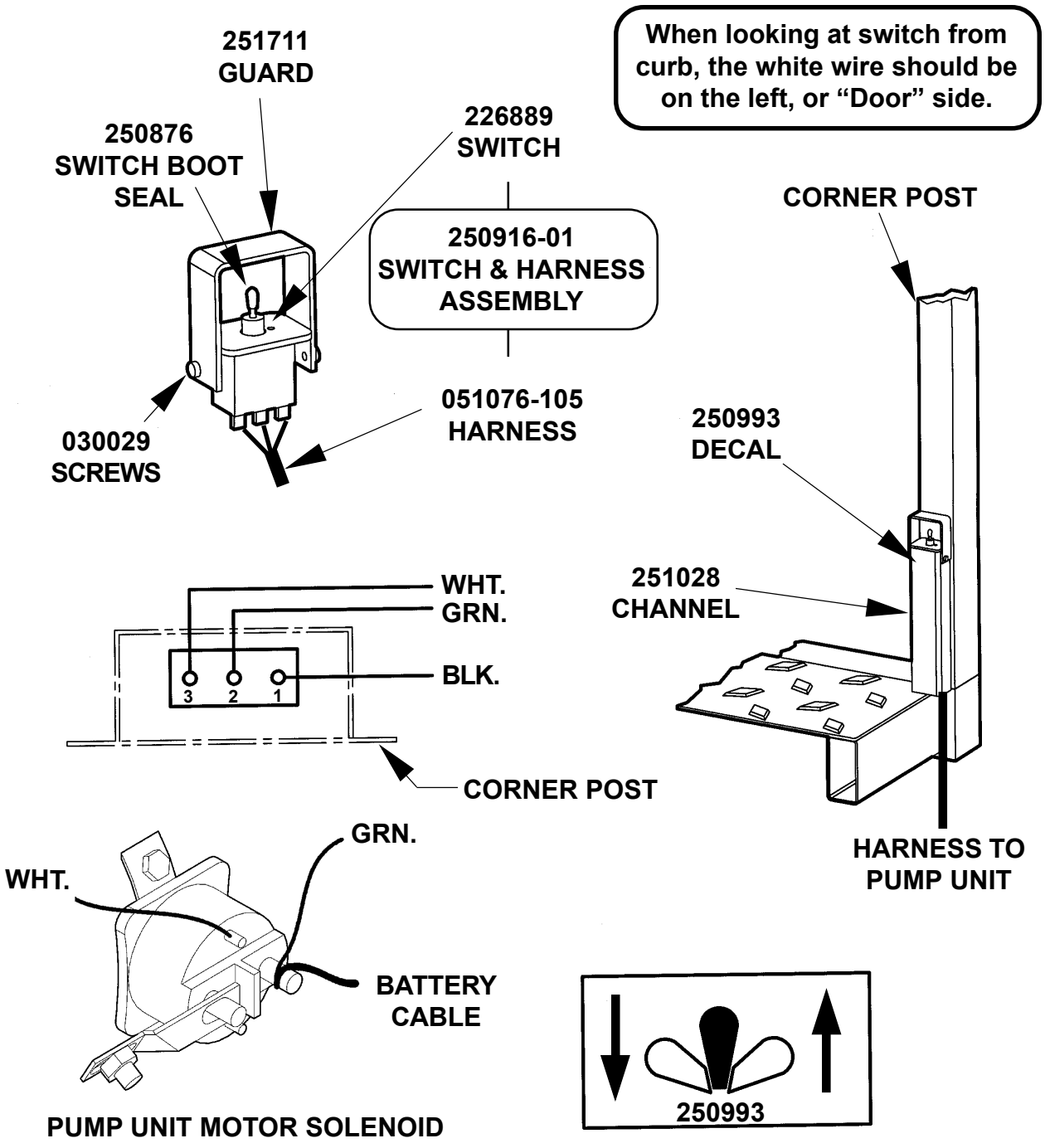
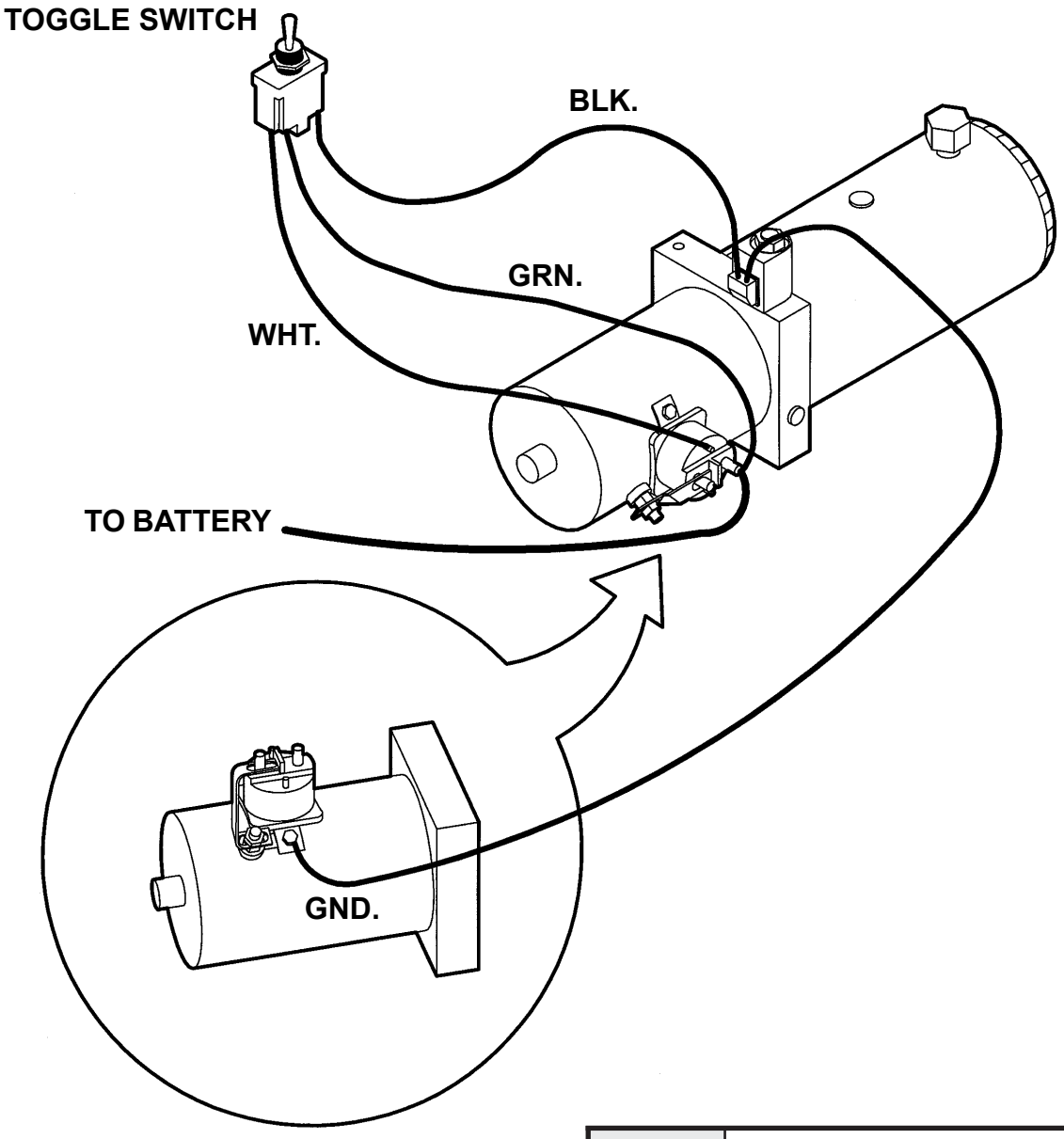
Assemble Switch in Mount Bracket as shown. When mounting the bracket to the Channel, note the location of the *white & black wires* to ensure proper wiring to match the **"UP & DOWN"** Decal.



WIRE CONNECTIONS, GRAVITY DOWN



	POWER TO
UP	GREEN & WHITE
DOWN	GREEN & BLACK

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TROUBLESHOOTING

PLATFORM WILL NOT RAISE

1. Verify that power is being supplied to the Solenoid Terminal “A”. Recharge the battery if less than 12 volts.

2. Fill the Reservoir: (Gravity Down Units) to within 1” from the top (Power Down Units) with the Platform in the Open/Raised position, fill to the center with the recommended Hydraulic Fluid.

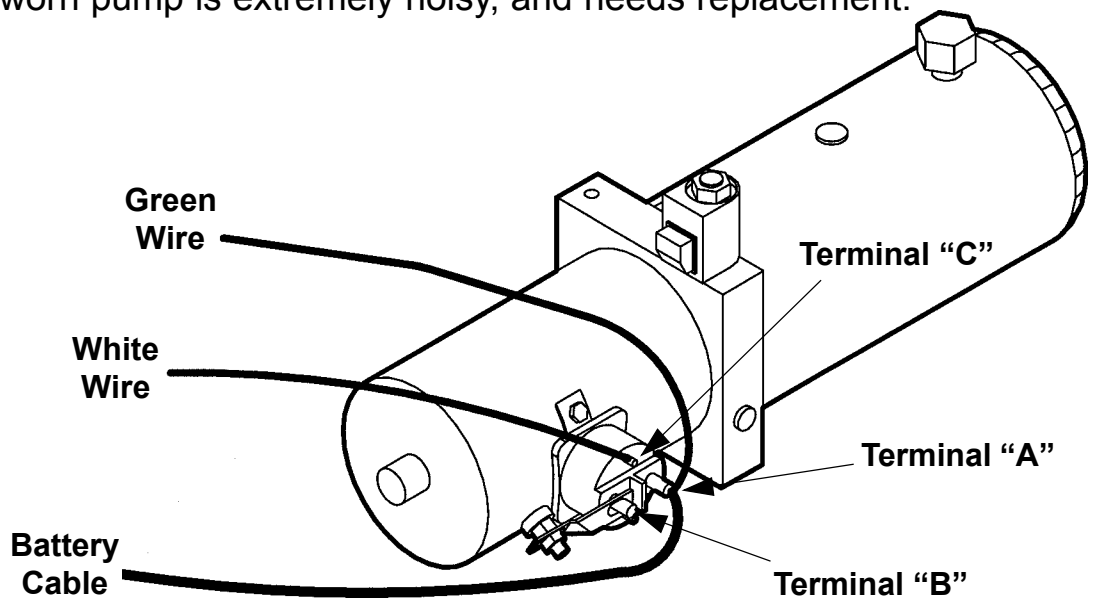
3. Touch a jumper wire to terminals “A” & “C”. If motor runs, check Switch, Switch connections, and White wire. Correct the connections or replace the Switch.

4. Touch heavy jumper cables to terminals “A” & “B”.
a. If motor runs, replace the motor solenoid.
b. If motor does <u>not</u> run, repair or replace the pump motor.

5. Check for structural damage. Replace worn parts.

6. Check filter in the pump Reservoir. Replace if necessary.

7. Check for a broken motor-to-pump coupler. Replace if necessary. A worn pump is extremely noisy, and needs replacement.



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PLATFORM RAISES BUT LEAKS DOWN

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1. Check Solenoid Valves for electrical shorts by holding a screwdriver approximately 1/4" from the top nut of the Solenoid. **(See Fig. 1)**. The solenoid should not draw the screwdriver to the nut with a magnetic force, unless the toggle switch is actuated. The Coil can be replaced by removing the Nut and Wires.

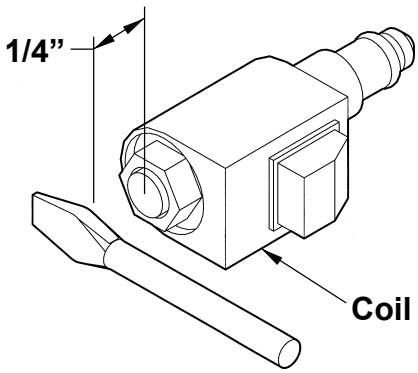

FIGURE 1

2. Check the Valve Stem by removing the Coil Assembly, **(Item 1, Fig. 2)**. Unscrew the Valve Stem, **(Item 2, Fig. 2)**, from the Pump. Push on the plunger that is located inside the Valve Stem by inserting a paper clip in the end. If the Plunger does not move freely approximately 1/8", replace the Valve Stem.

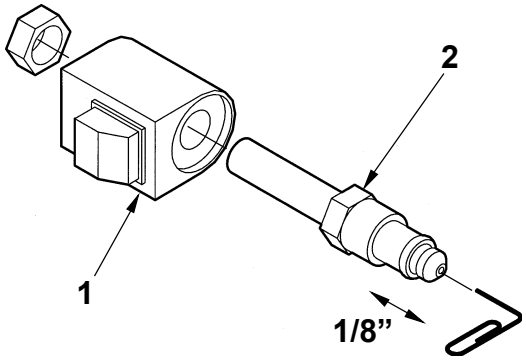

FIGURE 2

3. Check the Hydraulic Cylinder. With the Platform on the ground, remove the Breather Plug or Vent Line from the Vent Port of the Cylinder. Raise the Platform to be level with the bed. If hydraulic fluid streams from the Vent Port, the Piston Seals are worn. Replace the Seals. **(See Fig. 3)**.

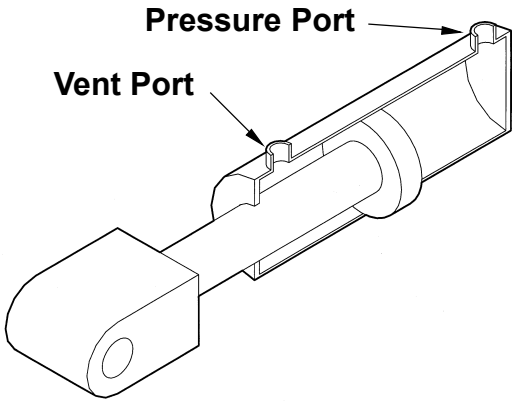

FIGURE 3

PLATFORM RAISES PARTIALLY AND STOPS

1. Lower the opened Platform to the ground. Fill the Reservoir:
(Gravity Down Units) to within 1” from the top
(Power Down Units) with the Platform in the Open/Raised position, fill to the center with the recommended Hydraulic Fluid.

2. Verify that the Battery shows 12 volts or better under load from pump motor. The use of a voltage load tester is recommended.

3. Check for Structural damage, or lack of lubrication. Replace worn parts.

4. Check Filter in the Pump Reservoir. Replace if necessary.

5. Check for a broken motor-to-pump coupler. Replace if necessary. A worn pump is extremely noisy, and needs replacement.

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LIFTGATE WILL NOT LIFT RATED CAPACITY

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1. Verify that the Battery shows 12 volts or better under load from pump motor. The use of a voltage load tester is recommended.

2. Check for Structural damage or lack of lubrication.Replace worn parts.

3. Check the Hydraulic Cylinder. With the Platform on the ground, remove the Breather Plug or Vent Line from the Vent Port of the Cylinder. Raise the Platform. If hydraulic fluid streams from the Vent Port, the Piston Seals are worn. Replace the Seals or Cylinder.

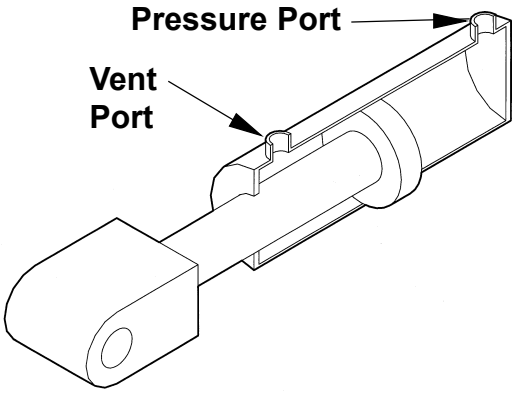

FIGURE 1

4. With Platform on the ground, remove the pressure hose and fitting from the Pump and replace it with a 0-3000 PSI Pressure Gauge. Hold the switch in the "UP" position. Adjust the Relief Valve on the side of the Pump until the gauge shows 2400 PSI . **(See Fig. 2)** To relieve pressure, hold the switch in the "Down" position.

5. If Pump cannot produce 2400 PSI with a minimum of 12 Volts available, the Pump is worn and needs to be replaced.

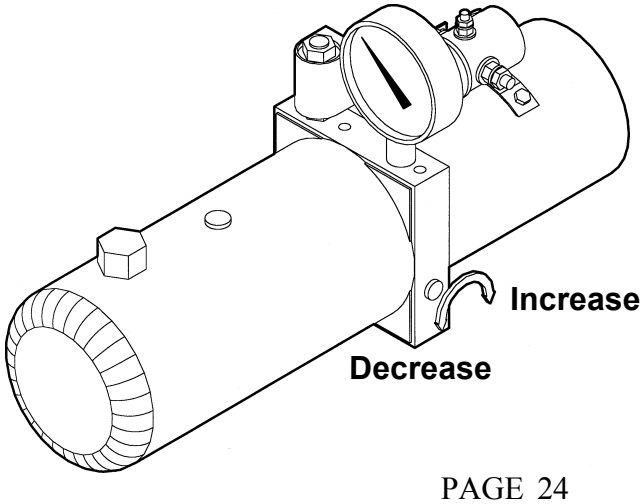

FIGURE 2

PLATFORM RAISES SLOWLY

1. Verify that power is being supplied to Terminal “A”. Recharge the battery if less than 12 Volts registers on the Voltage Tester. **(See Fig. 1)**

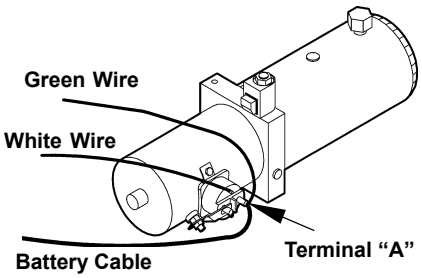

FIGURE 1

2. Lower the opened Platform to the ground. Fill the Reservoir:
(Gravity Down Units) to within 1” from the top
(Power Down Units) with the Platform in the Open/Raised position, fill to the center with the recommended Hydraulic Fluid.

3. Verify the Pump Motor is grounded to the vehicle frame.

4. Check for leaking hoses and fittings. Tighten or replace as required.

5. Check for structural damage or lack of lubrication. Replace worn parts.

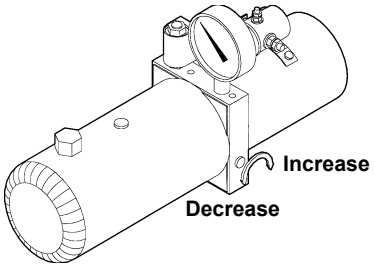

FIGURE 2

6. Check the Filter in the Pump Reservoir. Replace if necessary.

7. With Platform on the ground, remove the pressure hose and fitting from the Pump and replace it with a 0-3000 PSI Pressure Gauge. Hold the switch in the “UP” position. Adjust the Relief Valve on the side of the Pump until the gauge shows 2800 to 3000 PSI . **(See Fig. 2)** To relieve pressure, hold the switch in the “Down” position.

8. With the Platform on the ground, remove breather plug or vent line from vent port of cylinder. Raise the Platform to bed level. If hydraulic fluid streams from the Vent Port, the Piston Seals are worn. **(See Fig. 3)** Replace the Seals.

9. Check the Flow Control Valve located on the cylinder. The arrow on the valve shows the direction of flow that is restricted, and Must point back to the Pump.

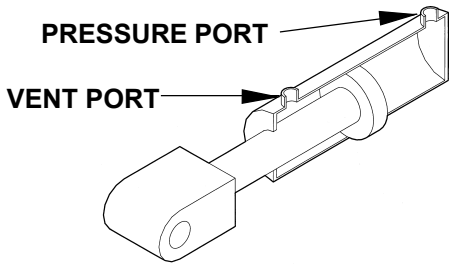

FIGURE 3

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PLATFORM WILL NOT LOWER

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1. Verify that power is being supplied to the Solenoid Terminal “A” **(Ref. Fig. 1)**. Recharge the battery if less than 12 volts.

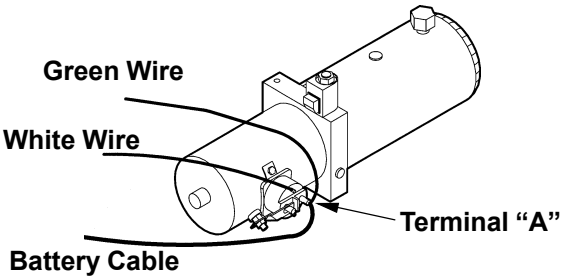

FIGURE 1

2. Check for structural damage or lack of lubrication. Replace worn parts.

3. Check Solenoid Valve for power by holding a screwdriver approximately 1/4” from the top nut of the Solenoid. Energize the unit. **(See Fig. 2)**. A good solenoid will draw the screwdriver to the nut by a magnetic force. The Coil can be replaced by removing the Nut and Wires.

4. Check the Valve Stem by removing the Coil Assembly, **(Item 1, Fig. 3)**. Unscrew the Valve Stem, **(Item 2, Fig. 3)**, from the Pump. Push on the plunger that is located inside the Valve Stem by inserting a paper clip in the end. If the Plunger does not move freely approximately 1/8”, replace the Valve Stem.

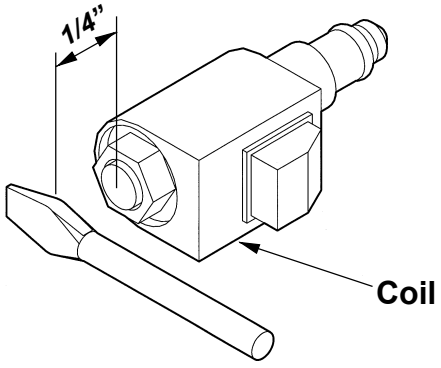

FIGURE 2

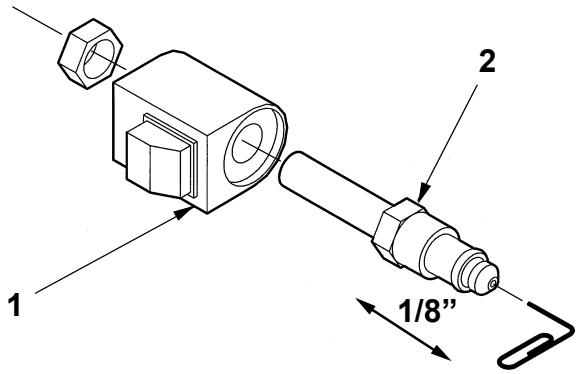

FIGURE 3

GLOSSARY OF TERMS
(TUK-A-WAY SERIES)

STRUCTURAL COMPONENTS:

Main Frame	The Main Frame is the Main Section of the liftgate welded under the Truck Body or Trailer which the Lift Frame, Parallel Arms, Cylinders, Pump Assembly is attached.
Lift Frame	The Lift Frame is consists of the Lift Arms and connected to each other and to the Main Frame and Cylinder(s). The Lift Frame raises or lowers the Platform.
Lift Arm	The Lift Arm is part of the Lift Frame Assembly. The Lift Arms (Right and Left) are connected to Platform one end and the Main Frame on the other.
Parallel Arm	The Parallel Arm is connected to Main Frame on one end and to the Platform on the other. The Parallel Arm is used to keep the Platform in the level or usable position when raising or lowering a Platform.
Shackle	The Shackle is used to connect the Lift Arm and Parallel Arm to the Platform with Pins.
Platform	The Platform is usually made up of two sections. The Main Section and the Flip Over Section. The Platform is the flat loadable surface area. For example: 72” wide by 35” deep.
Main Section	The Main Section is the section attached to the runners and is the first part of the Platform.
Flip Over Section	The Foldover Section is the second part of the Platform. This section is attached to the Main Section with hinges and folds for storing.
Butt End Flip Over	The Butt End Flip Over is the second part of the Platform and is an optional way of ordering some models. Instead of having a built in ramp the Flip Over has a butt end with no ramp.
Wedge Flip Over	The Wedge Flip Over is the second part of the Platform and is an optional way of ordering some models. Instead of having a built in ramp the whole Flip Over is the ramp. The Wedge is cut on the bottom of the Flip Over.
Ramps	Ramps are attached to the Platform to allow access to the Platform from the ground. Several types of Ramps: 4” built in fixed steel Ramp; 5” built in fixed steel Ramp or 10” Aluminum Retention Ramp. Different types of ramps go with different type of models and platform options.
4” or 5” Fixed Ramp	A Fixed Steel Ramp that attaches to the Flip Over Section of the Platform. The 4” or 5” Built In Ramp is used for transition from ground to platform and return.
10” Aluminum Ramp	A 10” Aluminum hinged Ramp with retention capability. The 10” A.R.R. us used for holding back carts and pallets in the retention mode and also for transition from ground to platform and return.
Lift Cylinder	A Lift Cylinder is attached to the Main Frame and Lift Frame Assemblies. The Lift Cylinder is different sizes for different capacities.
Platform Pins	Pins used to connect to the Runner Assembly.

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GLOSSARY OF TERMS
(TUK-A-WAY SERIES)

Torsion Spring	The Platform Torsion Spring is located in the Main Section of the Platform Hinge. The Torsion Spring helps the Platform Open.
Closing Arms	The Closing Arms help the Platform rotate into the storing position.

HYDRAULIC COMPONENTS:

Pump Enclosure	The plastic or steel box used to house the Pump Assembly and related items such as Batteries, Circuit Breakers, Master Disconnect and Emergency Hand Pumps.
Pump Assembly	The Motor, Motor Solenoid, Pump, Reservoir, Manifold Block and Solenoid Cartridges used for this model of liftgate.
Auxiliary Hand Pump	Auxiliary (also known as Emergency Hand Pump) is a manual pump to raise or lower platform manually if the hydraulic system is still intact.
Motor	The Motor is a 12-volt, XOT Prestolite Motor. The Motor is attached to the Drive Plate of the Pump Assembly.
Motor Solenoid	The Motor Solenoid is the 12-volt starting switch for the Pump Assembly. The Motor Solenoid is attached to the Motor.
Drive Plate	The Drive Plate is rectangular steel block which the Motor and Pump and Reservoir attaches. The Drive Plate is also the attaching point for the Pump Enclosure.
Pump	The Pump is a hydraulic gear driven pump located inside the Reservoir and attached to the Drive Plate.
Pick Up Filter	Inside the Reservoir and attached to the Pump is a Pick Up Filter to filter the larger contaminants prior to entering the Pump.
Manifold Block	The Manifold Block is an aluminum block with ports drilled to allow Solenoid Valves to be used to direct or restrict flow of hydraulic oil. Used only on the Power Down models.
Solenoid Valve	A Solenoid Valve is consists of a Cartridge Valve (2 Position/Normally Closed Solenoid Valve or a 4-Way/2 Position Spool Valve) and a 12 volt Solenoid Coil.
Cartridge Valve	A Cartridge Valve is either a 2 Position/Normally Closed Solenoid Valve which acts as a check or holding valve or a 4-Way/2 Position Spool Valve which is used to change flow direct or flow from one port to another.
Solenoid Coil	A Solenoid Coil is a 12 volt magnetic coil that activates the armature inside Cartridge Valves.
Port	A hole in or outlet where you connect either a Cartridge Valve or Hose. This can be on the Manifold Block, Drive Plate or cylinder.
“A” Valve	The “A” Valve is a 2 Position/Normally Closed Solenoid Valve. It is located on the Drive Plate on Gravity Down Models and located on a Manifold Block on Power Down Models.

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GLOSSARY OF TERMS
(TUK-A-WAY SERIES)

"B" Valve	The "B" Valve is a 2 Position/Normally Closed Solenoid Valve. It is located on the Manifold Block and controls the RAISE/LOWER function of the Platform. The "B" Valve is only used on Power Down Models.
"E" Valve	The "E" Valve is a 4-Way/2 Position Spool Valve located in the Manifold Block. This valve allows the flow of hydraulic fluid to change from RAISE/LOWER to CLOSE.
Pump Relief Valve	The Pump Relief Valve is located on the side of the Drive Plate of the Motor/Pump Assembly. The Pump Relief Valve controls the pressure of the pump.
Flow Control Valve	The Flow Control Valve is a one-direction control needle valve. The arrow on the valve body shows the direction the flow is controlled.
Needle Valve	The Needle Valve is two-direction control needle valve. Used on all RC models to control flow while using an Emergency Hand Pump.

ELECTRICAL COMPONENTS:

Circuit Breaker	Electrical circuit protection device. The most common is 150 Amp manual reset Circuit Breaker. Should not be used between Motor Solenoid and Batteries. Should be used on the charging circuit only.
Master Disconnect	Electrical circuit protection device. Manual connection between batteries and Motor Solenoid of the Motor/Pump Assembly.
Cab Cutoff Switch	The Cab Cutoff Switch is a Wiring Harness Assembly consisting of a Switch in the Cab and a Solenoid usually mounted on the Frame of the Truck. The Assembly is used to cut off the 12 volts to the Pump/Motor Assembly to prevent unauthorized operation.
Switch Assembly	The Switch Assembly is a Wiring Harness and Switch that operates the RAISE/LOWER functions of the Pump Assembly.
Charge Line	The Charge Line is usually found on Trailers. The Charge line runs between the Batteries, through a 150 Circuit Breaker, and the Trailer Single Pole Plug at the nose of the Trailer. When connected to the Tractor batteries, via another Single Pole Plug connected to the Tractor Batteries, the Trailer batteries are charged.
Power Line	The Power Line is usually for Truck Bodies and is not used in conjunction with batteries. The Power Line is the electrical source for the Motor/Pump Assembly.
Tractor Line	The Tractor Line is the source for power and charging. The Tractor Line is from the Tractor batteries, through a 150 Circuit Breaker, to a Single Pole Plug that is plugged into the Trailer Single Pole Plug. The Tractor Line has two electrical cables, one for positive and the other for negative.

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LIQUID SEALANT APPLICATION

1. Clean all threads with a soft brush and a suitable cleaning solvent.

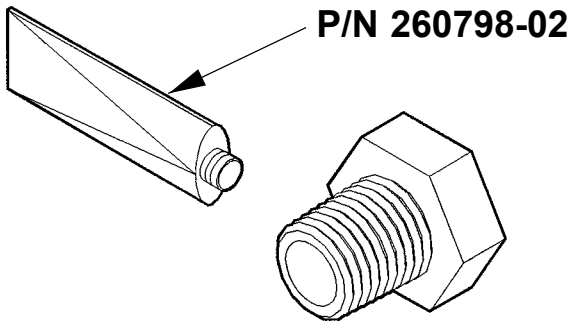
2. Dry threads thoroughly with compressed air or shop towel.

3. Apply the Liquid Sealant (Compound PLS 2), to the external threads of the Male Connector.

4. Assemble the fitting and torque it to the prescribed value.

5. Check for leakage. If leakage exists, remove the fitting and return to Step # 1.

6. If fitting is loosened or removed, return to Step # 1.



CAUTION

Due to the 80% lead content in PLS 2, follow these safety and first aid precautions:

Eye Contact - Flush eyes immediately with large quantities of water, lifting the upper and lower eyelids occasionally. If irritation persists, consult a physician.

Skin Contact - Flush the contaminated skin and wash with soap and water.

Ingestion - If person is conscious, give large quantities of water to drink and induce vomiting. Consult a physician immediately.