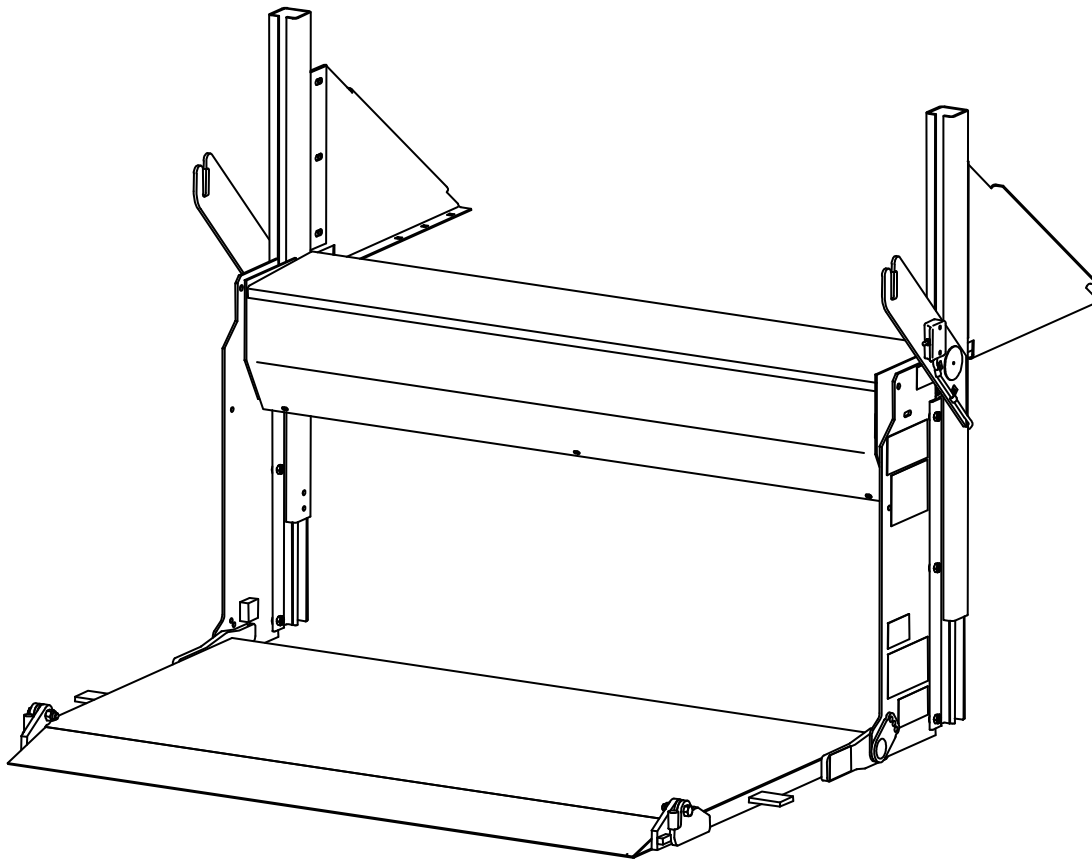


Owner's Manual

PTN

1250 lb. and 1600 lb. Capacity Rail Liftgate



GR02910

Last Change


Date	Page(s)	Description
3-2017	10, 14, 18	P10 – Cab shut-off switch now optional P14 – Revised fluid chart P-18 – Revised schematic

Waltco Lift Corp.
Corporate Office United State
 285 Northeast Ave.
 Tallmadge, OH 44278
 P: 330.633.9191

Waltco Lift Corp.
United States
 620 S Hambledon Ave.
 City of Industry, CA 91744
 P: 626.964.0990

Waltco Lift Inc.
Canada
 90 North Queen St.
 Etobicoke, ON M8Z 2C5
 P: 888.343.4550

Table of Contents

	<p>Improper operation and maintenance of this liftgate could result in severe personal injury or death.</p> <p>Read and understand the contents of this manual and all warning and operation decals before operating and/or performing maintenance on this liftgate.</p>
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INTRODUCTION

If anyone observes improper installation, improper operation, or damage, they should immediately contact a qualified person for assistance and correction. We strongly urge anyone that has any questions or doubts as to the installation, condition, use, operation, maintenance or repair of the liftgate to contact us at Waltco where we have qualified personnel that will be happy to assist you. Telephone numbers and addresses of these locations are listed in the Owner's Manual and Installation Instructions.

INSTALLATION

Waltco liftgates should only be installed by those with sufficient basic skills to understand the installation and operation of the liftgate, along with the equipment on which the liftgate is being installed. Waltco's installation instructions are not intended to give rationale for all the instructions that are given; however, it is the intent of these instructions to give the installer both the operations and what we believe to be the most desirable sequence of implementing these operations. These instructions can in no way expand into an area where they will replace a qualified person, or clear thinking and a basic knowledge that must be possessed by the installer.

It has been our experience that a knowledgeable journeyman following these instructions and observing the operation of the liftgate will have a sufficient comprehension of the liftgate to enable this person to troubleshoot and correct all normal problems that may be encountered.

Failure to follow the installation instructions, adjustments and mounting dimensions may result in improper and unsafe operation of the liftgate. Unauthorized alterations of the liftgate can cause an undesirable and dangerous condition.

OWNER'S MANUAL

The Waltco Owner's Manual is intended to act as a guide for operation and routine maintenance but is no way intended to encourage usage or repair of the liftgate by those who are not qualified to do so.

The contents of the owner's manual include, but are not limited to general operation instructions, routine lubrication, parts lists, and an outline of things that should be checked but may not be obvious to those not technically qualified. This manual assumes the liftgate is properly installed, undamaged and operates correctly. Improper installation, improper operation, or damage should be immediately corrected by a qualified person.

INSPECTION

As part of the regular inspection of a liftgate and after damage or suspicion of an overload, inspect for wear or structural damage and make necessary repairs or replacements. Check all structural components and their attachment to the liftgate for cracked welds, loose fasteners, wear and part deformation. Check cylinder and hose for leaks. Inspections and repairs should be made by a qualified mechanic.

REPLACEMENT PARTS

Use only Waltco original equipment replacement parts. Components of other liftgate manufacturers may outwardly appear to be the same but are not interchangeable with Waltco products. Waltco components are specifically designed for safety requirements, reliability and compatibility with our products. Refer to your Waltco parts manual when ordering parts. NOTE: When ordering, give model and serial number of liftgate.

DECALS

It is important that every vehicle that has a WALTCO Liftgate have legible DECALS clearly posted on the vehicle and an OWNER'S MANUAL in the vehicle at all times as a guide for proper operation and maintenance.

Additional DECALS and OWNER'S MANUALS can be obtained from WALTCO LIFT CORP.

Chapter 1 Safety Information

WARNING

Read, understand, and follow all of the warning listed below.

Failure to follow these warning could result in severe personal injury or death.

- Read and understand the Owner's Manual, all decals and warning on liftgate before operating liftgate.
- Do not operate liftgate without a thorough knowledge and understanding of the operation of the liftgate.
- Liftgate hazards can result in crushing or falling.
- This liftgate is designed for loading and unloading of cargo. If personnel are required to ride liftgate, observe and familiarize yourself with the liftgate operation, decals and manuals. Ensure stable footing at all times.
- Do not ride liftgate with unstable loads.
- Wheeled loads must be properly retained from rolling.
- Tall, high center of gravity loads must be retained from falling over.
- Never overload liftgate:
Load platform as close to the vehicle, and towards the middle of the platform as possible. Refer to owner's manual and capacity decal of liftgate for maximum load and load placement.
- Keep hands and feet clear of all potential pinch points.
- Never use liftgate if it makes any unusual noise, has unusual vibration, raises or lowers unevenly, or fails to operate smoothly.
- Never use liftgate if it shows any signs of structural damage such as cracked welds, bent or distorted members.
- Do not attempt any repairs unless you are qualified to do so. Care should be taken when work is performed on a disabled liftgate located near moving traffic. When possible the vehicle should be moved away from traffic areas for repair. Precautionary measures should be taken to ensure personal safety including those recommended in Federal Motor Vehicle Safety Standards 571.125.
- When welding to liftgate, or liftgate components, take all necessary safety precautions, including using respiratory protection and other pertinent personal protective gear when welding harmful materials.
- All protective covers, guards, and safety devices must be in place and access doors closed before operating liftgate.
- Do not allow anyone to stand in, or near area, in which Platform will open and close before opening or closing Platform.
- Do not allow anyone to stand near the Platform where a falling load could land on them.
- Platform is always to be properly stored and secured for transit. See the Owner's Manual for details.
- Take care to retain cargo during transit for liftgate Platforms which function as the tailgate or door of the cargo area. Small objects can fall through the space between the vehicle and the folded Platform.
- A Lock-Out device or Shut-Off Switch should always be used to prevent unauthorized use of liftgate.
- For liftgates with Runners, never use liftgate if Runners do not travel freely and smoothly.
- For liftgates with Roller Lifting Chain, the Chain should be replaced every (5) five years or 15,000 cycles, whichever comes first. Replace only with Waltco approved Roller Chain.
- Never transfer loads which exceed lifting capacity on or over any part of the Platform unless the liftgate is equipped with a special reinforced Platform and Platform Support Bars for use when the Platform is used as loading ramp (dock board). Refer to the "Using Platform as a loading ramp" Chapter in the Operation Instructions of the BZ/RZ series Owner's Manual.
- For liftgates equipped with Trailer Hitches, never exceed the rated capacity of the hitch. Do not exceed the vehicle's weight rating. Refer to the vehicle's Owner's Manual.
- Vehicle must comply with all state and federal standards.
- Follow the "Maintenance Guide" chapter in the Owner's Manual.

Chapter 1 Safety Information

Liftgates with Tilt Function

- Proper use of the Control Switches is of extreme importance.
- Improper use of Tilt Switch could cause load to fall from the Platform or damage the liftgate.
- Platform should be in a generally horizontal position when raising or lowering with a load.
- In any tilt position, the Platform may vary from level while raising or lowering the Platform.

Liftgates equipped with spring operated Cam Closer

- Replace Cam Release Spring every five (5) years or 15,000 cycles, whichever comes first.

RGL-Series Liftgates

- Make certain Platform Brake mechanisms are operating properly.
- The Runners are always to remain powered up against the Upstops Pins when in transit.
- Inspect Cables every three (3) months or 750 cycles, whichever comes first. Cables must be replaced if they show signs of wear, distortion, kinking or if any broken wires are visible
- Replace cables every five (5) years or 10,000 cycles, whichever comes first.



This is the safety alert symbol. This manual uses this symbol to alert you to potential personal injury hazards.

Obey all safety messages that follow this symbol to avoid personal injury or death.

SIGNAL WORDS

WARNING

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

Black letters on an orange background

CAUTION

Indicates a potentially hazardous situation, which if not avoided, may result in minor or moderate injury. May also be used to alert against unsafe practices.

Black letters on a yellow background.

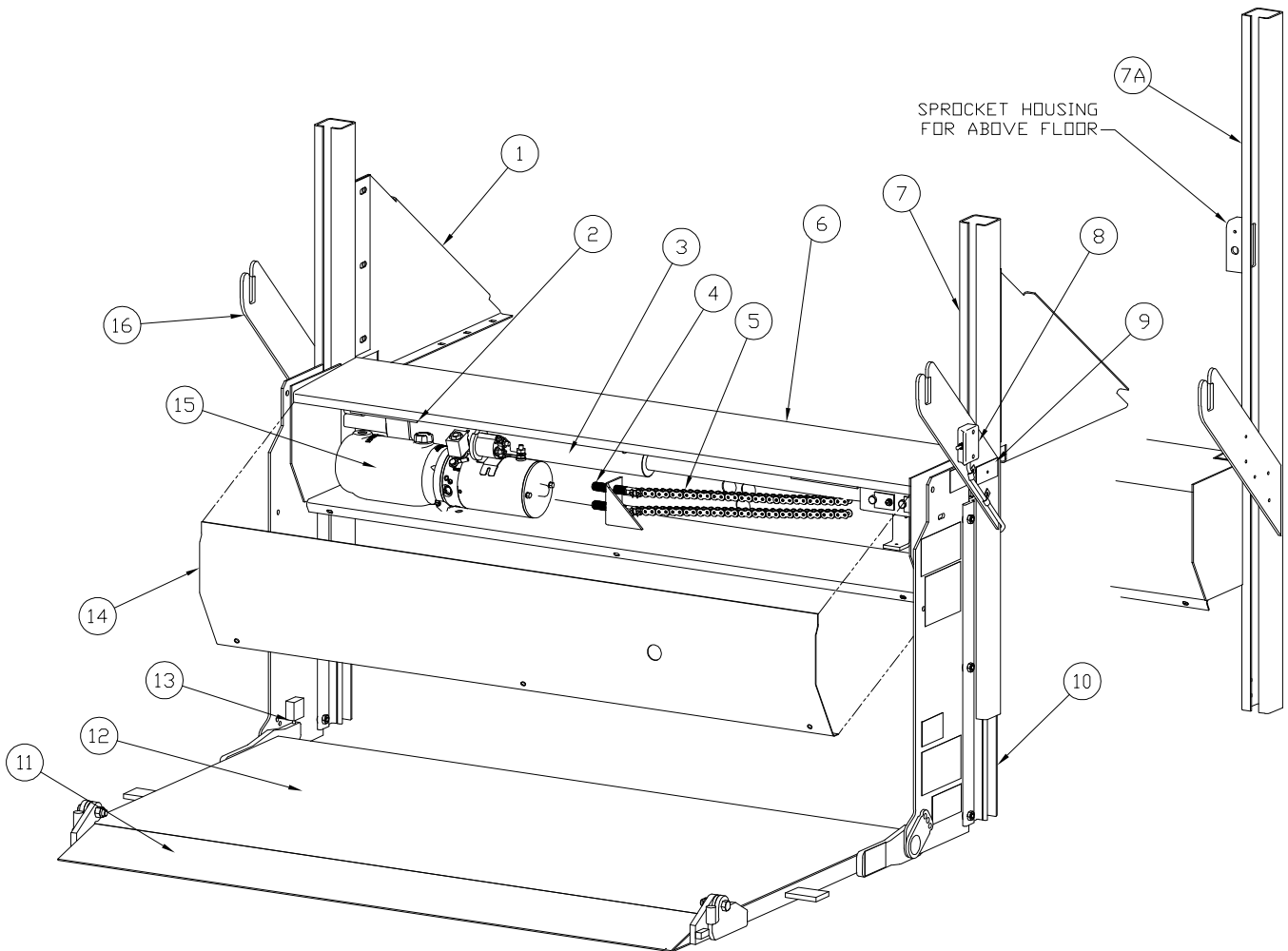
NOTICE

Indicates a potentially hazardous situation, which if not avoided, may result in property damage.



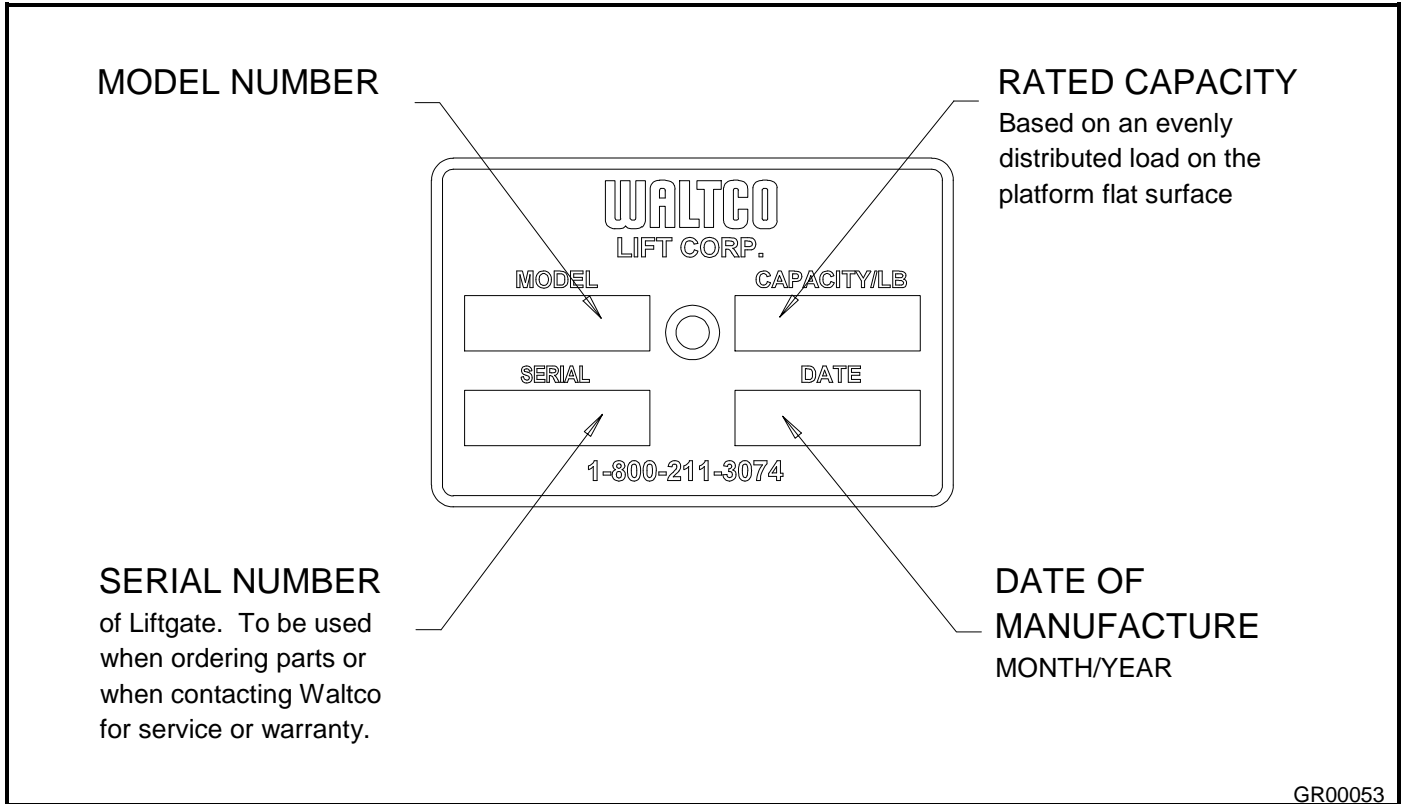
Chapter 2 Liftgate Terminology

- | | | |
|-----------------------------|-------------------------------|-------------------------|
| 1. Mount Plate | 7. Rail (Track) | 12. Deck Assembly |
| 2. Flow Valve (on cylinder) | 7A. Rail for Above Floor Unit | 13. Platform Adjustment |
| 3. Hydraulic Cylinder | 8. Control Switch | 14. Housing Cover |
| 4. Anchor Bolt | 9. Spec Tag | 15. Pump Unit |
| 5. Lifting Chain | 10. Slider (Runner) | 16. Travel Plate |
| 6. Crossbeam Box (Housing) | 11. Ramp Assembly | |

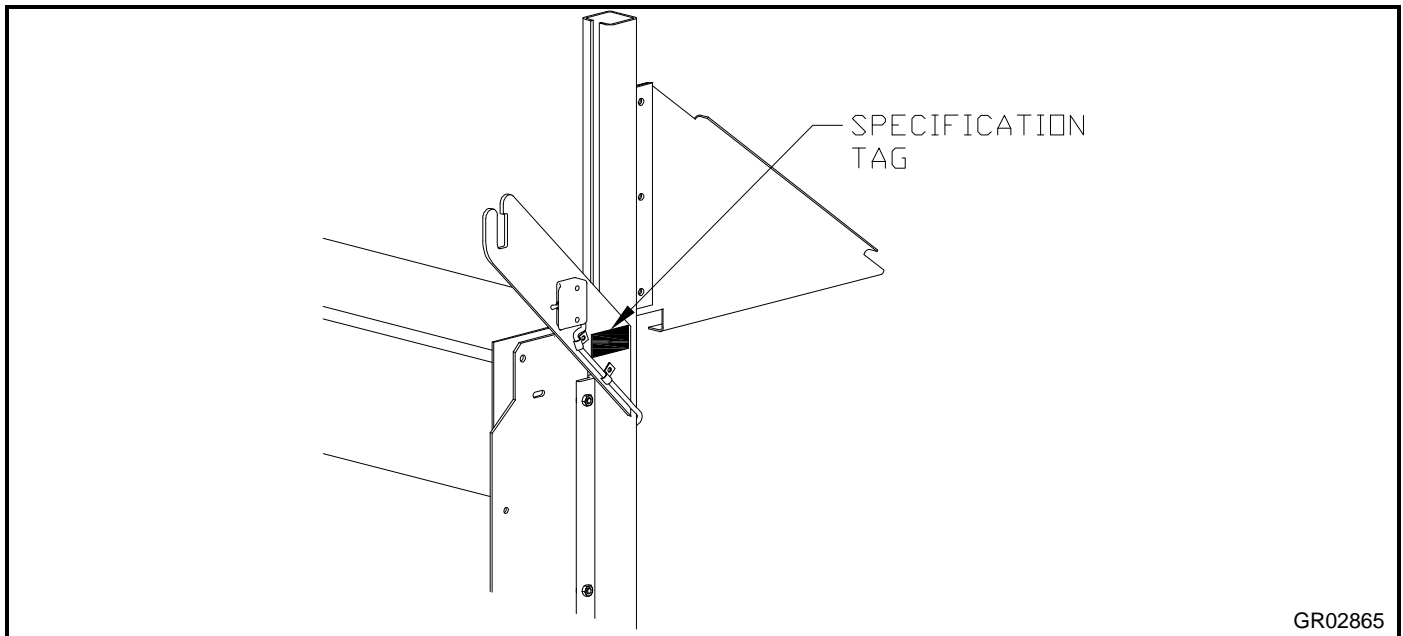


Chapter 2 Liftgate Terminology

EXPLANATION OF SPECIFICATION TAG		
MODEL NAME	DESCRIPTION	CAPACITY
PTN12	Pick-Up Truck Rail Lift	1250 lb.
PTN16	Pick-Up Truck Rail Lift	1600 lb.



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GR02865

Chapter 3 Operation Instructions

TO OPEN PLATFORM

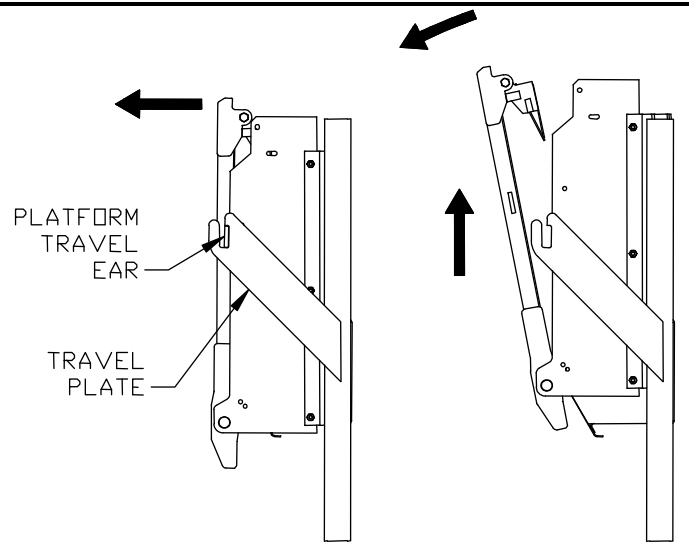
Pull platform away from truck.

Use switch to raise platform up and out of travel plate.

Rotate platform to open position.



Keep hands away from pinch points.



GR02869

TO STORE PLATFORM

Raise platform to comfortable position for lifting into vertical position.

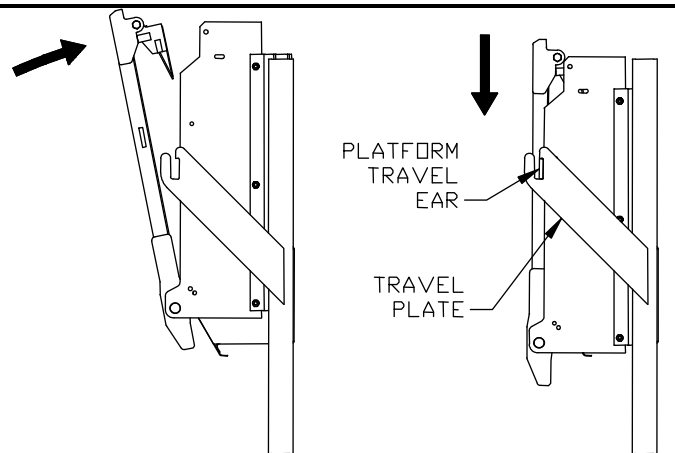


Keep hands away from pinch points.

Use switch to raise platform so travel ears are above travel plates. Lower platform travel ears all the way down into travel ears.



If so equipped, turn power off to liftgate to prevent unauthorized use of liftgate.



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Chapter 3 Operation Instructions

LOADING OF PLATFORM



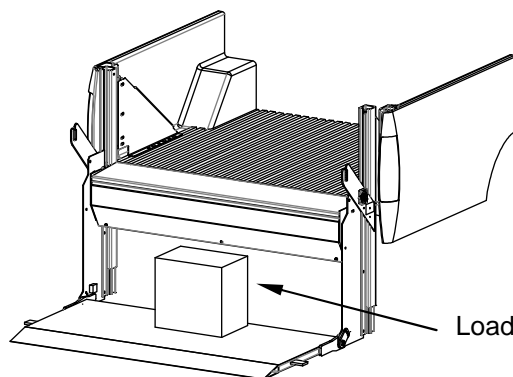
Never remove side linkage to load or unload platform.

Always load as close to center of platform and as close to truck sill as possible.

Never operate lift trucks on or over any part of platform.

This unit is intended for loading and unloading of cargo only. Do not use for anything but its intended use.

Ensure platform and ramp are fully lowered when loading and unloading the platform at ground level.



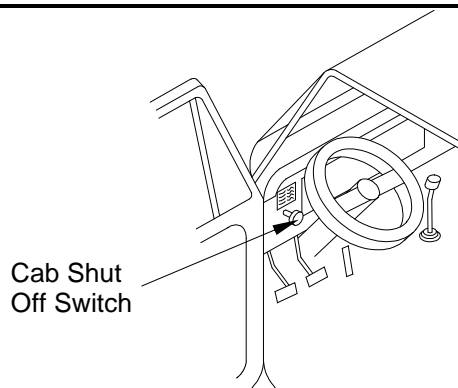
GR10110K

POWER OFF TO LIFTGATE (OPTIONAL SWITCH)

Turn power off to liftgate by turning off the Cab Shut-Off switch inside the cab of vehicle. This may be a toggle or rotary type switch.



Turn power off to liftgate to prevent unauthorized use of liftgate.



GR00379

Chapter 4 Preventive Maintenance

Waltco recommends that the PTN-Series liftgates be inspected at 6 month or 3000 cycle intervals to help assure proper function and operation of the liftgate.

Note: Photocopy the following PM Checklist to help keep track of periodic maintenance on the liftgate. Keep completed form with maintenance records.

For more detailed instructions on the following checklist items, refer to the appropriate sections in this Owner's Manual.



Do not continue to use liftgate if any points of inspection, listed below, may cause you to think the liftgate is unsafe. Repair immediately.

If liftgate is found to be in need of repair or adjustment not covered in this manual, contact your nearest Waltco Distributor.

WALTCO PTN-SERIES LIFTGATE PREVENTIVE MAINTENANCE CHECKLIST

PM Interval: 6 Months or 3000 Cycles Date: _____ Vehicle No. _____

Mechanic: _____ Liftgate S/N: _____ Model: _____

Check appropriate box below for each step:

6 Month Liftgate PM Procedures

1	OK	Repair Required	Corrected	Check for apparent damage to the lifting structure, such as bent or distorted members or cracked welds, which may have resulted from overloading or abuse.
2	OK	Repair Required	Corrected	Check that all pins, bolts and fasteners are tight and secure.
3	OK	Repair Required	Corrected	Check for worn or damaged bearings sprockets, and roller chains.
4	OK	Repair Required	Corrected	Check that controls operate properly.
5	OK	Repair Required	Corrected	Check that cycle counter operates properly, if so equipped.
6	OK	Repair Required	Corrected	Check that cab shut-off switch cuts power to liftgate.
7	OK	Repair Required	Corrected	Check all battery cables and connections (both positive and ground cables) to be sure they are tight and free of corrosion.
8	OK	Repair Required	Corrected	Check that platform is level.
9	OK	Repair Required	Corrected	Check torsion bars and related hardware.
10	OK	Repair Required	Corrected	Check platform support chains.
11	OK	Repair Required	Corrected	Check for hydraulic leaks in hydraulic cylinder(s), hoses, fittings, and valves.
12	OK	Repair Required	Corrected	Check oil level in reservoir.
13	OK	Repair Required	Corrected	Check lowering speed of platform.
14	OK	Repair Required	Corrected	Check that all decals are in place and legible.
15	OK	Repair Required	Corrected	Lubricate the liftgate per the "Lubrication Instructions".

12 Month Liftgate PM Procedures (Includes steps 1-13 above)

16	OK	Repair Required	Corrected	Inspect Pump Motor for wear and/or damage.
17	OK	Repair Required	Corrected	Drain and replace Hydraulic Fluid.

Chapter 4 Preventive Maintenance

MONTHLY INSPECTION

Operate the liftgate throughout its entire operational cycle. Check for:

- Damage to lifting structure such as bent or distorted members or cracked welds.
- Worn or damaged roller chain, sprockets, and bearings.
- Bent or distorted pins or damaged cylinder.
- Torsion bars are in place and properly working.
- All pivot and cylinder pins are securely in place, undamaged and retained by their proper fasteners.
- Damaged or worn bearings that pivot and cylinder pins rest in.
- Controls operate correctly (refer to chapter 3, "**Operations Instructions**")
- Check all power cables, ground cables, and connections.
- Clean and tighten all loose connections. Replace any damaged or corroded wires or connectors.



Do not continue to use liftgate if any points of inspection listed at left, or below, may cause you to think the liftgate is unsafe. Repair immediately.

If liftgate is found to be in need of repair or adjustment not covered in this manual, contact your nearest Waltco Distributor.

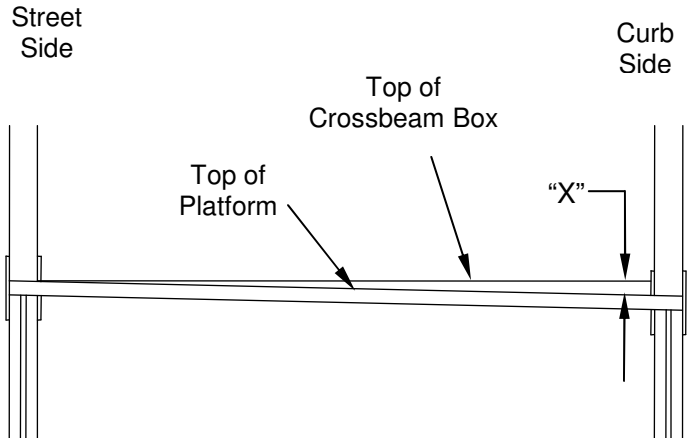
Chapter 4 Preventive Maintenance

PLATFORM ADJUSTMENT

Unfold and raise platform to bed level and check for:

1. If platform travels more than $\frac{1}{4}$ " above the top of the crossbeam box, and liftgate is not an Above Floor model liftgate, see below for adjustment.
2. If platform is uneven see below for adjustment.

Lower platform to ground. Remove access cover from crossbeam box.



If liftgate is Above Floor model:

- Adjust as required to level platform.

If liftgate is not an Above Floor model:

- Adjust platform so it is level with top of crossbeam box.



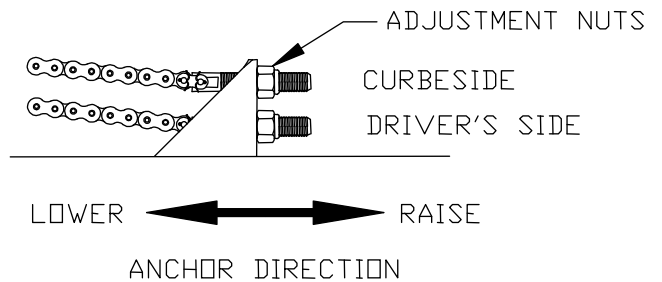
For non-Above Floor liftgates, never adjust platform to travel above the crossbeam box.



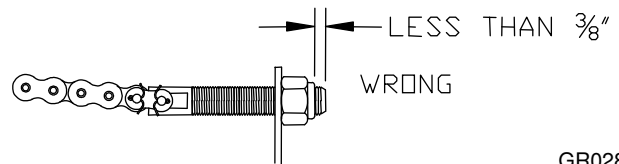
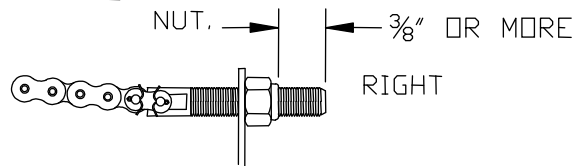
Never adjust nut out less than $\frac{3}{8}$ " from end of anchor bolt.



Never have any part of your body underneath the platform while making adjustments.



$\frac{3}{8}$ " MINIMUM OF
THREADED ROD
MUST EXTEND
PAST END OF
NUT.



GR02871

ABOVE FLOOR TRAVEL

If above floor travel is to be reduced, additional links will need to be added to the lifting chains.

If additional above floor travel is desired, contact Waltco for assistance. Ability to increase travel varies with each specific model of liftgate and bed height of vehicle.

Chapter 4 Preventive Maintenance

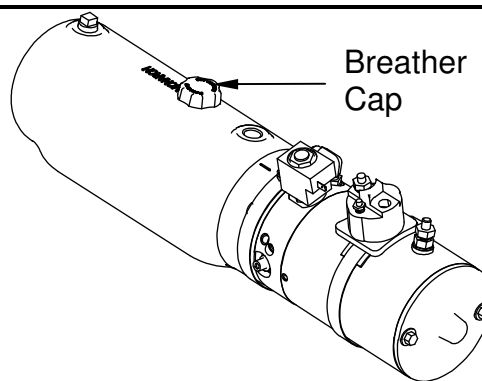
HYDRAULICS

Inspect for oil leaks in:

- Hydraulic cylinder(s)
- Hydraulic hoses - Replace hoses if they show signs of excessive abrasion
- Hydraulic fittings and valves
- Tighten or replace all hydraulic components as may be required to stop oil leakage

CHECK AND FILL HYDRAULIC RESERVOIR

- Lower platform to ground and remove access cover.
- Remove reservoir breather cap.
- Oil level should be 1/2" from top of reservoir.
- If low, fill as required. Use appropriate fluid per chart.
- Replace breather cap.



GR02836

Recommended Fluids

Temperature Range	Acceptable Fluids
0° to 120° F	Waltco Biodegradable Liftlube™ part #85803860
	Shell Tellus S2 VX 32
	Chevron Rando HDZ 32
-20° to 90° F	Waltco Biodegradable LiftLube Arctic part #85803866
	Waltco All Season Hyd Oil Part 85803867
	Shell Tellus S2 VX 15
	Mobil DTE 10 Excell 15 Chevron Rando HDZ 15

A good quality SAE 10W motor oil may also be used in temperatures above 32° F.

Fill reservoir

- Fill with recommended fluid or equivalent.
- Fill the reservoir to within 1/2" from the top.
- Fluids are available from the Waltco parts Dept. 1-800-411-5685 www.waltco.com

NOTE:

Do not use the following fluids:

- Brake Fluid**
- Power steering fluid**
- Automatic Transmission Fluid (ATF)**

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Chapter 4 Preventive Maintenance

There is no speed adjustment on this liftgate.

Lowering speed is controlled by the pressure compensative valve plumbed at the cylinder.

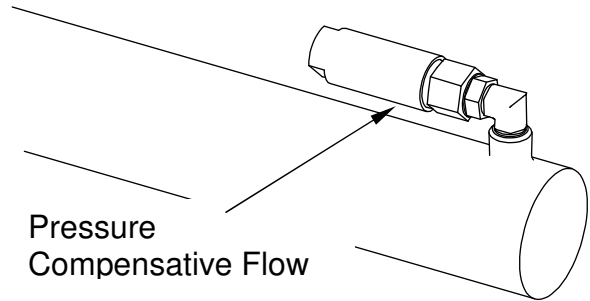
Regardless of weight on platform, liftgate should lower at approximately six (6) inches per second.

$$\frac{\text{Bed Height (inches)}}{6} = \text{Lowering Time (seconds)}$$



This liftgate must have the correct pressure compensative valve installed:

All PTN's use P/N 7010001-15



GR00160

INSPECT DECALS AND LUBRICATE LIFTGATE

Inspect all decals per Chapter 5 of this manual.

Replace any that are missing or damaged.

Lubricate liftgate per Chapter 6 of this manual.

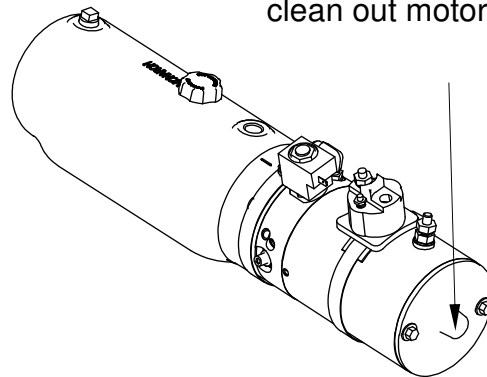
ANNUAL INSPECTION

Inspect power motor:

- Disconnect battery cable.
- Remove end cover.
- Examine armature brushes for wear (Motor should be replaced if less than 1/8" long).
- Clean out all residue from inside of motor housing.
- Apply several drops of light weight machine oil to armature shaft bearing in motor end cover.
- Reassemble motor.


Drain hydraulic fluid and replace with new fluid per recommended fluids chart.

Remove cover to check brushes and clean out motor



GR02836

Chapter 5 Placement of Decals

 All decals must be in place and legible or all warranties are void.

ITEM	DECAL	QTY	PART NO.	LOCATION
1	Important Decal	1	80100828	As shown on curbside slider (runner)
2	Hazard Decal	1	80101370	As shown on curbside slider (runner)
3	Safety Instructions	1	80100850	As shown on curbside slider (runner)
4	Switch Decal	1	80101532	As shown on switch
5	PTN-12, 1250 lbs.	2	80100266	One as shown on curbside slider (runner)
	PTN-16, 1600 lbs.		80100252	One on side of platform (read w/platform open)
6	Operation Decal	1	80101577	As shown on curbside slider (runner)
7	Stand Clear Decal	4	75089296	One on each slider (runner) as shown Two on bottom of platform as shown
8	Protective Cover	2	75089282	One as shown inside crossbeam box (housing) One on cylinder
9	Warning Decal	1	80100829	As shown near circuit breaker
10	Cab Shut-Off Decal (Optional)	1	75089267	As shown near cab shut-off switch

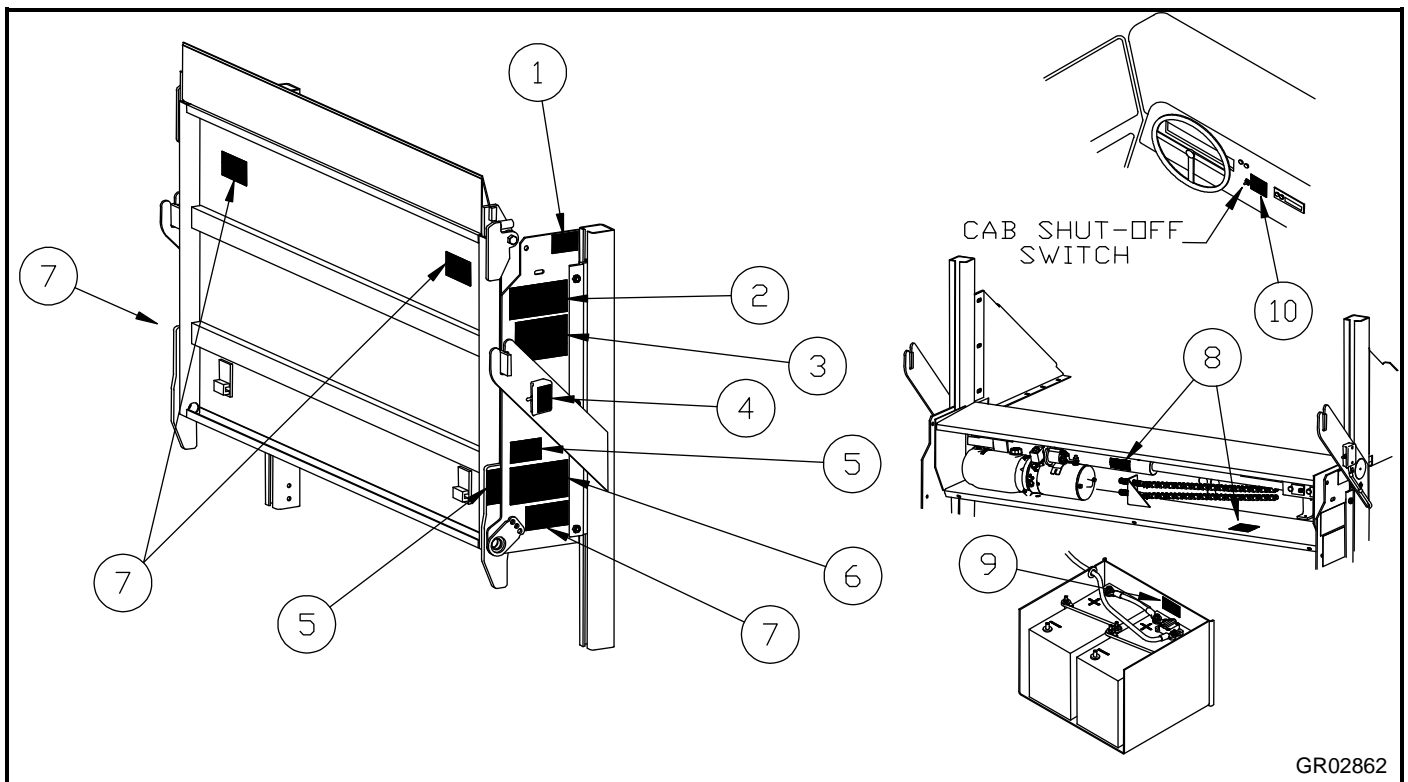
To maximize decal adhesion to surfaces:

- Surface must be dry and clean
- Firm pressure must be applied to decal
- Minimum surface temperature 65°

Heat gun may be used to heat surface



If your liftgate is equipped with dual controls, an additional Safety Instruction decal (80100850) is to be placed in a conspicuous place near the second set of controls.



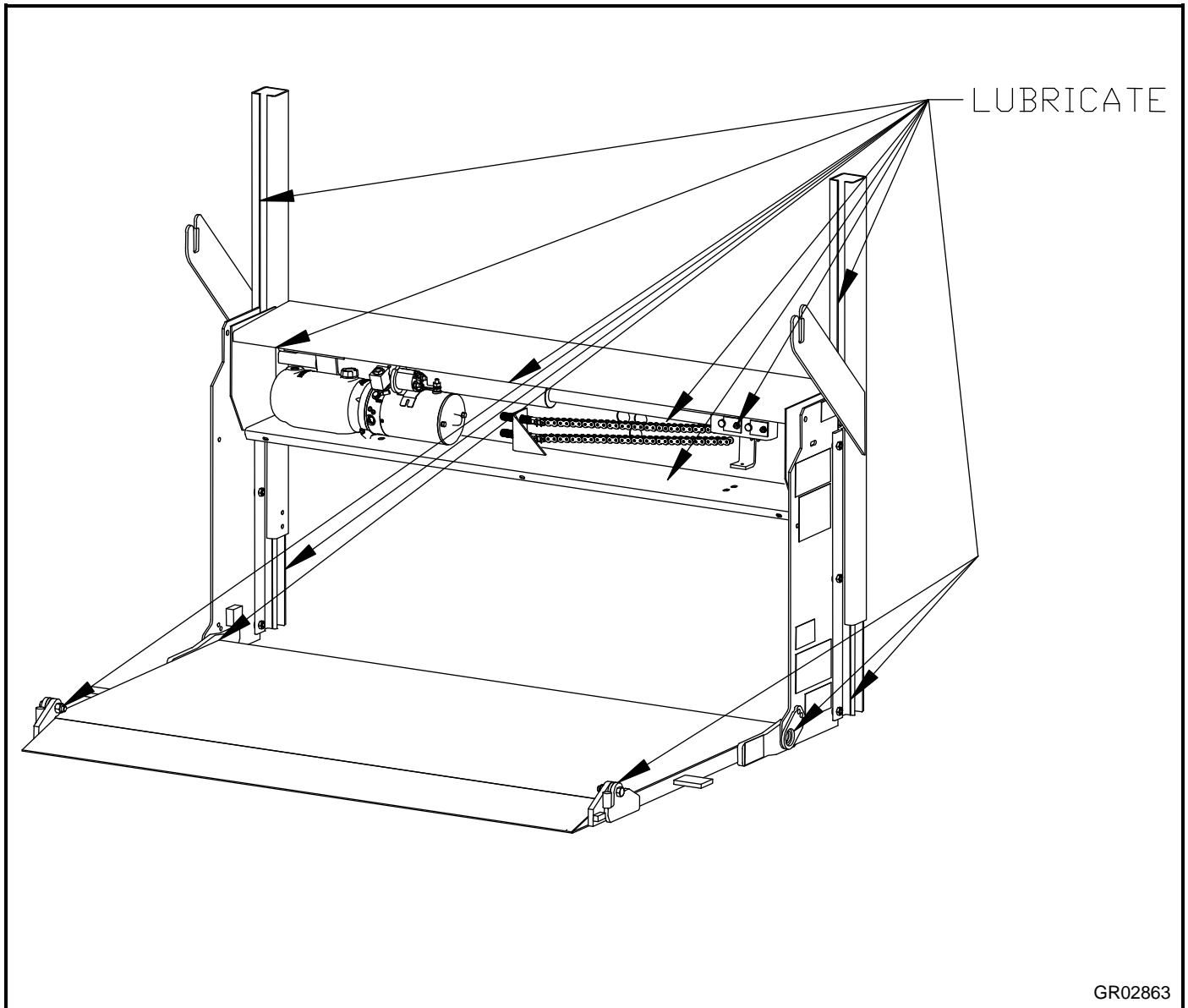
Chapter 6 Lubrication Instructions

- Lubricate lifting chains including sections in crossbeam box, rails, & runner assemblies with machine oil or motor oil.
- Lubricate inside rails, crossbeam box and platform hinges with machine oil or motor oil.
- Lubricate driver and passenger side tracks.

Suggested Minimum Lubrication Schedule (in days)

Monthly Cycles	Light Duty	Medium Duty	Heavy Duty
< 250	45	30	21
250 – 350	30	21	14
350 – 450	21	14	7
> 450	Contact Factory		

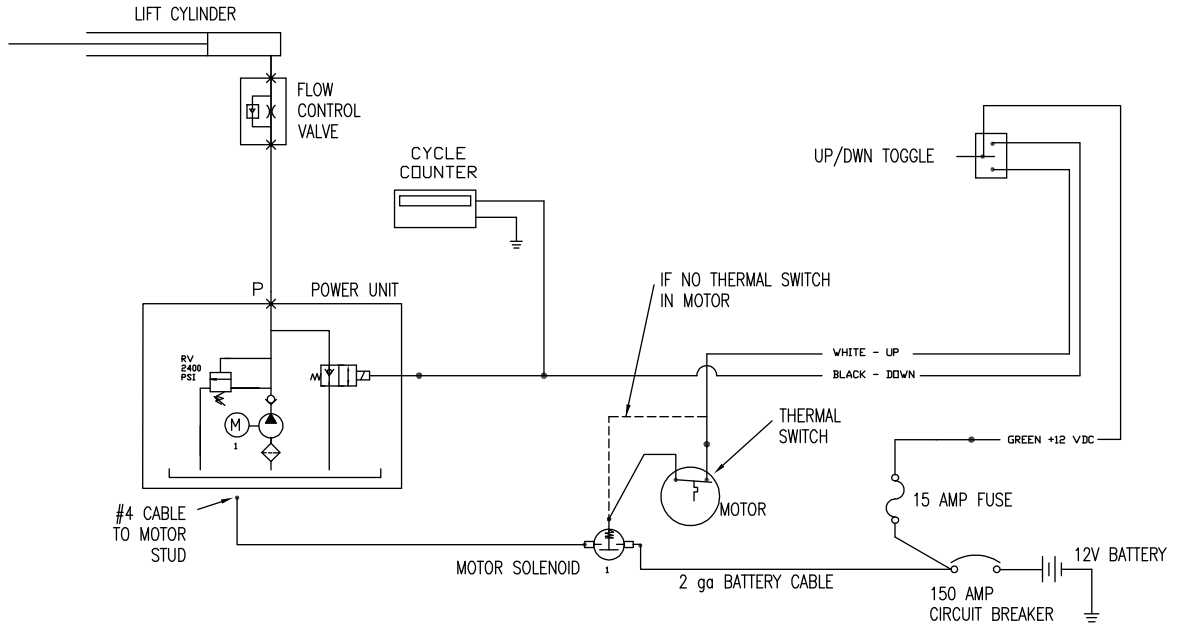
- Lubricate every 30 days if cycles are unknown.



Chapter 7.

SCHEMATICS

ELECTRIC / HYDRAULIC SCHEMATIC
STANDARD



GR02952A

How To Order Parts

Repairs should be made only by authorized mechanics using WALTCO Replacement parts.

When ordering repair or replacement parts, please include all the information asked for below. If this information is not available, a complete written description or sketch of the required part will help WALTCO identify and deliver the needed part to you.

THE FOLLOWING INFORMATION MUST BE INCLUDED:

1. SERIAL NUMBER - [WALTCO liftgate serial numbers can be found on the Specification Tag attached to the mount frame. (On older units the Specification Tag is located on the side or bottom of the platform.)]
2. MODEL NUMBER - [Or capacity]
3. PLATFORM SIZE

THEN INCLUDE THE FOLLOWING INFORMATION:

4. PART NUMBERS
5. DESCRIPTION
6. QUANTITY REQUIRED

MAIL, E-MAIL OR PHONE YOUR REQUEST TO:

Waltco Lift Corp
285 Northeast Avenue
Tallmadge, OH 44278
1-800-411-5685
FAX: 1-800-411-5684
E-MAIL: parts@waltco.com

ALL PARTS ARE F.O.B. FROM THE SHIPPING FACTORY

PLEASE NOTE:

To assure you of continuing and effective quality control, our warranty policy permits replacement of hydraulic cylinders, valves and motor pump units when their factory seals are intact. Parts under warranty will be exchanged promptly after careful inspection of the returned assemblies.



Every vehicle that has a WALTCO Liftgate must have legible **WARNING AND OPERATION DECALS** clearly posted on the vehicle and an **OWNER'S MANUAL** in the vehicle at all times as a guide for proper operation and maintenance.

Additional **WARNING DECALS**, **OPERATION DECALS** and **OWNER'S MANUALS** can be obtained from **WALTCO LIFT CORP.**

NOTE:

**When ordering, give model
and serial number of the liftgate.**



IMPORTANT

KEEP THIS OWNER'S MANUAL IN THE VEHICLE

WARNING

Improper operation and maintenance of this liftgate could result in severe personal injury or death.

Read and understand the contents of this manual and all warning and operation decals before operating and/or performing maintenance on this liftgate.

**For SAFETY information on this liftgate see
Chapter 1 of this manual**