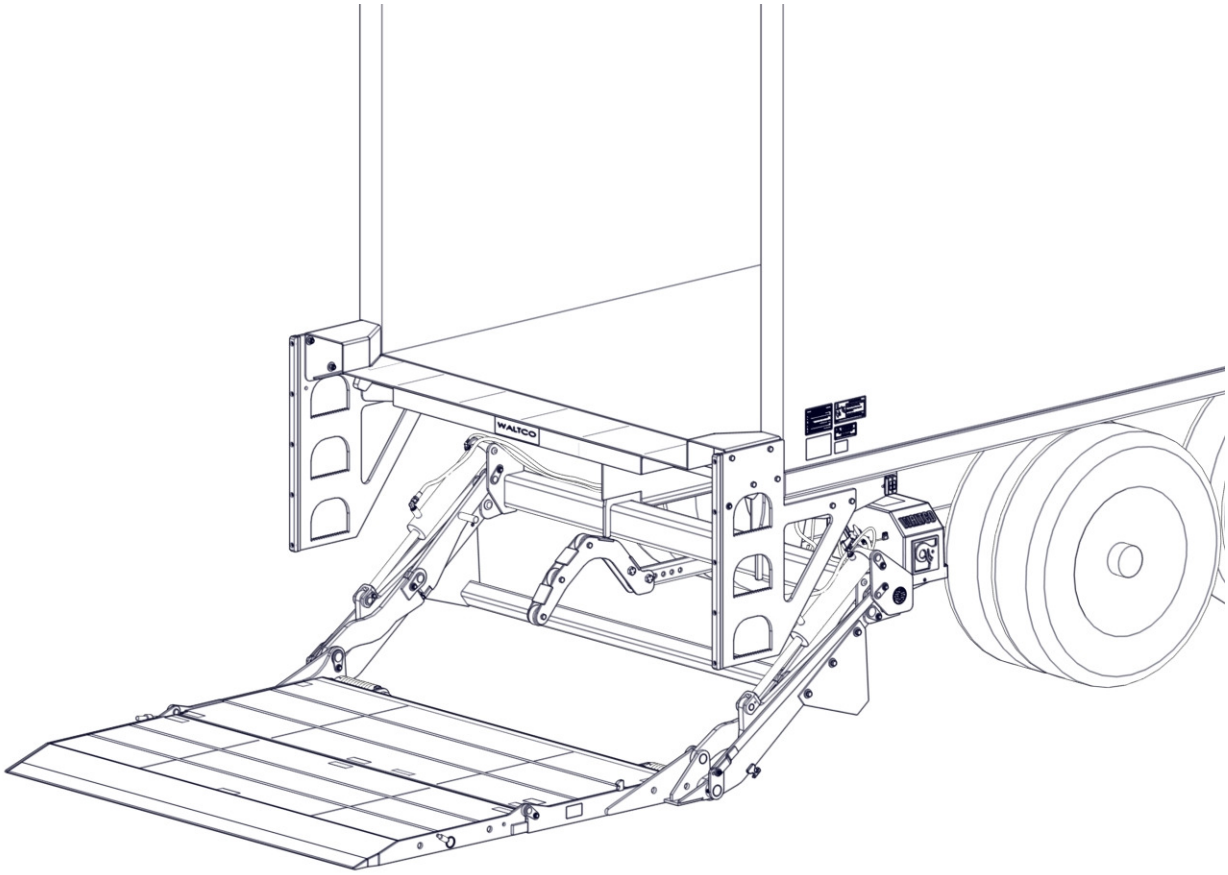
waltco.com
parts@waltco.com

Phone: 800.211.3074
Fax: 800.211.3075

Owner's Manual

WFL

2500, 3300, lb. Capacity Flipaway Liftgates



Last Change

Date	*Page(s)*	*Description*
5-2019	*All*	*Galvanized Frame & Aluminum Platform Added*

Waltco Lift Corp.
Corporate Office United States
285 Northeast Ave.
Tallmadge, OH 44278
P: 330.633.9191
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EO:10442 Rev02
05-2019

80121602

Table of Contents



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.

Introduction 3
Safety Information 4
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Schematics 17
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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	⚠ **WARNING**
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.	⚠ **CAUTION**
NOTICE Indicates a potentially hazardous situation, which if not avoided, may result in property damage.	***NOTICE***

WALTCO warrants its products free of defects in materials and workmanship.

WALTCO will replace components found defective during the warranty period. Labor will be reimbursed according to our flat rate labor schedule at the prevailing shop rate.

Contact our Sales or Warranty departments for the warranty period of your model or for information regarding our flat rate labor schedule.

WALTCO Warranty Claim Procedure

For consideration, all claims must be received within 30 days of repair and include the following information:

- Liftgate Serial Number
- Description of problem and corrective actions
- Itemization of the labor charge to include the number of hours and labor rate

Replacement warranty parts can be obtained by contacting Waltco's Parts Department. Parts must be returned for inspection when requested.

Exclusions:

Waltco's warranty does not include reimbursement for service calls, vehicle rental, towing, travel time, fabrication of parts available from WALTCO, damage from misuse or abuse, negligence, accidents, alteration, loss of income or overtime expense, oil, or normal wear.

Diagnosis and troubleshooting time are included in the flat rate labor times.

Warranty and technical information is available from WALTCO's toll free customer service lines from 8:00 a.m. to 5:00 p.m. EST.

Waltco Lift Corp

285 Northeast Ave, Box 354, Tallmadge, OH 44278

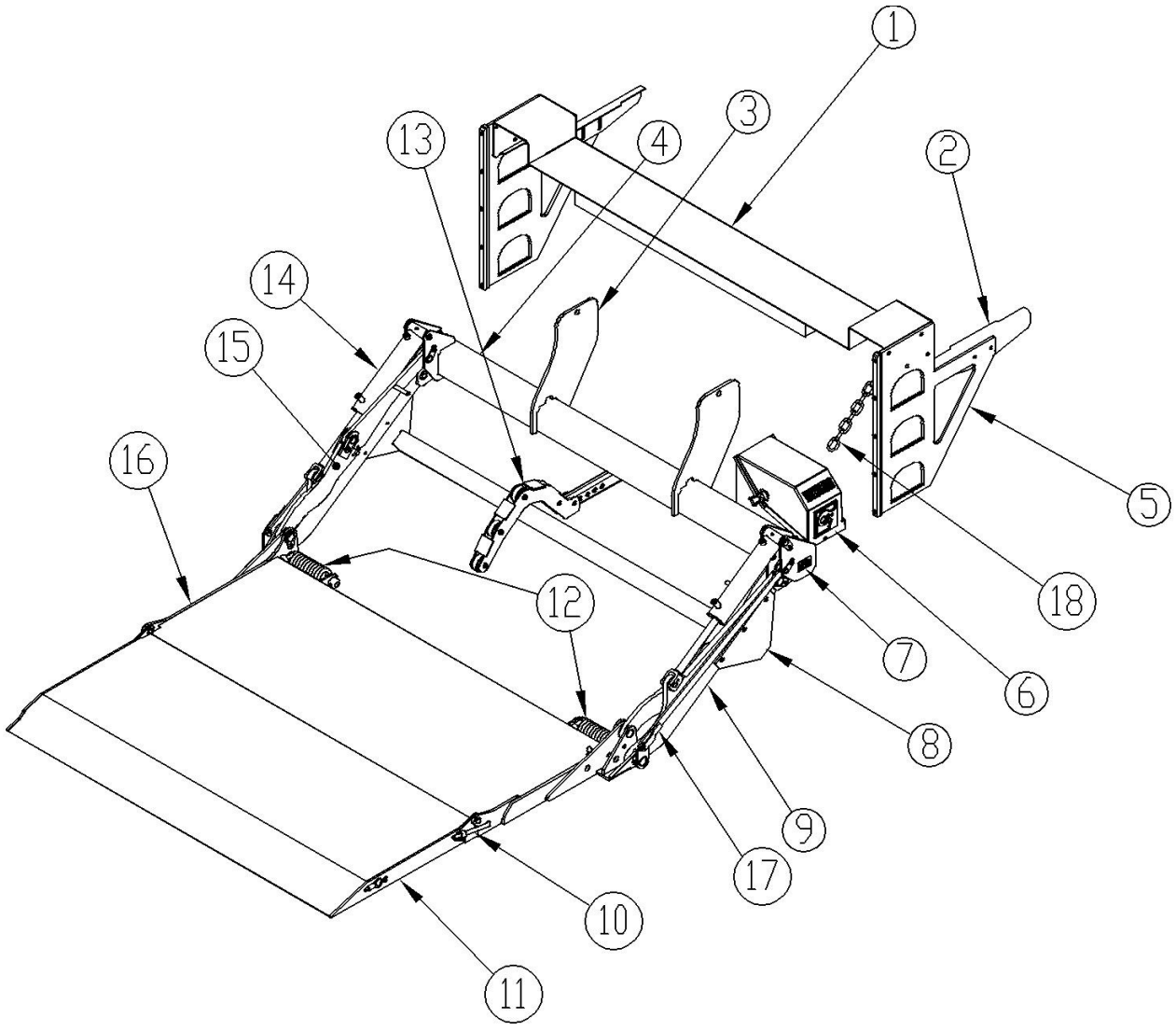
1-800-211-3074, 330-633-9191

Please visit our websites: http://www.waltco.com or http://www.hiab.com

We're behind you all the way!

Chapter 2 Liftgate Terminology

1. Bed Extension Assembly
2. Dock Bumper Brace
3. Mount Plate
4. Mount Tube Assembly
5. Dock Bumper Assembly
6. Pump box
7. Specification Tag
8. Bolt On Underride Bumper
9. Lift Arm
10. Torsion bar
11. Deck Extension Assembly
12. Folding Assist Springs
13. Parting bar Assembly
14. Hydraulic Cylinder
15. Parallel Arm Assembly
16. Deck Assembly
17. Folding Assist Spring Arm
18. Transit Chain

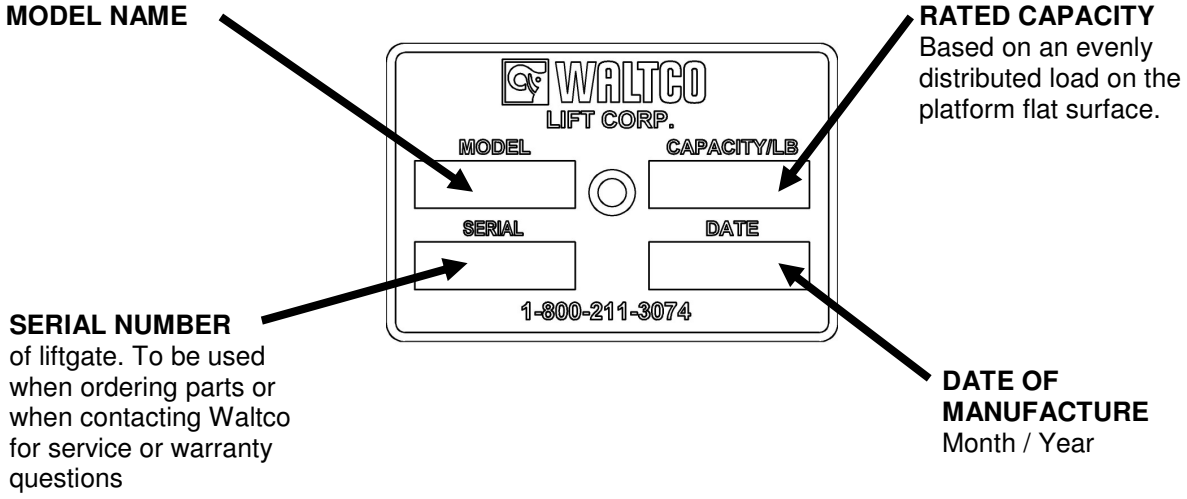


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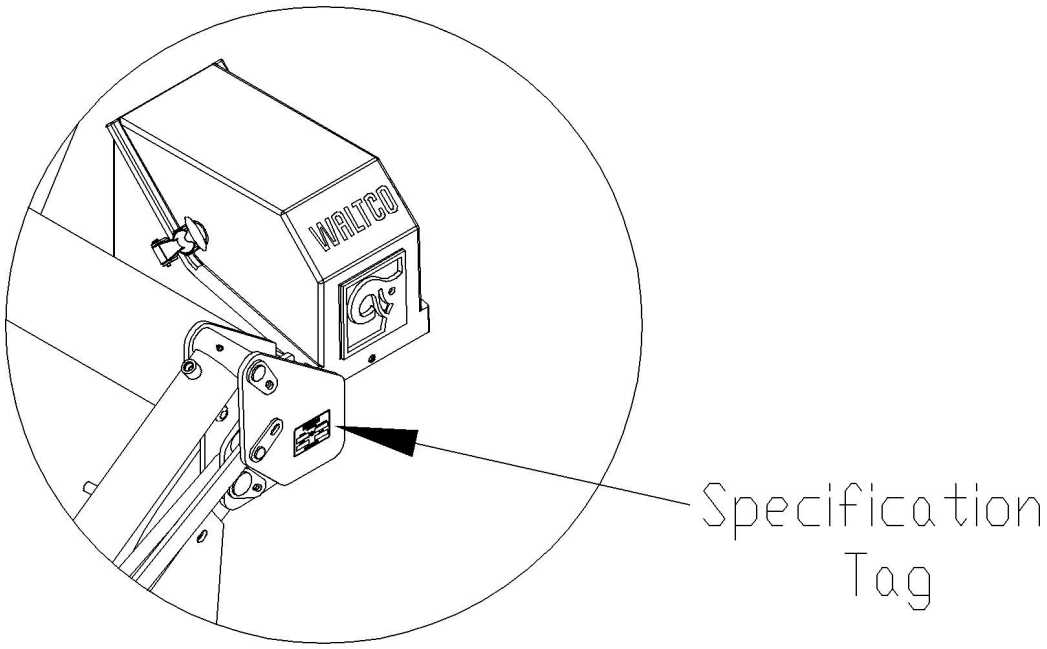
Chapter 2 Liftgate Terminology

Explanation of Specification Tag

Model Name	Description	Capacity
WFL25	Twin Cylinder	2500 lb.
WFL33	Twin Cylinder	3300 lb.



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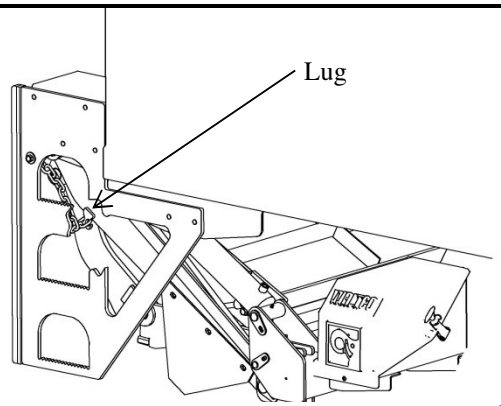
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Chapter 3 Operations Instructions

TO OPEN PLATFORM

Rotate and remove transit chain off of transit chain lug.

Never force Latch Chain if platform weight is on chain.
To slacken chain, push Raise Switch.

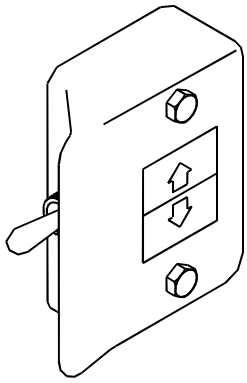


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TO OPERATE LIFTGATE

Use Raise and Lower Toggle Switch to raise and lower platform.

Load platform as close to vehicle and towards middle of platform as possible. Maximum rated capacity is based on an evenly distributed load on platform flat surface.



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TO STORE LIFTGATE FOR TRANSIT

Lower platform to ground.

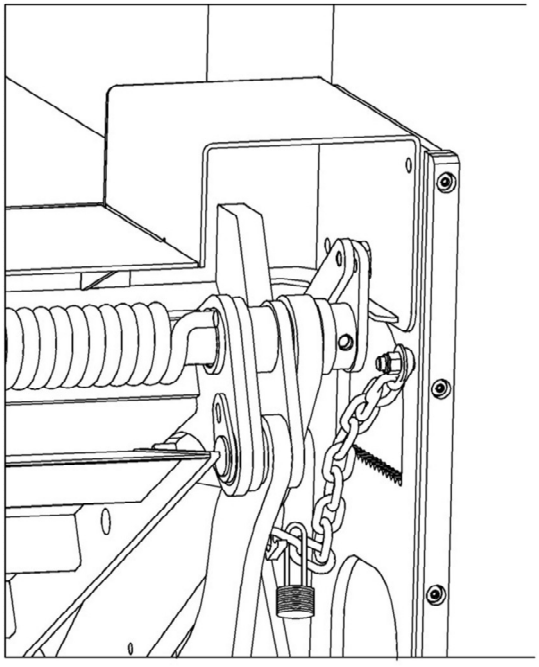
Fold platform.

Raise platform to transit position.

Power platform snugly to underside of bed extension.

Hook transit chain onto chain lug.

To prevent unauthorized use of liftgate, insert a heavy gauge pad lock into first link of latch chain.



GR10096

Chapter 4 Preventive Maintenance

Waltco recommends that the WFL-Series liftgate 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 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.

WALTCO WFL-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.
4	OK	Repair Required	Corrected	Check that controls operate properly.
5	OK	Repair Required	Corrected	Check all wires, battery cables, and connections (both positive and ground) for damage; be sure they are tight and free of corrosion.
6	OK	Repair Required	Corrected	Check that transit chain properly hooks onto transit chain lug.
7	OK	Repair Required	Corrected	Check operation of lockout device.
8	OK	Repair Required	Corrected	Check fold over assist spring and related hardware.
9	OK	Repair Required	Corrected	Check platform tilt is adjusted correctly.
10	OK	Repair Required	Corrected	Check for hydraulic leaks in hydraulic cylinder(s), hoses, fittings, and valves.
11	OK	Repair Required	Corrected	Check oil level in reservoir.
12	OK	Repair Required	Corrected	Check lowering speed of platform.
13	OK	Repair Required	Corrected	Check that all decals are in place and legible.
14	OK	Repair Required	Corrected	Lubricate the liftgate per the "Lubrication Instructions".
15	OK	Repair Required	Corrected	Check operation of cycle counter
12 Month Liftgate PM Procedures (Includes steps 1-14 above)				
15	OK	Repair Required	Corrected	Inspect Pump Motor for wear or damage.
16	OK	Repair Required	Corrected	Replace Hydraulic Fluid.

Chapter 4 Preventive Maintenance

MONTHLY INSPECTION

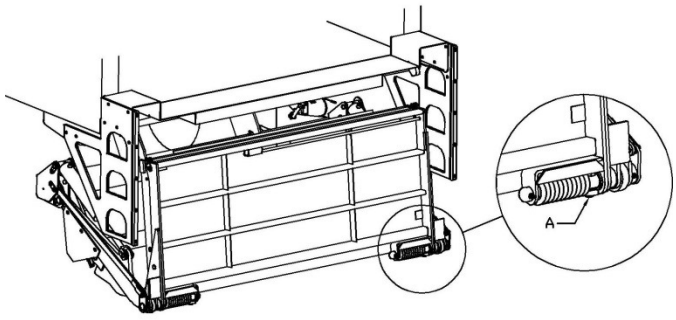
Operate the liftgate throughout its entire operational cycle. Check for:

- Damage to lifting structure such as bent or distorted members or cracked welds.
- Bent or distorted cylinder pins or damaged cylinder.
- All pivot and cylinder pins are securely in place, undamaged and retained by their proper fasteners (refer to parts drawings in chapter 7, "**PMs and Schematics**").
- Damaged or worn bearings that pivot and cylinder pins rest in.
- Controls operate correctly (refer to chapter 3, "**Operations Instructions**")
- Check all wiring, including power cables and ground cables, for chaffing or damage.
- Clean and tighten all loose connections. Replace any damaged or corroded wires or connectors. Coat all connections with dielectric grease.

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.

Inspect fold over assist spring and related hardware. Check that bolt (A) contacts and holds torsion spring when platform is unfolded open. Inspect both sides.



GR10098

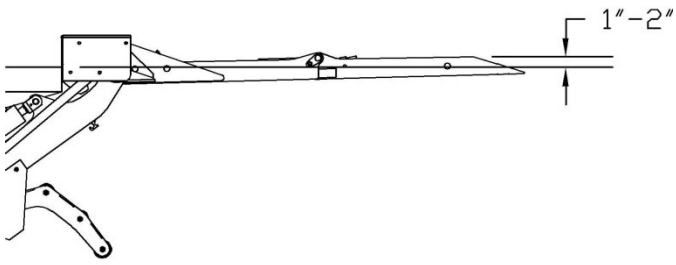
CHECK PLATFORM TILT

Raise Platform to bed level and inspect.

Trailing edge of platform should be approximately 1" - 2" above bed extension

Carefully inspect all liftgate components for wear or damage.

Replace any damaged or worn components before proceeding.



GR10090

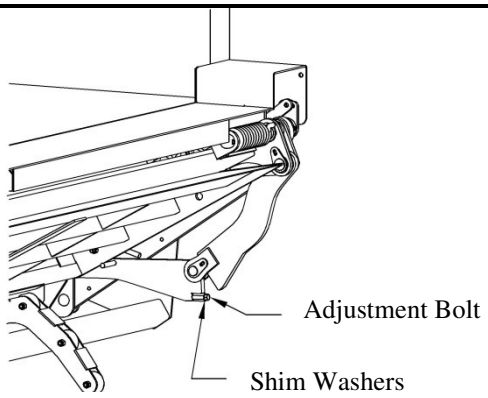
Chapter 4 Preventive Maintenance

Platform tilt adjustment

If Platform is sagging, with the platform in the stored position, add ½" shim washers on to adjustment bolt until you achieve 1" - 2" dimension above.

NOTE:
Adjust both Bolts on each side evenly.

Bolts must be tight against shim washers! NO gap allowed.



GR10099

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

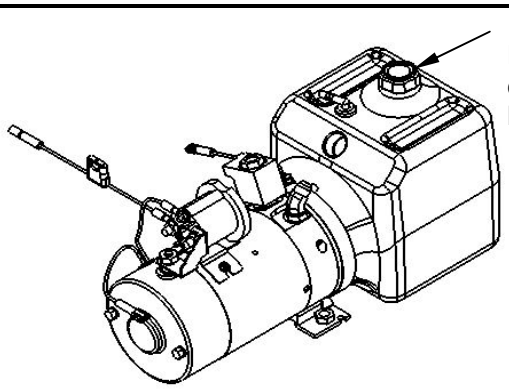
Position liftgate deck in raised position.

Remove Reservoir Breather.

Oil level should be 1/2" from top of reservoir.

If low, fill as required. Use appropriate fluid per chart.

Replace breather.



GR10066

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 Excel 15
	Chevron Rando HDZ 15

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)

Chapter 4 Preventive Maintenance

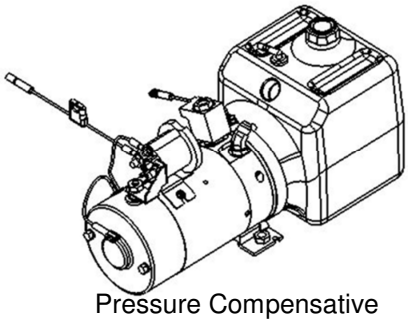
There is no speed adjustment on this liftgate.

Lowering speed is controlled by the pressure compensative valve plumbed into the pump.

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 pressure compensative valve installed in the pump.



Pressure Compensative Flow Control Valve inside Pump

GR10066

INSPECT DECALS AND LUBRICATE LIFTGATE

Inspect all decals per Chapter 5 of this manual.

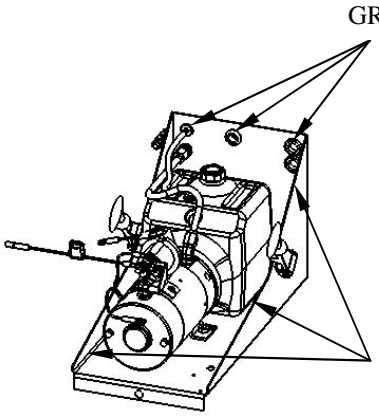
Replace any that are missing or damaged.

Lubricate liftgate per Chapter 6 of this manual.

CHECK PUMP BOX SEALS

All holes for wiring are to have grommets.

Edges of pump box are to have rubber seals as indicated at right. Seals not shown.



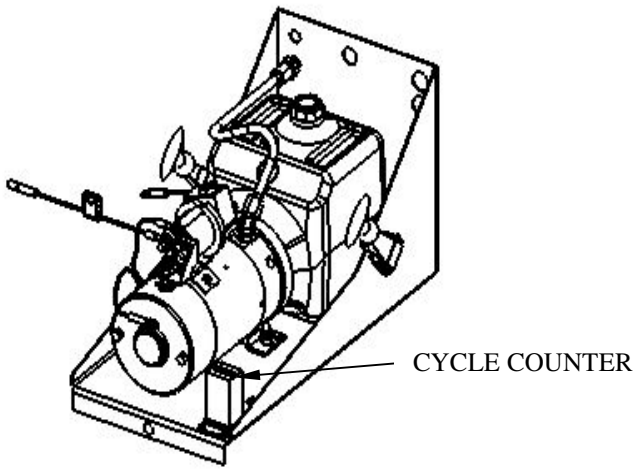
GR10067

Chapter 4 Preventive Maintenance

CHECK CYCLE COUNTER

Cycle counter should register a cycle every time the lowering switch is activated and held on for a minimum of four (4) seconds.

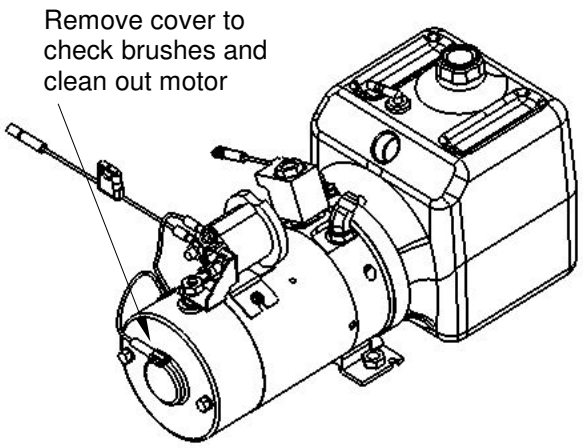
Refer to wiring schematic in this manual.



GR10068

SEMI 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.



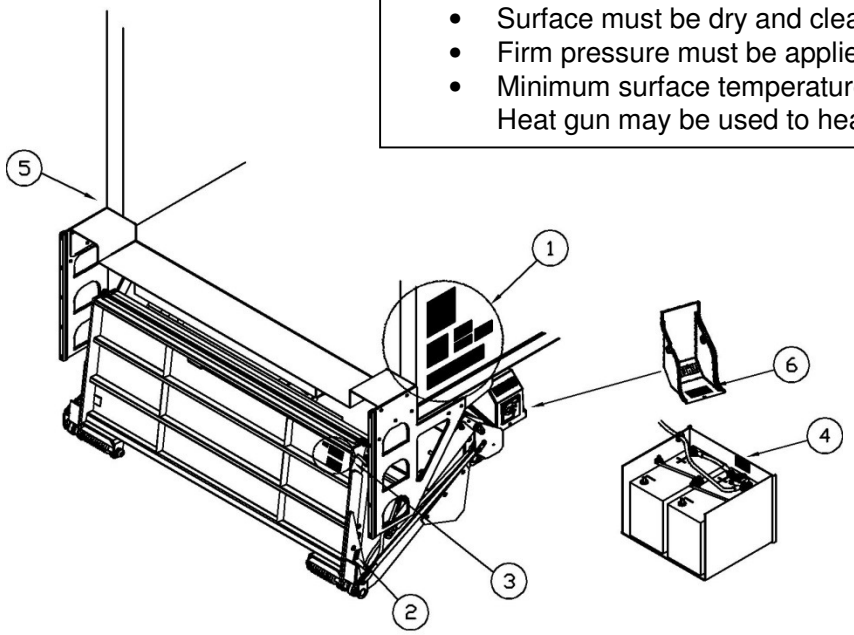
GR10066

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	Safety Instructions	1	80100850	**Locate in a conspicuous place near controls.** **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.** Refer to the following diagram showing decal locations.
	Operation	1	80101664	
	Hazard Decal	1	80101370	
	Important Decal	1	80100828	
	Motor Thermal Switch	1	80101480	
	Stand Clear Decal	1	75089296	
2	Capacity Decal-2500lb	1	80100255	**Locate on curbside of platform** (Position so as to be read when platform is open)
	Capacity Decal-3300lb	1	80100585	
3	Use Handle Decal	1	75089295	**Locate near platform handle** (Positioned so as to be read when platform is being unfolded into loading position)
	Stand Clear Decal	1	75089296	
	Capacity Decal-2500lb	1	80100255	
	Capacity Decal-3000lb	1	80100257	
	Capacity Decal-4000lb	1	80100260	
	Capacity Decal-5000lb	1	80100263	
4	Circuit Breaker Decal	1	80100829	**Locate next to liftgate circuit breaker**. In applications where more than one circuit breaker is used, this decal must be placed in both locations
5	Stand Clear Decal	1	75089296	**Locate on driver's side of vehicle body near liftgate**
6	Schematics Decal	1	80101622	**Locate inside of pump box cover**

To maximize decal adhesion to surfaces:
- Surface must be dry and clean
- Firm pressure must be applied to decal
- Minimum surface temperature 65º
  Heat gun may be used to heat surface



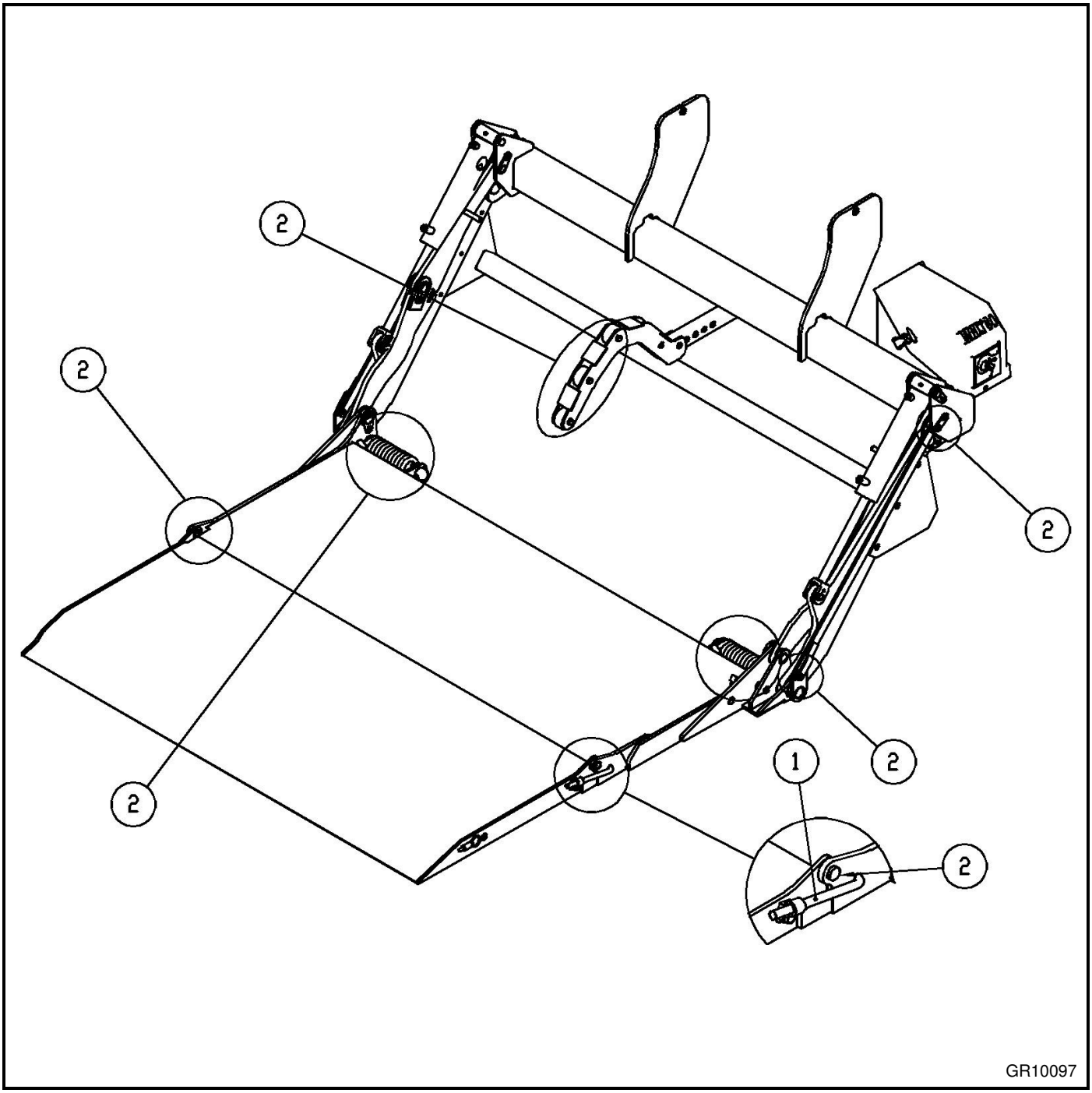
GR10094

Chapter 6 Lubrication Instructions

The liftgate should be lubricated every 120 days.

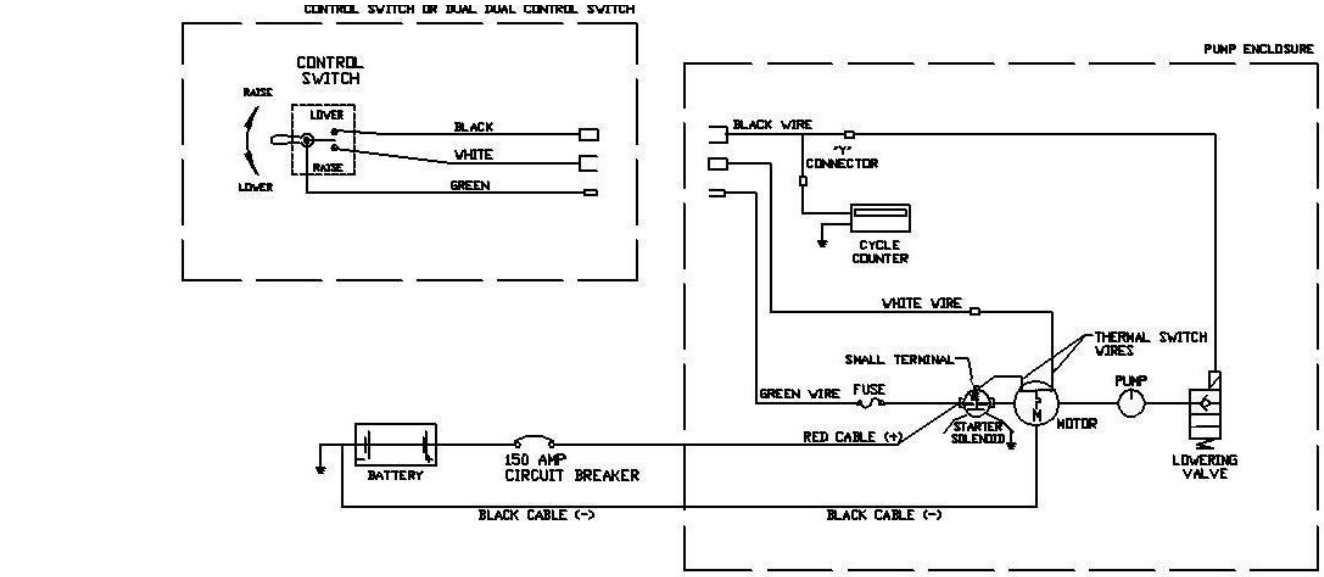
#1 – Apply grease to torsion bar.

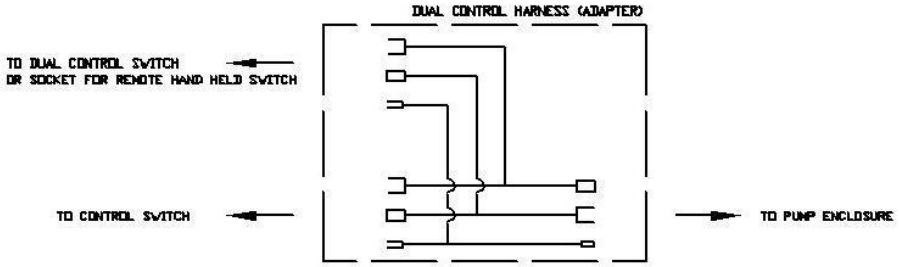
#2 – Grease Zerk fitted pins with grease gun. Oil all others with a light weight machine oil (do not use on bearings in platform).

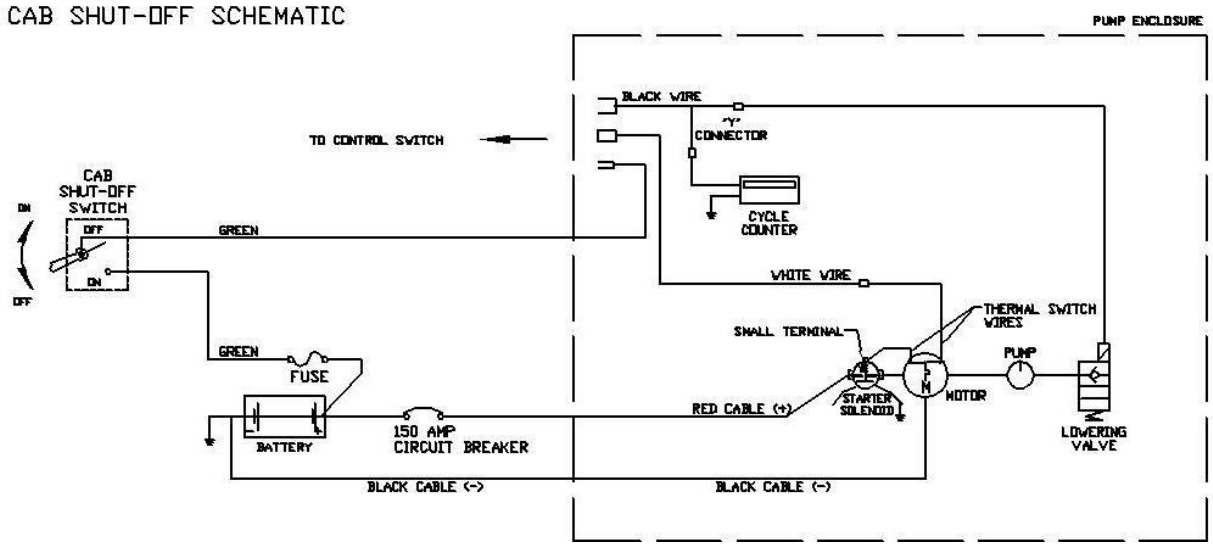


Chapter 7 Schematic

Electrical Schematics



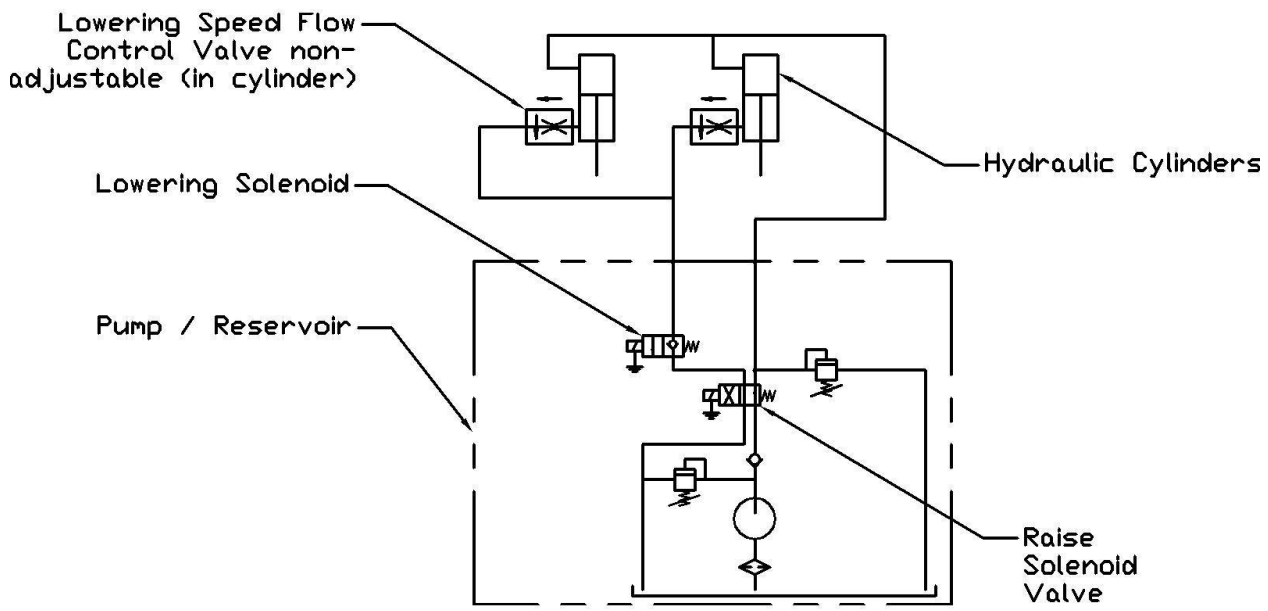




GR10084

Chapter 7 Schematic

Hydraulic Schematic



GR10085

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