



# **PTN Series**

Visit us at www.waltco.com

Owner's Manual 1250 - 1600 lb. Capacity Rail Lift

# IMPORTANT KEEP IN VEHICLE



11-09

#### OHIO

285 Northeast Avenue Tallmadge, OH 44278 (330) 633-9191 FAX – (330) 633-1418

# **Table of Contents**

## Chapter

# **INTRODUCTION**

3
2
3
4
5
6
8

# 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 Owners 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.

#### **OWNERS 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, 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 TRUCK EQUIPMENT COMPANY.

# Chapter 1 **A** Safety Information

The following safety information must be read before operating Waltco liftgates.

- Read and understand the Owner's Manual and all decals 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.
- Keep hands and feet clear of all potential pinch points.
- 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.
- **NEVER OVERLOAD LIFTGATE** Refer to the Explanation of Specification Tag in the Liftgate Terminology chapter for liftgate capacity rating.
- 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.
- For liftgates with Runners, never use liftgate if Runners do not travel freely and smoothly.
- All protective covers, guards, and safety devices must be in place and access doors closed before operating liftgate.
- Make certain the Platform area, including the area in which loads may fall, is clear before and at all times during the operation of the liftgate.
- 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.
- A Lock-Out device or Shut-Off Switch should always be used to prevent unauthorized use of liftgate.
- 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.
- Platform is always to be properly stored and secured for transit. See the Owner's Manual for details.
- 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.

# Chapter 1 **A** Safety Information

- 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.
- Vehicle must comply with all state and federal standards.
- Follow the "Maintenance Guide" chapter in the Owner's Manual.

## 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

- 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.

## 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.

# **A** WARNING

# **A** CAUTION

# WALTCO Warranty Policy

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: <u>http://www.waltco.com</u> or <u>http://www.hiab.com</u>

## We're behind you all the way!

# Chapter 2 Liftgate Terminology

1. Crossbeam Box

- 4. Hydraulic Cylinder
- 7. Access Cover

- 2. Rail
- 3. Latch

5. Lifting Chain
6. Pump Unit

- 8. Runner Assembly
- 9. Platform Assembly



# Chapter 2 Liftgate Terminology

EXPLANATION OF SPECIFICATION TAG				
MODEL No.	DESCRIPTION	CAPACITY		
PTN12	Pick-Up Truck Rail Lift	1250 lb.		
PTN16	Pick-Up Truck Rail Lift	1600 lb.		



# **OPERATION INSTRUCTIONS**

# IMPORTANT

#### READ AND UNDERSTAND THESE OPERATION INSTRUCTIONS, THE "SAFETY INSTRUCTIONS" DECAL, AND THIS OWNER'S MANUAL BEFORE OPERATING THIS MDR LIFTGATE.

Make certain the area around and in which the Platform will open and close is clear before opening and closing and at all times during operation.

# **TO OPEN PLATFORM**

- Turn Cab shut-off switch to "ON" position. (if equipped)
- Pull the Platform away from truck and use Switch to raise Platform Travel Ears around the Latch Stop and out of the Latch
- While standing clear of the area in which the **Platform** will operate, hold **Platform** by the top or side edge and open it to the horizontal position manually.

# CAUTION

## Keep hands away from pinch points.

 Push up on the Switch to raise Platform and down to lower Platform.

# LOADING OF PLATFORM

- DO NOT OVERLOAD-The maximum rated capacity is based on an evenly distributed load on the Platform flat surface.
- Always load as close to the center of the **Platform** and as close to the center of the vehicle as possible.
- This unit is intended for loading and unloading of cargo only. Do not use it for anything but its intended use.
- Never operate lifting vehicles on or over any part of the **Platform** or the Housing.



# **TO CLOSE PLATFORM**

- Raise the **Platform** to bed level.
- Fold **Platform** closed while standing clear of the area in which the **Platform** operates.

# CAUTION

Keep hands away from pinch Points.

- Use Switch to lower Platform Travel Ears into the Latch.
- Turn **Cab shut-off** switch to the "**OFF**" position. (if equipped)

# **INSPECTION, MAINTENANCE, & ADJUSTMENT**

The following inspection and maintenance operations should be performed at the recommended intervals or at anytime the unit shows signs of abuse, and/or improper or abnormal operation. Adherence to this guide will help insure the maximum in operator safety and satisfaction with your Waltco liftgate through preventive maintenance.

# **MONTHLY INSPECTION**

- Check that the liftgate operates freely and smoothly throughout its entire operating cycle, and that there is no unusual noise or vibration, and that the Runners slide smoothly and evenly in the Rails.
- Check for any apparent damage to the liftgate such as bent or distorted members, or any cracked welds which may have resulted from overloading or abuse.
- Check that all nuts and bolts are in place and properly tightened.
- Check for excessive wear or damage in the following areas:
  - 1. Sprockets, bearings, and pins.
  - 2. Platform Hinge.
  - 3. Platform Retainer and Snap Lock Latch
  - 4. Runner Wear Pads.
  - 5. Support Chain.
- Inspect the entire length of both lift chains and replace if they show any signs of wear or damage. Replace chains every five (5) years or 15,000 cycles whichever comes first. Replace only with WALTCO APPROVED roller chain.
- Check the level of oil in the liftgate Pump Unit Reservoir. With the Platform at ground level, the oil should be within 1/2" of the top of the Reservoir. Fill as may be required with a good quality 10W motor oil.

- Check that all connecting links in lift chain are properly secured with the proper spring clips.
- Check that the Platform is level when raised to bed height.
- Inspect Platform Retainer Latches for cracks or damage.
- Make certain all electrical wires, switches, and connections are in good order and operate properly.
- Check that all pins are in place and held by their proper retainers.
- Check for oil leaks in these areas.
  - 1. Hydraulic Cylinder.
  - 2. Hydraulic Hose-Replace if it shows signs of excessive abrasion.
  - 3. Hydraulic fittings-Tighten or replace all hydraulic components as required to stop oil leakage.
- Lubrication-Follow the instructions outlined in chapter 6.
- Check the electrolyte level of the vehicle battery. Fill as required to the battery manufacturer's recommendation.
- Load test battery. Replace if necessary

This chart lists some acceptable oils and fluids for different temperature ranges. This is not a complete listing and brand names have been used only as a guide. A good quality SAE 10W motor oil may be used.

For additional help in selecting hydraulic fluid, contact the nearest WALTCO factory.

### IMPORTANT

Do not thin with or use brake fluid.

# HYDRAULIC FLUID CHART

Recommended Fluids				
Temperature	Acceptable Fluids			
Range				
-10° to 195° F	Mobil DTE 13M			
	Shell Tellus 32T			
-25° to 140° F	Mobil DTE 11M			
	Shell Tellus 15T			
-40° to 145° F	Mobil Aero HFA			
	Exxon Univis HVI 13			
-45° to 200° F	Exxon Univis HVI 26			
A good quality SAE 10W motor oil may also be used in temperatures above 32° F.				

Examine all WARNING, CAPACITY, AND OPERATION decals. If any are found to be missing or illegible they should be replaced. Decals can be obtained free of charge from WALTCO Lift Corp.

# **SEMI-ANNUAL INSPECTION**

1. Perform the procedures outlined in the MONTHLY INSPECTION.

Chains must be replaced if they show any signs of wear or damage.

### IMPORTANT

Chains, sprockets, and sprocket pins must be replaced every five (5) years or 15,000 cycles, whichever comes first.

2. To inspect Pump and Unit Motor:

- **A.** First disconnect the battery cable.
- **B.** Remove end cover.
- **C.** Examine the armature brushes for wear (Brushes should be replaced if they are less than 1/8" long).
- **D.** Clean out all residue from inside of the motor housing.
- 3. If the Reservoir oil is dirty, drain the oil from the hydraulic system and flush the entire system.

# PLATFORM ADJUSTMENT

## If the Platform requires adjustment:

Use these instructions if you have a Standard (not above floor) PTN only. Above floor instructions on next page.

# <u>Standard</u>

- 1. Lower the Platform to the ground and remove the access door.
- 2. Loosen the locknuts on the anchor bolts and slacken the chains approximately 1/4".
- 3. While standing clear of the Platform area, raise Platform until it stops. Platform should be below bed level.
- 4. Measure the distance from the Platform to ¼" above the top of the Crossbeam Box at each side of the liftgate.
- 5. Lower Platform to the ground.
- 6. Adjust Platform by tightening the adjustment bolt for the curb side the amount measured at the curb side in step 4. Repeat for driver's side.
- **7.** Raise Platform to bed height and check that the Platform is level with the top or the Crossbeam Box when the Hydraulic Cylinder is fully extended. If not, repeat Steps 4 through 6.



## Above Floor

Use these instructions if you have an above floor PTN only. (refer to 2.2)

The PTN-SERIES above floor units may need links removed from the roller chains to properly adjust the platform so that it can rise 46" above the ground. This should be done during installation and each time the chain is replaced.

NOTE: If bed height is less than 28", then the Platform will not reach 46" height above the ground.

- 1. Lower the Platform to the ground and remove the access door.
- 2. While pressing the DOWN toggle on the control switch, force the hydraulic cylinder in until it is fully collapsed
- 3. Disconnect top roller chain at adjustment bolt.
- 4. While disconnected, pull chain tight to remove al slack.
- 5. Mark closest roller link to adjusting bolt.
- 6. Cut and remove connecting link. Clamp one of the sections of cotter pin type chain into a vise (be careful not to damage the chain). Use a hammer and a punch.

NOTE: A chain breaking tool may be used if one is available.

NOTE: "One" link unit consists of one connecting link and one roller link.



7. Attach roller link to adjusting bolt using extra master link provided.



- 8. Repeat steps 3 through 7 for bottom roller chain.
- 9. Adjust the platform by loosening or tightening the adjuster nut.

# Chapter 5 Placement of Decals

Properly placed warning decals are an essential part of your safety program. Check that all safety decals are in place and are legible. Any missing decals **MUST** be replaced immediately. Replacement decals may be obtained **FREE** of charge from your distributor or by phoning, writing, or faxing us.

Following are the proper decals that you should have and their proper locations. The decals shown on truck/trailer body can also be placed on curb side liftgate column and dock bumper.



ITEM #	DESCRIPTION	PTN12	PTN16	QTY
1	OPERATING INSTRUCTIONS	80101538	80101538	1
2	WARNING, KEEP CLEAR	75089296	75089296	1
3	WARNING, MAX. CAPACITY	80100266	80100252	2
4	URGENT WARNING	80100850	80100850	1
5	DANGER, LIFTGATE CAN CRUSH	80101370	80101370	2

# Chapter 6 Lubrication Instructions

- Lubricate lifting chains including sections in crossbeam box, rails, & runner assemblies with machine oil or motor oil.
- Lubricate latch, inside rails, and crossbeam box with machine oil or motor oil.

Suggested Minimum Lubrication Schedule (in days)			
Monthly	Light	Medium	Heavy
Cycles	Duty	Duty	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 8 – How To Order Parts

<u>Repairs should be made only by authorized mechanics using WALTCO</u> <u>Replacement parts.</u>

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.

# IMPORTANT

## TO BE KEPT IN VEHICLE

## CAUTION:

### STAND CLEAR AND KEEP CLEAR OF PLATFORM AREA WHILE OPERATING LIFTGATE.

FOR OPERATION OF THIS UNIT, REFER TO THE "OPERATION INSTRUCTIONS" INSIDE THE OWNER'S MANUAL AND THE OPERATION INSTRUCTIONS DECAL.

## **LUBRICATION INSTRUCTIONS**

Refer to the lubrication chart in this manual.

### DO'S AND DON'TS

- **DO:** Make certain area in which the platform will open and close is clear before opening or closing platform.
- **DO:** Make certain platform is properly latched when in transit.
- **DO:** Make certain platform area, including the area in which loads may fall from platform, is clear before and at all times during operation of the liftgate.
- **DO:** Operate the liftgate with the control switches only.
- **DO:** Check oil level monthly and change oil yearly.
- **DO:** Use hydraulic fluids listed on the HYDRAULIC FLUID CHART (found inside this manual) or equivalent.
- **DO:** Lubricate as per the LUBRICATION INSTRUCTIONS AND LUBRICATION SCHEDULE found in this book.
- **DO:** Read and follow WARNING DECALS, OPERATION DECALS and OWNER'S MANUAL.
- **DO:** Visually inspect the liftgate frequently and keep it in adjustment.
- **DO:** Be certain vehicle is properly and securely braked before using the liftgate.
- **DO:** Repair the liftgate when it is found to be faulty to prevent accidents.
- **DO:** Keep all decals in place and legible and retain the Owner's Manual in the vehicle or ALL WARRANTIES ARE VOID.
- **DON'T:** Allow the liftgate to be used by persons not familiar with its operation.
- **DON'T:** Use the liftgate if unit shows signs of abuse or fails to operate freely.
- **DON'T:** Permit the motor to run after the liftgate is raised to bed level.
- **DON'T:** Overload the liftgate (Refer to Manual for proper capacity of liftgate).
- **DON'T:** Use brake fluid.