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Owner's Manual

MDL, DS, DT, SB

1250 lb. - 3000 lb. Capacity Rail Liftgates



GR02909

Last Change

Date	Page(s)	Description			
9-2013	9-14, 15, 19, 22, 23, 25	P9-14 – Expanded operation section, more storage types P15 – Cab shut-off switch now optional P19 – Revised fluid chart P22-23 – Added additional operation decals P25 – Revised schematics			

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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.

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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 TRUCK EQUIPMENT COMPANY 80101388 Rev 02 EO 6156

Chapter 1 **A** 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 **A** 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.



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

TERMINOLOGY

- 1. Travel Plate (Snap Lock Design)
- **1A.** Travel Plate (Drop-In Design)
- 2. Rail (Track)
- 3. Lift Cylinder
- 4. Crossbeam Box (Housing)
- 5. Lifting Chain
- 6. Anchor Bolt
- 7. Pump Unit
- 8. Flow Control Valve



- **14.** Travel Ear and Grab Handle
- 15. Platform
- 16. Housing Cover



Chapter 2 Liftgate Terminology



Explanation of Specification Tag

GR02834

TO OPEN PLATFORM Snap Lock Design Manual Close

Remove latch pin from hole in travel plate.

Pull down latch lever to clear travel ear on platform.

Using grab handle, pull platform to open position.



Never force platform open. Keep hands away from pinch points.

If necessary use Up and Down switch to free travel ear in travel plate.

Ref Operation Decal 80101575

TO OPEN PLATFORM Drop-In Design Manual Close

Use switch to raise platform up out of travel plates.

Pull platform open to horizontal position.



Never force platform open. Keep hands away from pinch points.





TO OPEN PLATFORM

Drop-In Design w/Power Close



Make certain area around platform is clear before opening platform. Keep hands away from pinch points.

Raise platform so travel ear is completely out of travel plate.

Use Down and Open switches simultaneously to open platform.

Use Up and Down switch to raise and lower platform.

Ref Operation Decal 80101536

TO OPEN PLATFORM Power Up Storage Manual Close

Use switch to lower platform up out of travel plates.

Pull platform open to horizontal position.



Never force platform open. Keep hands away from pinch points.





TO OPEN PLATFORM

Power Up Storage w/Power Close



Make certain area around platform is clear before opening platform. Keep hands away from pinch points.

Lower platform so travel ear is completely out of travel plate.

Use Down and Open switches simultaneously to open platform.

Use Up and Down switch to raise and lower platform.

Ref Operation Decal 80101638

TO OPEN PLATFORM Drop-In with Cam Manual Close

Use switch to raise platform up out of travel plates until cam flips down.

Use switch to lower platform down to a comfortable height then pull platform open.

Pull platform open to horizontal position.



Never force platform open. Keep hands away from pinch points.





TO STORE PLATFORM Snap Lock Design

Raise platform to comfortable position for lifting into vertical position using grab handle.



Keep hands away from pinch points.

Use Up and Down switch to adjust platform until travel ear can be placed into travel plate and latch lever engaged over ear.

Insert latch pin into travel plate hole.

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

Ref Operation Decal 80101575

TO STORE PLATFORM Drop-In Design Manual Close

Use switch to raise platform all the way up.

Manually rotate platform up to vertical position.

Use switch to lower platform travel ears into travel plates.



Never force platform open. Keep hands away from pinch points.



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





TO STORE PLATFORM Drop-In Design w/Power Close

With platform open, raise platform all the way up.

Use Up and Close switches simultaneously to close platform.

Use Down switch to lower travel ears into travel plates.



Keep hands away from pinch points.

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

Ref Operation Decal 80101536



Power Up Storage Manual Close

With platform below bed height, manually fold platform to vertical position.

Use switch to fully raise platform travel ears up into travel plates.



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



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LOADING OF PLATFORM

Load and unload from rear of platform and not side 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 unloaded of cargo only. Do not use for anything but its intended use.



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.





Chapter 4

Preventive Maintenance

Waltco recommends that the MDL, DS, DT, and SB-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.

				IDL, DS, DT, and SB-SERIES			
PM	PM Interval: 6 Months or 3000 Cycles Date: Vehicle No						
Мес	hanic:			Liftgate S/N:	Model:		
Che	ck app	propriate 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	ОК	Repair Required	Corrected	Check that all pins, bolts and fasteners are tight and secure.			
3	ОК	Repair Required	Corrected	Check for worn or damaged bearings sprockets, and roller chains.			
4	ОК	Repair Required	Corrected	Check that controls operate properly.			
7	OK	Repair Required	Corrected	Check that cab shut-off switch cuts power to liftgate.			
5	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.			
6	ОК	Repair Required	Corrected	Check that platform is level.			
7	ОК	Repair Required Corrected Check torsion bars and related hardware.					
8	ОК	Repair Required	Corrected Check platform support chains.				
9	OK	Repair Required	Required Corrected Check for hydraulic leaks in hydraulic cylinder(s), hoses, fittings, and valves.				
10	ОК	Repair Required	Corrected	orrected Check oil level in reservoir.			
11	ОК	Repair Required	Corrected	Check lowering speed of platform.			
12	ОК	Repair Required	Corrected	Check that all decals are in place and legible.			
13	OK	Repair Required	Corrected	Lubricate the liftgate per the "Lubrication Instructions".			
		12	Month Liftga	e PM Procedures (Includes si	teps 1-13 above)		
14	ОК	Repair Required	Corrected	Inspect Pump Motor for wea	r and/or damage.		
15	OK	Repair Required	Corrected	Drain and replace Hydraulic	Fluid.		

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.

Preventive Maintenance



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.

Breather Cap
GR02836

Recomme	nded Fluids	Fill reservoir
Temperature Range	Acceptable Fluids	Fill with rec
0° to 120° F	Waltco Biodegradable Liftlube [™] part #85803860	 Fill the rese Fluids are a
	Shell Tellus S2 V 32	Dept. 1-80
	Chevron Rando HDZ 32	
-20° to 90° F	Waltco Biodegradable	
	LiftLube Arctic part #85803866	NOTE: Do not use
	Waltco All Season Hyd Oil Part 85803867	Brake F Power s
	Shell Tellus S2 V 15 Mobil DTE 10 Excell 15	Automa
A good quality SAE 10W mo	otor oil may also be used in	-
temperatures above 32° F.		

- 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

o not use the following fluids: Brake Fluid Power steering fluid Automatic Transmission Fluid (ATF)

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Chapter 4 Preventive Maintenance



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Chapter 5 Placement of Decals

Istructions In Decals (see Owner's Mack / Manual If Manual If Power Close In Storage / Manual If Storage / Power Close If Storage / Power Close If Decal If	1 anual fo 1	80100850 or details) 80101575 80101577 80101536 80101639 80101638 80101640 80101370 80100828 80100266	Locate in a conspicuous place near controls.
ck / Manual / Manual / Power Close p Storage / Manual p Storage / Power Close with Cam / Manual Decal t Decal Capacity Decal	1	80101575 80101577 80101536 80101639 80101638 80101640 80101370 80100828	Locate in a conspicuous place near controls.
ck / Manual / Manual / Power Close p Storage / Manual p Storage / Power Close with Cam / Manual Decal t Decal Capacity Decal	1	80101575 80101577 80101536 80101639 80101638 80101640 80101370 80100828	Locate in a conspicuous place near controls.
/ Power Close p Storage / Manual p Storage / Power Close with Cam / Manual Decal ht Decal Capacity Decal	1	80101536 80101639 80101638 80101640 80101370 80100828	Locate in a conspicuous place near controls.
p Storage / Manual p Storage / Power Close with Cam / Manual Decal ht Decal Capacity Decal	1	80101639 80101638 80101640 80101370 80100828	Locate in a conspicuous place near controls.
p Storage / Power Close with Cam / Manual Decal It Decal Capacity Decal	1	80101638 80101640 80101370 80100828	Locate in a conspicuous place near controls.
with Cam / Manual Decal It Decal Capacity Decal		80101640 80101370 80100828	
Decal It Decal Capacity Decal		80101370 80100828	
nt Decal Capacity Decal		80100828	
Capacity Decal	1		
		80100266	
Capacity Decal		00100200	Locate one in a conspicuous place near controls. Locate one on curb side of platform.
apaony Booan		80100252	
Capacity Decal	2	80100253	
Capacity Decal		80100257	
Decal	4	75089296	Locate one in a conspicuous place near controls. Locate one in a conspicuous place on driver side of vehicle.
re Cover Decal	2	75089282	Locate one on hydraulic cylinder. Locate on back of crossbeam box.
Cab Shut Off Decal (Optional) 1		75089267	Locate next to cab shut-off switch inside vehicle.
Switch Decal		80101532 80101533	Locate on switch housing (single toggle switch) Locate on switch housing (2 toggle switch)
Decal	1	80100829	Locate next to liftgate circuit breaker. In applications where more than one circuit breaker is used, decal must be placed in both locations.
)(t Off Decal (Optional) ecal Decal ftgate is equipped with o	t Off Decal (Optional) 1 ecal 1 Decal 1	a Off Decal (Optional) 1 75089267 ecal 1 80101532 80101533 80101533

Chapter 5 Placement of Decals



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, crossbeam box, and platform hinges with machine oil or motor oil.
- Lubricate driver and passenger side tracks.

Suggested Minimum Lubrication Schedule (in days)					
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 7. S

SCHEMATICS



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 Truck Equipment Co. 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

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

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