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LD-80

Owner's Manual

1250 lb. Capacity
Conventional

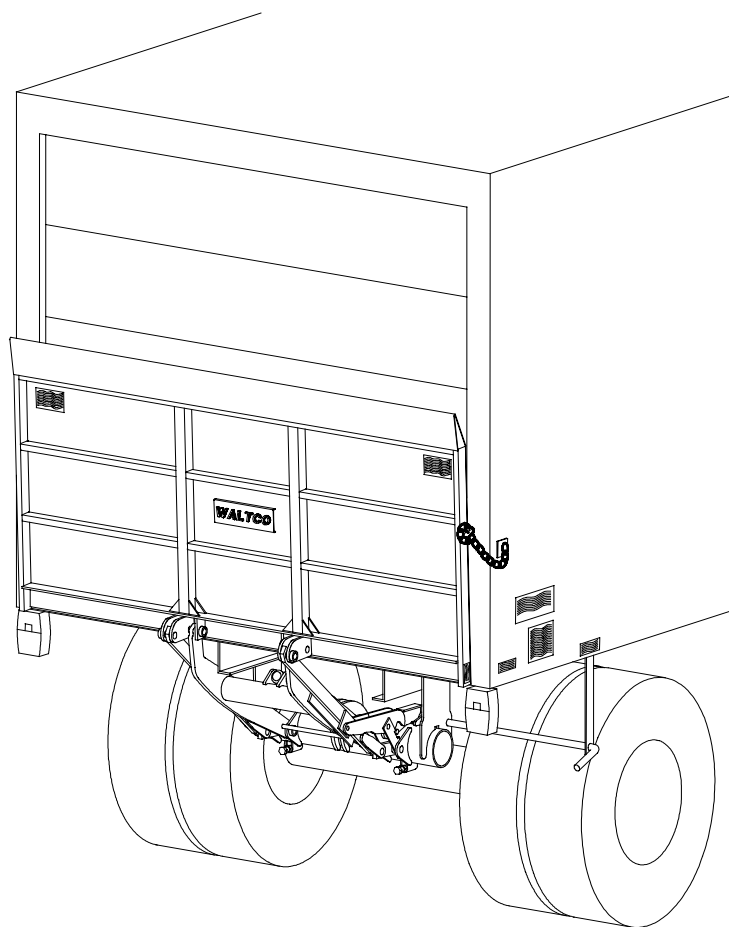
IMPORTANT

KEEP IN VEHICLE

ATTENTION

THE SUCCESS OR FAILURE OF THIS EQUIPMENT COULD VERY WELL DEPEND ON THOROUGH AND PROPER OPERATION AND MAINTENANCE OF THIS EQUIPMENT.

READ AND UNDERSTAND THE CONTENTS OF THIS MANUAL BEFORE OPERATING THE EQUIPMENT.



7/04

GR00239

OHIO

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

CALIFORNIA

227 E. Compton Blvd
Gardena CA 90248
(310) 243-6800
FAX – (310) 538-1136

GEORGIA

1395 N. Cobb Parkway
Marietta, GA 30062
(770) 425-0922
FAX – (770) 425-5886

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ATTENTION

OWNERS' MANUAL INTRODUCTION

EVEN THOUGH THE FOLLOWING GOES WITHOUT SAYING, WE FEEL
COMPELLED TO STATE...

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

The contents of this 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. If the owner or operator observes improper installation, improper operation, or damage, or has any doubts as to the installation, condition, use or operation of the liftgate, he should immediately contact a qualified person for assistance and correction.

We strongly urge the owner or user (or anyone else) that have questions as to the installation, operation, usage, maintenance or repair (as it relates to the liftgate) to contact us at the number below 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, and are again listed below:

California

227 E. Compton Blvd.
Gardena, CA 90248
(310) 243-6800
FAX - (310) 538-1136

Ohio

285 Northeast Avenue
Tallmadge, OH 44278
(330) 633-9191
FAX - (330) 633-141

Chapter 1 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.
- 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.
- Keep hands and feet clear of all pinch points.
- 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.
- 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

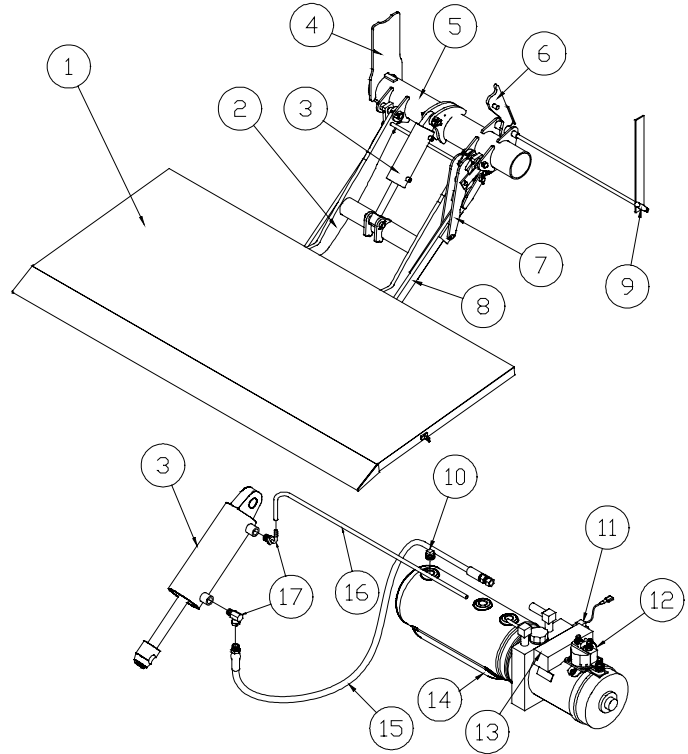
- Replace Cam Release Spring every five (5) years or 15,000 cycles, whichever comes first.

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.

Chapter 2 Liftgate Terminology

1. Platform
2. Lift Arm
3. Hydraulic Cylinder
4. Mount Plate
5. Mount Frame
6. Cam Assembly
7. Closer Linkage Assembly
8. Parallel Arm
9. Closer Handle
10. Reservoir Plug
11. Lowering Solenoid
12. Motor Starting Solenoid
13. Motor Controller
14. Pump Reservoir
15. Hose Assembly
16. Return Line
17. Hydraulic Fittings



GR00240

Explanation of Specification Tag

Model No.	Model Name	Description	Capacity
130	LD-80	Conventional Lift	1250 lb.

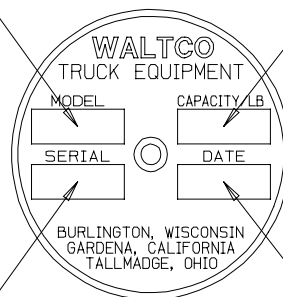
MODEL NUMBER

RATED CAPACITY

Based on an evenly distributed load on the platform flat surface.

SERIAL NUMBER
of liftgate. To be used when ordering parts or when contacting Waltco for service or warranty questions.

DATE OF MANUFACTURE
Month/Year



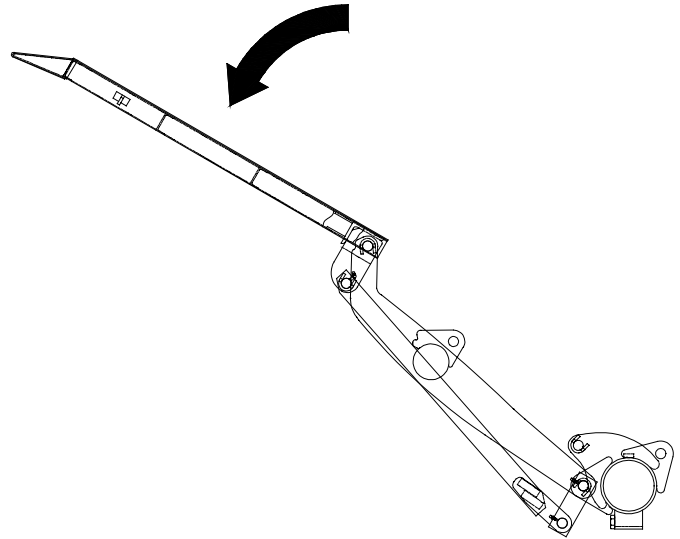
GR00241

Chapter 3 Operation Instructions

TO OPEN PLATFORM

Remove latch chain from platform. Never remove chain if it is tight. Push the raise switch to release tension on chain.

Use lowering switch to open platform, allowing closer handle and cam assembly to rotate upward before raising the platform.



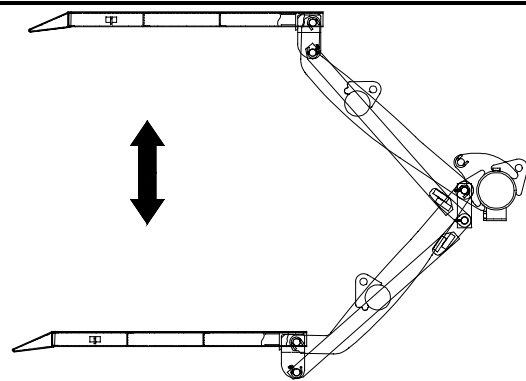
GR00281

TO OPERATE LIFTGATE

Push the raise switch to raise the platform.

Push the down switch to lower the 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 the platform flat surface.



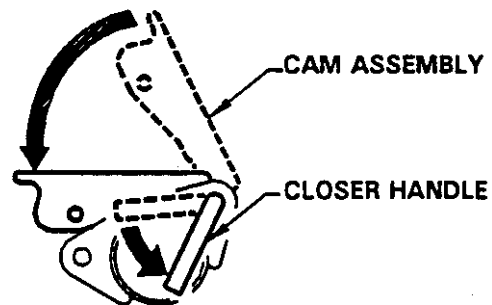
GR00282

TO STORE PLATFORM FOR TRANSIT

Make certain platform is clear of all objects.

Lower platform approximately half way to ground to allow cam assembly to be rotated to horizontal position.

Using the closer handle, rotate and hold the cam assembly in the horizontal position and then raise the platform to transit position using the raise switch.



GR00283

Chapter 3 Operation Instructions

SECURE PLATFORM FOR TRANSIT

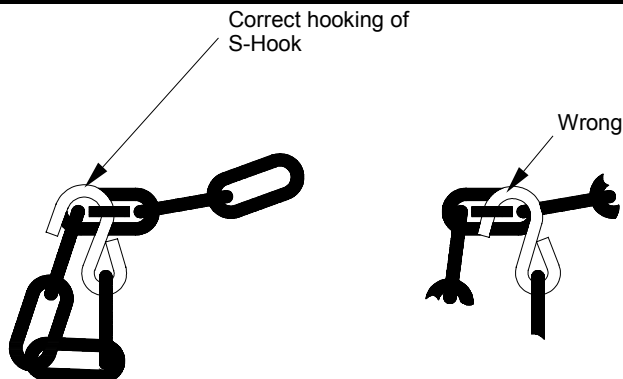
Close platform

Chain platform as shown.

Turn shut-off switch off (optional switch).

NOTE

A pad lock can be used in place of S-hook to prevent unauthorized use of liftgate.



GR00848

ADJUST PLATFORM LOWERING SPEED

(Gravity Down liftgates only)

Use Flow Control Valve.

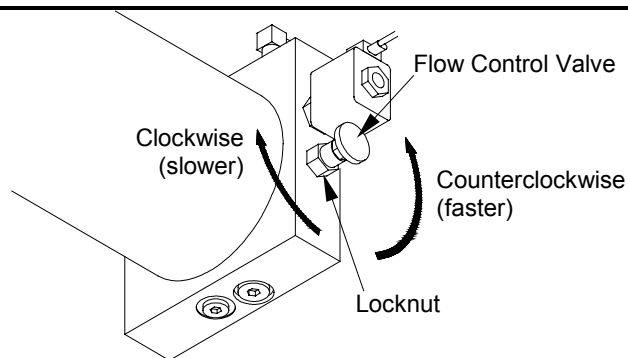
Loosen Locknut.

Adjust as required.

Retighten Locknut.

IMPORTANT

The platform must operate at a safe and reasonable rate of speed subject to the environment it will be used in.



GR00160

Chapter 4 Inspection

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.

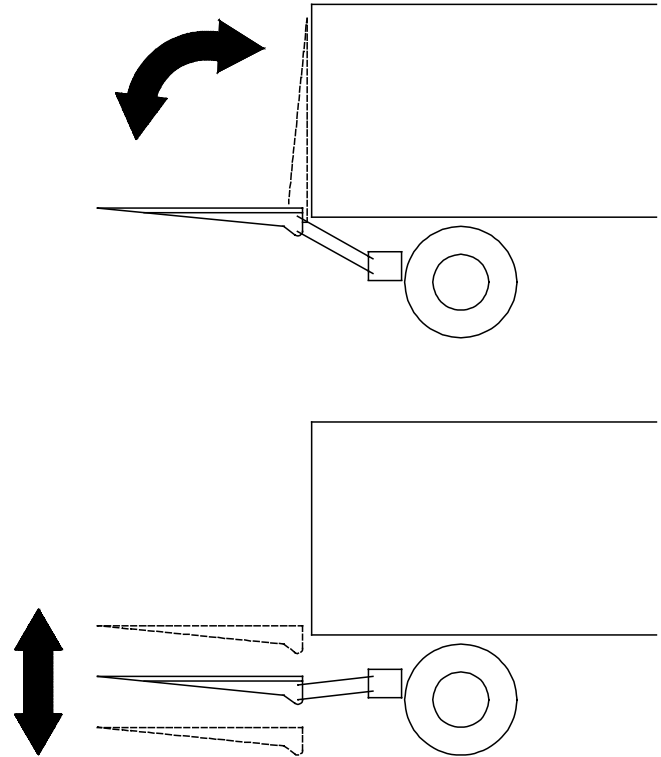
All pivot and cylinder pins are securely in place, undamaged and retained by their proper fasteners (refer to parts drawings in "PMs and Schematics").

Damaged or worn bearings that pivot and cylinder pins rest in.

Controls operate correctly (refer to "Operations Instructions")

Check all power cables, ground cables, and connections

Clean and tighten all loose connections. Replace any damaged or corroded wires or connectors

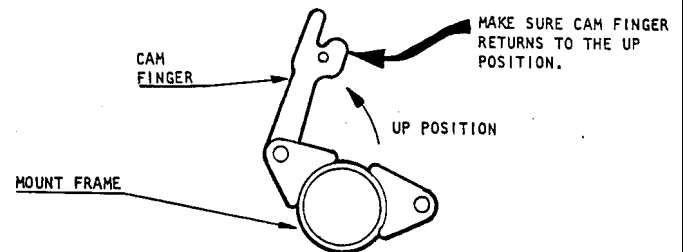


GR00849

CHECK POWER CLOSER CAM

Check that the power closer cam, levers, pins, and arm are not bent or distorted.

Check that closer cam returns to free position when closer handle is released.



GR00285

CHECK HORIZONTAL POSITION OF PLATFORM

Platform should be kicked up slightly at the ramp end

To adjust:

Raise platform to bed level

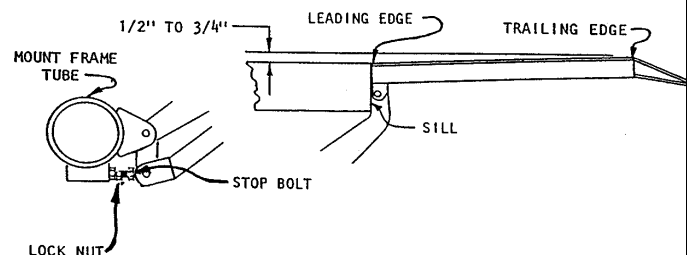
Loosen locknut on stop bolt assembly

Adjust stop bolts equally until platform levels

Retighten locknuts

IMPORTANT

To keep platform level when loaded, trailing edge may be raised 1/2" - 3/4" above floor level when platform is empty.



GR00266

Chapter 4 Inspection

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.

FILLING HYDRAULIC RESERVOIR

Lower platform to ground

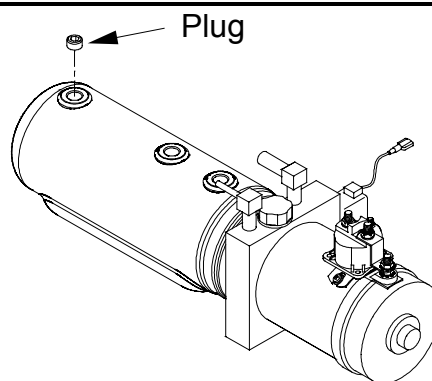
Remove Reservoir Plug.

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

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

Replace Plug.

Run liftgate full cycle several times to release trapped air from system.



GR01001

RECOMMENDED FLUIDS

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.

IMPORTANT

Do not use brake fluid

NOTE

A Good quality SAE 10W motor oil may also be used.

Recommended Fluids

Temp Range	Acceptable Fluids
32 to 150 F	Exxon Unis J-26 Mobil DTE 13 Chevron AW 32 Shell Tellus 23
-10 to 110 F	Exxon Unis J-13 Mobil DTE 11
-40 to 80 F	Mobil DTE 11 MIL-H-5606

MISCELLANEOUS INSPECTION & MAINTENANCE

Check the electrolyte level of the liftgate battery(s).

Fill as may be required to the battery manufacturer's recommendations.

Inspect all decals.

Refer to "Inspection of Decals".

Lubricate liftgate.

Refer to "Lubrication of Liftgate".

Chapter 4 Inspection

SEMI ANNUAL INSPECTION

Inspect power motor:

Disconnect battery cable.

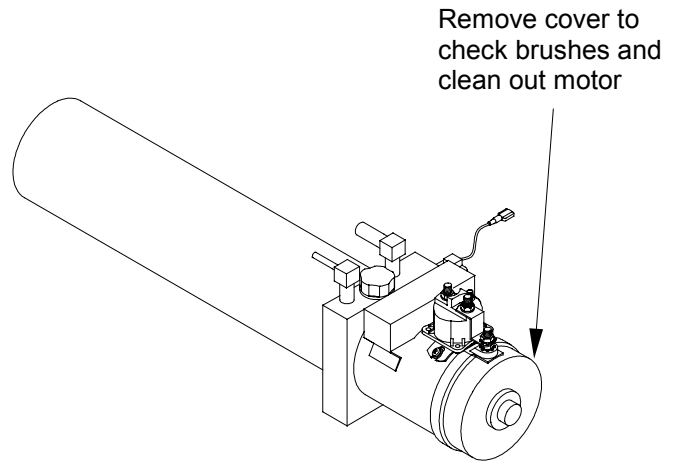
Remove end cover.

Examine armature brushes for wear
(Brushes 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.



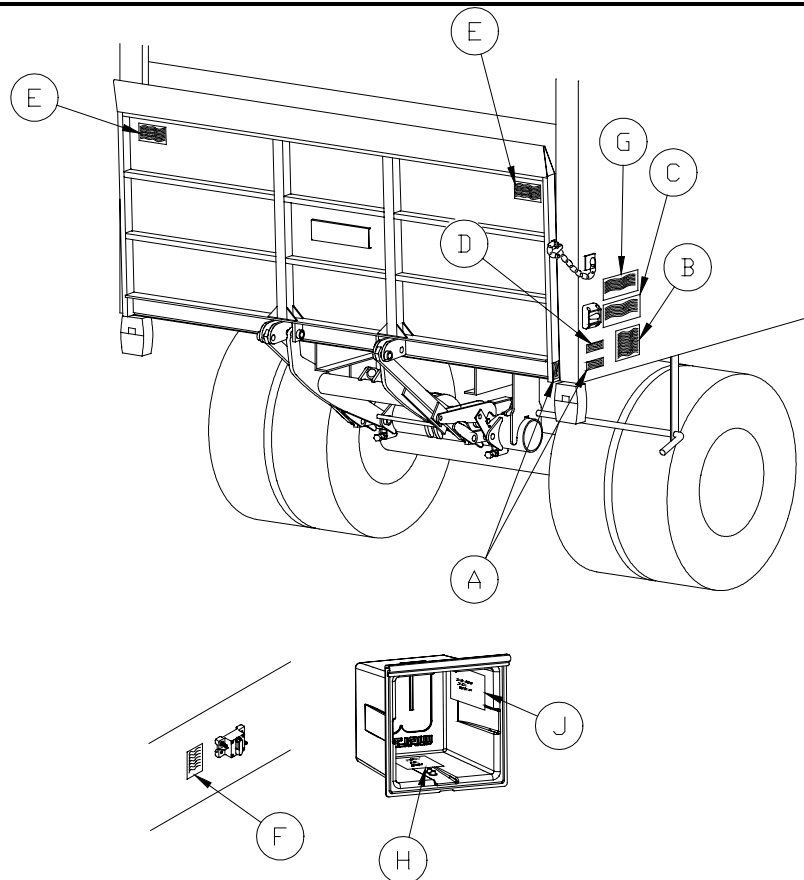
GR00181

Chapter 5 Placement of Decals

Inspect all decals to ensure proper location and legibility.
All decals must be in place and legible or all warranties are void.

DECAL CHART

ITEM	DECAL	QTY	PART NUMBER	LOCATION
A	1250 Capacity Decal 1600 Capacity Decal 2000 Capacity Decal	2	80100266 80100252 80100253	Locate one in a conspicuous place near controls. Locate one on curb side of platform. (Note: Four decals required with dual controls)
B	Safety Instructions	1	80100850	Locate in a conspicuous place near controls. (Note: Two decals required with dual controls)
C	Operation Instructions	1	80100851	Locate in a conspicuous place near controls. (Note: Two decals required with dual controls)
D	Important Decal	1	80100828	Locate in a conspicuous place near controls. (Note: Two decals required with dual controls)
E	Caution	2	75089296	Locate on bottom of platform.
F	Warning Decal	1	80100829	Locate next to liftgate circuit breaker.
G	Motor Reset Decal (Thermalpak® only)	1	80101156	Locate in a conspicuous place near controls.
H	Important Decal	1	80100842	Locate inside pump cover.
J	SuperSwitch Diagnosis	1	80101421	Locate inside pump cover.



GR00947

Chapter 6 Lubrication Instructions

CAUTION

Always secure the platform with latch chain when in the vertical (transit) position. Do this before servicing or lubricating this liftgate.

Suggested Minimum Lubrication Schedule (In Days)			
Cycles per month	Light Duty	Medium Duty	Heavy Duty
250 or less	45	30	21
250-350	30	21	14
350-450	21	14	7
More than 450	Contact factory for special instructions		

Grease all nine grease fittings with grease gun.

1. With platform in vertical (transit) position, grease the four (4) points on platform end of lift arms and parallel arms.
2. With platform open and on the ground, grease the five (5) points located on mount frame end of lift arms, stop blocks, and cylinder lugs.

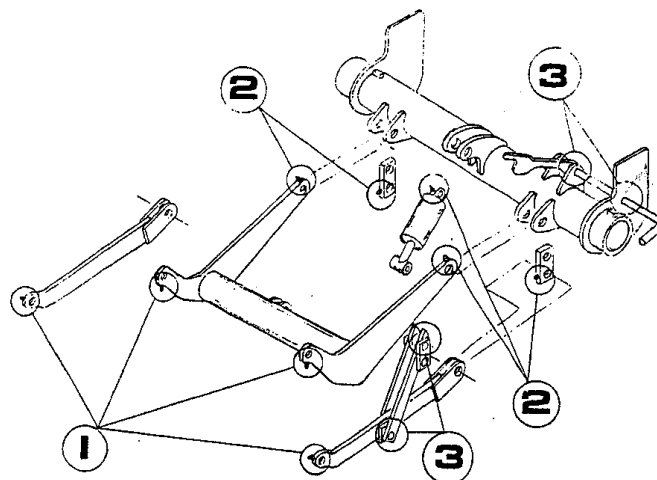
Oil closer assembly.

3. With platform in vertical (transit) position, oil all bearing surfaces on the closer assembly with a light weight machine oil.

NOTE

This liftgate should be lubricated approximately once a month or as outlined in the lubrication schedule for heavier usage. If not sure of duty cycles, always lubricate more frequently.

Take care not to nick or scratch the exposed shaft, as it will create cylinder leakage.

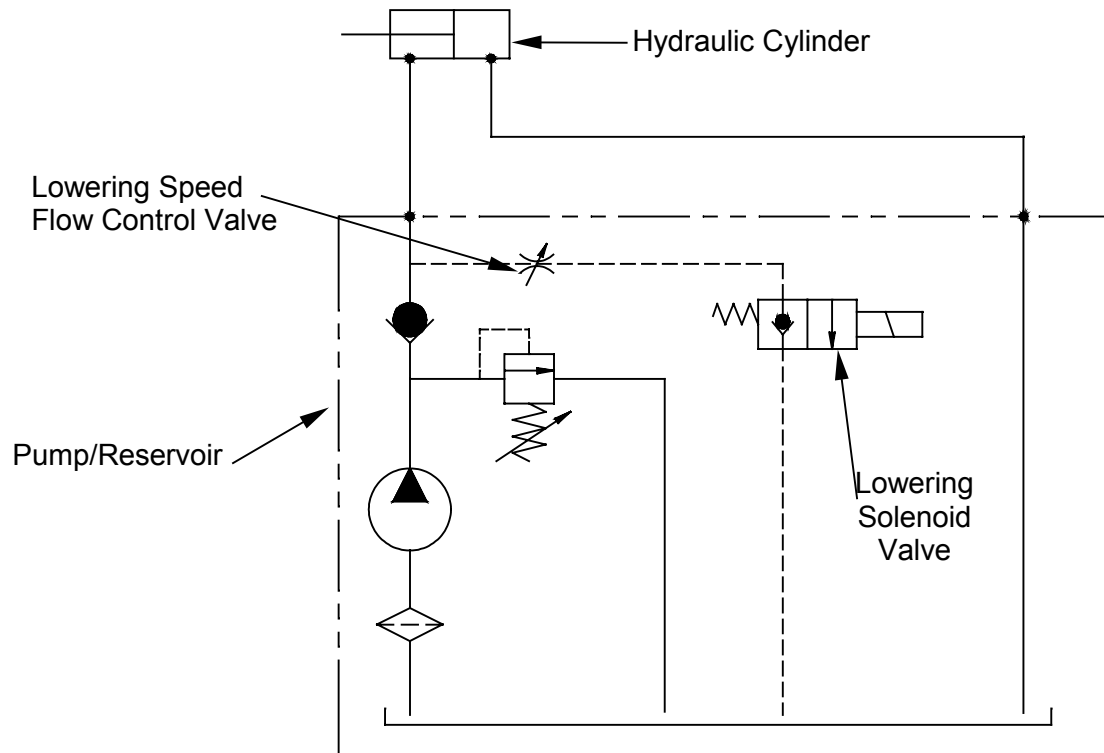


GR00917

Chapter 7 PMs & Schematics

	PM Number
Mount Frame Assembly.....	PM-98
Hydraulic Layout.....	PM-336B
Electric Control Options.....	PM-617
Hydraulic Schematic	

HYDRAULIC SCHEMATIC – GRAVITY DOWN



GR00186

ITEM	PART NUMBER	QTY	DESCRIPTION
1	13020000	1	Mount Frame Assembly
2	13030000	1	Lift Arm Assembly
3	13011000	1	Deck Assembly
4	14055000	2	Parallel Arm Assembly
5	14070100	2	Mount Plates
6	14051000	2	Stop Block Assembly
7	75089541 ^{AB}	13	1/4" x 1-7/8" Coiled Pin
8	20270700 ^B	2	Main Pin
9	14071700	2	1" I.D. x 1/2" Spacer
10	10171701	3	1" I.D. x 1" Spacer
11	11170502 ^{AB}	1	Upper Cylinder Pin
12	13027100	1	Spring
13	13026000	1	Cam Assembly
14	13027200 ^B	1	Pin
15	13027300	1	Handle
16	30150301 ^B	2	Parallel Arm Pin
17	14011100 ^B	4	Deck Pin
18	75089548 ^B	8	3/16" x 1-1/4" Coiled Pin
19	11171500 ^{AB}	1	Lower Cylinder Pin
20	10210900	1	1" I.D. x 7/16" Spacer
21	75088087	2	3/4" Lock Washer
22	75085015	2	3/4"-10 Hex Jam nut
23	75086180	2	3/4"-10 x 2" Hex Head Screw
24	10193000	1	Latch Chain Assembly
25	10111700	1	Chain Clip
26	75086215 ^{AB}	1	1/4"-20 x 2-1/2" Hex Bolt (Grade 8)
27	75085175 ^{AB}	1	1/4"-20 Self Locking Nut
28	13027400	1	Handle Support
29	13029000	1	Closer Assembly (Items A thru H)
A	13029500	1	Main Link Assembly
B	13029100	1	Upper Link
C	10117100	1	1" I.D. x 1-7/16" Spacer
D	13029900 ^B	1	Upper Link Sub-Assembly
E	13029300	2	Lower Link
F	13028500 ^B	1	Lower Link Pin Assembly

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LD-80 Series

ITEM	PART NUMBER	QTY	DESCRIPTION
G	75089548 ^B	2	3/16" Dia. x 1-1/4" Coiled Pin
H	13029600	2	Fiberglide Bearing

^A Included in Cylinder Kit 80000939.

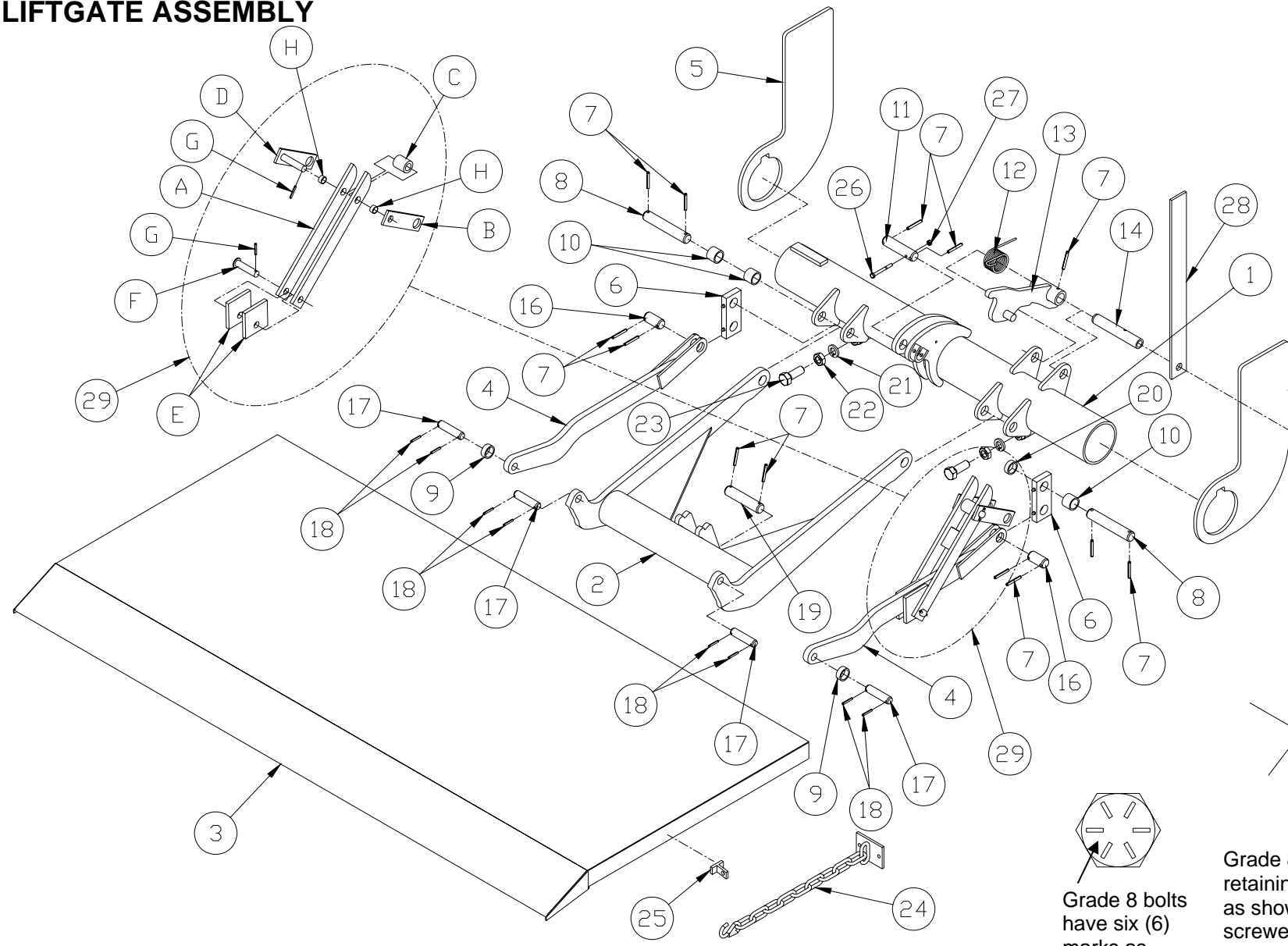
^B Included in Pin Kit 80003280.

IMPORTANT:
Parts shown may not match your
liftgate. See PARTS NAVIGATOR or
contact Waltco Parts to confirm
correct part numbers.

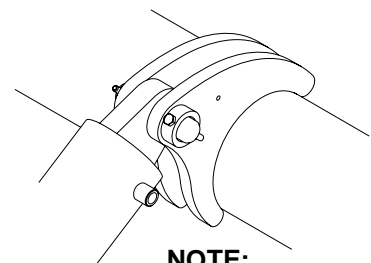
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E.O. 5221E
REV. 06

PM-98

LIFTGATE ASSEMBLY

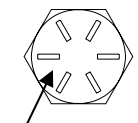


IMPORTANT:
Parts shown may not match your liftgate. See PARTS NAVIGATOR or contact Walto Parts to confirm correct part numbers.



NOTE:

Grade 8 bolt to be installed thru retaining collar and upper cylinder pin as shown. Make certain that locknut is screwed fully onto bolt until threads bottom out on bolt shank.



Grade 8 bolts have six (6) marks as shown

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TRUCK EQUIPMENT CO.
LD-80 Series

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E.O. 5221E
REV. 06

ITEM	PART NUMBER	QTY	DESCRIPTION
1	70402100	1	Hydraulic Pump Unit
	70402125		Hydraulic Pump Unit
A	70400001 ^{B,C}	1	Hydraulic Reservoir
B	70400004 ^{B,C}	1	Breather
C	7043001-1 ^{A,B,C}	1	Motor
D	75089833 ^{A,B,C}	1	Starter Solenoid
E	70092503 ^{B,C}	1	Valve Assembly, 2-way, 2 position w/ Coil
F	75089853 ^{B,C}	1	5 Amp Fuse
G	10099309 ^{B,C}	1	Inline Fuse Assembly (Includes Fuse 75089853)
H	75089834 ^{A,B,C}	1	Bus Bar
J	70402303 ^{B,C}	1	Coil, 10V, 25A
2	75083201	1	Hose Assembly, 1/4" I.D. x 1/4" JIC, 57" lg
3	75083210	1	90° Elbow, 1/4" NPT x 1/4" JIC
4	22180050	1	Hydraulic Cylinder
5	75082745	1	Barbed Fitting, 1/4" NPTF x 1/4", 90°
6	26299500	1	Hose, 1/4" I.D.
7	70401408	1	7/16" I.D. Grommet
8	70401409	1	1/4" I.D. Grommet
9	70091291	1	Steel Plug
10	75086212	3	Pump Mount Bolt, 1/4"-20 x 1-1/4" lg.
11	75088079	3	1/4" Lock Washer
12	27391301	1	Cover Latch
13	10023100	1	Remote Pump Mounting Bracket
14	75088052	1	Flat Washer, 5/16 SAE
15	75085005	1	Serrated Hex Nut, 3/8-16
16	10090460	1	Pump Cover Gasket
17	10090450	1	Pump Cover (with latch)
18	75090310	1	Grommet for Control Cord
19	75089334	1	Grommet for Battery Cable

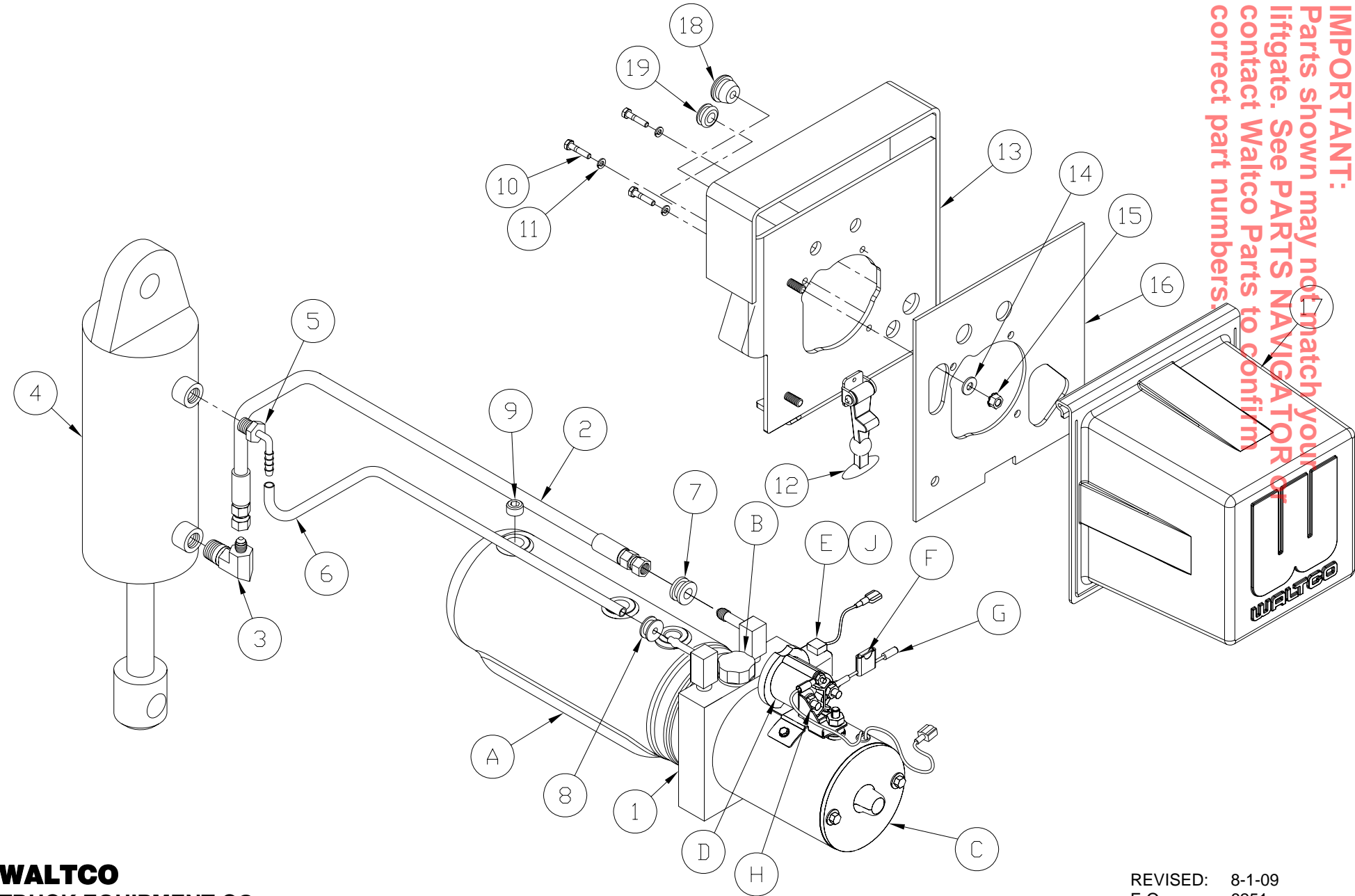
^A Included in Thermalpak® Motor Assembly 70400854.

^B Included in Pump Assembly 70402100.

^C Included in Pump Assembly 70402125.

IMPORTANT:
Parts shown may not match your
liftgate. See PARTS NAVIGATOR or
contact Walco Parts to confirm
correct part numbers.

HYDRAULIC LAYOUT



IMPORTANT:
Parts shown may not match your liftgate. See PARTS NAVIGATOR or contact Waltco Parts to confirm correct part numbers.

WALTCO
TRUCK EQUIPMENT CO.
LD-SERIES

REVISED: 8-1-09
E.O. 6251
REV. 04

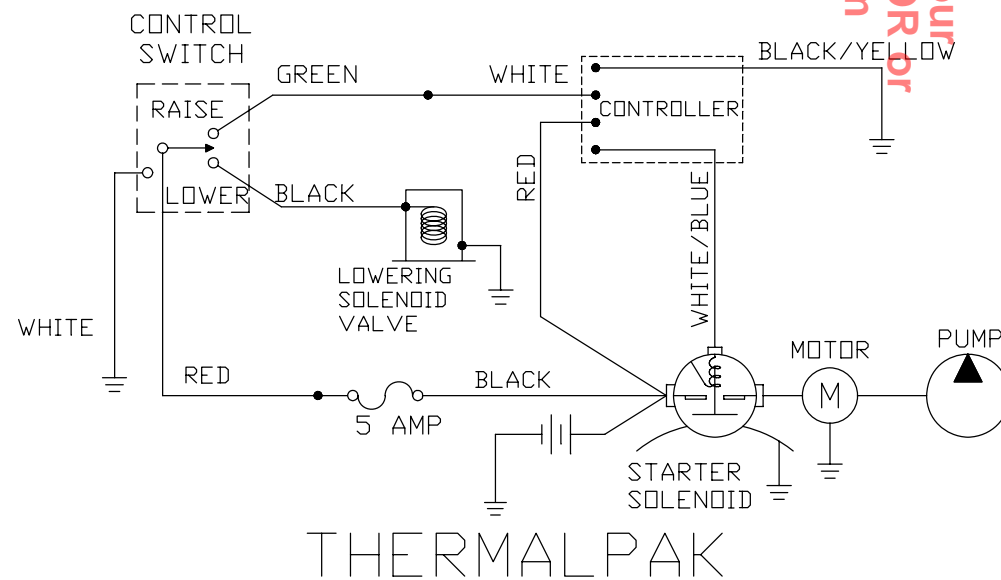
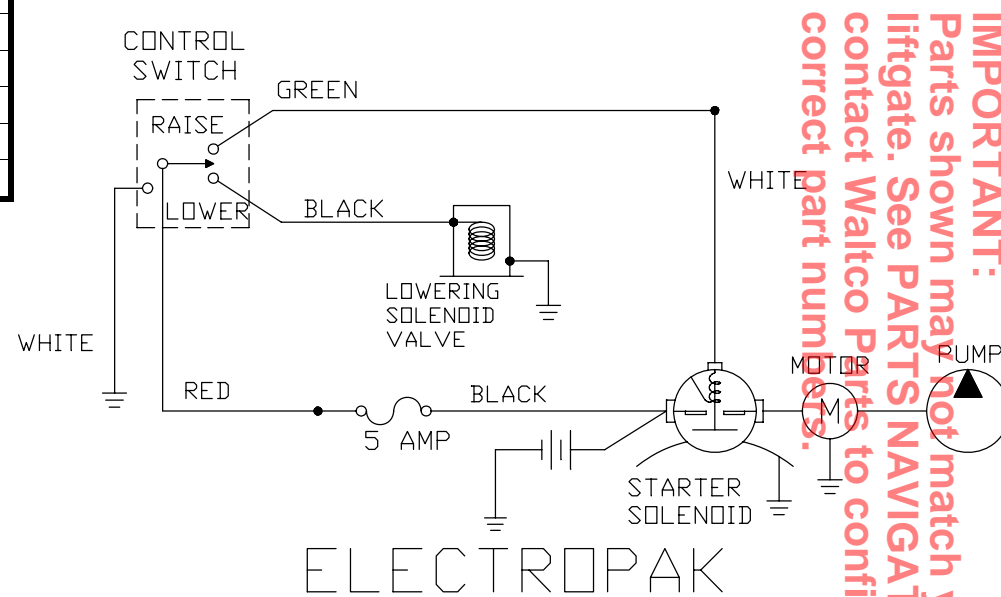
PM-336B

ITEM	PART NUMBER	QTY	DESCRIPTION
1	10099322 ^a	1	SuperSwitch™ (for curb side)
	10099323 ^b	1	SuperSwitch™ (for Dual Control Harness)
2	10099325 ^c	1	SuperSwitch™ (Hand Held Remote)
3	75082038	1	Trailer Socket
4	75082037	1	Trailer Plug
5	75089853	1	5 Amp Fuse
6	75089850	1	Fuse Holder

^a Included in SuperSwitch™ Kit 80000428.

^b Included in SuperSwitch™ Dual Control Kit 80000434.

^c Included in SuperSwitch™ Hand Held Remote Kit 80000430.

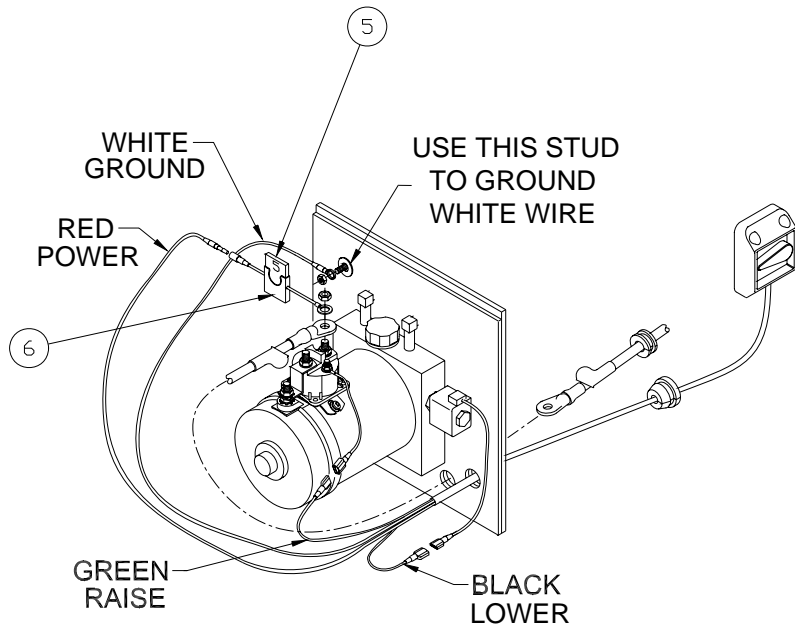
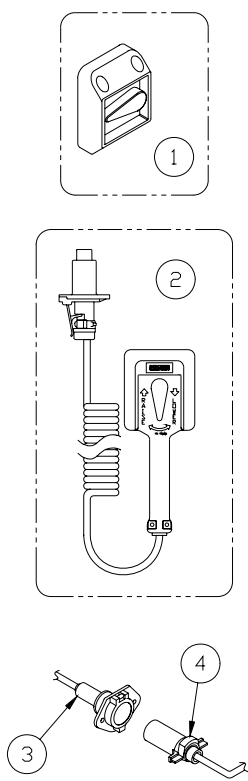


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TRUCK EQUIPMENT CO.

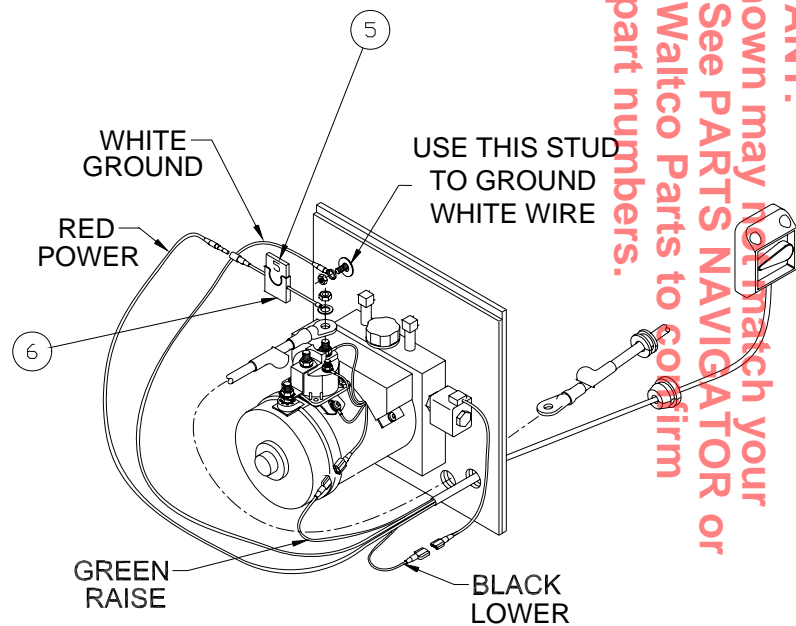
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E.O. 5337G
REV. 03

PM-617

ELECTRIC CONTROL OPTIONS – Gravity Down



Electropak®



Thermalpak® with Voltage Guard™

IMPORTANT:
Parts shown may not match your liftgate. See PARTS NAVIGATOR or contact Walto Parts to confirm correct part numbers.

Chapter 8 – 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 OR PHONE YOUR REQUEST TO:

OHIO
285 Northeast Avenue
Tallmadge, OH 44278
(330) 633-9191
(800) 411-5685
FAX - (330) 633 1418

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.

SUBJECT: SPECIAL SERVICE BULLETIN

DO NOT IGNORE THIS BULLETIN - READ IT!

**THIS INFORMATION IS IMPORTANT TO THE SAFETY
OF YOU, YOUR CUSTOMER AND THE LIFTGATE USER.**

**THE FOLLOWING IS OFFERED TO HELP
PREVENT SERIOUS PERSONAL INJURY.**

**YOUR FAILURE TO ADHERE TO THESE GUIDELINES
MAY RESULT IN LIABILITY TO YOU.**

Even though the following goes without saying, as part of WALTCO's on going safety program, we again wish to call your attention to items of concern.

This list, of items provided below, is not intended to cover all areas that could result, or contribute to serious personal injury.

If you have ever installed or have ever had a WALTCO liftgate installed and the WALTCO INSTALLATION INSTRUCTIONS were not FOLLOWED, then these instructions should be checked IMMEDIATELY by QUALIFIED personnel to insure proper installation, and operation of the liftgate.

If you have maintained, repaired or have had maintenance or repair on a WALTCO liftgate and WALTCO's MANUAL, INSTRUCTIONS BOOKLET and SERVICE BULLETINS were not consulted or referred to, then these materials should be checked IMMEDIATELY by QUALIFIED personnel to insure proper installation, operation, repair and maintenance to the liftgate.

1. Faulty welds can result in loads falling, the liftgate itself failing or unexpected movements of the platform.
 2. Improper adjustments and/or improper installation of upstops could result in abnormal opening of the platform.
 3. The lack of provided guards, required protective margins, or the improper location of controls can result in accidental or unexpected operations of the controls. NOTE: Controls that do not work freely or stick in an up or down position are not operating properly.
 4. Pins which are improperly secured can fall out or cause the pivot to fail.
-

5. Improper attachment of liftgates can result in uneven alignment of surfaces and/or protrusion beyond the legal widths.
6. Improper supports or bracing may result in a sudden failure.
7. Improper attachment of hoses can result in the improper operation of the liftgate or the leaking of oil.
8. Lack of lockout devices could result in unauthorized use.
9. Parts which are not manufactured by WALTCO or which are not used as intended may be too weak, not fit properly and/or not work in concert with the design.
10. Unauthorized alteration of the liftgate may result in an undesirable and dangerous condition.
11. Improper dimension in mounting may cause the liftgate to work improperly.
12. Improper installation or repairs by unqualified personnel or lack of maintenance can result in improper operation.
13. Omission of decals or painting over them will result in those not acquainted with the liftgate, operating the liftgate without the benefit of instructions contained therein.
14. Failure to install, maintain or repair in accordance with WALTCO's INSTRUCTIONS or the lack of knowledge applicable to the skills of qualified personnel can result in improper operation.
15. Failure to regularly and/or systematically check the liftgate to determine if it meets the manufacturer's original standards and is in proper repair and operating condition can result in placing into service a liftgate that does not meet our intended standards.

IF THERE ARE OTHERS YOU HAVE SHIPPED OR SOLD WALTCO LIFTGATES TO, WHO HAVE OR WILL BE INSTALLING, MAINTAINING. OR REPAIRING THESE LIFTGATES, YOU MUST FORWARD A COPY OF THIS BULLETIN TO THESE PEOPLE.

If you have any questions, contact us at one of the following locations:

OHIO
285 Northeast Avenue
Tallmadge, OH 44278
(800) 411-5685
(330) 633-9191
FAX - (330) 633-1418

SUBJECT: INSPECTION AFTER DAMAGE OR SUSPECTED OVERLOADING

As a part of the regular inspection of a liftgate, and especially after damage or suspicion of an overload, particular attention should be given to the hydraulic lift cylinder and its attachment to the lifting mechanism. In addition, any time that it is necessary to replace the cylinder, lift arm, cylinder pins, or any structural member, the following parts must be inspected for wear or structural damage and the necessary repairs or replacements made.

Upon inspection, should any of the following conditions exist, it is an indication that the liftgate has been subjected to abuse.

Inspect:

1. The ends of the cylinder for structural damage at its point of attachment to the lift arm and mount frame.
2. The cylinder clevises on the lift arm and mount frame for structural damage to the material surrounding the cylinder pin holes.
3. The welds attaching the cylinder clevises to the lift arm tube and the mount frame for fractures.
4. The lower and upper cylinder pins for wear, straightness and structural damage such as fractures etc.
5. The cylinder assembly for internal and external leakage, fractures and deformation of the cylinder barrel.
6. Hydraulic lines and fittings for damage and external leakage.

If any of the above conditions are found to exist, the cylinder should be inspected by a qualified mechanic for internal damage and repaired or replaced.

IMPORTANT

Only original equipment replacement parts are to be used.

SUBJECT: SERVICE PARTS ORDERING - ALL MODELS

It has been called to our attention that both Service Literature and Equipment parts for other than WALTCO liftgates have been used for reference and replacement parts on WALTCO liftgates.

We would like to emphasize the extreme importance of using only the literature such as Parts Manuals and Installation Instructions furnished by WALTCO for our liftgates. The information contained in this literature is carefully prepared by our staff to assist you in providing the highest quality of service possible to your customers. Of even greater importance, is the proper selection of replacement parts. A casual inspection of the many parts used in WALTCO liftgates should never lead you to the conclusion that these parts are necessarily interchangeable with those used by other liftgate manufacturers. Since each component in our product is specifically designed to be compatible with overall product design, it is obvious that the use of parts other than those furnished by WALTCO may seriously affect the reliability of the product.

The following are some of the items which may outwardly appear to be the same as those used by other liftgate manufacturers and a few critical points on each:

Electro Hydraulic Power Pack

The capacity of the oil reservoir, relief valve pressure, release mechanism, cam and the mounting bracket.

Control Valves

Operating sequence and compatibility with control geometry, relief valve pressure and the pressure rating of the valve itself.

Push Button and Solenoid Starter Switches

Ampere rating of switch, duty cycle rating, general construction and quality of electrical switching device. (WALTCO at one time used a lubricant filled push button starter switch on certain model power packs. We have replaced this switch with an improved design which is specially constructed with resistance washers, a protective coating and a rubber terminal cover in order to improve its resistance to corrosion.)

Pivot Pins

Many of the pins used in the WALTCO product line are made of high strength alloy steels and should only be replaced with original equipment replacement parts.

Hydraulic Hoses

Pressure rating, resistance to abrasion and cutting, type of construction, attachment of end fittings, are a few of the considerations to be made when selecting a Hydraulic Hose Assembly.

Parts Manuals

The key to the proper selection of replacement parts is found by referring to the parts manuals furnished by the equipment manufacturer. Although parts may appear to be similar in appearance in a parts manual published by two different manufacturers, there may be a significant difference in the actual part. Be sure to refer to the WALTCO Parts Manual only, when ordering parts for WALTCO liftgates.

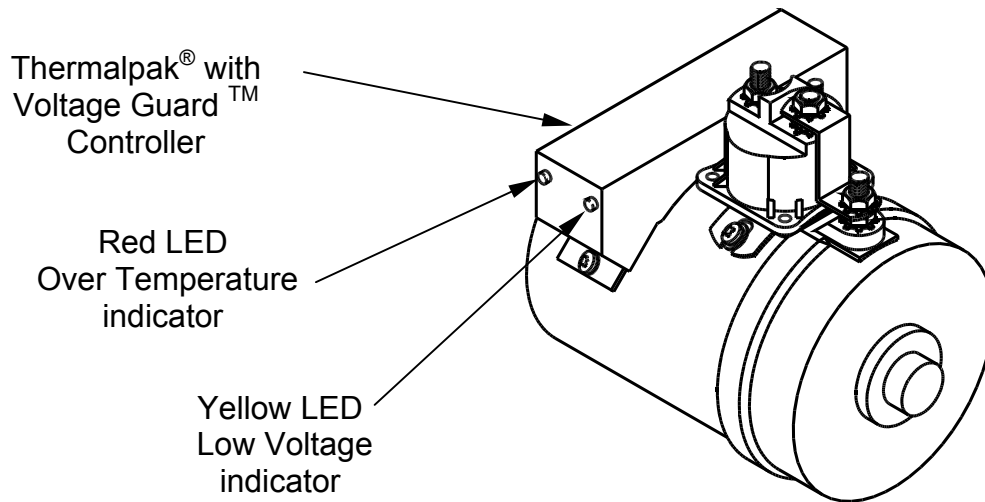
We suggest that you update your literature and request from us the latest Parts Manuals. We will be glad to furnish them at no charge.



TROUBLESHOOTING

WALTCO'S Thermalpak® with Voltage Guard™

This liftgate is equipped with Waltco's Thermalpak® with Voltage Guard™ hydraulic unit. This feature protects the liftgate motor(s) and solenoid(s) from damage due to overheating and low voltage.



The following conditions will cause the Thermalpak® With Voltage Guard™ controller unit to temporarily disable the liftgate motor:

Condition: Over temperature

When the Thermalpak® with Voltage Guard™ controller detects a liftgate motor overheating condition, the following occurs:

- The red LED on the controller lights.
- The liftgate motor is temporarily disabled.
- An alarm will sound intermittently each time the Raise function of the liftgate is activated.

Solution:

- Allow motor to cool until red LED on controller turns off and that the alarm no longer sounds when activating the Raise function of the liftgate.
- Hold Raise Switch for five (5) seconds to reset controller. Liftgate motor will then activate and normal operation will be restored.
- During the shut down period the liftgate may still be lowered or unfolded.

Troubleshooting (Why did liftgate motor overheat?):

Some conditions that may have caused the motor to overheat are:

- Overuse: Liftgate is being operated too many times within a short period of time.
- Battery cables are not securely connected or cable ends are corroded.
- Bad or insufficient ground.
- Insufficiently charged or bad batteries.

Condition: Low Voltage

When the Thermalpak® with Voltage Guard™ controller senses long term battery voltage falling to a level that would prevent the vehicle from starting or when it senses a short term severe drop in voltage that would cause solenoid “door belling” (rapid chattering of solenoid), the following occurs:

- The yellow LED on the controller lights.
- The liftgate motor is temporarily disabled.
- A steady alarm will sound each time the Raise function of the liftgate is activated.

Solution:

- Run vehicle motor to charge batteries.
- If the Thermalpak® with Voltage Guard™ does not automatically reset, turn off the vehicle. Disconnect the (+) positive battery cable from the battery(s) operating the lift gate for approx. (1) minute. Reconnect the battery cable.
- During the shut down period the liftgate may still be lowered or unfolded.

Troubleshooting (Why did liftgate motor stop working?):

Some conditions that may have caused a low voltage condition are:

- Overuse: Liftgate is being operated too many times with the vehicle engine not running.
- Battery cables are not securely connected or cable ends are corroded.
- Bad or insufficient ground.
- Insufficiently charged or bad batteries.
- If liftgate is mounted on a trailer, the tractor/trailer plug supplying charging power to the liftgate batteries is unplugged.

Super Switch Diagnostics

Super Switch Diagnostics

The Waltco Super Switch now has the ability to perform limited diagnostics at the controls to facilitate trouble shooting and expedite repairs.

Each switch has built in LED lights to indicate the switch is functioning properly.

The LED will illuminate when the switch is activated in either position.

See Below for Detailed Instructions On:

No LED Indicators:

Check Power and Ground

LEDs Operate but No Liftgate Operation:

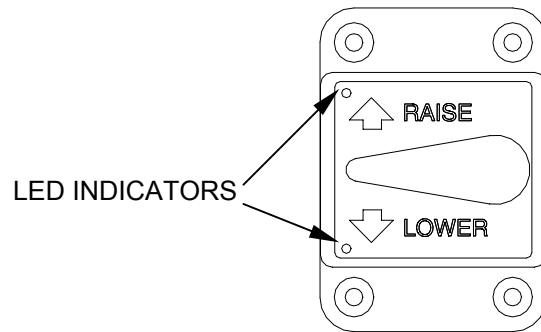
Check Pump unit

LED Indicators In Only One Position or Continuous On:

Replace Switch

No LED Indicators:

If the LED indicator does not illuminate in either position and liftgate does not operate, check the following items:



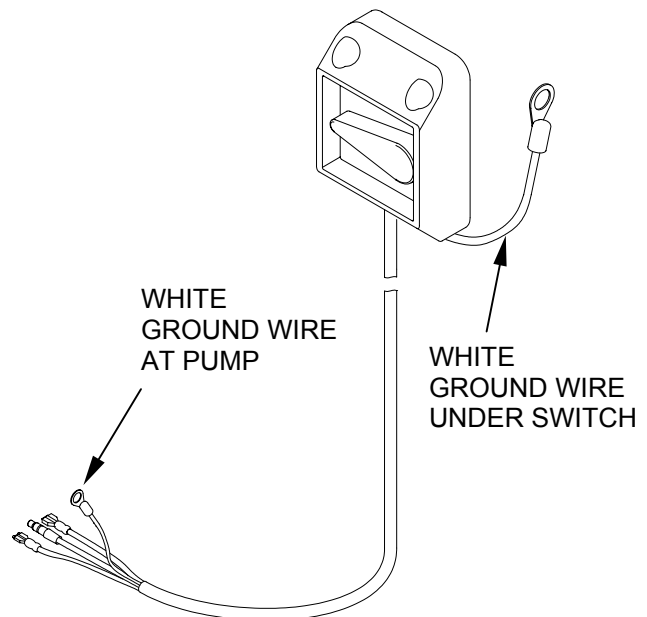
GR00919

Clean and tighten switch ground connection (white wire).

The white ground wire may be located under one of the switch mounting screws or at the pump unit.

Remove dirt and paint from beneath the ground terminal to ensure proper ground.

A ground path must exist between pump unit and switch. For body mounted liftgates that have pump unit mounted to the vehicle chassis, ensure ground path exists between body and chassis.



GR00920

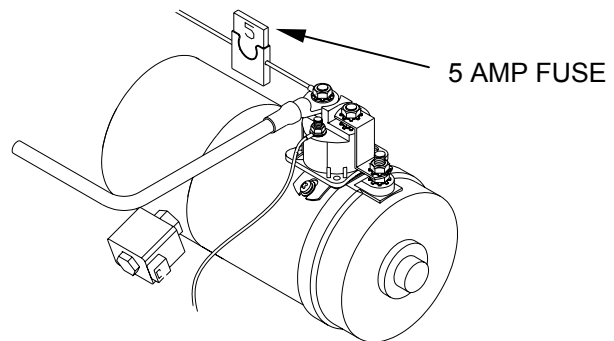
Super Switch Diagnostics

Ensure power is getting to the switch (red wire). Clean and tighten power connection to the switch.

Check fuse.

If fuse is blown replace with **5 amp** fuse only.

If the LED indicator does not illuminate in either position but liftgate operates properly, replace switch.



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LEDs Operate but No Liftgate Operation:

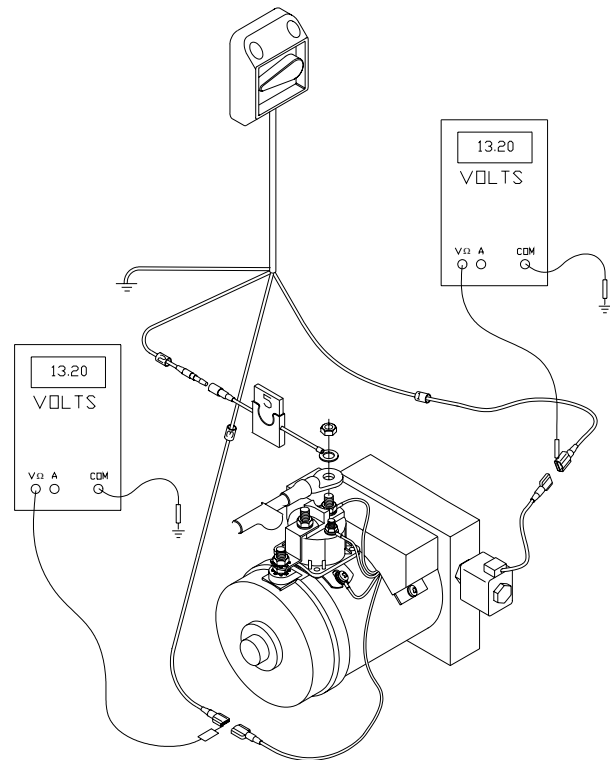
If the LED indicator illuminates when switch is activated but the liftgate does not operate, check the following items:

Check to ensure power is going from the switch to the pump when the switch is activated in both positions. There should be voltage readings for the lowering function as well as the raise function.

This will also apply to the open and close circuits for liftgates with power fold functions.

If power is confirmed, check for faulty components on pump unit.

If no power, fault is in cord or harness. Check cord or harness.

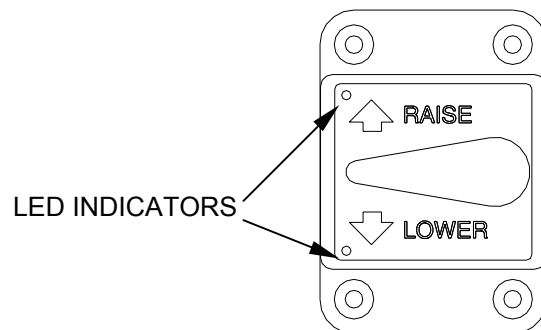


GR00922

LED Indicators In Only One Position or Continuous On:

If the LED indicator illuminates in only one of the two positions, replace switch.

If LED indicator light is illuminated when switch is at rest. Replace switch.



GR00919

IMPORTANT

It is important that every vehicle that has a WALTCO Liftgate 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 TRUCK EQUIPMENT COMPANY.

NOTE:

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

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.