



MPF-25, MPF-33

Owner's Manual

2500, 3300 lb. Capacity Flipaway

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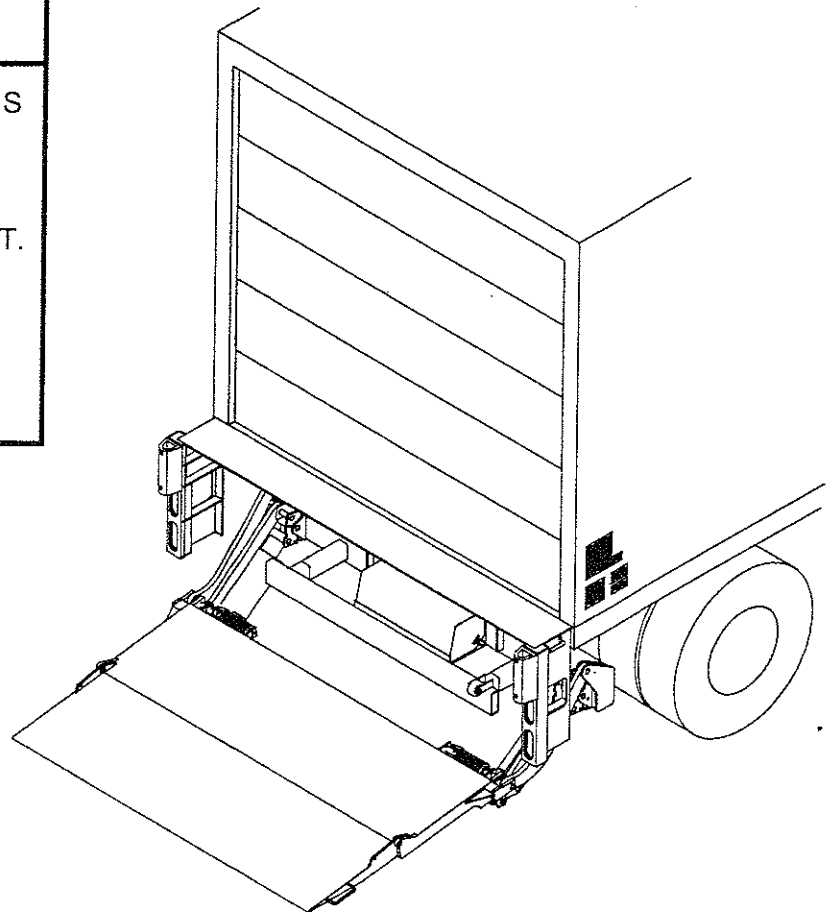
IMPORTANT

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.



01 - 2005

OHIO

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Tallmadge, OH 44278
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CALIFORNIA

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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 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 Owners 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 owners 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 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 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

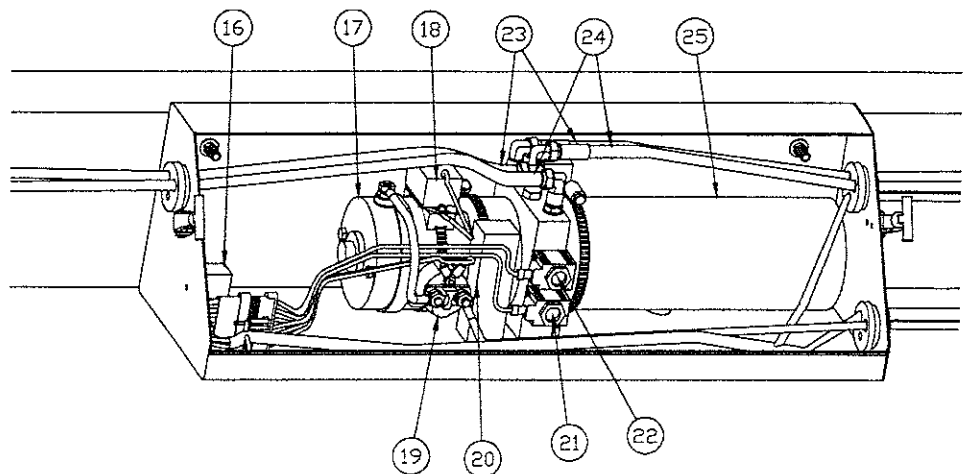
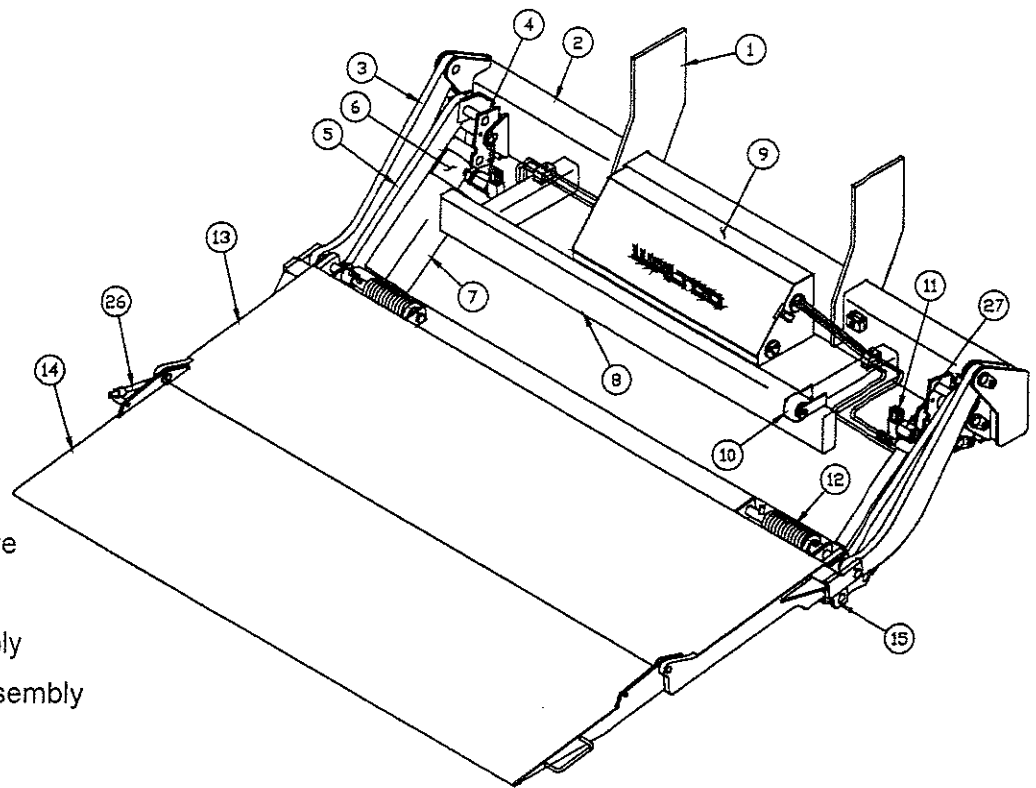
Indicates a potentially hazardous situation, which if not avoided, may result in minor or moderate injury. May also be used to alert against unsafe practices.

Black letters on a yellow background.

 **WARNING** **CAUTION**

Chapter 2 Liftgate Terminology

1. Mount Plate
2. Mount Tube
3. Parallel Arm
4. Pivot Block
5. Lift Arm Assembly
6. Hydraulic Cylinder
7. Cylinder Cover
8. Bumper
9. Pump Unit Enclosure
10. Parting Wheel
11. Hydraulic Locking Valve
12. Torsion Spring
13. Platform Deck Assembly
14. Platform Extension Assembly
15. Hinge Block
16. Relay
17. Pump Unit Motor
18. Power Down Module
19. Pump Unit Starter Solenoid
20. Thermalpak® with Voltage Guard™
21. Raise Solenoid Valve
22. Lower Solenoid Valve
23. Power Down Line
24. Power Up Line
25. Pump Unit Reservoir
26. Torsion Bar



EXPLANATION OF SPECIFICATION TAG

MODEL NO.	MODEL NAME	DESCRIPTION	CAPACITY
233	MPF-25	MPF-25 Series	2500 lbs.
234	MPF-33	MPF-33 Series	3300 lbs.

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

WALTCO
TRUCK EQUIPMENT

MODEL <div style="border: 1px solid black; height: 20px; width: 100%;"></div>	CAPACITY / LB <div style="border: 1px solid black; height: 20px; width: 100%;"></div>
SERIAL <div style="border: 1px solid black; height: 20px; width: 100%;"></div>	DATE <div style="border: 1px solid black; height: 20px; width: 100%;"></div>

BURLINGTON, WISCONSIN
GARDENA, CALIFORNIA
TALLMADGE, OHIO

Chapter 3 Operation Instructions

IMPORTANT:

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

- If unauthorized use of the liftgate could cause a hazard to person or property, the cab shut-off switch should be used.
- Do not use liftgate unless you have been properly instructed and have read, and are familiar with, the operating instructions.
- Be certain that vehicle is properly and securely braked before using the liftgate.
- Always inspect this liftgate for maintenance or damage before using it. Do not use liftgate if it shows any sign of damage or improper maintenance.
- Do Not Overload.
- Make certain the area in which the platform will open and close is clear before opening or closing platform.
- Make certain platform area, including the area in which loads may fall from the platform, is clear before and at all times during operation of liftgate.
- This unit is intended for loading and unloading of cargo only. **Do not use this liftgate for anything but its intended use.**
- This liftgate is equipped with circuit breakers located near the batteries, which will cut off power to the liftgate in the event of prolonged excessive amperage drain from the batteries. Allow breaker to cool before resetting.
- This liftgate is equipped with the Thermalpak® with Voltage Guard™ controller located on the motor of the hydraulic power unit. This is designed to stop power to the motor in the event that the motor overheats or when there is a low voltage condition. See the "Troubleshooting Waitco's Thermalpak® with Voltage Guard™" section of this manual.

TO OPEN PLATFORM

1. Lower the platform to the ground using the Control Switch.
2. Open the platform by pulling out on the handle.
3. Unfold platform extension using the handle on the curb side.

TO OPERATE THE LIFTGATE

1. Rotating the lever on the Control Switch to "**RAISE**" raises the platform. Rotating the lever on Control Switch to "**LOWER**" lowers the platform.
2. Load platform as close to the vehicle, and towards the middle of the platform, as possible. Maximum rated capacity is based on an evenly distributed load on the platform flat surface.

TO STORE LIFTGATE FOR TRANSIT

1. Lower platform to the ground.
2. Fold platform extension in over platform main section.
3. Fold the platform up to rest against the parking wheel.
4. Raise platform to transit position
5. Platform should rest up against bed extension during transit.

Chapter 4. Inspection

The following inspection and maintenance operations should be performed at the recommended intervals or at any time the liftgate 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.

WARNING:

NEVER attempt to service the liftgate with the platform in a raised position.

ALWAYS lower the platform to the ground before proceeding with any of the steps below. Failure to do so may result in serious injury.

SEMI ANNUAL INSPECTION

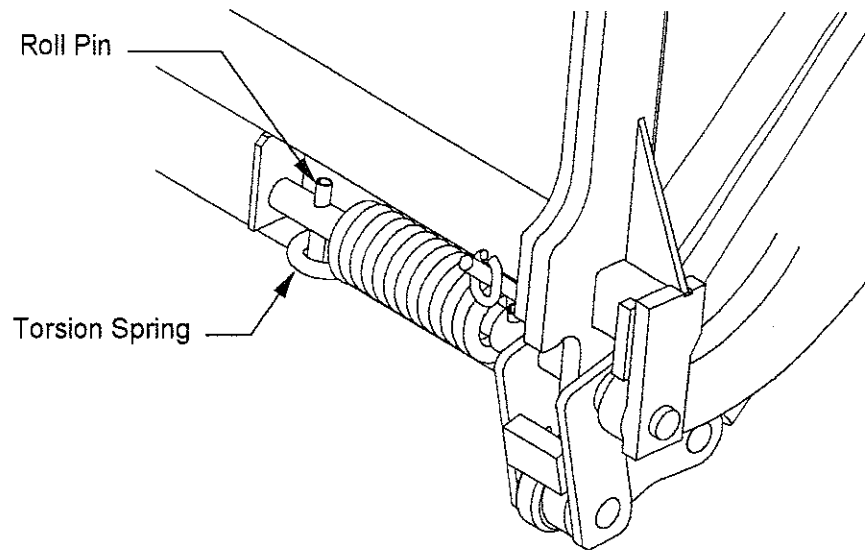
Inspect power motor by:

- A. First disconnecting the battery cable.
- B. Remove end cover.
- C. Examine armature brushes for wear
(Motor should be replaced if brushes are less than 1/8" long).
- D. Clean out all residue from the inside of the motor housing.
- E. Apply several drops of light weight machine oil to the armature shaft bearing in the motor end cover and reassemble the motor.

MONTHLY INSPECTION

- 1. Operate the liftgate throughout its entire operational cycle. Check for:
 - A. Apparent damage to the lifting structure such as bent or distorted members.
 - B. Cracked welds which may have resulted from overloading or abuse.
 - C. Bent or distorted cylinder pins or damaged cylinder.
- 2. Check that all pivot and cylinder pins are securely in place, undamaged and tightly retained by their proper fasteners (refer to parts drawings in chapter 6, "Parts Manual Sheets").
- 3. Check the bearings that the pivot and cylinder pins rest in. Replace any damaged or worn bearings.
- 4. Check that controls operate correctly (refer to chapter 2, "Operation Instructions")
- 5. Check operation of cab shut-off switch.

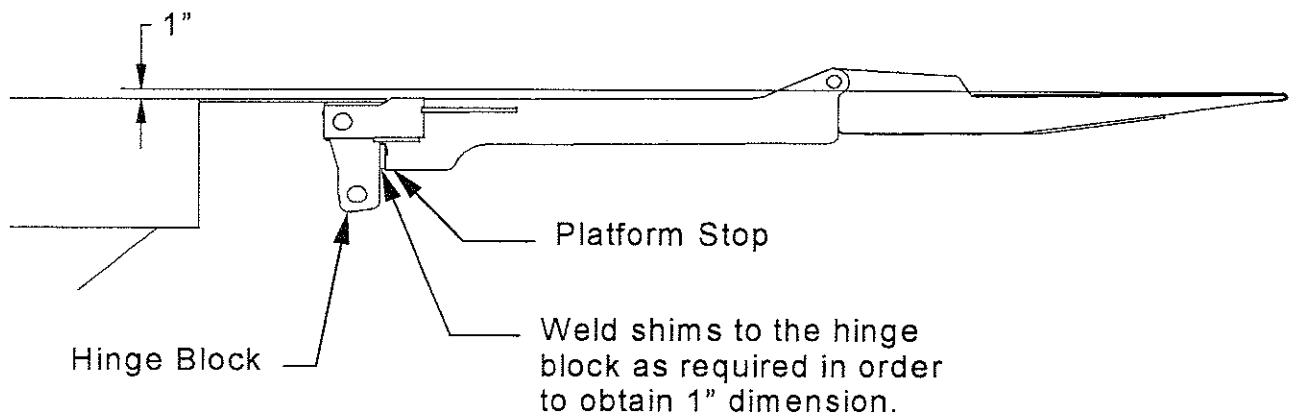
6. Inspect the fold over assist springs and the related hardware. Check that the roll pin contacts and holds the torsion spring when the platform is unfolded open.



7. Check the angle of the platform at bed level. If the platform nose is sagging, shims may be installed between the platform stops and the hinge block assemblies as shown below.

IMPORTANT:

Excessive sagging of the platform indicates damaged or worn components. Check condition of all bearings, arms, hinge block assemblies and platform. Repair or replace components as needed.

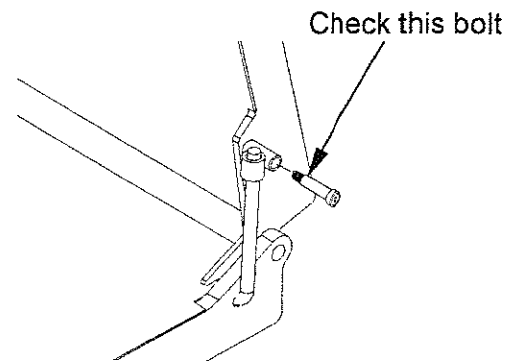


IMPORTANT:

Shims on both hinge blocks are to contact the platform stops. Weld only to the hinge blocks and not to the platform stops.

8. Check operation of platform torsion bar.

- A. Rotate and hold deck extension in position shown. This removes torque from torsion bar.
- B. Check for tightness of bolt at torsion bar pivot assembly.
- C. If bolt is loose, apply Loctite 290 or equivalent to threads and tighten securely.

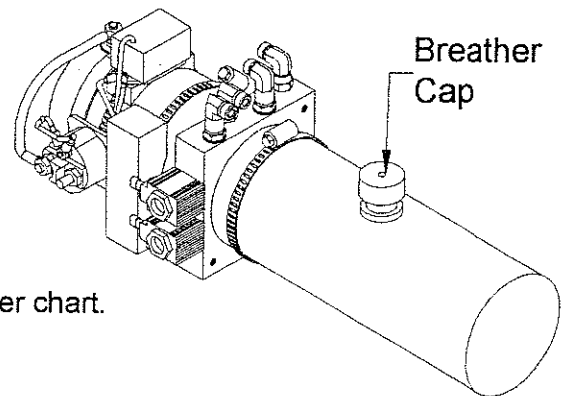


9. Check for oil leaks in the following areas:

- A. Hydraulic lift cylinder.
- B. Hydraulic hoses (Replace the hoses if they show signs of excessive abrasion or separation of the rubber covering.)
- C. Hydraulic fittings (Tighten or replace all hydraulic components as required to stop oil leakage.)

10. CHECKING FLUID LEVEL

- A. Lower platform and tilt to ground level.
- B. Remove Reservoir Breather Cap.
- C. Oil level should be 1/2" from top of reservoir.
- D. If low, fill as required. Use appropriate fluid per chart.
- E. Replace Breather Cap.



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 Unisvis J-26 Mobil DTE 13 Chevron AW 32 Shell Tellus 23
-10 to 110 F	Exxon Unisvis J-13 Mobil DTE 11
-40 to 80 F	Mobil DTE 11 MIL-H-5606

Chapter 5 Placement Of Decals

Inspect all of the decals listed below to be certain that they are in the proper location and that they are legible.

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

- A. "Capacity" decal: Two (2) decals are used.
One located on curb side of platform (positioned so as to be read when the platform is in the open position).

CAPACITY CHART	PART NO.
MPF-25 – 2500 lbs.	80100255
MPF-33 – 3300 lbs.	80100585

One is placed near the platform handle (positioned so as to be read when the platform is being unfolded into the loading position).

- B. "Safety Instructions" decal:
Part number 80100850
Located in a conspicuous place near the controls.
- C. "Operation Instructions" decal:
Part number 80101305
Located in a conspicuous place near the controls.

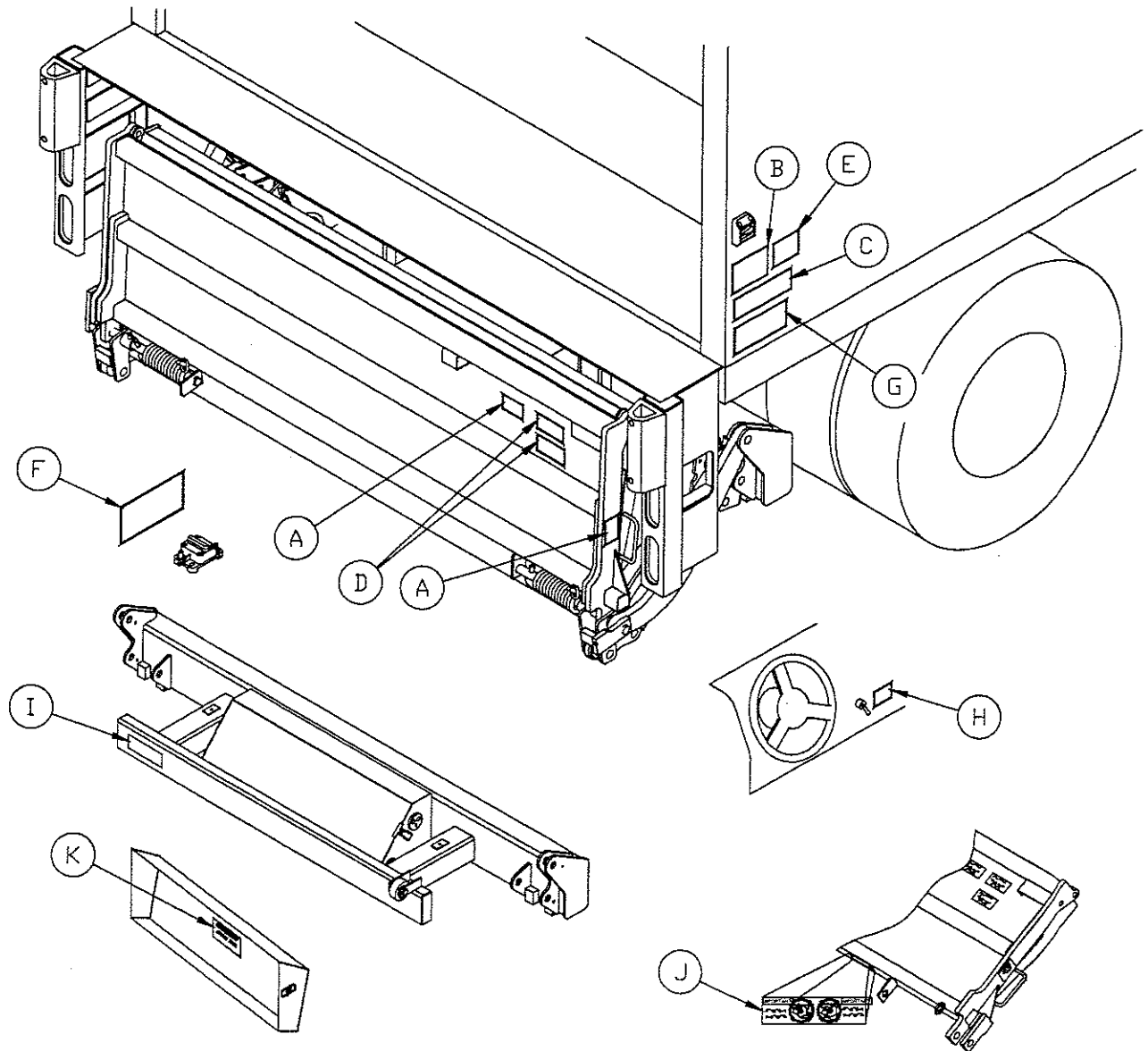
IMPORTANT

If your liftgate is equipped with dual stationary controls, you must place two sets of the above decals, one set in a conspicuous place near each of the controls.

- D. "Caution" decals:
Part number 75089295, 75089296
Located in a conspicuous place near platform handle.
- E. "Important" decal:
Part number 80100828
Located in a conspicuous place near the controls.
- F. "Warning" decal:
Part number 80100829
Located next to the liftgate circuit breaker. In applications where more than one circuit breaker is used, this decal must be placed in both locations.
- G. "Motor Reset" decal (for Thermalpak® with Voltage Guard™ only)
Part number 80101156
Located in a conspicuous place near the controls.
- H. "Cab Shut-off Switch" decal:
Part number 75089267
Located on dashboard next to cab shut-off switch.

- I. "Hazard Warning" decal:
Part Number 80101315
Located in a conspicuous place on the face of liftgate bumper.
- J. Storage Instruction decal:
Part Number 80101334
Located on back of deck, near curb side.
- K. SuperSwitch Diagnostic decal:
Part Number 80101421
Located inside pump cover.

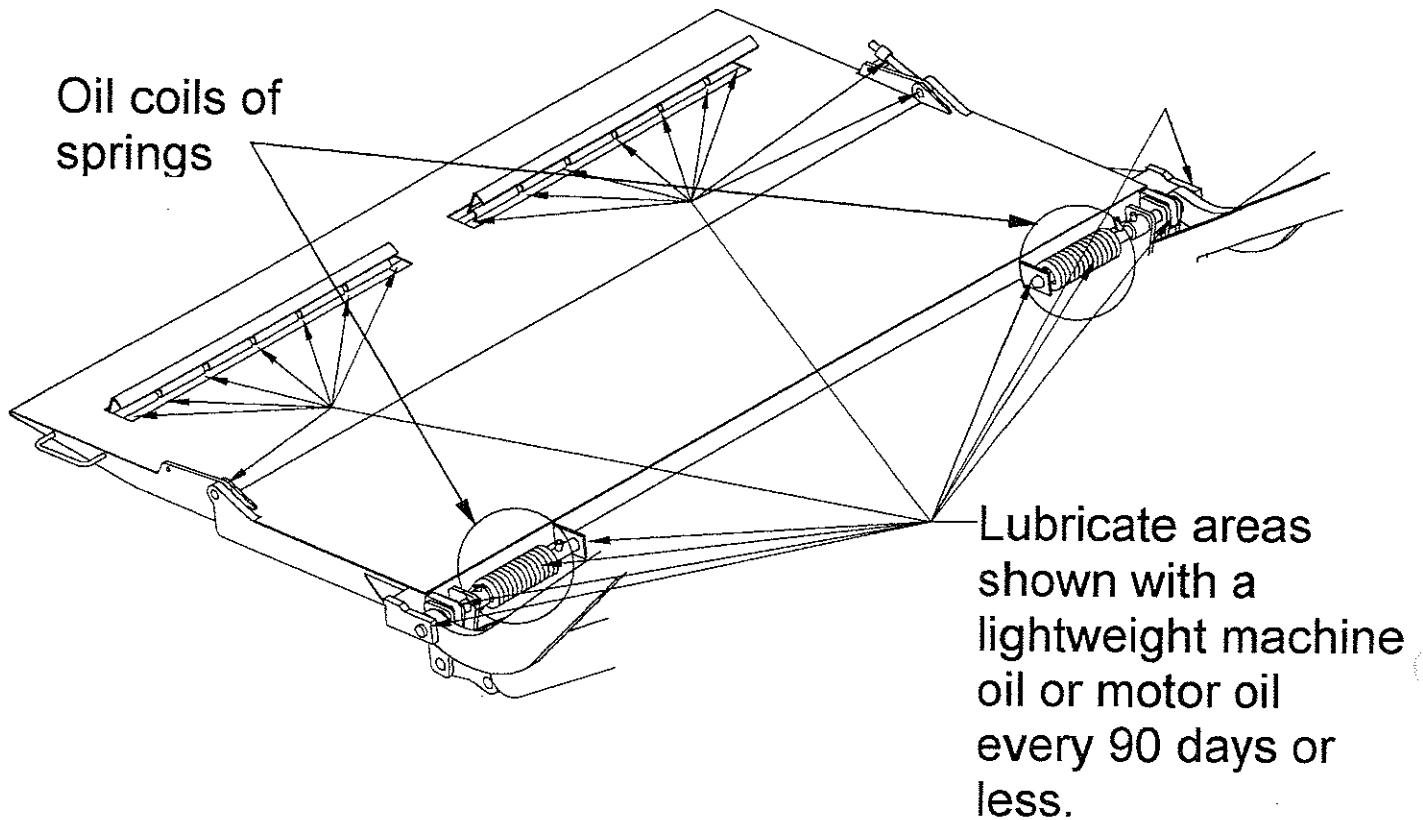
Refer to the following diagram showing decal locations.



Chapter 6 Lubrication Instructions

LUBRICATION INSTRUCTIONS FOR REDUCED MAINTENANCE LIFTGATES

1. There are no grease fittings provided on MPF Series liftgates.



Chapter 7 Parts Manual & Schematics

PM Number

PLATFORM ASSEMBLY	PM-560
MOUNT FRAME ASSEMBLY	PM-561
BED EXTENSION	PM-562
HYDRAULIC & ELECTRIC LAYOUT	PM-563
ELECTRIC CONTROLS	PM-564
HYDRAULIC SCHEMATIC	
ELECTRICAL SCHEMATIC	

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

ITEM	PART NUMBER	QTY	DESCRIPTION
1	23311000	1	Main Platform
2	23313000	1	Platform Extension
	23313004		Platform Extension with Cart Stops
3	23341501 ^A	1	Stop Assembly, Curb Side
4	23341551 ^B	1	Stop Assembly, Driver's Side
5	23341001 ^{AB}	2	Cart Stop Base Assembly
6	23341201 ^{AB}	2	Cart Stop Hinge Rod
7	14241601 ^{AB}	10	Torsion Spring
8	75086857	8	Bolt, 3/8-UNRC x 1" lg.
9	75085193	8	Flexloc Nut, 3/8-16
10	75086000	4	Bolt, 1/4-UNRC x 5/8" lg.
11	75085175	4	Nylon Insert Lock Nut, 1/4-20
12	23313500 ^C	2	Hinge Pin
13	75084055 ^C	2	Cotter Pin
14	75088058 ^C	4	Washer, 3/4"
15	23317100 ^D	1	Torsion Bar
16	23317300 ^D	1	Torsion Bar Pivot Assembly
17	75087574 ^D	1	Shoulder Screw, 3/8"

^A Included in Curb Side Stop Assembly Complete 23340001

^B Included in Driver's Side Stop Assembly Complete 23340051

^C Included in Pin Replacement Kit 80000964

^D and in Pin and Bearing Replacement Kit 80000966

^D Included in Torsion Bar replacement Kit 80000968

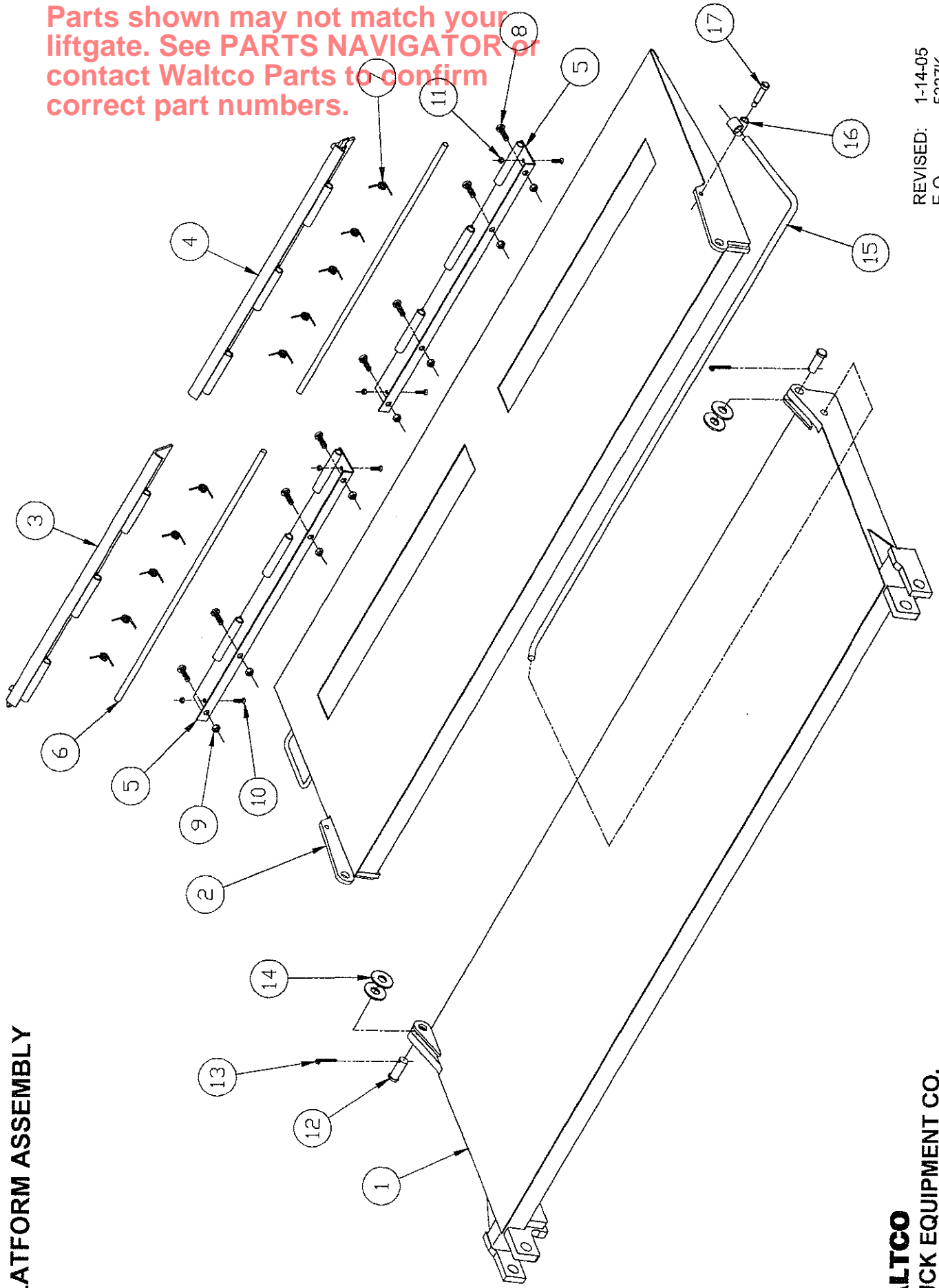
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TRUCK EQUIPMENT CO.
MPF-SERIES

REVISED: 1-14-05
E.O. 5337K
REV. 02

M-560

PLATFORM ASSEMBLY

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. 5337K
REV. 02

WALTCO
TRUCK EQUIPMENT CO.
MPF-SERIES

PM-560

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

ITEM	PART NUMBER	QTY	DESCRIPTION
1	23356000	1	Hinge Assembly, Curb Side
	23356050	1	Hinge Assembly, Driver Side
2	21514301	2	Torsion Spring
3	23312100 A,C	2	Platform Main Pin
4	75089542 A,B,C	4	Coiled Pin, 1/2" X 2"
5	23370300 A,C	4	Pivot Pin, 1" X 3-15/16"
6	75086846 A,B,C	12	Screw, 3/8-16 Thread Rolling
7	23319900	2	Roller Assembly (Incl. Bearing)
8	85803391 B,C	14	Bearing
9	23330000	1	Liftarm Assembly
10	75088061	8	Washer, 1"
11	23350000	2	Parallel Arm Assembly
12	23370600 A,C	6	Pivot Pin, 1" X 6-1/2"
13	23360000	1	Stop Block Assembly, Curb Side
	23360050	1	Stop Block Assembly, Driver Side
14	23370800 A,C	2	Pivot Pin, 1" X 2-3/4"
15	23320000	1	Mount Tube Assembly
16	23370190	2	Mount Plate
17	80000967	1	Kit, Parting Roller Replacement

A Included in Pin Replacement Kit 80000964

B Included in Bearing Replacement Kit 80000965

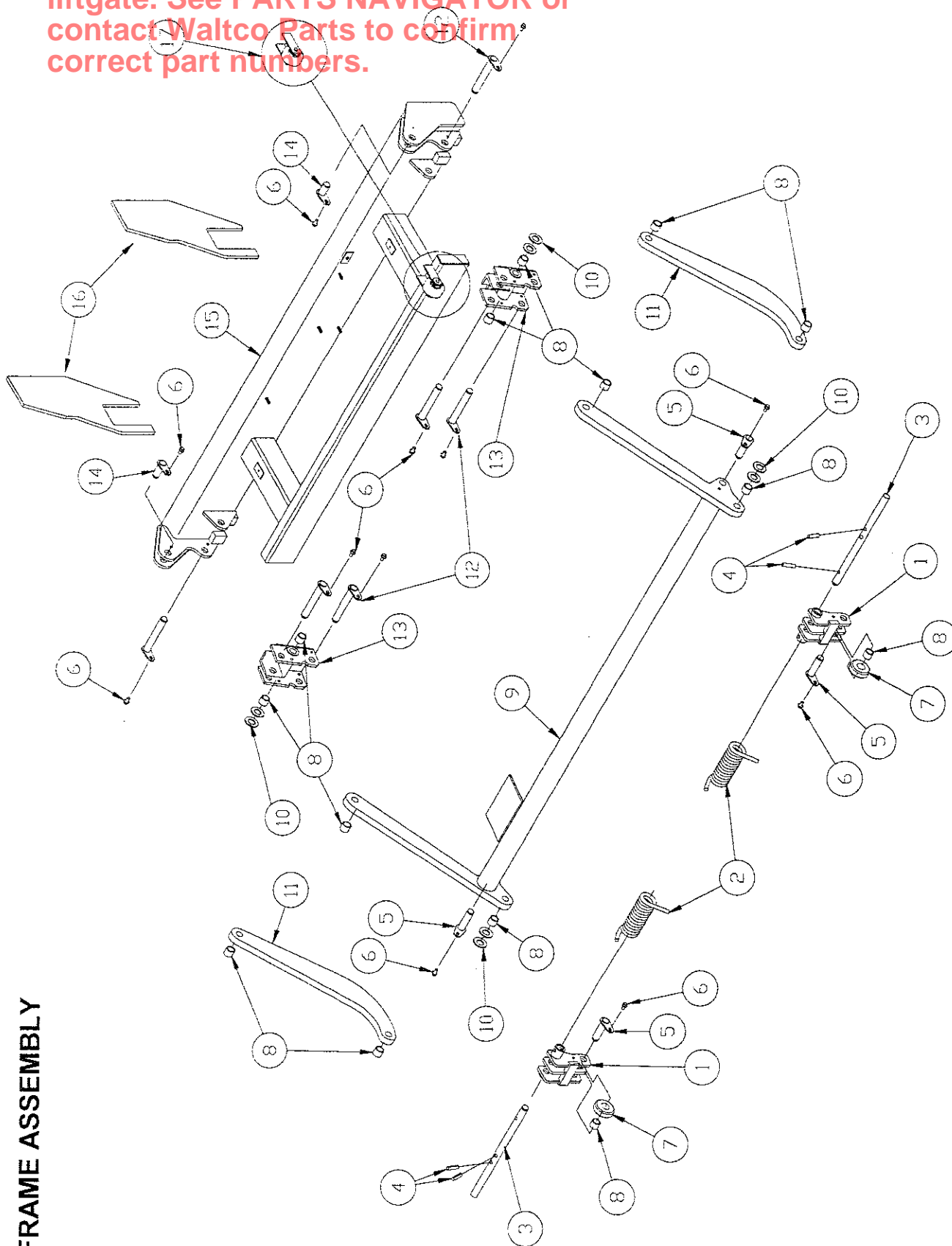
C Included in Pin and Bearing Replacement Kit 80000966

WALTCO
TRUCK EQUIPMENT CO.
MPF SERIES

REVISED: 04-5-02
E.O. 4400
REV. 03

M-561

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



MOUNT FRAME ASSEMBLY

WALTCO
TRUCK EQUIPMENT CO.
MPF SERIES

REVISED: 04-5-02
E.O. 4400
REV. 03

PM-561

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

ITEM	PART NUMBER	QTY	DESCRIPTION
1	22561101 ^D	1	Bed Extension Complete, 96" appl.
	22561102 ^D		Bed Extension Complete, 102" appl.
2	22597051 ^A	1	Dock Bumper, L.H. For Lights (Option)
3	22597001 ^A	1	Dock Bumper, R.H. For Lights (Option)
4	22597052 ^B	1	Dock Bumper, L.H. (Option)
5	22597002 ^B	1	Dock Bumper, R.H. (Option)
6	75089374 ^A	2	Backup Light (Option)
7	75089373 ^A	2	Tail Light ST & T (Option)
8	22575200 ^A	2	Harness, 2 Lamps (Option)
9	75089376 ^A	4	Light Grommet (Option)
10	22597102 ^A	4	Tail Light Bracket (Option)
11	75086732 ^A	8	Machine Screw, #10-32 x 1" lg. (Option)
12	75085000 ^A	8	Hex Nut, #10-32 (Option)
13	26297600 ^C	2	Rubber Bumper (Option)
14	26297600 ^C	4	Hex Bolt, 5/8"-11 x 2" lg. (Option)
15	75088085 ^C	4	Lock Washer 5/8" (Option)
16	75088057 ^C	4	Washer 5/8" (Option)
17	75085012 ^C	4	Hex Nut, 5/8"-11 (Option)

^A Included in Heavy Duty Dock Bumper W/4 Lamp Light Kit No. 22596001

^B Included in Heavy Duty Dock Bumper Light Kit No. 22596002

^C Included in Rubber Bumper Kit No. 22596011

^D Bed Extension Installation Kit No. 80001088 required for mounting.

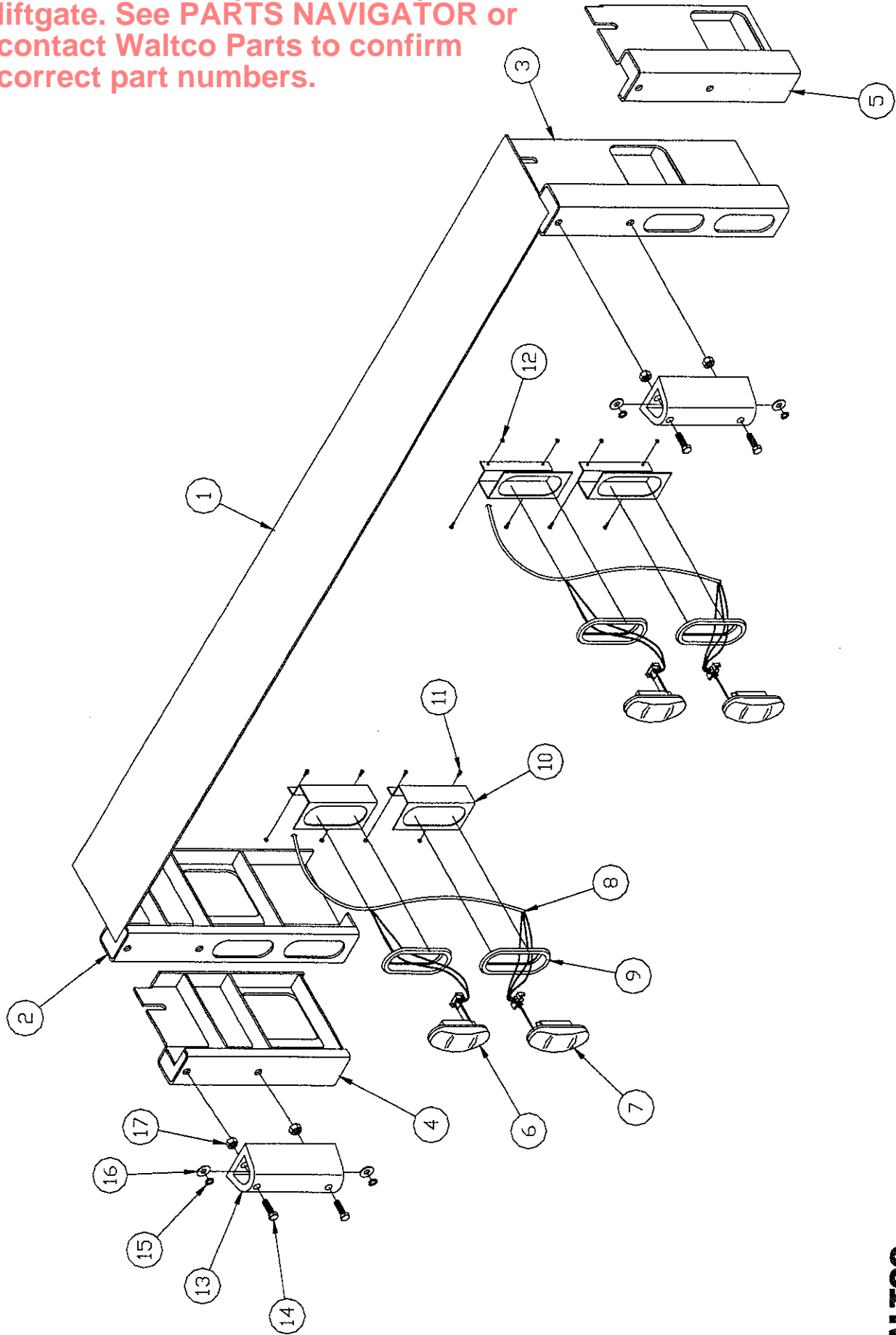
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E.O. 5337K
REV. 02

V-562

BED EXTENSION AND LIGHT KIT OPTION

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



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PM-562

WALTCO
TRUCK EQUIPMENT CO.
MPF-SERIES

IMPORTANT:

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

ITEM	PART NUMBER	QTY	DESCRIPTION
1	22580050	2	Hydraulic Cylinder
2	70160148	2	Velocity Fuse
3	23375100	2	Locking Valve Assembly
4	75082869	2	90° Elbow, 9/16 Flare x 9/16 O-Ring
5	75082614	2	Nipple, 1/4" X 1/4"
6	75083039	2	Adapter, 1/4" NPT to 9/16" Flare
7	75083301	2	52" Hose Assembly, 1/4" Flare Ends
8	75083302	2	48" Hose Assembly, 3/8" Flare Ends
9	75083314	3	Bolt, 5/16"-18 X 1-3/8"
10	75083313	3	Cover Plate
11	75083315	3	Twin Hose Clamp
12	23320000	1	Mount Tube Assembly
13	23323001	1	Base, Pump Enclosure
14	75089351	3	3-Way Grommet
15	75089735	2	Rubber Draw Latch
16	82021054	6.4'	Seal, Pump Box Cover
17	75086849	5	Screw, 10-24 X 1/2" Self Tapping
18	75088067	2	Washer, 1/2" X 1-1/16" O.D.
19	75085096	4	Hex Nut, 3/8"-16
20	85803921	1	Relay
21	23324201	1	Bracket, Pump Mounting
22	75086059	2	Hex Screw, 3/8"-16 X 1-1/4"
23	10195630	1	Battery Cable Assembly, 30'
24	23376000	1	Control Harness
25	70423300	1	Pump
26	75088081	4	Lock Washer, 3/8"
27	23323103	1	Cover, Pump Enclosure
28	22580055	2	Cylinder Cover
29	75085005	1	Nut, 3/8-16 Serrated
30	75088052	1	Washer, 5/16

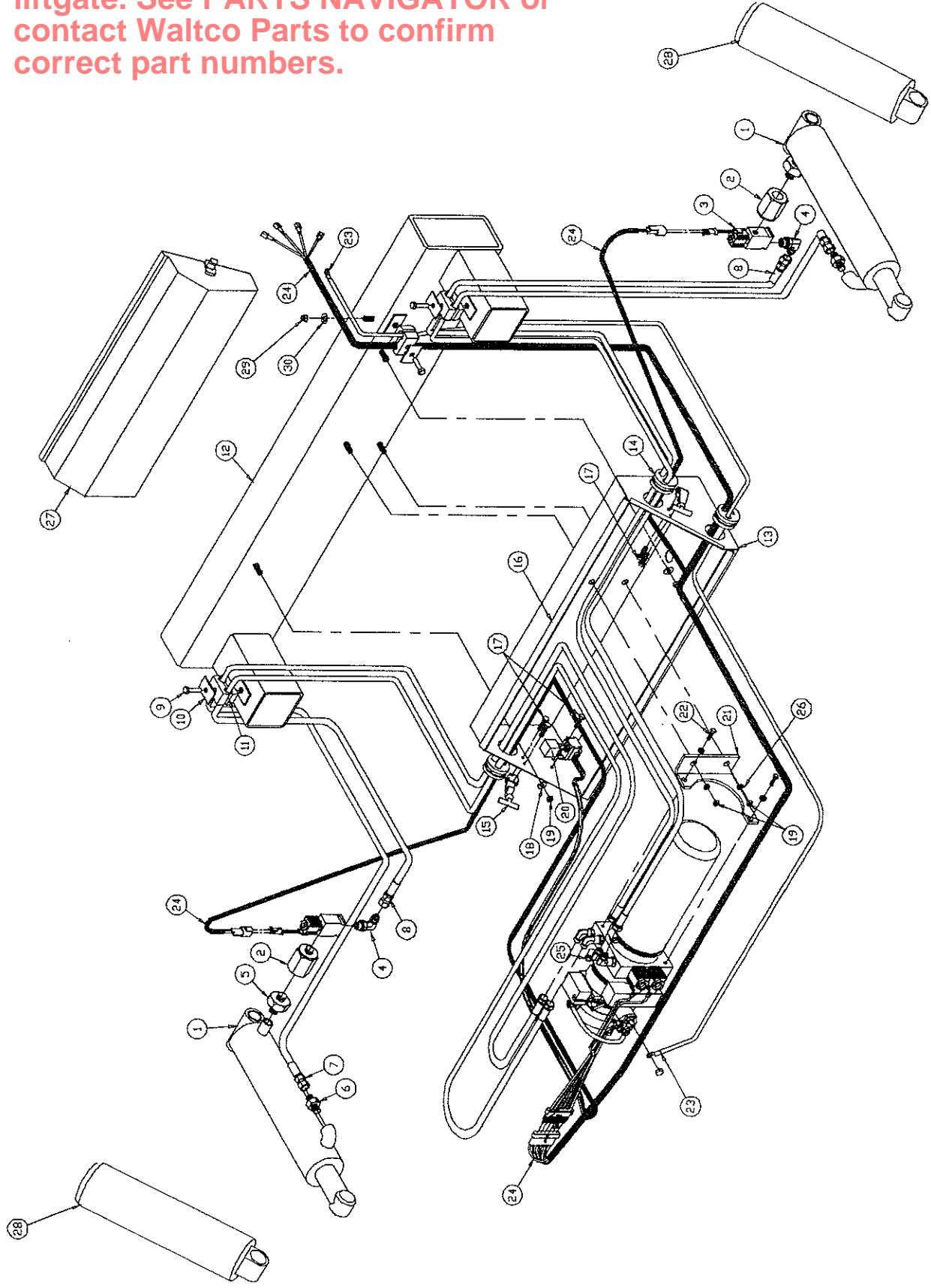
WALTCO
TRUCK EQUIPMENT CO.
MODEL MPF

REVISED: 1-14-05
E.O. 5337K
REV. 04

1-563

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

MPF HYDRAULIC & ELECTRIC LAYOUT



REVISED: 1-14-05
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PM-563

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IMPORTANT:
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liftgate. See **PARTS NAVIGATOR** or
contact **Waltco Parts** to confirm
correct part numbers.

ITEM	PART NUMBER	QTY	DESCRIPTION
1	10099322	1	Super Switch™
2	10099325	1	Super Switch™ (Hand Held Remote)
3	75082038	1	Trailer Socket
4	75082037	1	Trailer Plug
5	75086006	2	Hex Bolt, 1/4-20 x 1" Long, Grade 2
6	75085001	2	Hex Nut, 1/4-20, Serrated
7	23376000	1	Control Harness
8	85803921	1	Relay
9	75082012	1	Three-way Snap Plug Connector, Female
10	75082014	1	Snap Plug Connector, Male
11	75089807	1	Cab Shut-off Switch
12	75089853	1	Fuse, 5 amp
13	75089850	1	Fuse Holder
14	75089243	1	Circuit Breaker, 150 amp
15	10195630	1	Battery Cable, 2 ga.
16	10099500	1	Terminal Link
17	10098415	1	Control Cord
18	75088036	3	Heat-shrink Tube
19	23375100	2	Locking Valve Assembly
20	70423300	1	Pump Assembly
A	75083310 ^A	2	Elbow, 90°, 1/4" JIC Flare
B	75083316 ^A	2	Long Elbow, 90°, 3/8" JIC Flare
C	10099303 ^A	1	Power Down Module
D	70401476 ^A	1	"Lower" Solenoid Valve
E	70401477 ^A	1	"Raise" Solenoid Valve
F	10099400 ^A	1	Thermalpak® with Voltage Guard™
G	75089833 ^A	1	Starter Solenoid
H	70092313 ^A	1	Pump Motor
I	70423301 ^A	1	Pump Reservoir
J	70091734 ^A	1	Breather
K	10195908 ^A	1	4 Ga. x 8" Battery Cable

^A Included in Pump Assembly 70423300

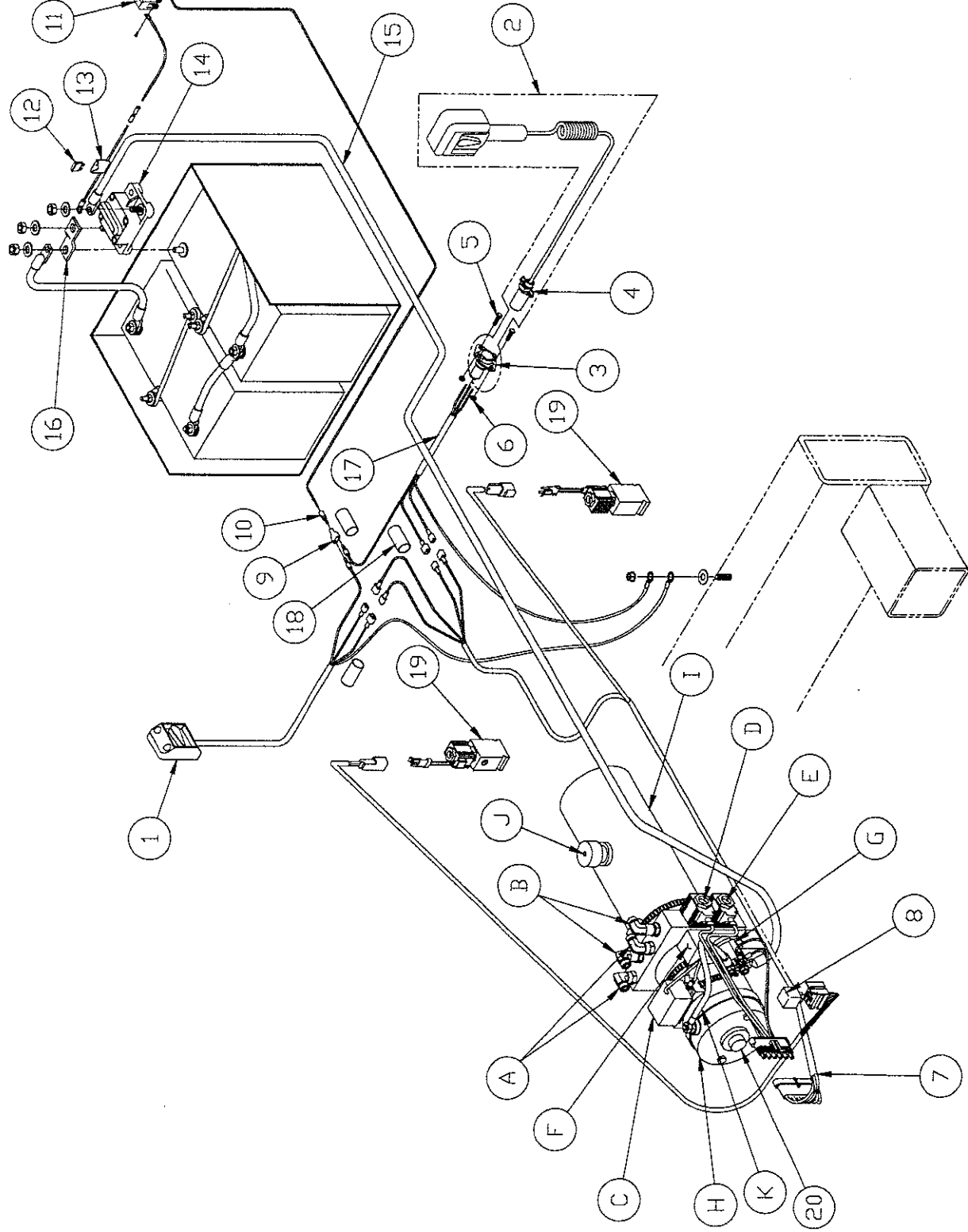
WALTCO
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MODEL MPF

REVISED: 7/30/04
E.O. 5387
REV. 05

M-564

ELECTRIC CONTROLS

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

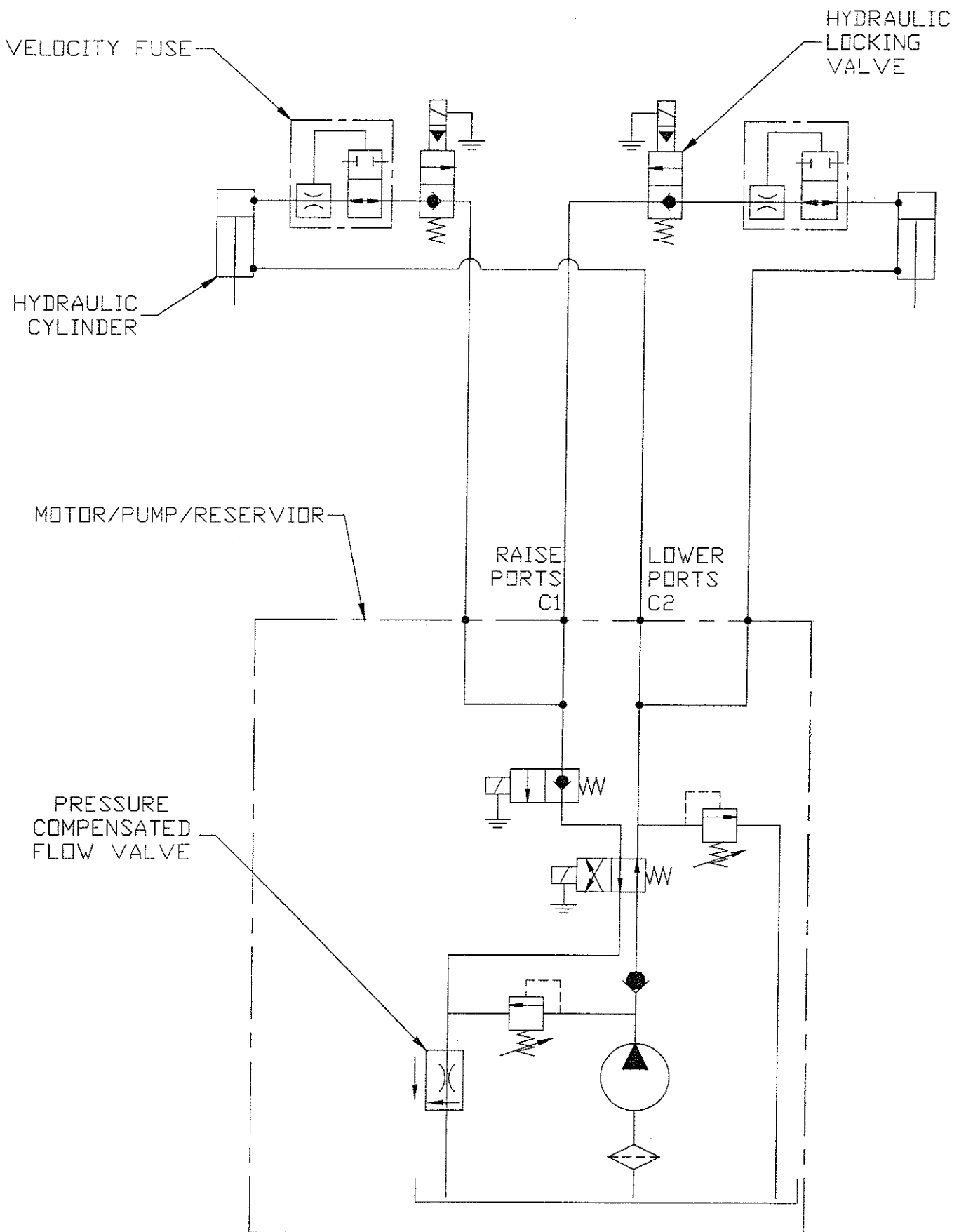


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MODEL MPF

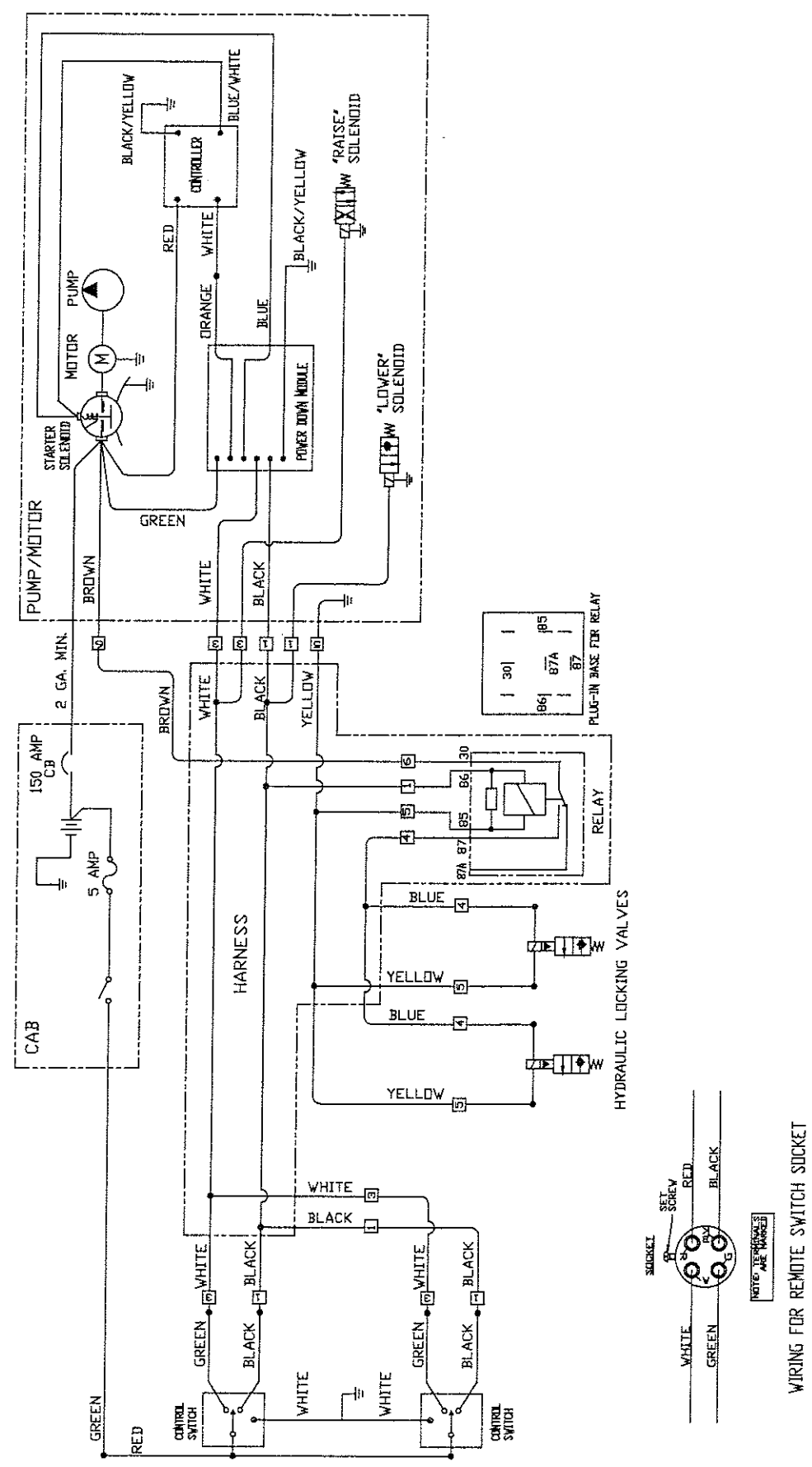
REVISED: 7/30/04
E.O. 5387
REV. 05

PM-564

HYDRAULIC SCHEMATIC



ELECTRICAL SCHEMATIC



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
FAX - (330) 633 1418

CALIFORNIA
227 E. Compton Blvd.
Gardena, CA 90246
(310) 243-6800
FAX – (310) 538-1136

WISCONSIN
701 Blackhawk Dr. Unit A
Burlington WI 53105
(414) 539-3000
FAX - (414) 539-3999

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.

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:

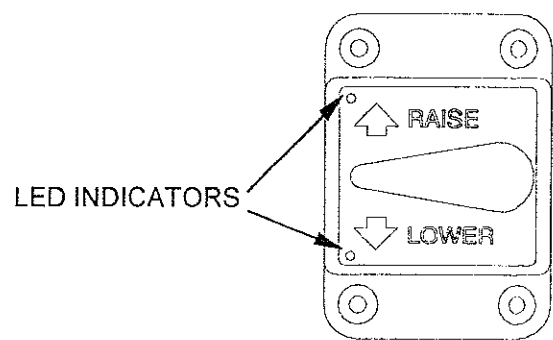
Check Pump unit

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:



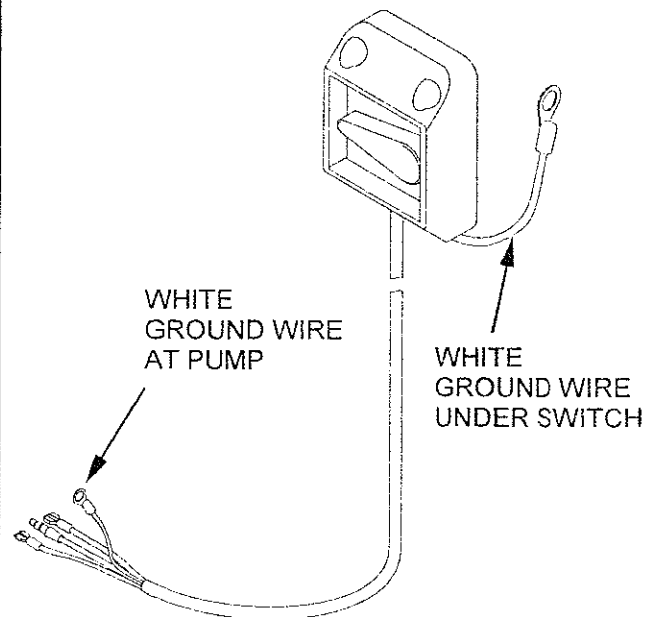
GR00919

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

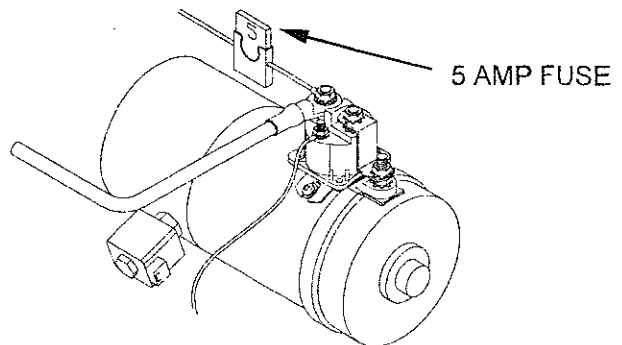
Super Switch Diagnostics

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.



GR00921

LEDs Operate but No Liftgate Operation:

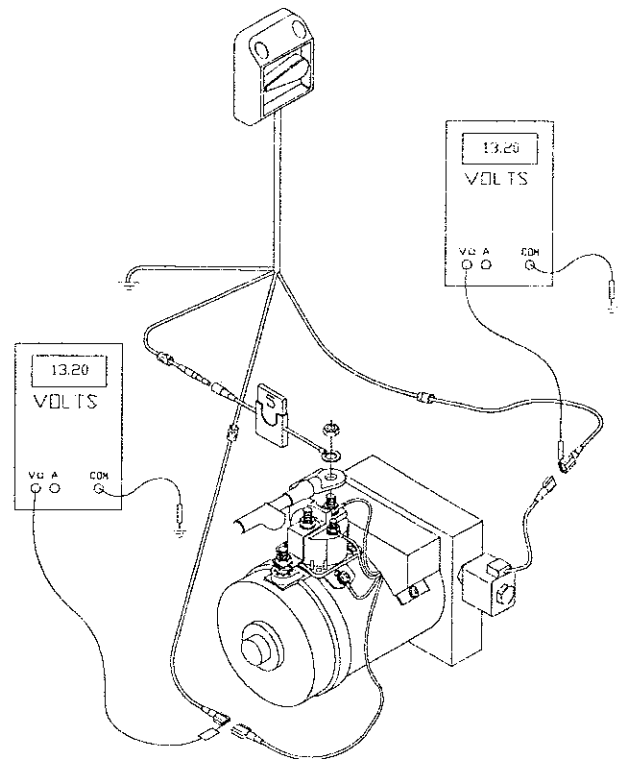
If the LED indicator illuminates when switch is activated but the liftgate does not operate, check the following items:

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.

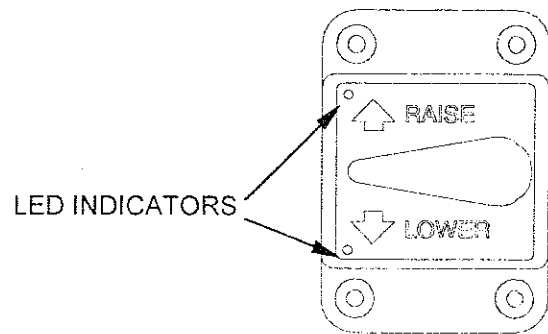


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LED Indicators In Only One Position or Continuous On:

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.

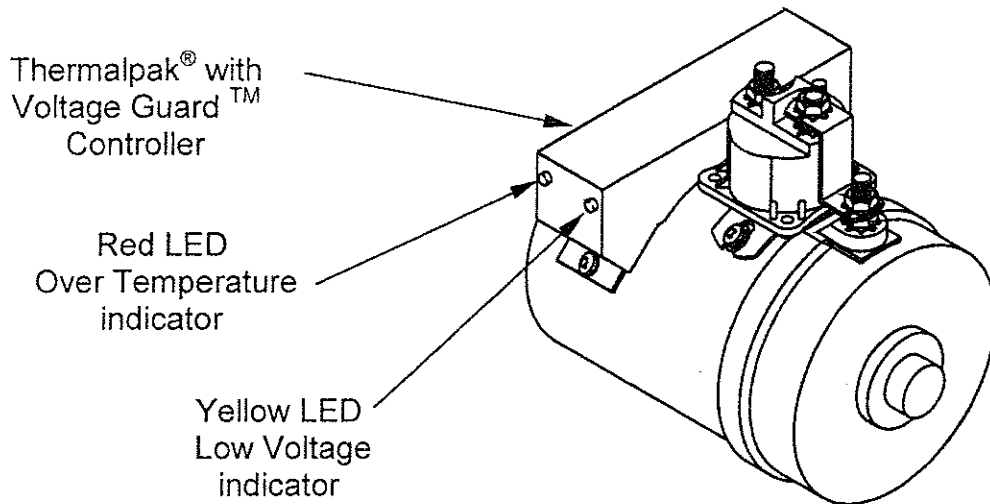


GR00919

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.

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.