

# Wilson Trailer Company



This manual has been prepared to help you operate your Wilson trailer Lift Deck (center lift, air cylinder lift) successfully, economically, and safely. Should you have any questions, we ask that you contact a Wilson Trailer Company factory representative immediately for a clear explanation.

We thank you for expressing your confidence in us through the purchase of your new Wilson Livestock trailer.

We want you to know that it was designed to meet your specific needs for a livestock trailer and was built for long life and low cost operation. With regular, proper maintenance and your common sense use, we are confident that it will do so.



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Additional manuals and decal kits for this trailer are available without charge.

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MODEL NO.

SERIAL NO.

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# Livestock Hydraulic Lift Ramp Operator's Manual



This safety alert symbol is to raise your awareness to important messages in this manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.

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# Livestock Hydraulic Lift Ramp Operator's Manual

## General Information & Operation

The "lift ramp" in the rear of the trailer is moved up and down by a combination of cables, pulleys, and a single hydraulic "lifting cylinder". It is for lifting hogs and holding them while in transit. Ropes should be slightly slack when the ramp is on supports.

There are 2 pin-type "supports" located on the bottom of the ramp and are deployed and retracted by a single hydraulic cylinder. These should be in supporting position before entering under the lift ramp for loading animals or trailer cleaning. Do not go under the lift ramp when it is suspended on wire ropes alone.

The hydraulic power unit for the lift ramp is battery operated. The battery is charged by the tractor's alternator when the tractor is connected to the trailer and engine running. The battery has a lockable motor disconnect switch near it. It is recommended that this switch be turned to "OFF" when the lift ramp is not in use to prevent unauthorized or accidental operation.

## Loading and Transport of Livestock

The loading of the trailer is important! Keep the center of gravity as low as possible. Proper placement of the larger animals should be considered.

Because load types vary, the driver needs to drive with appropriate care and within the limits of the load.

The well being of the livestock is dependent on the stock density, ventilation, the standard of driving, and quality of roads.

**Frequent inspection and careful driving cannot be over-emphasized!**

## Modification of Trailer

Any modification made to the trailer must comply with DOT and NHTSA regulations and must not compromise the gross vehicle weight rating (GVWR) of the trailer.  
(Rev. 12-98)



## WARNING

**Any operation of the trailer outside the limitations stated in this manual will void any responsibility of Wilson Trailer Company for any of its results.**

# SAFETY



## CAUTION

**Personal Injury, death, and property damage may result from improper operation or unsafe practices. Be sure to read and follow all decals and emblems carefully.**

### Decals and Emblems

AAA-06462-DK



The following section contains some of the decals and emblems used on Wilson Livestock Lift Deck or Lift Ramp Option trailers. Due to differences in configurations and equipment, your trailer may or may not use all the decals and emblems listed. Newer trailers may also have decals and emblems that differ from older trailers. Replace damaged or missing decals promptly.

AAA-06462-DL



AAA-06462-DM



AAA-06462-DN



**SAFETY**



**WARNING**

**The lifting system is not for lifting people.**



**WARNING**

**When operating the lift ramp and supports, be aware of any unusual component motion, sounds, sticking, binding, or malfunction that may indicate immediate required maintenance.**



**WARNING**

**Make sure the ramp is firmly on supports or on the floor by noting that the lift ropes are slightly slack.**



**WARNING**

**Mechanical binding can cause high rope tension and structural stresses. If the ramp appears mechanically bound and will not move normally, do not go under or above the ramp. Get immediate maintenance.**

# **OPERATION**

**Lift Ramp**



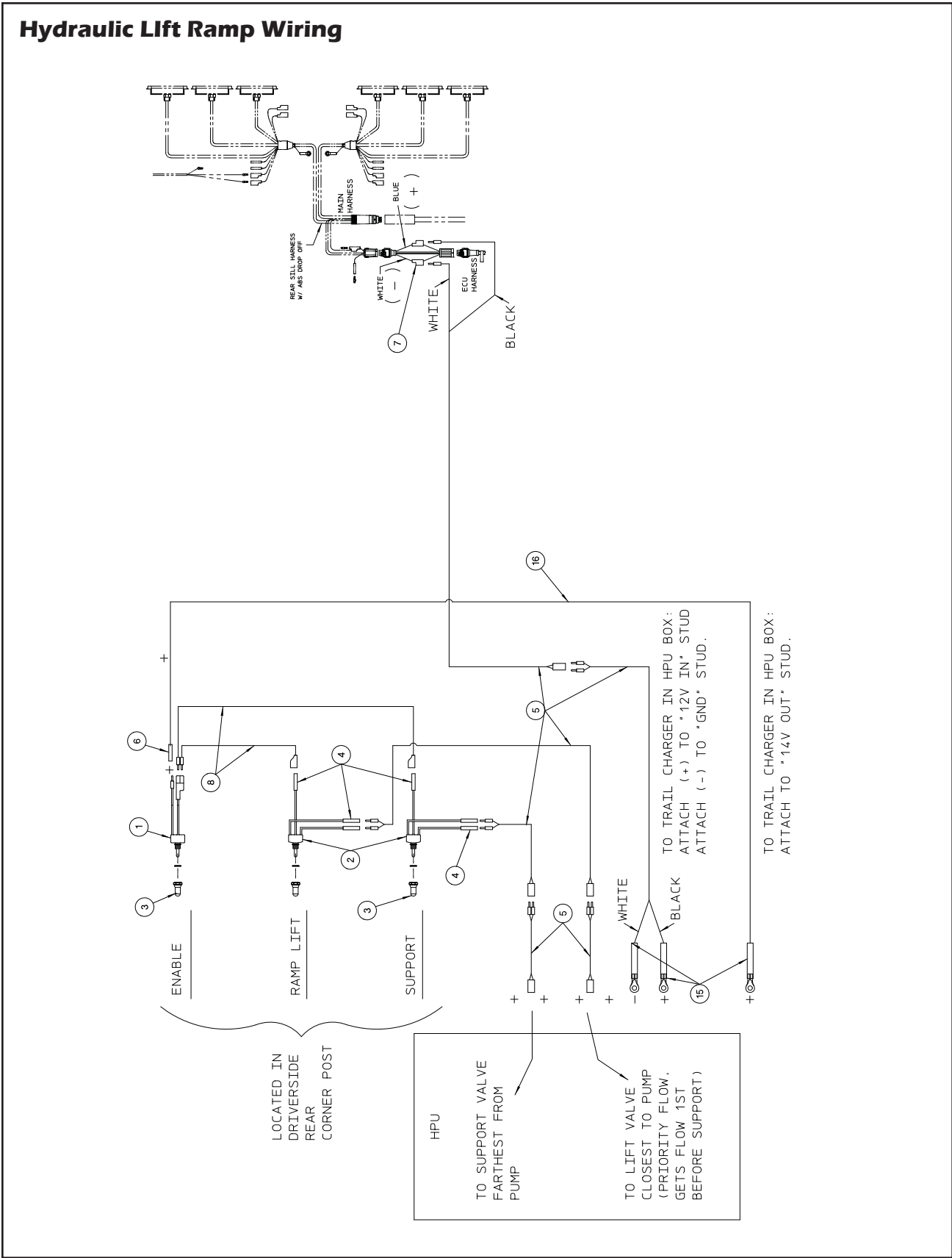
# OPERATION

## Control Station Switches

The operation of the ramp is done by operating three electric switches. These switches are located at the driver's side rear corner post on the trailer, just inside the rollup door. One switch is required to be held in order to "enable" operation of either lifting and lowering the ramp or deploying or retracting the supports. The lift or support switches are intended to be operated one at a time.



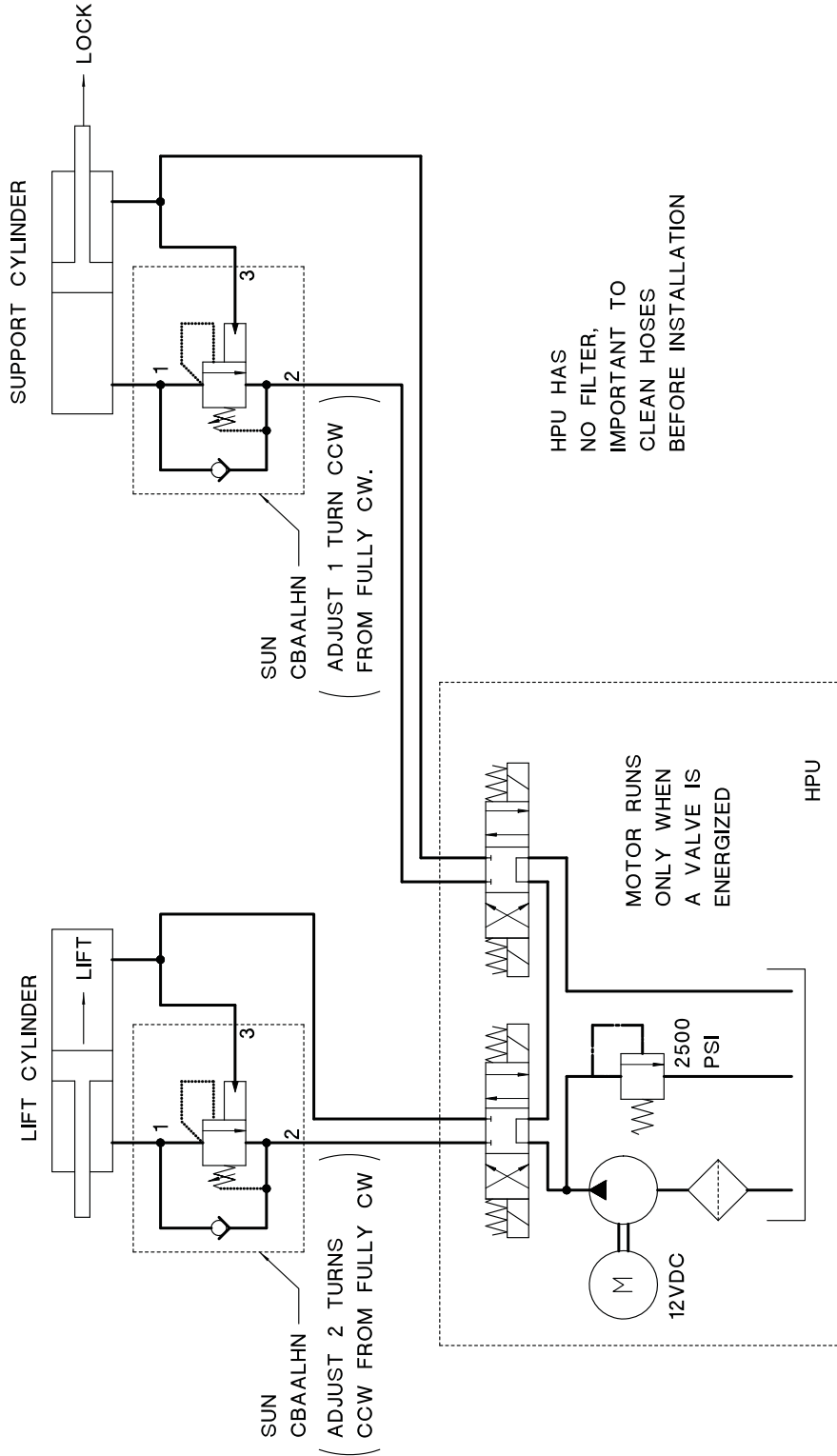
# OPERATION





# OPERATION

## Hydraulic Lift Ramp Schematic



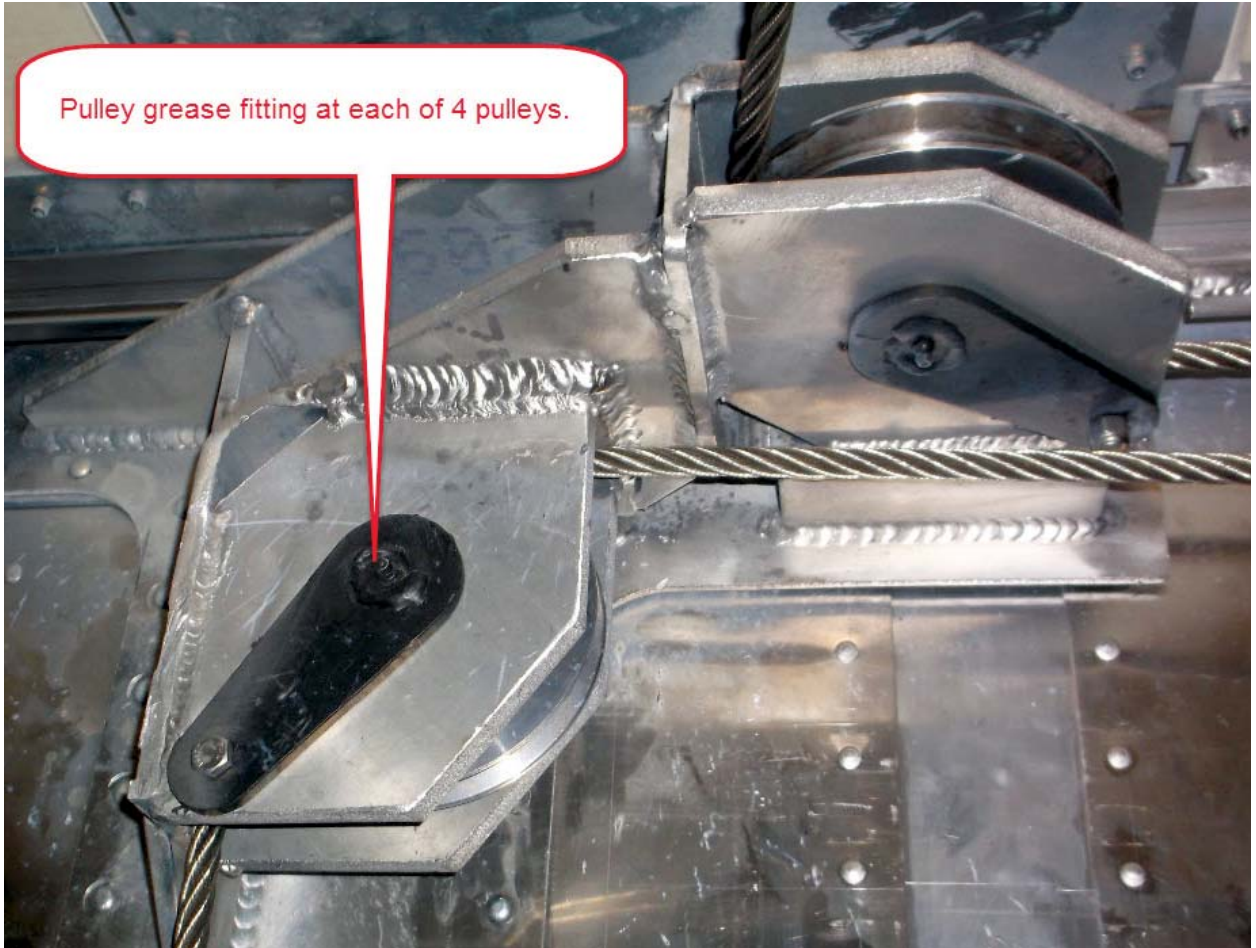
## **COMPONENT PICTURES**

**Wire Rope Connections to Ramp**



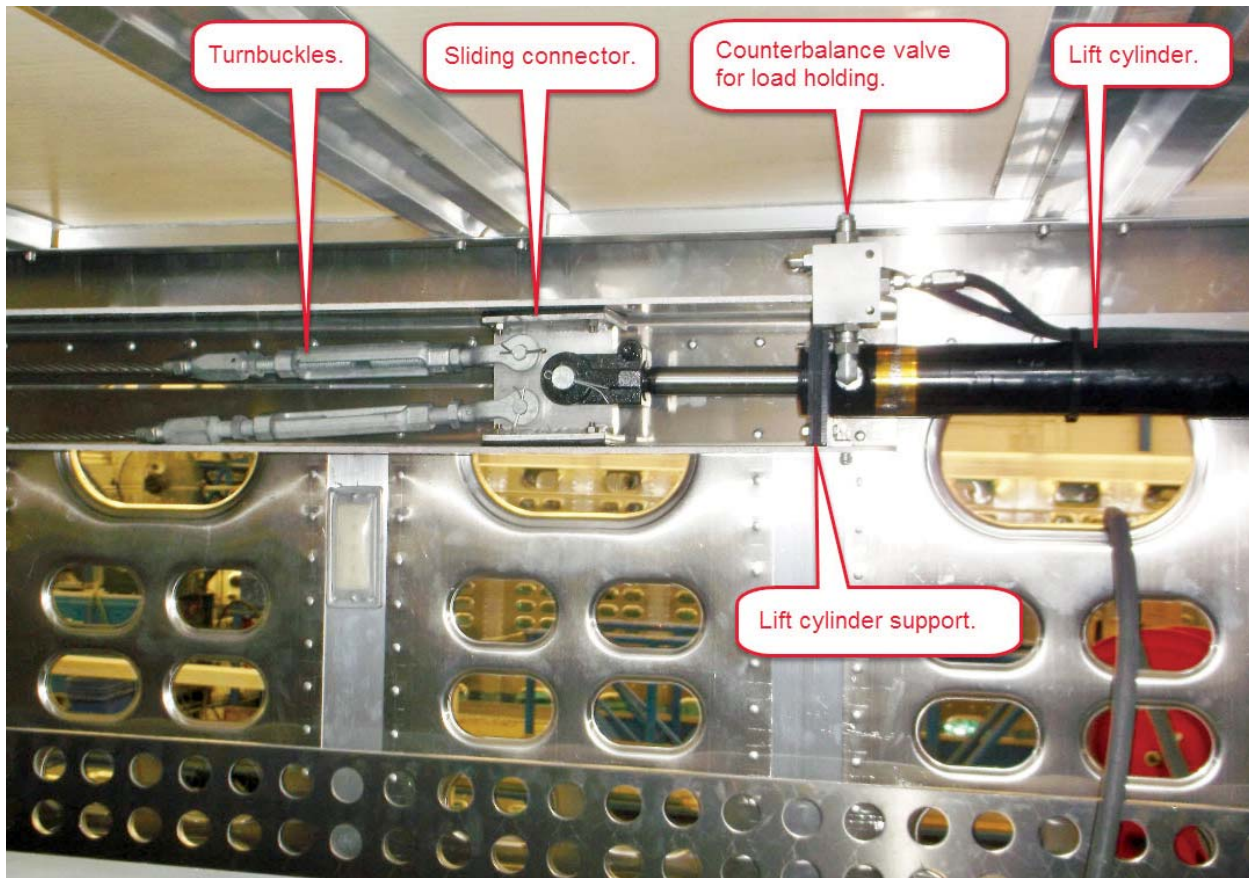
## COMPONENT PICTURES

### Pulley Grease Fittings



## COMPONENT PICTURES

### Rope Turnbuckles at Sliding Connector



Turnbuckles should be adjusted so ramp support pins will align with support holes when fully lifted.

## COMPONENT PICTURES

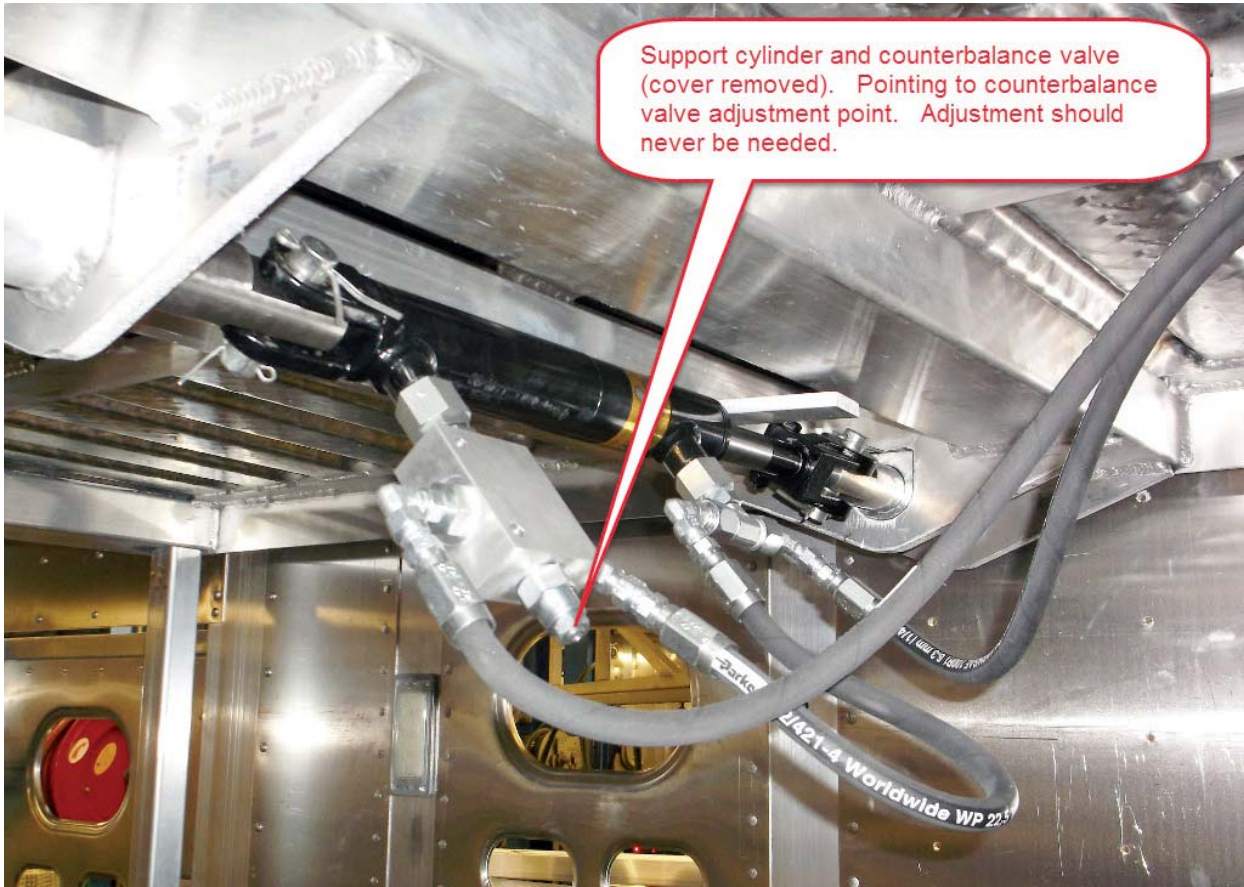
### Lift Cylinder and Counterbalance Valve



The counterbalance valve holds the load when the lift switch is released. It also provides for smooth lowering of a loaded ramp. The pump runs the lowering.

## COMPONENT PICTURES

### Ramp Support Cylinder and Counterbalance Valve



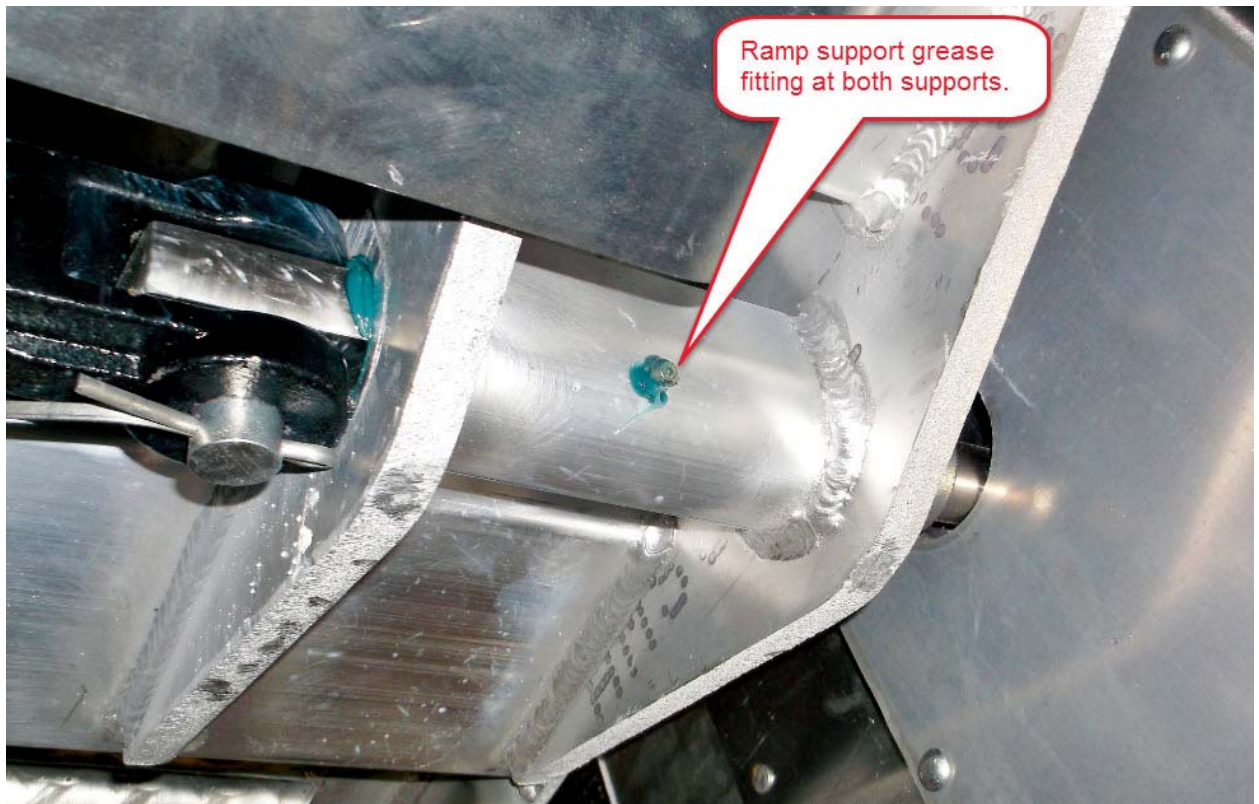
This counterbalance valve locks the support pins into position.

## COMPONENT PICTURES

### Ramp Hinge with Grease Fittings

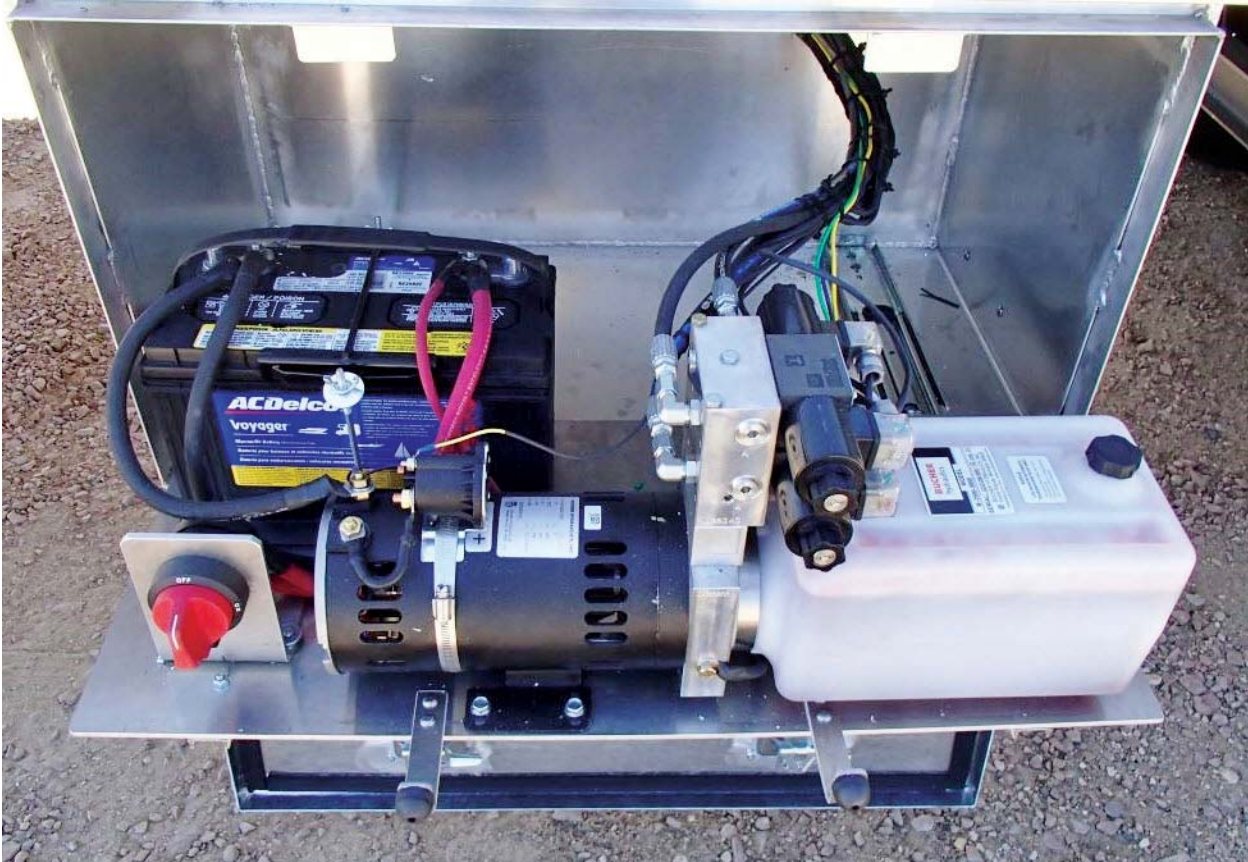


### Ramp Supports with Grease Fittings



## **COMPONENT PICTURES**

### **Hydraulic Power Unit on Slide Out Tray**



The Hydraulic Power Unit (HPU) is comprised of a 12 volt DC battery powered motor / pump combination with integral oil reservoir. The pump is inside the reservoir immersed in oil.

It will operate independently of the tractor. The trailer does not need to be plugged into the tractor.

Components are on a pullout tray for convenience.

The hydraulic pump only operates when control station switches are operated.

If the HPU is to be operated repeatedly in hot weather, the enclosure should be opened to allow the motor fan access to ambient air to better cool the motor.



## COMPONENT PICTURES

### Hydraulic Power Unit on Slide Out Tray (continued)



The motor is IP54 rated regarding dust or water intrusion.

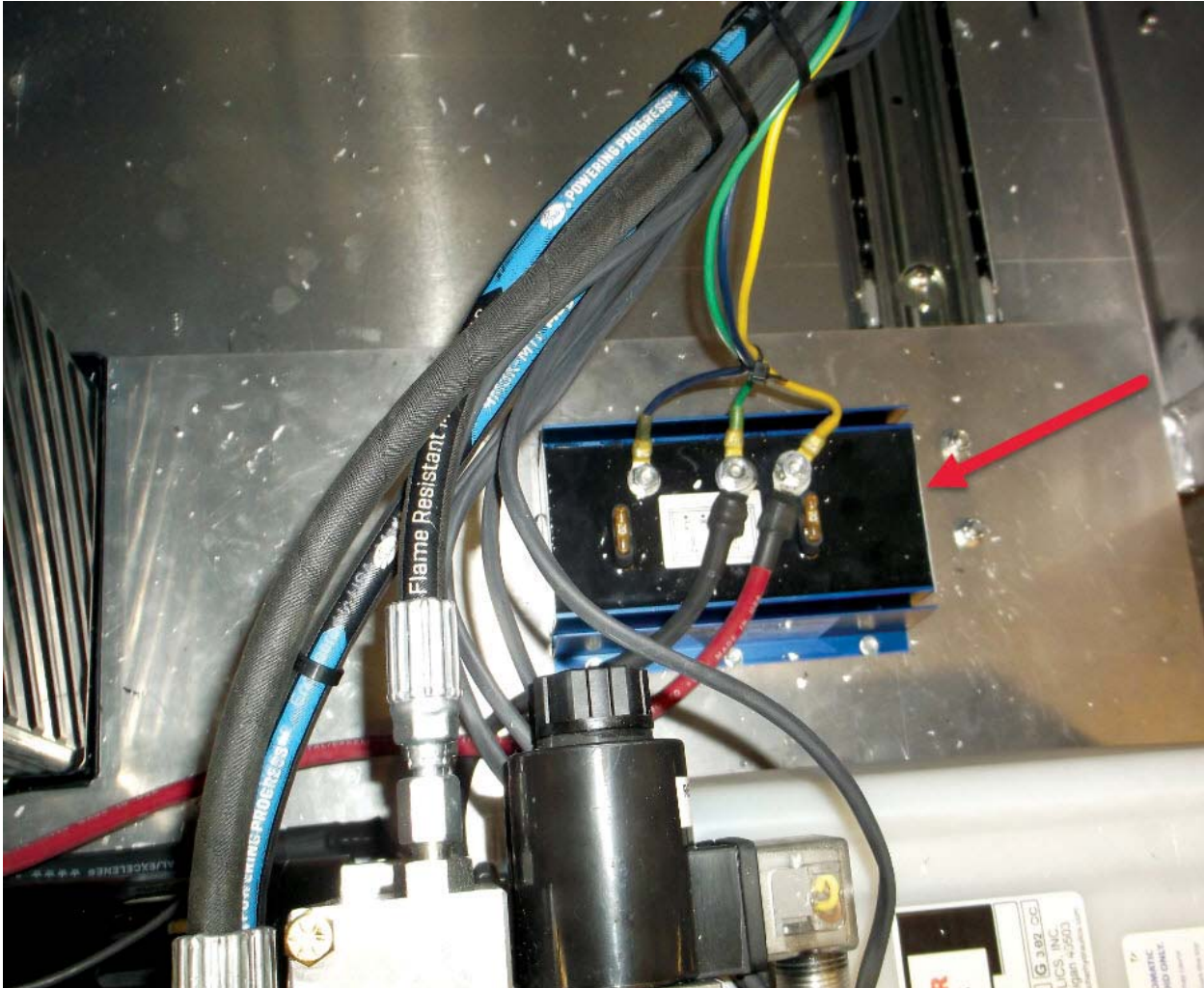
Do not operate the hydraulic motor for more than a few seconds with either the lift cylinder or stop cylinder fully retracted or extended as the hydraulic oil will be flowing over the integral relief valve and rapidly heating the oil. Only operate the lift / lower switch or support switch as required for movement.

The battery has a built-in 4 color condition indicator.

Note the warnings on the battery regarding poison, sparks/flames, and acid.

## COMPONENT PICTURES

### Hydraulic Power Unit on Slide Out Tray (continued)

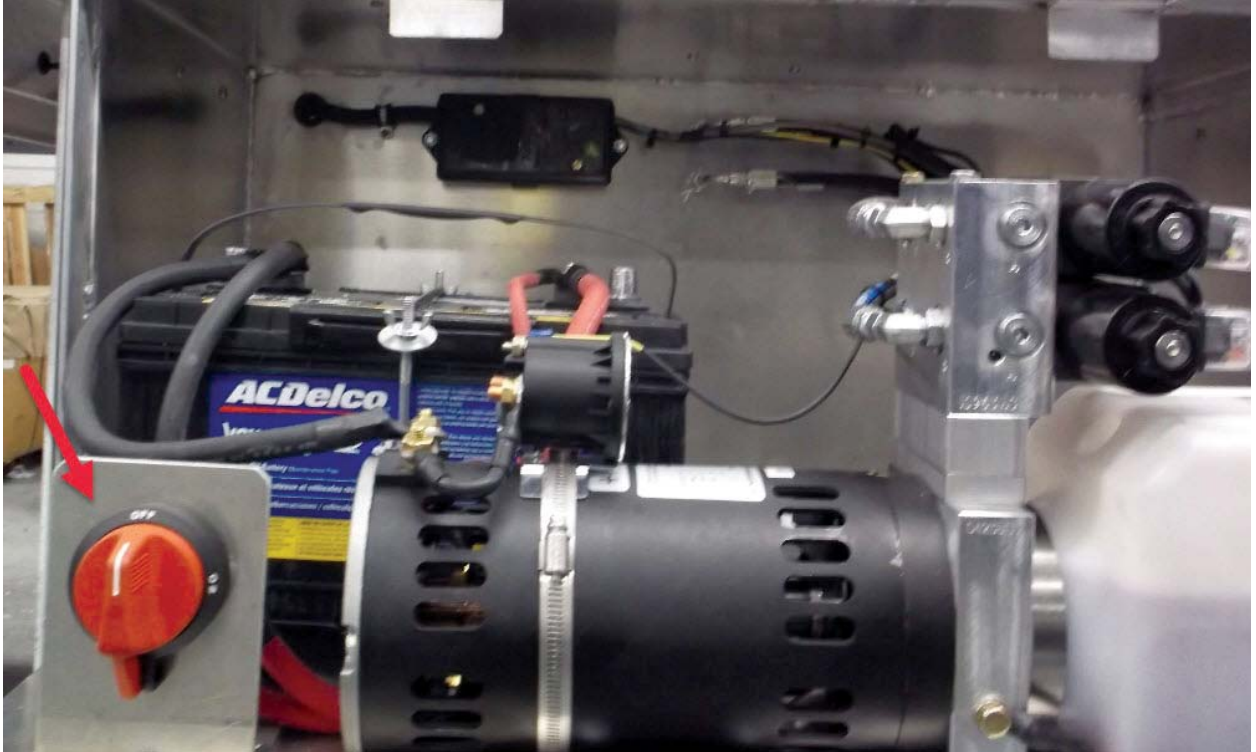


There is a battery “trail charger” which operates when tractor power is applied to the connector at the front of the trailer.

The trail charger makes up for the voltage drop between the tractor and the location of the HPU and properly charges the battery while the tractor trailer is being driven down the road or parked with electrical system on.

## COMPONENT PICTURES

### Hydraulic Power Unit on Slide Out Tray (continued)

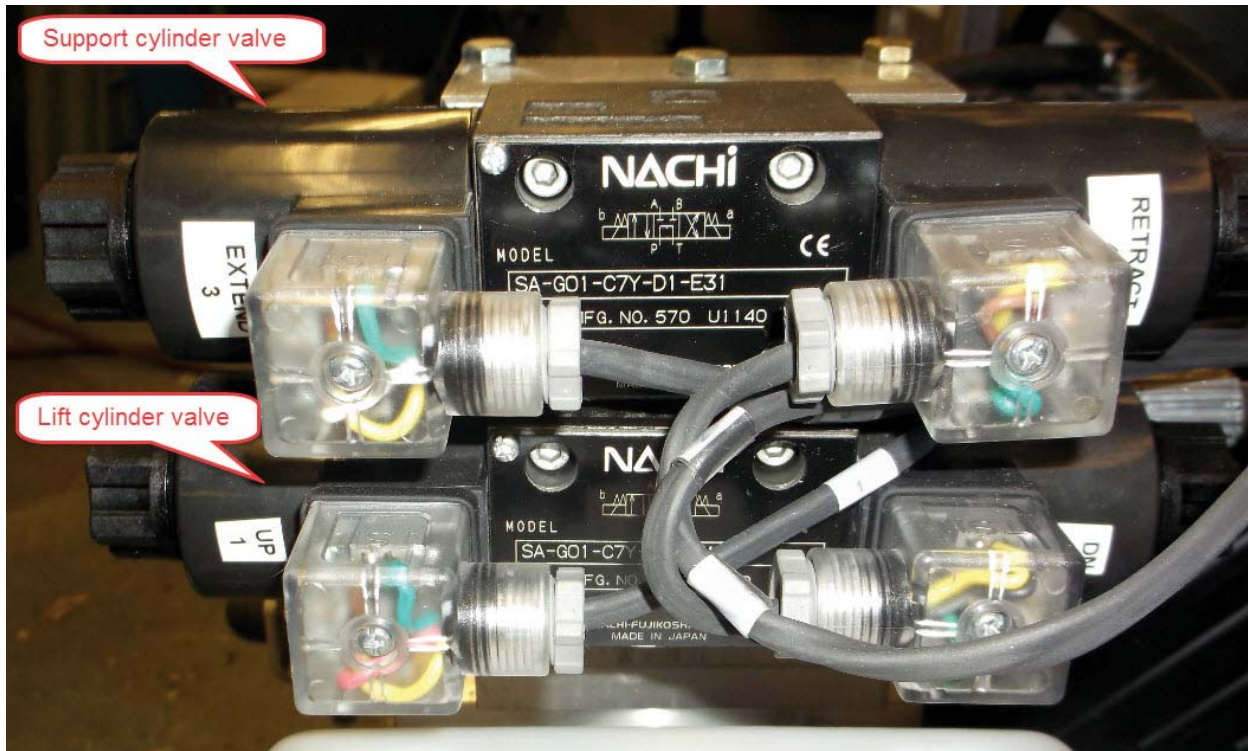


There is a pad-lockable motor disconnect switch which isolates the battery from the motor/pump preventing ramp motion or support motion. It should be used to prevent unauthorized or accidental movement of the ramp or ramp supports.

The battery charger is still connected to the battery when the disconnect switch is "off", so charging is possible.

## COMPONENT PICTURES

### Hydraulic Directional Valves



The connectors have lights indicating when a valve is energized.

These hydraulic valves are intended to be operated one at a time.

These valves are plumbed in series with the lift function getting the oil first. If both valves are operated at the same time there could be interrupted flow to the support cylinder if the lift cylinder reaches end of stroke.

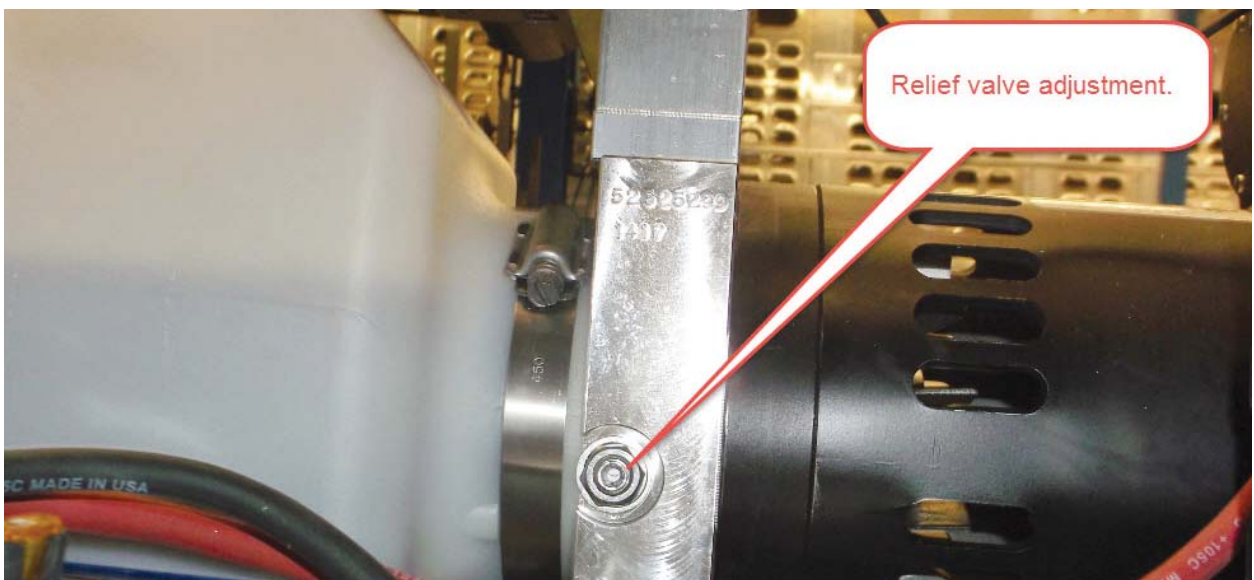
## COMPONENT PICTURES

### Oil Reservoir



Note type of oil required.

### Hydraulic System Relief Valve Location



There is no need to adjust this.

## **LUBRICATION**

### **Lift Cables (wire rope)**

Lubricate the wire rope with spray lube or drip oil. Apply the lube for the length of the rope for best corrosion and wear resistance. Or for minimal protection against wear, apply lubricant for the lengths of rope that bend as it travels over pulleys. Bending causes most rope to wear as the small wires move with respect to each other and rub as the rope bends over a pulley.

Use a lubricant that penetrates and leaves behind a component such as lithium, graphite, or molybdenum disulfide. Lubricate the ropes at least monthly. Trailer washing may require lubricating more often. Lubricate with ropes unloaded and slightly slack. (White lithium aerosol CRC brand, Wilson Trailer part APP-03640-A, 16 oz can.)

### **Pulleys**

The lift system may consist of multiple pulleys both on the inside and the outside of the trailer.

If the cable pulleys are equipped with grease fittings, they should be greased monthly. Trailer washing may require greasing more often. Remove dirt from pulleys. Lubricate the pulleys with ropes unloaded and slack. Rotate pulleys while greasing. Use a good quality with an EP additive (such as Pennzoil 705 white grease, Wilson Trailer part APN-03050, tube).

### **Ramp Hinges**

Lubricate similarly to the pulleys.

## **ROUTINE INSPECTION**

### **Lift Cables**

Inspect the wire rope lifting cables for their full length at least once a week. Look for kinks, wear, corrosion, fraying, or broken wires and unusual wear. Replace compromised cables.

Your trailer may have certain rope end fittings that require special assembly instructions. Refer to the link below.

<http://www.esmet.com/pdf/Electroline%20Assembly%20Instructions.pdf>

### **Pulleys**

Inspect all pulleys each week. With the pulley unloaded and the rope slack, rotate the pulley by hand. Feel or listen for unusual friction, noise, vibration, or increased wobble, etc. Inspect for unusual wear caused by the contact of the rope. Clean debris that can wedge between pulleys and their structural brackets.

### **Hydraulic Hoses**

Inspect monthly the hydraulic hoses for kinks, cracks, cuts, or any visible defects. Inspect for leaks.

### **Ramp Lift Points**

The ramp is equipped with lift rope attachment points. Check the fasteners that hold the lift points to the ramp monthly.

### **Turnbuckles**

Check the turnbuckles jam nuts for tightness monthly. Check the lock wire between the turnbuckle bodies.

### **Lift Cylinder to Turnbuckle Sliding Connector**

Inspect for smooth motion, no binding monthly. Check black plastic pads and aluminum sliding surfaces for excessive wear.

### **Ramp Supports**

Inspect the hydraulic cylinder and support pin motion monthly for smooth operation or unusual wear.

## **TROUBLESHOOTING**

**Lift ramp or supports do not operate properly:**

- Battery not charged.
- Mechanical binding.
- Inadequate oil level.
- Note the "Enable" switch must be held up while lift switch or support switch is operated.

**Deck will raise but not lower:**

- Pulleys sticking?
- Has the rope sliding connector stuck?
- Mechanical binding of the ramp to other trailer parts?
- Did both supports fully retract?



## CONSUMER INFORMATION

### Certificate of Limited Warranty



**The following warranty is given to the owner of each new Wilson trailer sold by Wilson Trailer or its authorized dealers in the United States and Canada during the period of time and upon the conditions set out in the Extended Warranty Schedule.**

### Warranty Coverage

Wilson Trailer will repair or replace, at its option, any factory-installed part that is defective in material or factory workmanship under normal use, maintenance and service. Normal use excludes any operation in excess of GVWR (gross vehicle weight rating) and any use the Owner's Manual states is not recommended. Warranty repairs will be made and adjusted in accordance with the Extended Warranty Schedule as it appears on the following page. Any repaired or replaced parts are covered only for the remainder of this warranty. All parts replaced under this warranty become the property of Wilson Trailer.

This warranty begins on the date the trailer is delivered to the first retail purchaser or the date it is first placed into service as a demonstrator or leased trailer, whichever comes first.

### Non-coverage Items

This warranty does not cover the following items:

- Tires.
- Axles, wheels, tires, suspension, trailer frame and other components and structure damaged through the use of single axle dump valves.
- Non-standard features or items specified by the purchaser.
- Parts that fail due to lack of required maintenance or use of non-equivalent parts.
- Normal wear or deterioration on any part.
- Any trailer normally driven outside the United States or Canada.
- The replacement of expendable maintenance items when the replacement is not due to a defect in material or factory workmanship.
- Any preowned trailer

(Rev. 07-16)

## **CONSUMER INFORMATION**

### **New Trailer Certificate of Limited Warranty**

#### **To Get Warranty Service**

Parts claimed to be defective in material or workmanship must be brought to the attention of Wilson Trailer or the selling dealer by taking the trailer to the dealer or by written notification within ten (10) days of discovery, and any repairs or replacement must be commenced within forty-five (45) days thereafter. Wilson Trailer has the right to inspect the claimed defect and determine whether the part is covered by this warranty. If you cannot get warranty service, or you are dissatisfied with the service or with a warranty decision, contact Technical Service and Claims Manager, Wilson Trailer, P.O. Box 6300, Sioux City, IA 51106.

#### **Owner's Responsibility**

As the owner of this trailer, you have the responsibility to perform the required maintenance at the proper intervals and make reasonable and normal use of the trailer.

#### **Limitations and Disclaimers**

Wilson Trailer disclaims any responsibility for any loss of time or use of the parts or trailers in which the parts are installed, transportation, cargo loss, or other incidental or consequential damage. Any implied warranties, including the implied warranty of merchantability and fitness for a particular purpose, are limited to the duration of this written warranty. Wilson Trailer makes no warranty as to quality or performance of its trailer other than set forth above.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you special legal rights, and you may also have other rights which vary from state to state.

**Wilson Trailer**

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Serial Number \_\_\_\_\_  
G.V.W. Rating \_\_\_\_\_  
Purchased By \_\_\_\_\_  
Date In Service \_\_\_\_\_  
Selling Dealer \_\_\_\_\_

By



(Authorized Signature)

(Rev. 07-16)

## CONSUMER INFORMATION

### Extended Warranty Schedule

**Per Written Warranty Conditions Covering Defect in Material and Workmanship as to Construction and Assembly and Installation Only.**

<p><b>% Allowable to owner (from date in service to original purchaser) for Material and Labor excluding component parts and accessories.</b></p>	<p><u>Vendor Items</u></p>		
	Axles	Side Structures	Dog House & Gate Latches
	Suspensions	Front Assemblies	Door Hardware
	Wheels	Rear Assemblies	Gate, Ramp, & Dog House Hinges
	Hubs and Drums	Crossmembers	Drop Leg Landing Gears
	Air Brake Valves and ABS Components	Undercarriage	Tire Carriers
	Tires	Metal Gates	Aluminum Roll-up Gates
	2 Speed Landing Gears	Dog House	Roll-up Tracks
	Axle Bearings	Metal Roof Skin	Painting (Outside Only)
	Axle Oil Seals	Roof Bows	Air Lines and Fittings
Lights and Wiring Harness	King Pin Assembly	Panel/Tool Boxes	
Axle Springs	Metal Roof Caps		
Translucent Roofs	Metal Flooring		
Lift Axle Controls	Ramps		
%	MONTHS	MONTHS	MONTHS
100	Use Vendor's Warranty Schedule	1 - 12	1 - 12
50		13-24 Months	-
0		Over 24	Over 12

**This warranty shall not apply from owner operation exceeding the GVWR rating of the trailer.**

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**WILSON TRAILER COMPANY**

# Livestock Hydraulic Lift Ramp Operator's Manual

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# **Livestock Hydraulic Lift Ramp Operator's Manual**



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