

**EAGLE LIFT**  
*America's Standard in Liftgates*

## **OWNER'S MANUAL**

**Installation, Operating, Safety, and Maintenance  
Instructions with Parts Lists**

# **1- CYLINDER DIRECT LIFT LIFTGATE EDL SERIES**

**MODELS EDL-54SB, EDL-58, EDL-60 EDL-60SB, & EDL-64  
1300 # CAPACITY, 40" TRAVEL**



**ATTENTION:**

**IT IS IMPORTANT TO  
FOLLOW THE  
INSTRUCTIONS SET  
FORTH IN THIS MANUAL  
TO ENSURE PROPER  
OPERATION OF THIS  
EQUIPMENT.**



**IMPORTANT:**

**AS FINAL STAGE MANUFACTURER,  
INSTALLER OF THIS LIFTGATE IS  
RESPONSIBLE FOR COMPLIANCE  
WITH ALL PERTINENT STATE AND  
FEDERAL SAFETY STANDARDS AS  
WELL AS FOR FOLLOWING  
RECOMMENDATIONS OF CHASSIS  
MANUFACTURER.**

## **EAGLE LIFT**

2840 Nebraska Ave.

Council Bluffs, IA 51501 U.S.A.

Phone (712) 322-1111 FAX (712) 328-0026

e-mail: //www.eagleliftgates.com

# **EAGLE LIFT'S LIMITED WARRANTIES**

## **EAGLE LIFT LIFTGATES**

These warranties cover the following products: all models of liftgates manufactured by Eagle Lift.

### **3-YEAR LIMITED WARRANTY**

Eagle Lift warrants to the original owner that the pump and motor unit used in this products shall be free from defects in material and workmanship for THREE YEARS from the date of purchase. If such a defect appears during the warranty period, Eagle Lift will repair or replace (at its option) these components without charge if applicable claim procedures are followed.

### **1-YEAR LIMITED WARRANTY**

As to defects not related to the components specified above, Eagle Lift warrants to the original owner that this product shall be free from defects in material and manufacturing workmanship for ONE YEAR from the date of purchase. If such a defect appears during the warranty period, Eagle Lift will repair or replace (at its option) your product without charge if applicable claim procedures are followed.

The product must be properly installed, maintained, and serviced in order to eligible for warranty.

The warranties apply only to Eagle Lift manufactured products and exclude add-on attachments and modifications.

The warranties do not cover defects or damage to products that have been improperly installed, abused, misused, or damage caused by the carrying of corrosive materials or by reason of an accident.

The above stated warranties are exclusive. There are no warranties which extend beyond the above stated warranties. There are no implied warranties of merchantability or fitness for any purpose. Incidental damages and consequential damages are excluded.

Claims may be made by contacting an authorized Eagle Lift distributor, or Customer Service Department, Eagle Lift, P.O. Box 876, Council Bluffs, IA 51502. All claims must be made in writing on the proper form submitted to Eagle Lift.

Eagle Lift or its authorized representative reserves the right to inspect products claimed to be defective for warranty purposes and dispose of the claim as it sees fit, including repair or replacement. Unauthorized repair or replacement prior to inspection may void the warranty.

All products or components claimed to be defective must be returned to the factory for warranty consideration within 30 days of the claim. All items shipped out from the factory for warranty reasons will be sent freight prepaid and all items returned to the factory for warranty must be sent freight prepaid.

Labor performed for warranty reasons must be done by an authorized Eagle Lift distributor or by a person or company pre-approved by Eagle Lift in writing.

## Foreword

This manual provides installation and operating procedures to help you obtain efficient and dependable use from your Eagle Lift Liftgate. This manual also contains specifications, parts lists, maintenance information, safety suggestions, and other general information.


Please read this manual carefully and understand it before attempting to install, operate, maintain, or repair your liftgate. Keep this manual with the liftgate for future reference. If at any time you have any questions you should contact your Eagle Lift dealer. The dealer has trained service technicians and Eagle Lift replacement parts to keep your Eagle Lift liftgate in top operating condition at all times.

Throughout this manual you will see the following symbol:  This is the Safety-Alert Symbol:

**Meaning: ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**

The terms **CAUTION!**, **WARNING!**, and **DANGER!** are used in conjunction with the Safety-Alert Symbol to identify the hazard level for items of personal safety.

 **CAUTION!** means hazards or unsafe practices that could result in minor personal injury or product or property damage.

 **WARNING!** means hazards or unsafe practices that could result in severe personal injury or death.

 **DANGER!** means immediate hazards that will result in severe personal injury or death.



### **SAFETY FIRST!!!**



Before using an Eagle Lift Liftgate, you should consult all applicable safety standards and instruct the operator fully in its use. Be sure that all personnel who intend to operate the liftgate read and understand this manual fully and comply with it and all safety standards.

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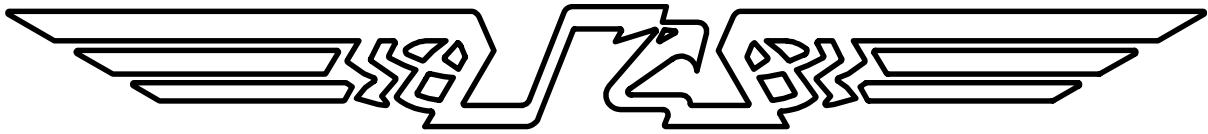
**Thank you** for purchasing an Eagle Lift Liftgate. Eagle Lift liftgates are the finest on the market today. In order to provide years of service, it is very important that you operate and maintain your liftgate properly.

This manual contains information necessary for the proper operation and maintenance of your Direct Lift 1-Cylinder liftgate. If you require service for repairs other than simple routine maintenance, please take your liftgate to an authorized **Eagle Lift Servicing Distributor**. If you need information for an Eagle Lift Servicing Distributor in your area, please contact us at:

**Eagle Lift**  
**P.O. Box 876**  
**2840 Nebraska Ave.**  
**Council Bluffs, IA 51501**  
**Phone: (800) USA-GATE or (712) 322-1111**  
**Fax: (712) 328-0026**  
<http://www.eagleliftgates.com>

Before operating the liftgate, please study this manual carefully and keep it in a handy place for future reference. Above all remember – **SAFETY FIRST!**

1. Always stand clear of liftgate when operating. Make certain FEET and HANDS are clear of space between liftgate and truck when raising, and clear of space between liftgate and ground when lowering. Also, keep clear of lifting linkage (arms) when liftgate is in operation.
2. This is not a passenger lift – **DO NOT RIDE!**
3.  **CAUTION!** Improper operation can result in serious injury – read operating instructions before use.
4. Any alteration of liftgate voids warranty and may void compliance with the Federal Motor Vehicle Safety Standards (FMVSS).
5. Only authorized, properly trained adults should operate this liftgate.
6. When not in use, always store the platform in closed position with both storage lock latches secured.
7. Never leave liftgate unattended with parking lights “**ON**”, or key in ignition.
8. Decals must remain on liftgate for safety purposes. Replace any damaged or missing decals immediately.
9. Never exceed rated load capacity. Always center load on platform and as close to truck as possible.
10. Always disconnect negative (-) battery cable terminal when welding on liftgate or truck.

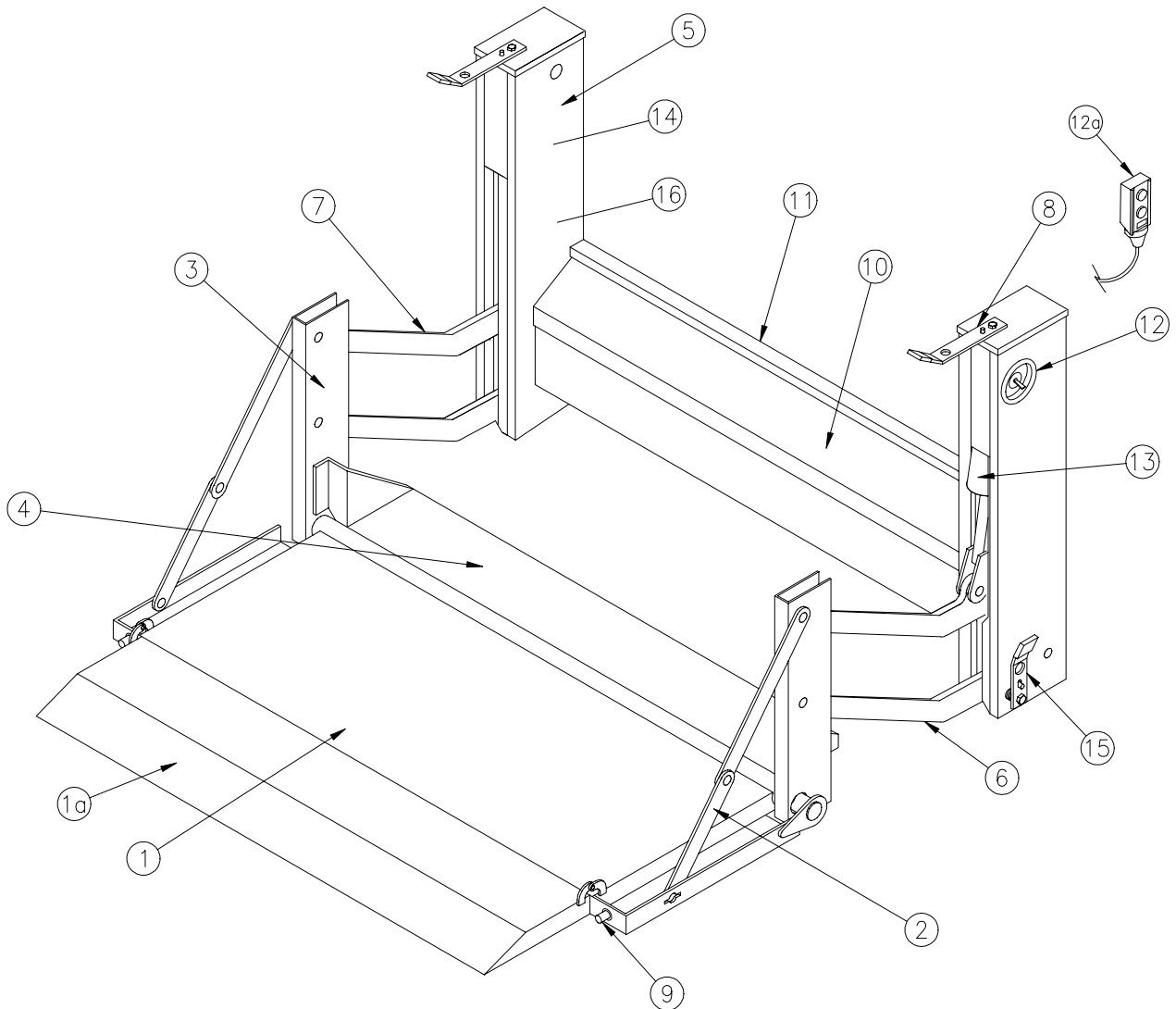


**EAGLE LIFT**  
**GENERAL SPECIFICATIONS**  
**AND CAPACITIES**

<b>OVERALL HEIGHT</b> .....	37"
<b>OVERALL WIDTH:</b>	
<b>MODEL EDL-54</b> .....	57"
<b>MODEL EDL-58/60</b> .....	63"
<b>MODEL EDL-64</b> .....	68"
<b>WIDTH BETWEEN UPRIGHTS:</b>	
<b>MODEL EDL-54</b> .....	47 1/8"
<b>MODEL EDL-58/60</b> .....	53 1/4"
<b>MODEL EDL-64</b> .....	57 3/4"
<b>TRUCK BED TO BOTTOM OF UPRIGHT</b> .....	15 1/2"
<b>RATED PLATFORM TRAVEL</b> .....	40"
<b>RATED LOAD CAPACITY</b> , (both lifting and lowering).....	1300 lbs.
(spread load out uniformly about center of platform)	
<b>HYDRAULIC CYLINDER SIZE</b> .....	2 1/2" BORE x 10" STROKE
<b>PUMP/MOTOR RESERVOIR CAPACITY</b> .....	approx. 63 cu. in.
<b>PUMP OPERATING PRESSURE</b> .....	2250 psi max.
<b>ELECTRICAL SYSTEM</b> .....	12 VDC, 180 amp. max. draw @ 2250 psi

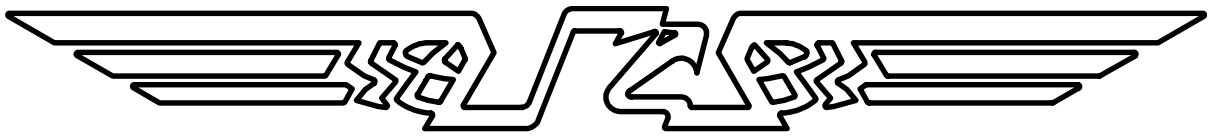


**EAGLE LIFT**  
**LIFTGATE TERMS**



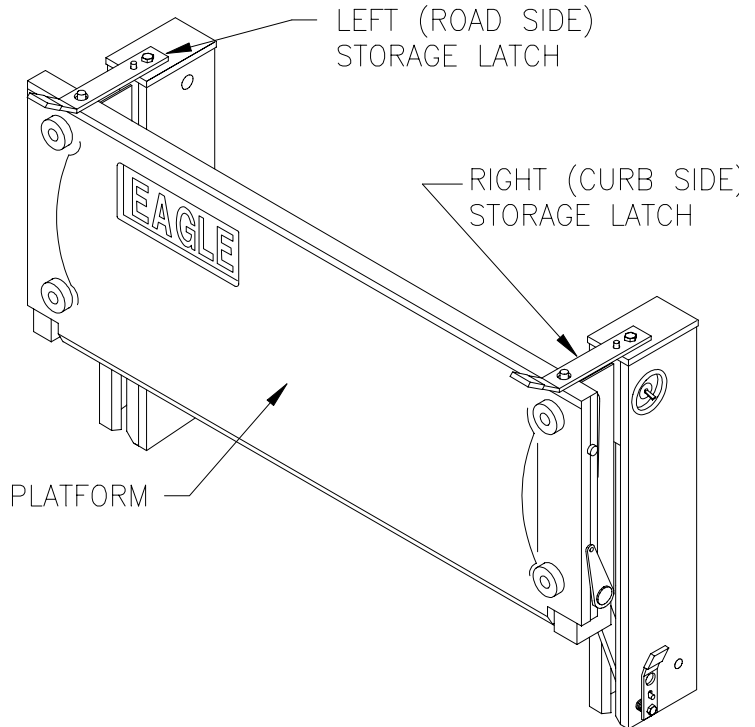
ITEM	DESCRIPTION	ITEM	DESCRIPTION
1	PLATFORM	10	MAIN HOUSING COVER
1a	(OPTIONAL) PLATFORM RAMP	11	MAIN HOUSING
2	PLATFORM SUPPORT LINKS	12	CONTROL SWITCH
3	PLATFORM UPRIGHT	12a	(OPTIONAL) HAND HELD REMOTE CONTROL
4	FALSE FLOOR	13	HYDRAULIC CYLINDER ASSEMBLY
5	MAIN HOUSING UPRIGHT	14	HYDRAULIC POWER UNIT (inside RDSD main upright housing)
6	LOWER PARALLEL ARM	15	FOLD DOWN LATCH
7	UPPER ARM/TORQUE TUBE ASSEMBLY	16	RELAY / ELECTRICAL HARNESS SYSTEM (inside RDSD upright housing)
8	STORAGE LATCH		
9	STORAGE LATCH PIN		

**Figure 1**

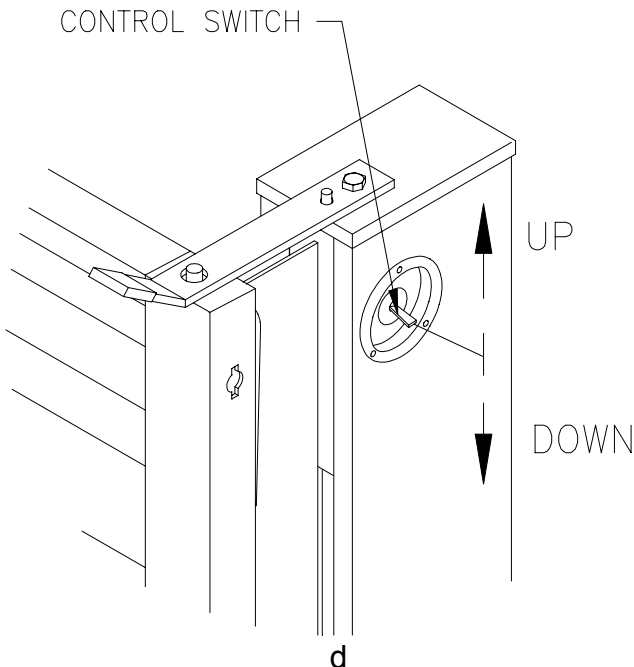


## **EAGLE LIFT** **OPERATING INSTRUCTIONS**

1. To operate the liftgate, turn the vehicle's **PARKING LIGHTS "ON"**. This will activate the electrical system on the liftgate, supplying 12 VDC power.
2. Unlatch left (RDS) storage latch by lifting up and turning outward.
3. Unlatch right [curb side (CBS)] storage latch by lifting up. Manually lower platform down to level position.
4. **To lower platform to ground:** Press down on control switch. You may stop platform at any desired height by releasing control switch (switch should automatically return to neutral position upon release).
5. **To raise platform to truck bed:** Lift up on control switch. (**NOTE:** An audible safety alarm sounds when you raise liftgate. This is an important safety feature for benefit of operator and public).

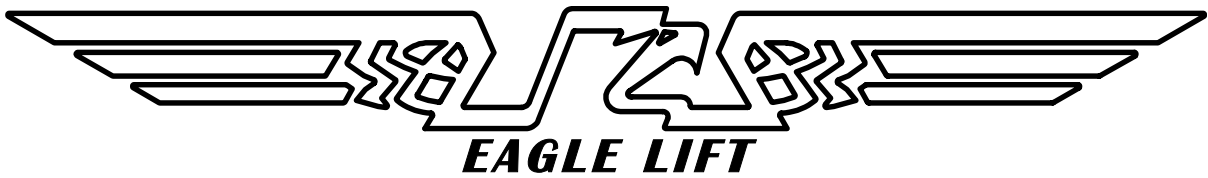


**Figure 2**



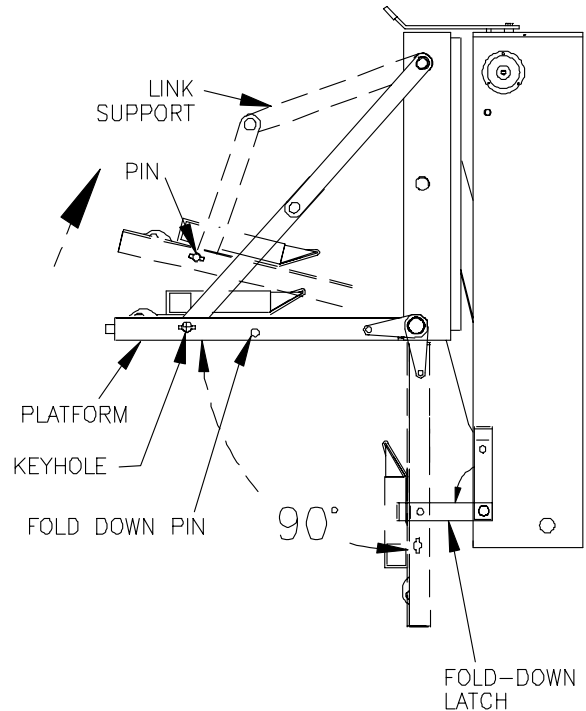
**Figure 3**

6. **To store gate:** Raise platform until level with truck bed. Manually lift platform to closed position. CBS storage latch will engage latch pin with pressure on platform. Lift and pivot RDS storage latch onto platform latch pin.
7. When finished using the liftgate, turn the vehicle's **PARKING LIGHTS "OFF"**. This will disconnect the power to the liftgate.



**To place platform in drop-away position:**

Manually lift platform and at same time, lift RDS platform link support upward at hinge point. This allows keyhole of platform and link support pin to line up. Disconnect link support from platform. Repeat procedure for CBSD link support. Platform will now drop-away for dock or forklift loading. Secure platform with fold-down latch (located near bottom of CBSD upright).



**Figure 4**

**⚠ CAUTION! PLATFORM IS SPRING LOADED AND UNDER CONSIDERABLE COMPRESSION WHEN LOCKED IN DOWN POSITION FOR DOCK LOADING. USE EXTREME CARE WHEN LATCHING AND UNLATCHING TO PREVENT INJURY.**

**⚠ CAUTION! USE OF DROP-AWAY IS ONLY FOR LOADING AT DOCKS OR WITH FORKLIFTS. DO NOT STORE PLATFORM IN THIS POSITION!**



# EAGLE LIFT

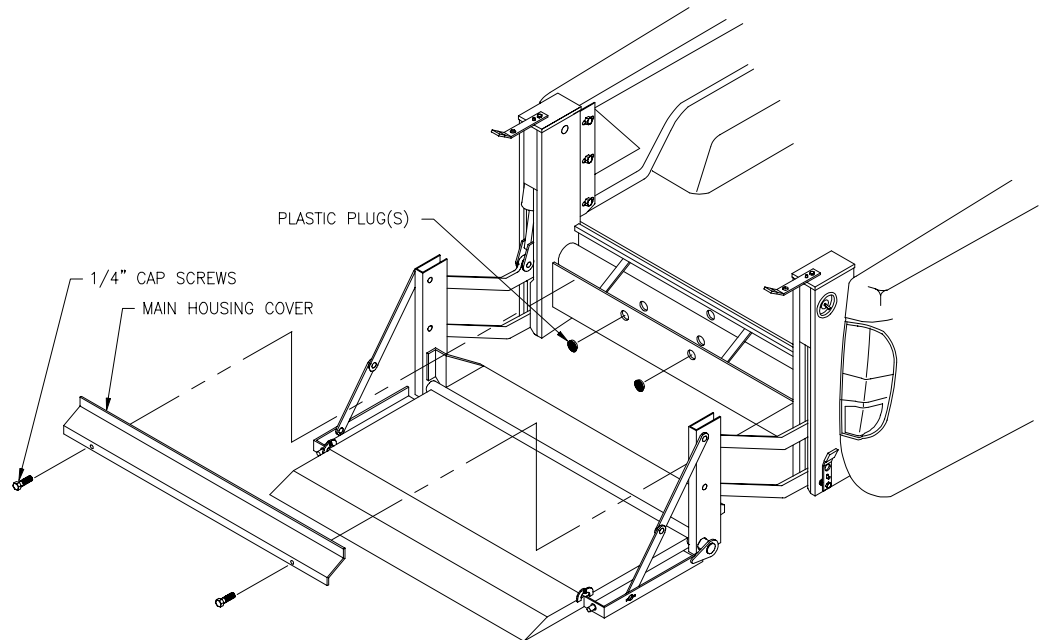
## SPARE TIRE ACCESS

**NOTE:** Spare tire access required only on Model EDL-58 and EDL-60 liftgates.

1. Raise liftgate back into position and lift platform into storage locks.

2. **Dodge 1994-up models only:** Use a 7/16" wrench to remove two (2) cap screws securing main housing cover. (See Figure 5, Page 6).

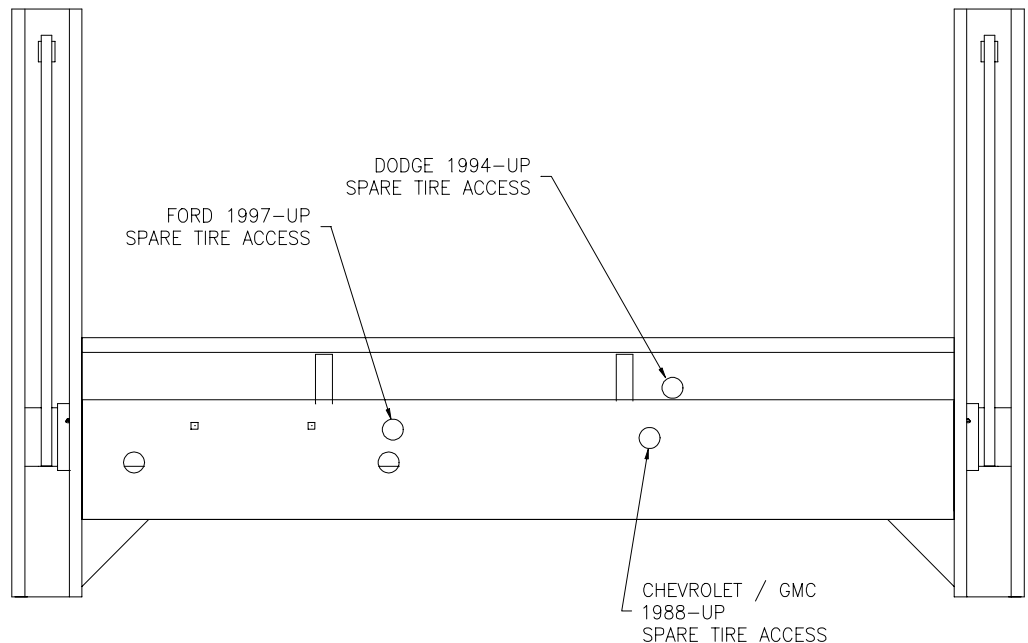
3. **Chevrolet/GMC 1988-up and Ford 1997-up models only:** Remove correct plastic plug from main housing. (See Figure 6, Page 6).



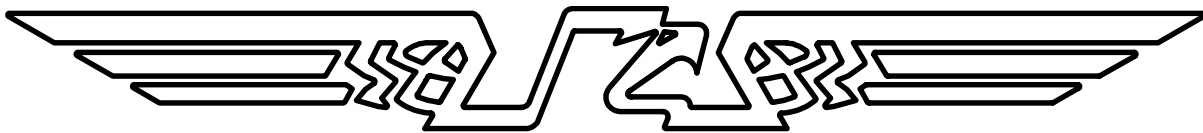
**Figure 5**

4. Insert spare tire access tool (supplied with vehicle) through proper hole and follow vehicle manufacturer's instructions for spare tire removal and replacement.

5. Replace plastic plug or main housing cover when finished changing tire.



**Figure 6**



**EAGLE LIFT**

## **SERVICE AND MAINTENANCE**

### **A. Preventative and Regular Service:**

1) Check pins and retaining rings for wear and damage.

**⚠ CAUTION! REPLACE IMMEDIATELY IF MISSING OR IF ANY SIGN OF WEAR IS OBSERVED.**

2) Inspect all pins, shafts, retaining rings, bolts, nuts, and roll pins.

**⚠ CAUTION! REPLACE IMMEDIATELY IF MISSING OR IF ANY SIGN OF WEAR IS OBSERVED.**

3) Inspect all welds for cracks or fatigue. If found, repair welds as required (recommend taking to an authorized Eagle Lift distributor).

4) Check oil level in reservoir of pump.

a) Proper fluid level is approximately 1 1/4" below top of reservoir tank with cylinder fully extended (platform lowered to ground).

b) Fill reservoir with 10W - 30W hydraulic oil or Dextron II ATF. Use a special high viscosity oil in cold weather climates. (Unit is shipped with cold weather Hydraulic Oil).

5) Inspect fittings, hoses, pump assembly, and cylinder for leakage. Repair or replace as needed. (See Cylinder Seals Replacement Section, Page 12).

6) Inspect all electrical connections for tightness, corrosion, or damage. Make repairs as necessary.

a) Check battery terminals for proper connections, tightness, and corrosion.

b) Inspect battery cell fluid levels according to manufacturer's instructions.

### **B. Checklist for safety features:**

1) Warning alarm sounds when gate is lifting.

2) Gate does not operate unless parking lights are "ON". Make sure to shut parking lights "OFF" when finished using liftgate.

3) When stored, safety storage latches hold liftgate platform securely in place.

4) All decals are in place and undamaged.



## **LIFTGATE TROUBLESHOOTING**

### **1. Liftgate does not raise to proper height, but unit is still running:**

- a. Check fluid level in reservoir. Add fluid if level is more than 1 1/4" below top of reservoir tank with cylinder fully extended.
- b. Platform overloaded. Remove some or all of load.

**⚠ CAUTION! DO NOT EXCEED 1300 LB. LIMIT OF LIFTGATE!**

### **2. Platform will not raise, but warning alarm is working:**

Indicates that there is electrical power to unit, but not enough to raise liftgate.

- a. Battery charge is low. Start vehicle so alternator will supply enough charge to raise platform. Charge battery or replace with a higher amp output battery.
- b. Problem in vehicle's electrical charging system. Diagnose and repair as necessary.

### **3. Platform will not raise and warning alarm is not working:**

#### **a. Check electrical system:**

- 1) Check for blown fuse: Replace 2 amp fuse in liftgate wiring harness. (See Figures 7 and 8, Pages 10 and 11).
- 2) Relay unit defective: Turn parking lights "ON". Use a test light to check for 12 VDC at center terminal on control switch (green wire). If 12 VDC is present through the 2 amp fuse and not present at the switch, the relay unit is faulty. Replace the relay and/or harness assembly. Figures 7 and 8, Pages 10 and 11).

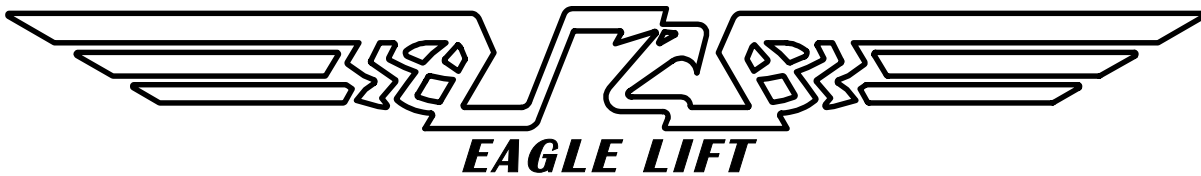
**⚠ WARNING! REPLACE DEFECTIVE RELAY AND/OR HARNESS ASSEMBLY IMMEDIATELY!**

#### **b. Short in electrical cable:**

Electrical cable pinched or cut by a sharp object on truck frame or burned by exhaust system. The 150 circuit breaker will be tripped (located under vehicle hood by battery). Repair the problem as necessary, reset the 150 amp circuit breaker, and check for proper operation.

**⚠ WARNING! SHORTING OF ELECTRICAL CABLE MAY CAUSE EXTENSIVE DAMAGE TO VEHICLE'S ELECTRICAL SYSTEM!**

#### **c. Short in electrical wiring system:**



Wire pinched or cut by sharp object in liftgate housing or by cylinder lifting system. Relay and/or harness 2 amp fuse may fail (See 3a above). Repair wire, replace 2 amp fuse, and test system for proper operation.

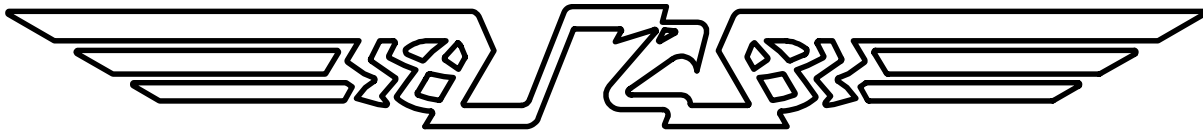
d. **Bad solenoid on liftgate pump/motor:**

Replace solenoid and check all the following items:

- 1) Battery charge low: Charge battery or replace with higher amp output battery. Check vehicle's electrical charging system.
- 2) Poor connection on battery terminals. Tighten terminal connections or replace cables.
- 3) Poor ground from battery to vehicle frame. Inspect ground connection and repair as necessary.
- 4) Electrical short in vehicle's or liftgate's electrical wiring system. See 3b and 3c above.
- 5) Poor grade replacement electrical wiring. Use only good quality, 105° C approved electrical wire.
- 6) Use di-electric grease on all terminals to prevent corrosion and poor electrical connections.

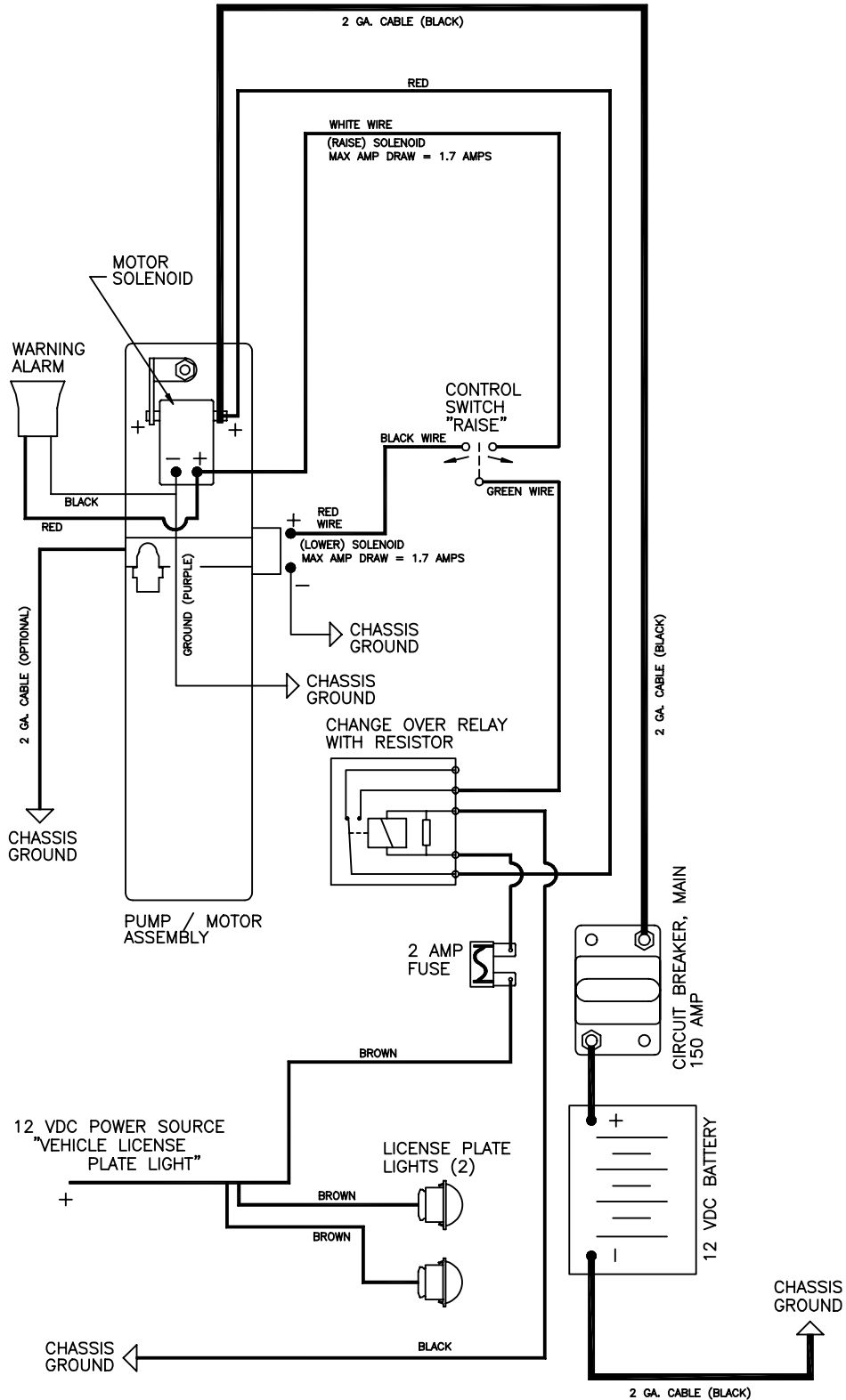
**NOTE:** If you have trouble with this product and are unable to make repairs, please consult an authorized distributor or the factory.

** WARNING! REPLACE ALL ABUSED OR MALFUNCTIONING PARTS IMMEDIATELY!**

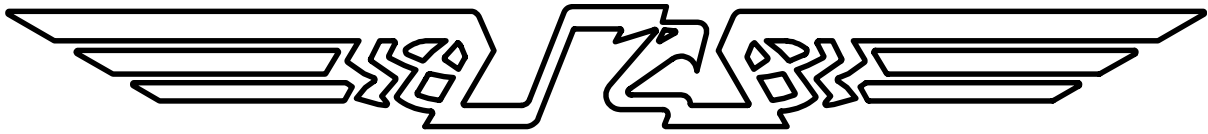


**EAGLE LIFT**

**ELECTRICAL WIRING DIAGRAM**  
**MANUAL CONTROL (Toggle Switch)**



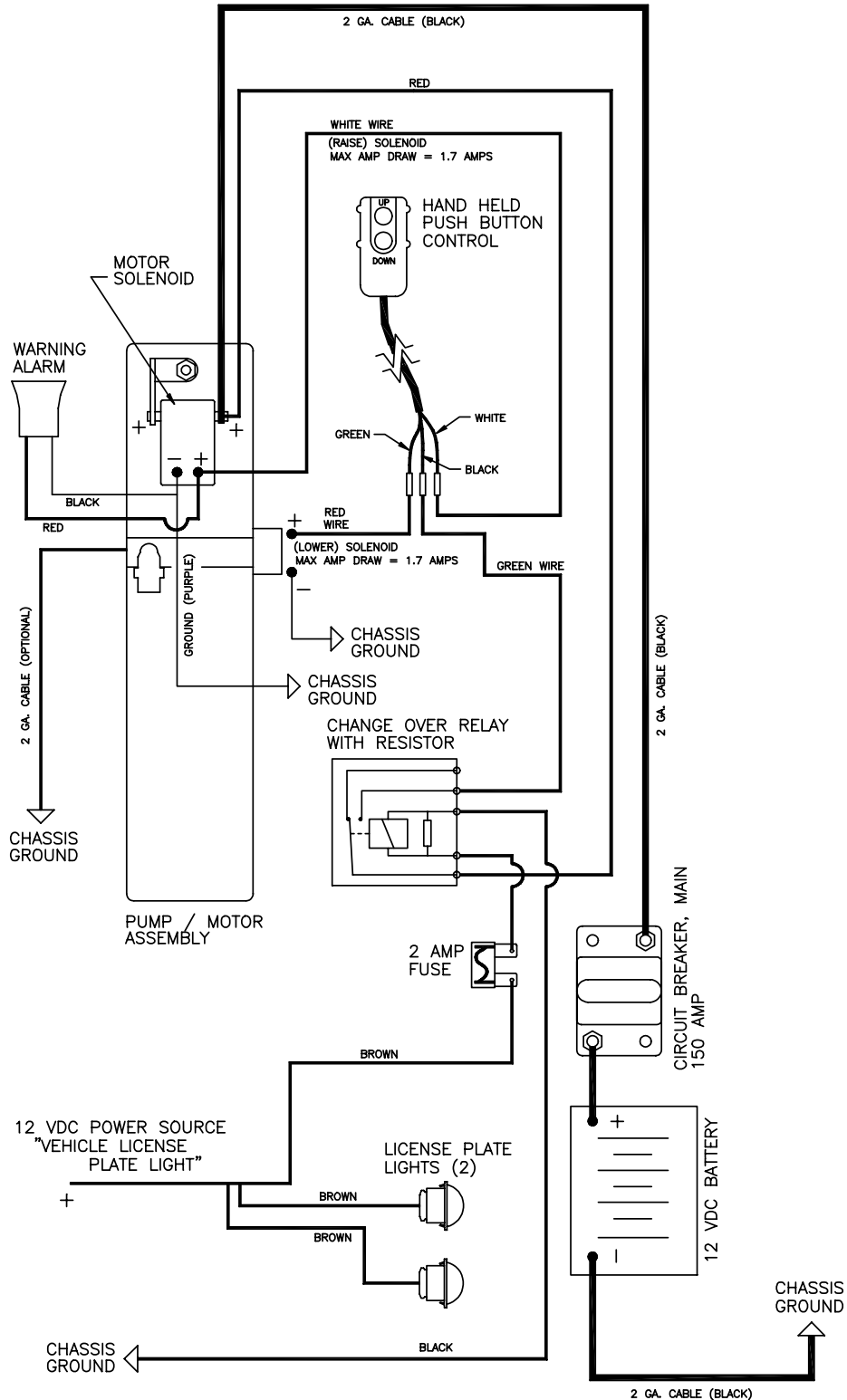
**Figure 7**



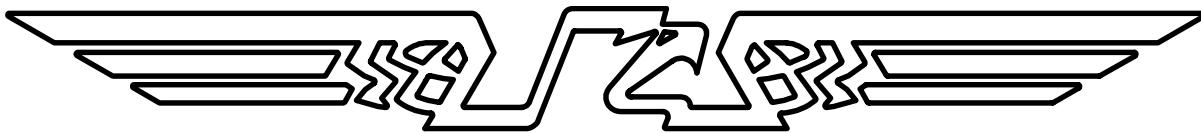
**EAGLE LIFT**

**ELECTRICAL WIRING DIAGRAM**

**OPTIONAL REMOTE CONTROL (Hand Held Push Button)**



**Figure 8**



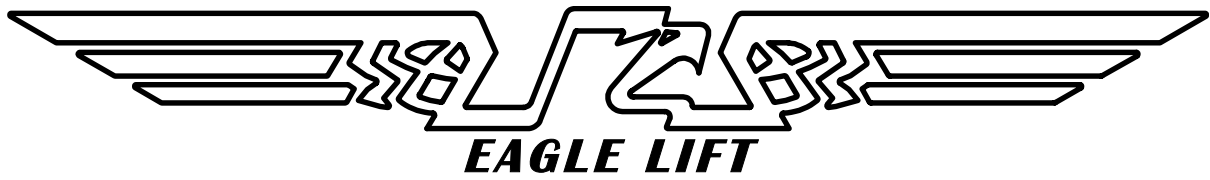
**EAGLE LIFT**

## **CYLINDER SEALS REPLACEMENT**

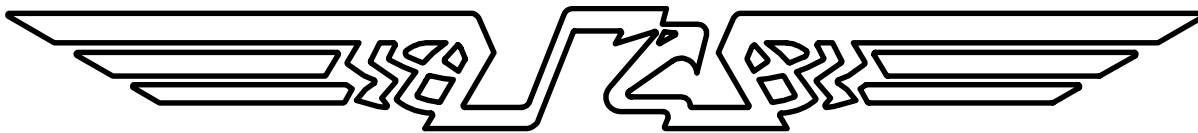
**(See Figure 9, Page 14)**

**⚠ CAUTION! CYLINDER REBUILD SHOULD ONLY BE DONE BY AN AUTHORIZED DEALER OR SKILLED PROFESSIONAL FAMILIAR WITH HYDRAULIC PRODUCTS. CONTACT FACTORY BEFORE ATTEMPTING REPAIR.**

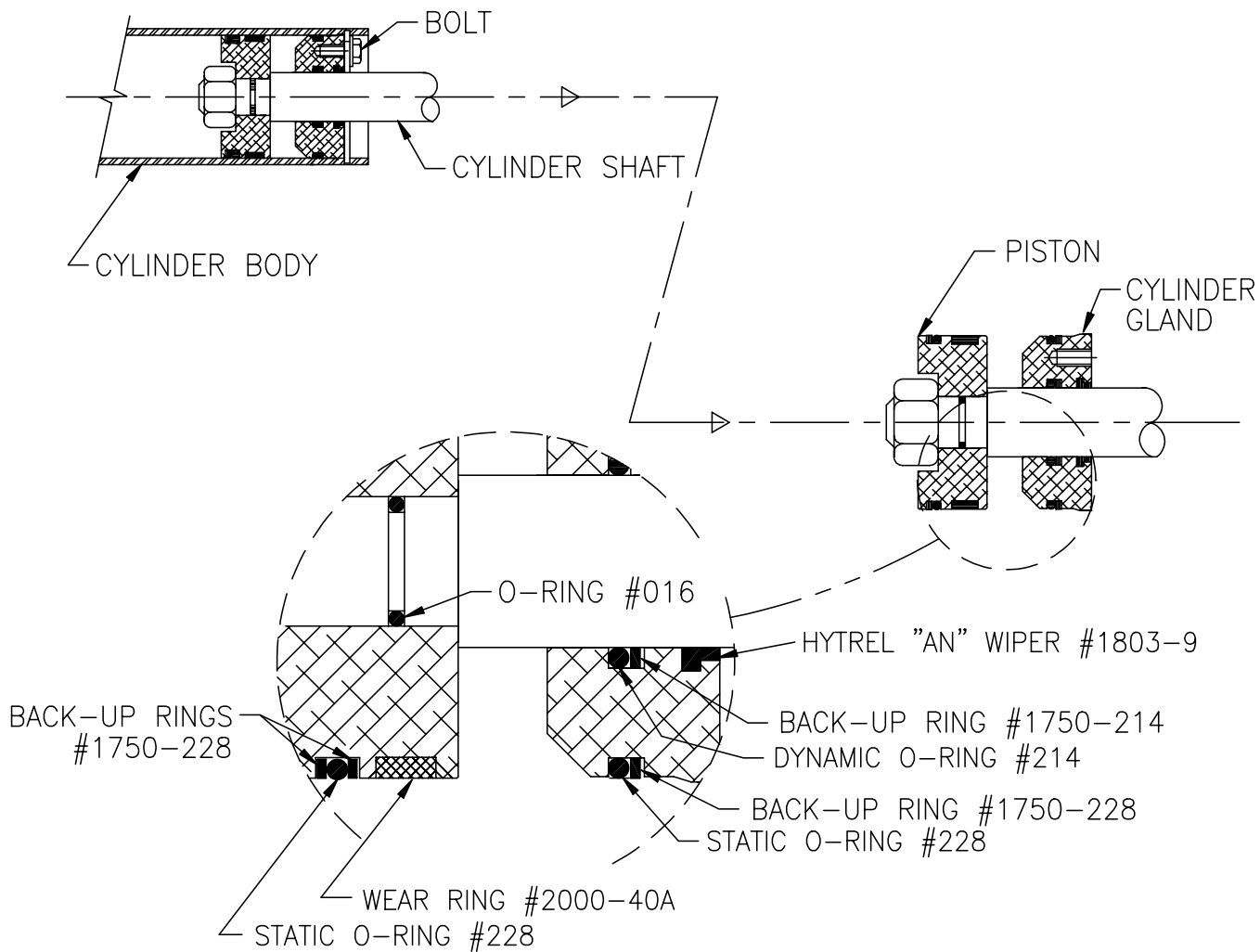
1. Lower platform to ground and remove main housing cover.
2. Remove RDSU upright cover to allow access to pump hose fitting.
3. Remove hose from pump fitting.
4. Remove cylinder (with hose attached) from liftgate upright housing.
5. Clamp cylinder in a vise. Do not overclamp! Place hose end into a container to catch hydraulic fluid and stroke cylinder back and forth to empty all fluid inside.
6. Remove (3) bolts and snap ring holding cylinder shaft gland in place.
7. Pull cylinder shaft, gland, and piston assembly out of cylinder case.
8. Remove piston lock nut from cylinder shaft. Remove piston and gland from shaft.
9. Replace seals: [NOTE - THE O-RING IS ALWAYS ON THE OIL PRESSURE SIDE, BACK-UP RING IS LOCATED AWAY FROM OIL PRESSURE SIDE (See Figure 9, Page 14)]
  - a. Remove all seals, o-rings, and back-up rings from both piston and gland. Note location of each. (See Figure 9, Page 14)
  - b. Install new o-rings, back-up rings, and seals on gland. Slide shaft through gland. (See Figure 9, Page 14 for proper direction of gland onto shaft. Wiper seal goes toward clevis end).
  - c. Install new o-ring, back-up ring, and wear ring on piston. DO NOT allow piston seal to twist when installing into piston groove. Replace piston onto cylinder shaft. (See Figure 9, Page 14).
  - d. Apply Loctite™ to piston nut threads and replace nut onto cylinder shaft. Torque nut to 80-90 ft-lbs.
10. Apply lubricant to piston and gland seals. Reinsert cylinder shaft, gland, and piston assembly into cylinder case.
11. Replace snap ring and bolts to secure gland in place. Do not over tighten bolts.
12. Reinstall cylinder into upright housing; feeding hose into main housing. Reinstall cylinder pins and clip rings.



13. Apply pipe thread sealant to hose end and reconnect to pump fitting.
14. Operate liftgate up and down several times to purge air out of cylinder, lower liftgate to ground, and fill reservoir to recommended level.



# **EAGLE LIFT** **CYLINDER ASSEMBLY DIAGRAM**



**Figure 9**