Power Gear® Hydraulic Jack Seal Replacement

Troubleshooting and Service Manual

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Introduction

The Power Gear® leveling system on your coach is designed and built to give you years of trouble-free leveling and stabilizing operation. The Power Gear system reflects state-of-the-art technology in both hydraulic and electric components.

Safety

The "WARNING" symbol above is a sign that an installation procedure has a safety risk involved and may cause death, serious personal injury or severe product or property damage if not performed safely and within the parameters set forth in this manual.

Failure to act in accordance with the following may result in death, serious injury or property damage.

Do not use leveling jacks (or air suspension) to support unit while under unit or changing tires. The hydraulic leveling system is designed as a leveling system only. Do not use as a jack or in conjunction with a jack. It is highly recommended that, should a tire change be required, a knowledgeable and trained professional perform it. Attempts to change tires while supporting the unit with the hydraulic system could result in damage to the unit and risk causing serious personal injury or death.

⚠WARNING

Hydraulic components can cause serious injury or death if proper safety precautions are not followed. All hydraulic pressure MUST be released from the system, including raising all jacks and removing power from the system before removal or disassembly is attempted.

⚠WARNING

Always wear eye protection when performing service or maintenance to the unit. Other safety equipment to consider would be hearing protection, gloves and possibly a full face shield, depending on the nature of the service.

⚠WARNING

Unit should be supported at both front and rear axles with jack stands before working underneath. Failure to do so may result in personal injury or death.

⚠CAUTION

The "CAUTION" symbol above is a sign that a safety risk is involved and may cause personal injury and/or product or property damage if not safely adhered to and within the parameters set forth in this manual.

⚠CAUTION

Check that potential jack contact locations are clear of obstructions or depressions before operation.

⚠CAUTION

Keep people clear of unit prior to turning the leveling system on and while leveling system is in use.

⚠CAUTION

Never expose hands or other parts of the body near hydraulic leaks. High pressure oil leaks may cut and penetrate the skin causing serious injury.

⚠CAUTION

Park coach on a reasonably solid surface or jacks may sink into ground. On extremely soft surfaces, use load distribution pads under each jack.

⚠CAUTION

Never lift the wheels off the ground to level the unit. Doing so may create an unstable condition.

⚠CAUTION

Moving parts can pinch, crush or cut. Keep clear and use caution during assembly.

Seal Replacement Instructions

Resources Required

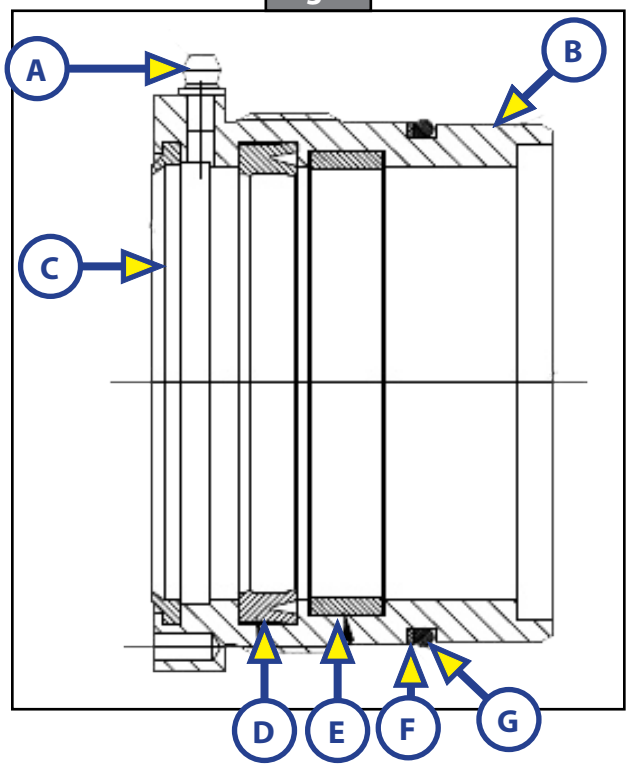
NOTE: Some tools may not be required for some jacks. This is a complete tool list to equip a technician for repairs to all types of Power Gear leveling cylinders.

- ¼" drift punch
- ⅛" drift pin punch
- Hammer
- Strap wrench
- Small pick or small flat blade screwdriver
- Grease gun
- Large spanner wrench
- Bench vise
- 15⁄16" socket
- 9⁄16" socket
- 7 mm socket
- Impact wrench
- Torque wrench
- Clean lint free shop towels
- Locktite® 243 or equivalent
- Wire brush
- Spray cleaning solvent
- Compressor
- Large pipe wrench or chain wrench
- Small propane torch

Internal Spring Leg Seal Replacement

Figure 1 depicts an example of a typical rod guide section detail for 16,000lb Power Gear leg part numbers 359050, 359050, 359494 and 366423.

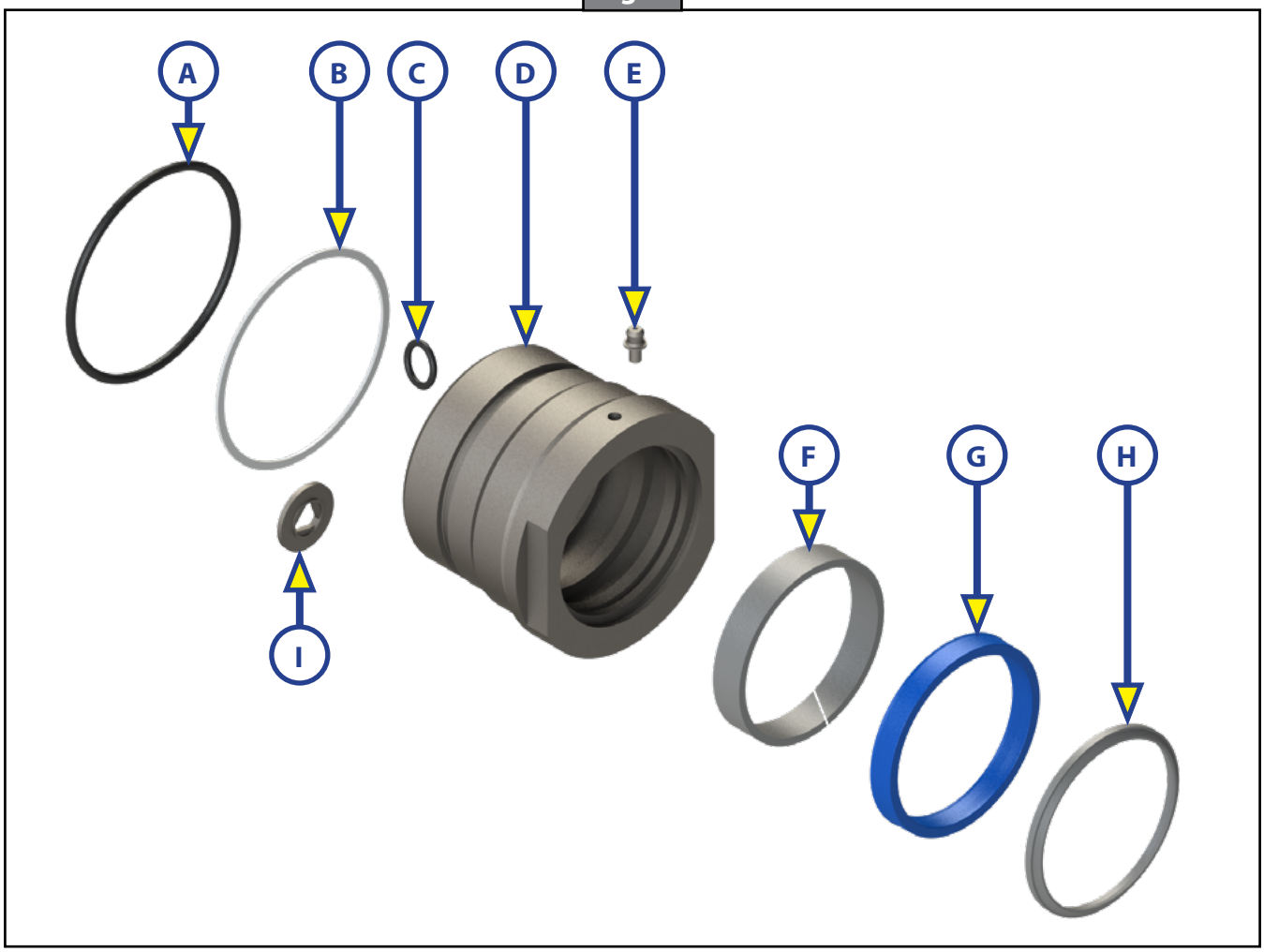
Fig. 1



Callout	Description
A	Grease Fitting
B	Rod Guide
C	Wiper Rod
D	Rod Seal, T, 3.00
E	Wear Ring Rod
F	Back-Up Washer
G	O-ring

Figure 2 shows the seal replacement kit PN 359460 for 12,000 lb Power Gear leg PN 359495.

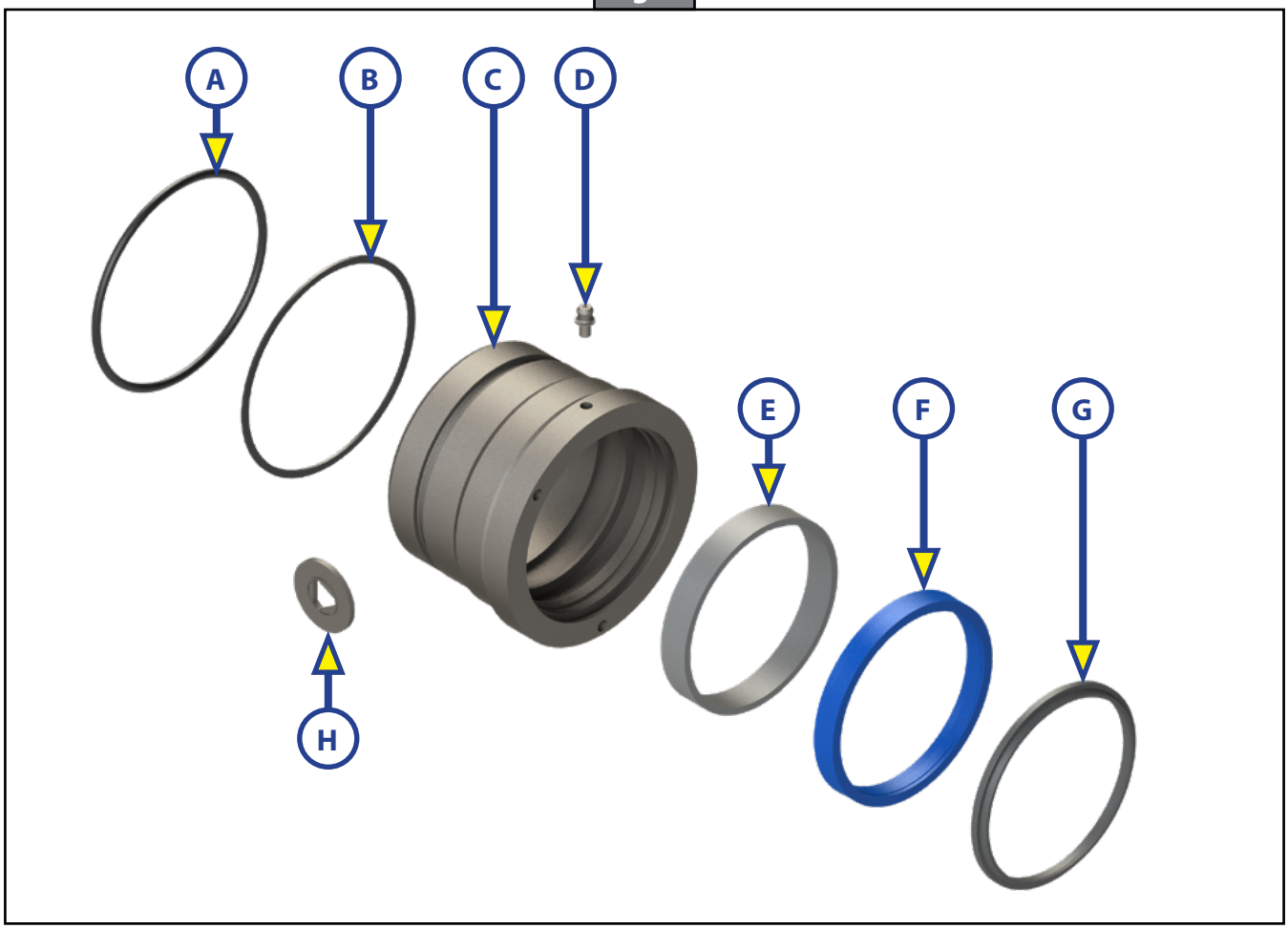
Fig. 2



Seal Replacement Kit PN 359460		
Callout	Part #	Description
A	361853	O-ring, ARP 234, Duro 70
B	361854	Back-Up Ring, ARP 234 Nitrile
C	361852	O-ring, ARP 112, Duro 90
D	359406	Rod Guide
E	359094	Grease Fitting
F	361848	Wear Ring Rod, 2.50
G	361850	Seal Hallite Type 605
H	361849	Rod Wiper
I	361851	Thread Seal, 1/2" Bolt

Figure 3 shows the seal replacement kit PN 359463 for 16,000 lb Power Gear leg PN 359050 and 359050.

Fig. 3



Seal Replacement Kit PN 359463		
Callout	Part #	Description
A	362774	O-ring, ARP 237, Duro 70
B	362778	Back-Up Ring, ARP 237, Nitrile
C	363010	Rod Guide
D	359094	Grease Fitting
E	363011	Wear Ring Rod, 3.0
F	362775	Seal Hallite Type 605
G	362776	Rod Wiper
H	363958	Thread Seal, 5/8" Bolt

1. Pressure wash the exterior of the leg to prevent dirt from contaminating the interior of the leg during the re-assembly process.
2. Using a propane torch, heat the center bolt at the top of the Power Gear jack for one minute. Let cool for 30 seconds.
3. Using an impact wrench, remove the center top bolt (Fig. 4). The bolt is approximately 6 inches long (Fig. 5).

Fig. 4

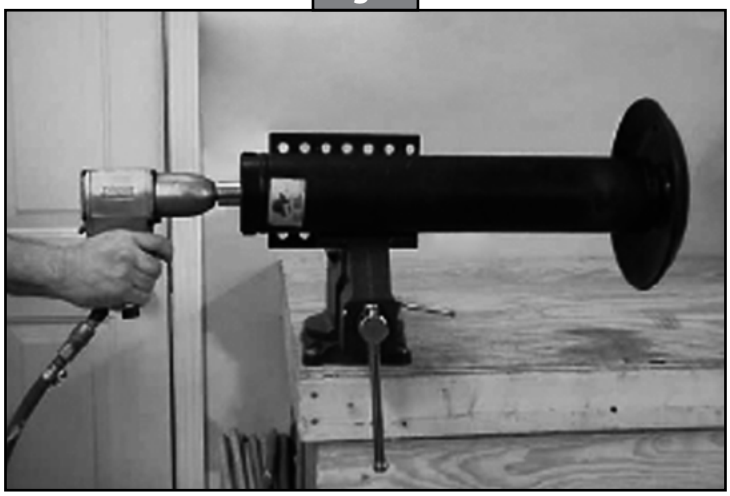
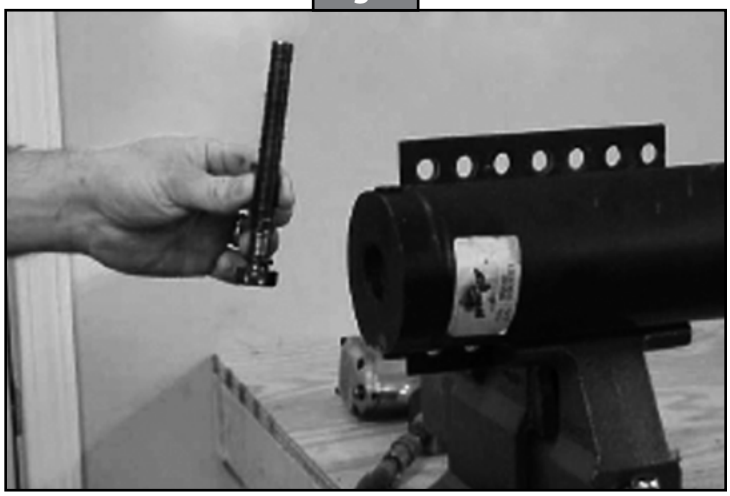


Fig. 5



NOTE: It may be helpful when mounting the jack in the vise to elevate the footpad end. This will prevent the remaining oil in the cylinder from draining out when the rod is removed.

4. Manually extend the rod from the cylinder until it stops (Fig. 6).
   - **A.** Inspect the rod to make sure it has absolutely no dings, dents, corrosion or scratches. Discard the jack if it imperfections exist.
5. Push in the rod about half way before heating the rod guide. This will prevent damage to the piston. Use a small propane torch to heat the bottom one inch diameter of the cylinder to soften the thread-locking fluid used during assembly (Fig. 7).

Fig. 6

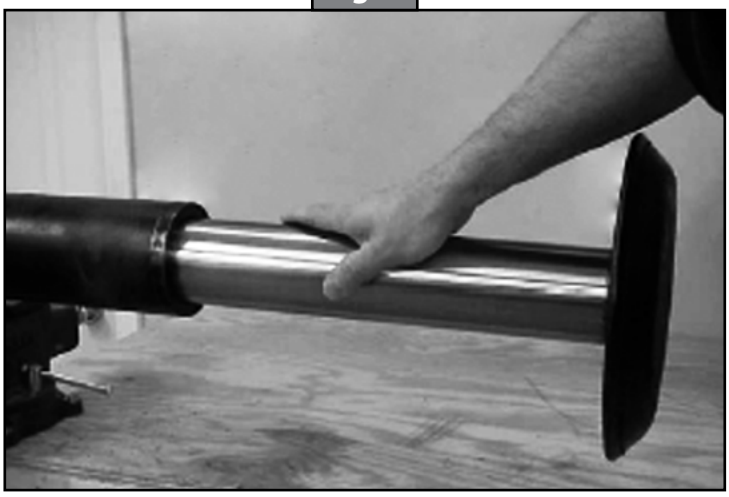
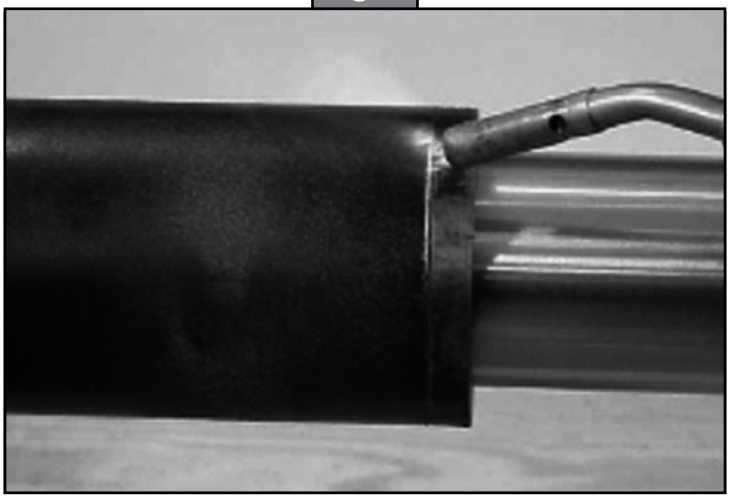


Fig. 7



6. Use a chain wrench or pipe wrench to loosen the rod guide for removal (Fig. 8).

7. Remove the rod assembly from the cylinder (Fig. 9).

Fig. 8

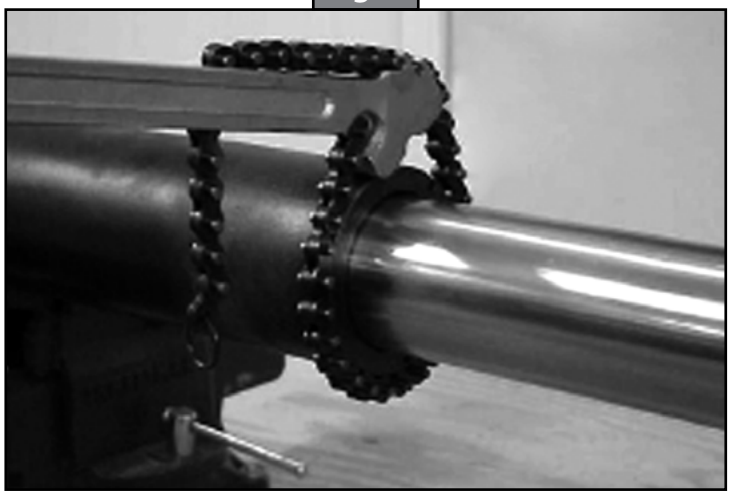
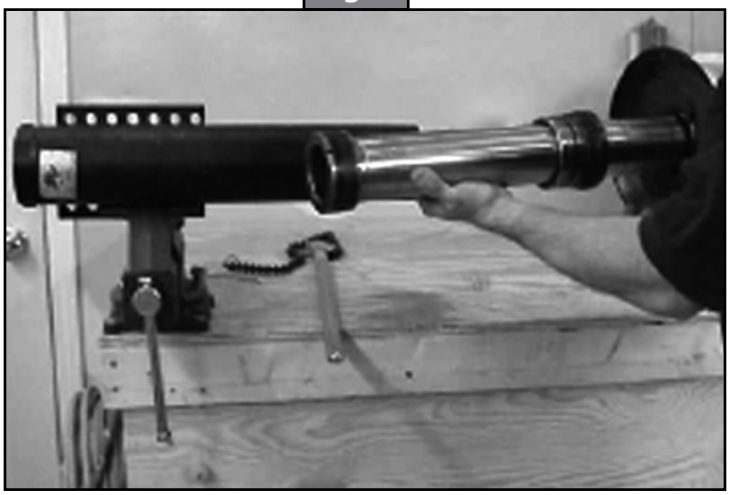


Fig. 9



8. Set the footpad on the floor. Using a spanner wrench, remove the piston from the rod (Fig. 10).

NOTE: Some models will have the piston held in place with a large snap ring. Before attempting to remove the piston, remove the snap ring with an appropriate- size external snap ring pliers.

NOTE: The piston is threaded internally and will unscrew off the top of the rod (Fig. 11). Pull the rod guide assembly up and off the rod.

NOTE: If your seal kit includes a new rod guide, skip to step 12.

Fig. 10

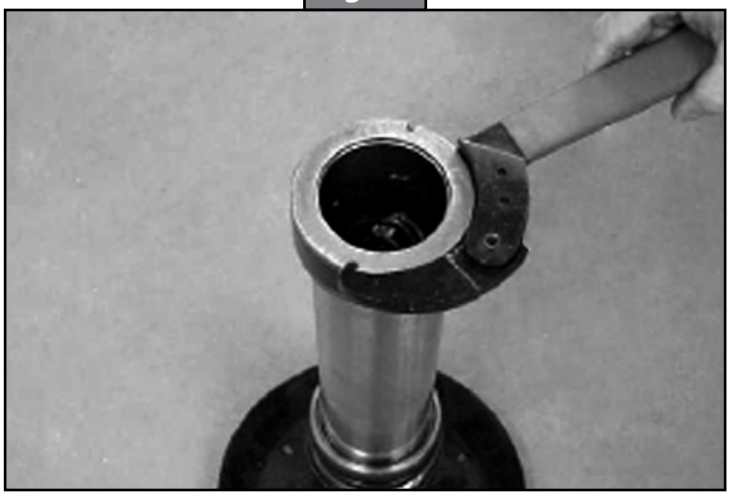


Fig. 11

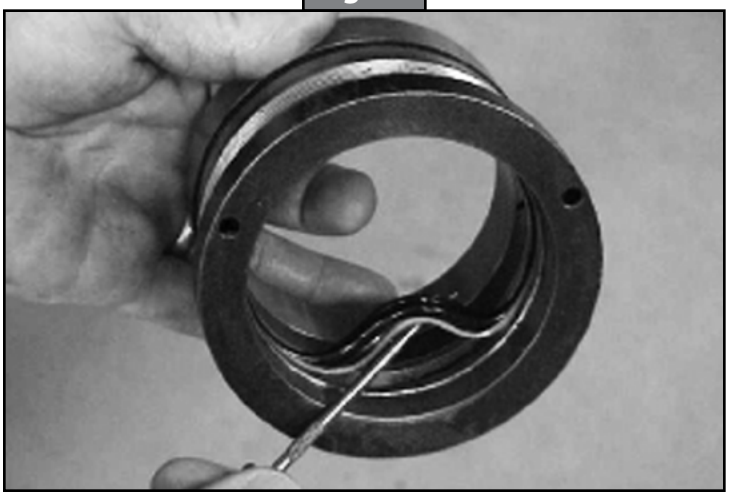
9. Using a pick tool, remove the external O-ring and back-up ring from the previously removed rod guide (Fig. 12).

10. Using a pick tool, remove seals and any back-up rings (Fig. 13).

NOTE: Seals may be either T-type or V-type.

Fig. 12

Fig. 13



11. Using a wire brush, (Fig. 14) clean up the threads on the exterior of the rod guide. Clean the lower internal part of the rod guide if necessary.

NOTE: The wire brush does not need to be pneumatic. Any wire brush can be used. Take caution when cleaning the inside of the rod guide. The softer bearing material can be damaged.

12. Using a wire brush, clean up threads on the exterior of the rod where the piston is threaded (Fig. 15).

Fig. 14

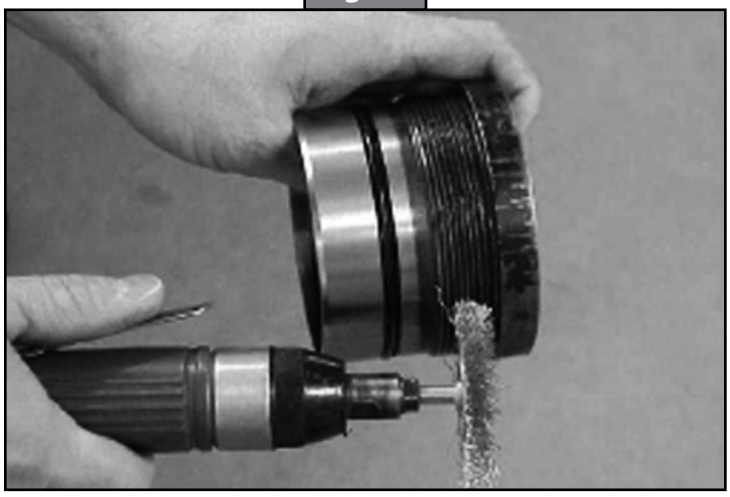


Fig. 15

13. With the pick tool, remove the O-ring from the six inch bolt (Fig. 16).

NOTE: Figure 16 shows an O-ring for the bolt. On older jack legs, part# 500385, a ½" bolt seal was used instead of an O-ring. Note the part number, if the part number reads 500385 with no letter suffix, the seal must be used instead of the O-ring.

14. Using a wire brush, clean up the threads on the six inch bolt (Fig. 17).

15. Install the new O-ring on the six inch bolt.

Fig. 16

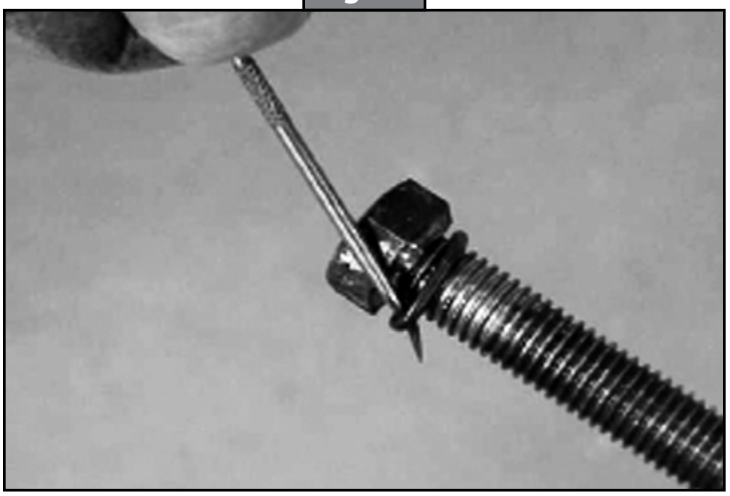
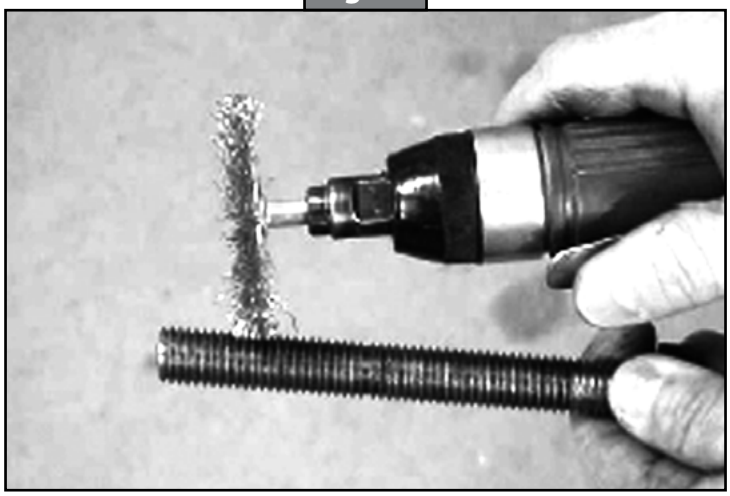


Fig. 17

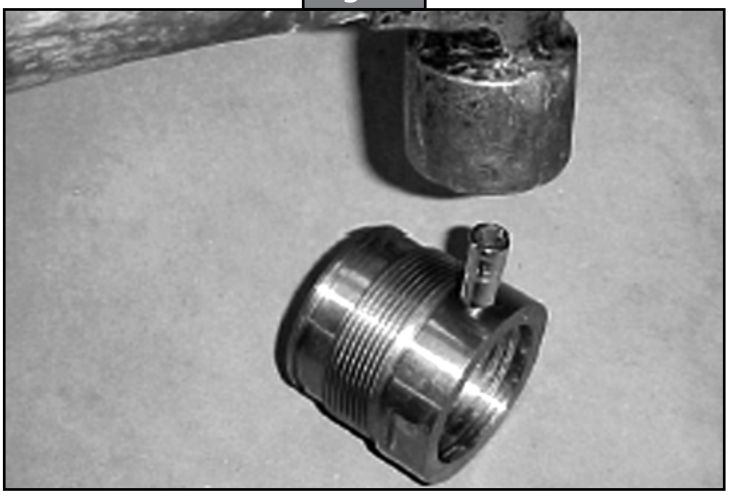


16. Clean the rod guide, even if it's new, with water displacing spray (Fig. 18).

17. Install the grease fitting using a 7 mm socket slipped over the fitting. Seat fitting with a hammer until the shoulder touches the rod guide (Fig. 19).

Fig. 18

Fig. 19



18. Lubricate all seals with transmission fluid. Install the new wear ring into the rod guide by compressing until ends overlap. Install the new O-ring and back-up washer on exterior of the rod guide (Fig. 20).

NOTE: Make sure seals are installed in the proper direction. Seals installed incorrectly will cause the leg to fail. Refer to Figure 1 for the proper installation of the seals and rings.

19. Install the new seal. The groove in a lip seal will be installed up. Always install the lip seal from the top side of the rod guide to avoid cutting the lip upon installation (Fig. 21).

Fig. 20

Fig. 21

20. If your seal kit uses a T-type seal, install it in the proper groove (Fig. 22).

21. Install new back-up ring(s).

NOTE: Most rod guides will have the upper back-up ring eliminated to promote faster retraction.

NOTE: Guides with V-type seals do not require a back-up ring.

22. Assemble the rod guide onto the rod, thread side up. If it is a threaded piston style rod, apply a 2" - 3" bead of thread-locking fluid to the threaded portion of the rod (Fig. 23).

Fig. 22

Fig. 23

23. Thread the piston onto the rod until it is seated (Fig. 24).
24. Using a spanner wrench, tighten the piston snugly onto the rod. (Fig. 25).
25. If using a snap ring style jack, install the snap ring.

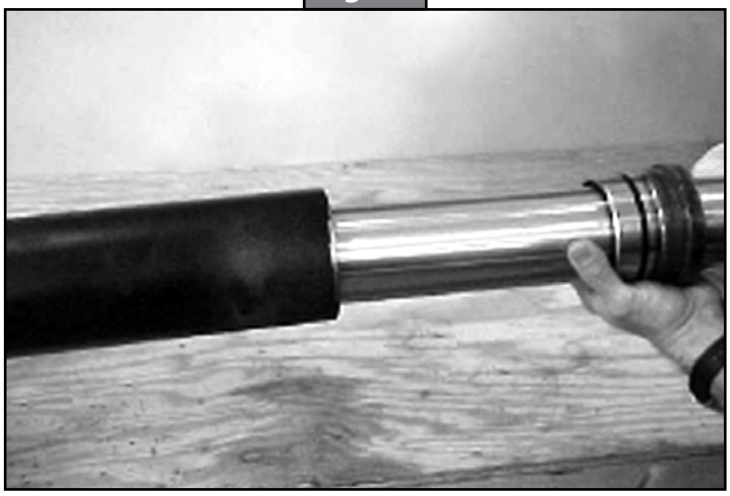
Fig. 24

Fig. 25

26. Clean the inside of the cylinder with a lint free cloth. Make sure there is absolutely no debris or old thread-locking fluid left inside the cylinder (Fig. 26).
27. Insert the piston back into the cylinder (Fig. 27).

Fig. 26

Fig. 27



28. Apply a 3" bead of thread-locking fluid to the external threads of the rod guide (Fig. 28). Start threading the rod guide into the cylinder.

29. Using a chain wrench, tighten the rod guide into the cylinder (Fig. 29).

NOTE: Make sure the rod guide is seated snuggly in the cylinder.

Fig. 28

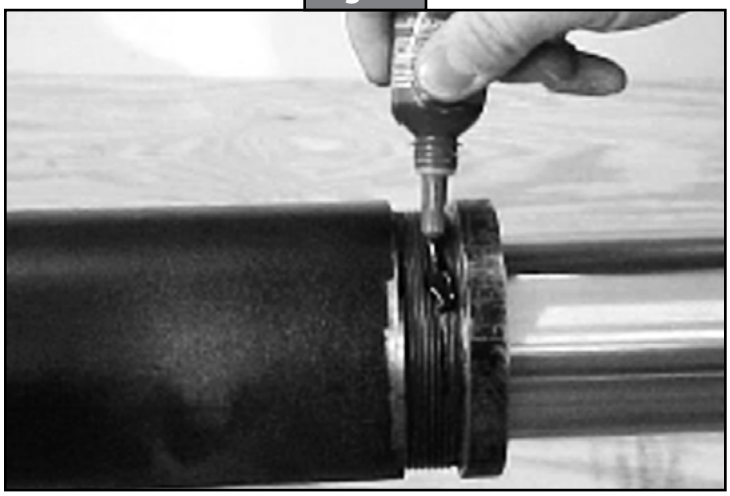


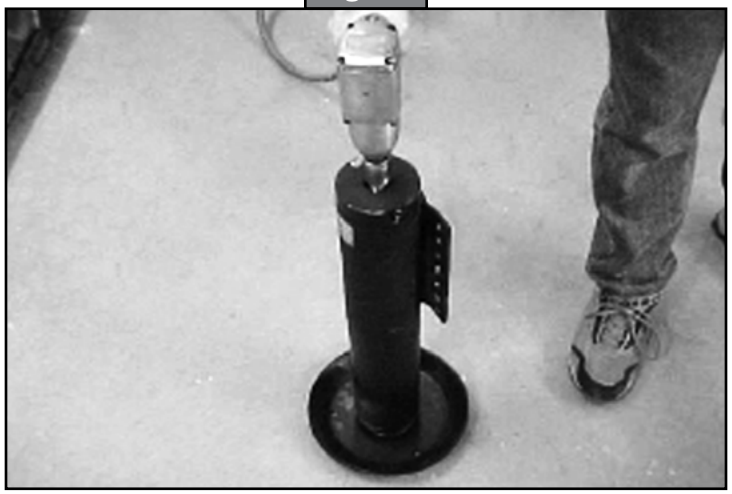
Fig. 29

30. Apply 2" of thread-locking fluid to the threads in the middle of the 6" bolt.

31. Install the bolt and tighten with an impact wrench.

32. Torque the bolt with a torque wrench to 45 ft-lbs (Fig. 30).

Fig. 30



33. Paint the rod guide once the jack is completely reassembled.

34. Grease the rod guide. Three pumps with a manual grease gun is recommended.

35. Reinstall leg on the frame and test to operate.

36. Flush and refill the hydraulic system with fresh fluid.

37. Cycle each leg two to three times from full extension to full retraction after filling reservoir to purge air from the system.

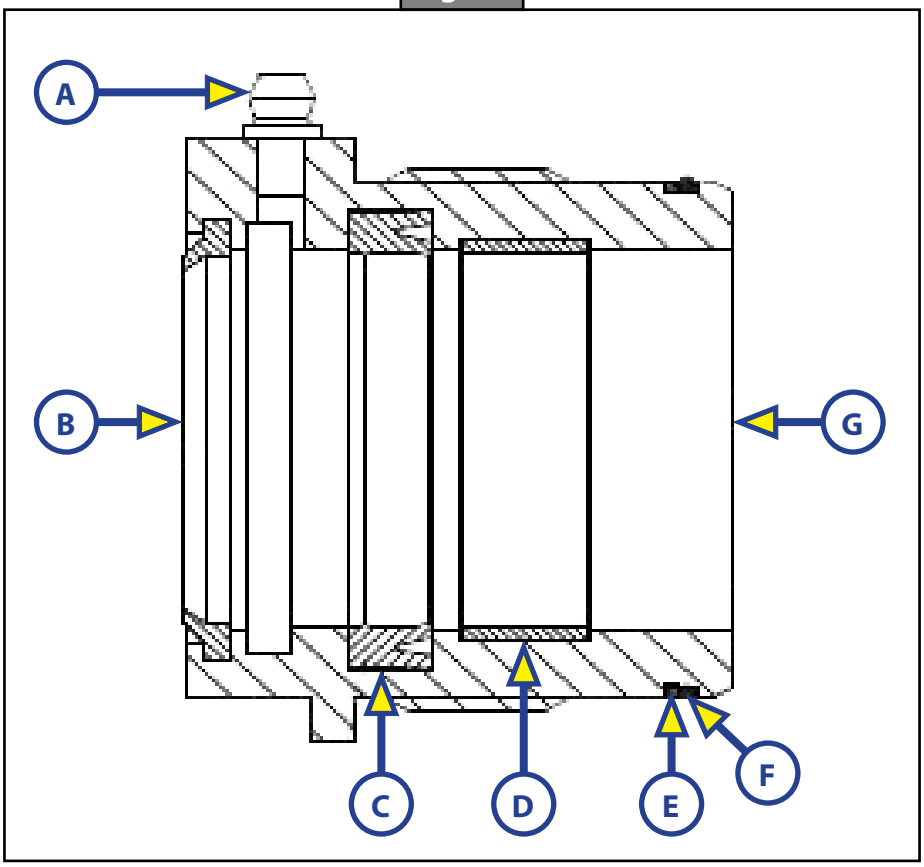
38. Make sure to check fluid level after each cycle of the legs.

For comprehensive instructions on a basic purge of the system, see Basic Purge Procedure for Hydraulic Pump section.

External Spring Leg Seal Replacement

Figure 31 depicts an example of a typical rod guide section detail for a 6K jack.

Fig. 31



Callout	Description
A	Grease Fitting
B	Wiper Rod
C	Rod Seal, 1.625
D	Wear Ring Rod
E	Back-Up Washer
F	O-ring, 2.25
G	Rod Guide

Kit numbers 359465 and 359462 include parts for two different style jacks. When re-assembling the jack it will need to be determined which style jack is being worked on. Use the following guidelines to choose the correct components.

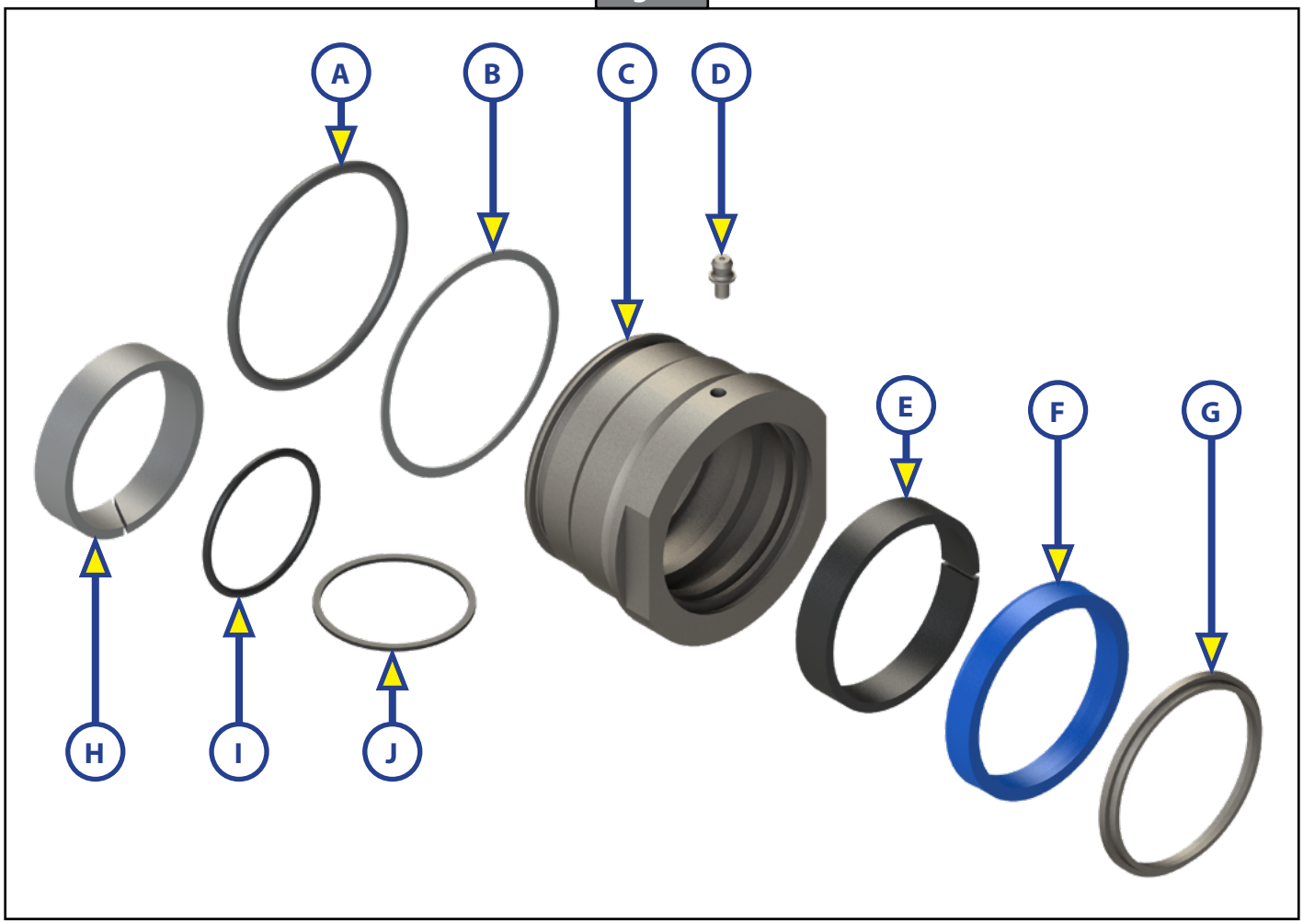
- The jack part number ends with the letters HR.
- HR jacks have a #4 JIC hose fitting. Non-HR jacks use a #6 JIC.
- If the piston looks like figure 32, then it is a HR series jack.

Fig. 32

Figure 33 shows the seal replacement kit PN 359465 for 9,000 lb Power Gear leg part numbers 359384, 359497, 359496.

NOTE: Seal replacement kit PN 359465 will include two similar looking rod guide wear rings. One is thicker than the other. If re-sealing a HR series jack, use the thicker wear ring.

Fig. 33



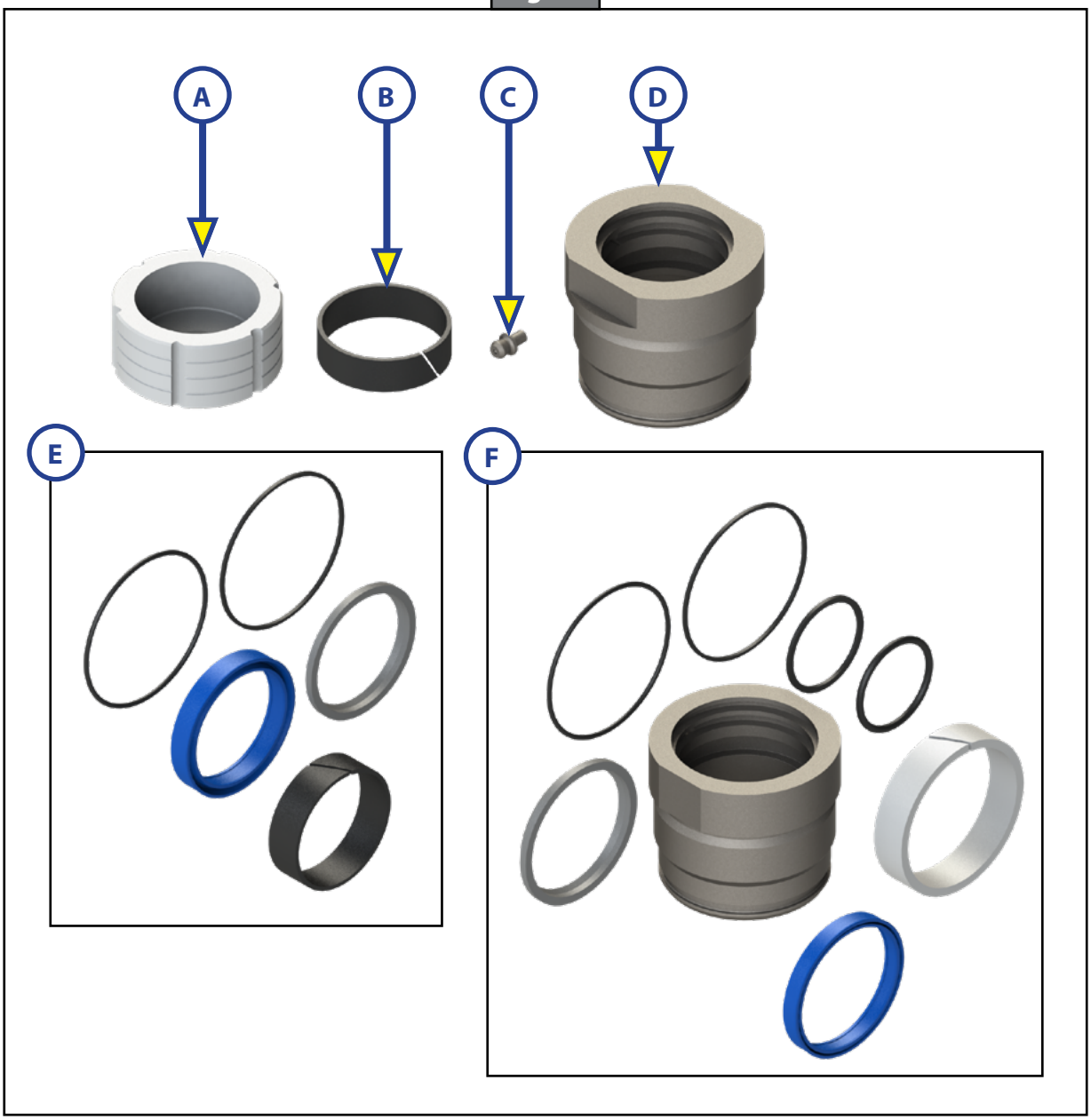
Seal Replacement Kit PN 359465		
Callout	Part #	Description
A	359140	O-ring, ARP 131, Duro 70
B	359124	Back-Up Ring, ARP 231, Hytrel
C	361681	Rod Guide
D	359094	Grease Fitting
E	239534	Wear Ring Piston
F	359138	Seal Hallite Type 605
G	251130	Wiper Seal, 2.25
H	361797	Wear Ring Rod, 2.25
I	359135	O-ring, ARP 131, Duro 70
J	359125	Back-Up Ring, ARP 131, Hytrel

Figure 34 shows the seal replacement kit PN 359462 for 6,000 lb Power Gear legs part numbers 359394 and 359493.

NOTE: Use the sub kit labeled 365121 for 6K jacks, years 2002 and prior (Fig. 34E).

NOTE: Use the sub kit labeled 364686 for H and HR style jacks (Fig. 34F).

Fig. 34



Seal Replacement Kit PN 359462		
Callout	Part #	Description
A	364634	Guide Piston, 2.25 Bore
B	364626	Wear Ring Rod
C	359094	Grease Fitting
D	363974	Rod Guide
E	365121	6K Service Kit, 2002 and Prior (365121)
F	364686	6K Service Kit, O-ring, H and HR (364686)

1. Pressure wash the exterior of the leg to prevent dirt from contaminating the interior of the leg during the re-assembly process.

NOTE: It may be helpful when mounting the jack in the vise to elevate the footpad end. This will prevent any remaining oil in the cylinder from draining out when the rod is removed.

2. Loosen the bolt with an impact wrench enough to relieve all spring tension (Fig. 35).
3. Mark the orientation of the bracket on the cylinder. Loosen the bolt until all spring tension has been released and remove bolt (Fig. 36).
4. Remove the spring, bracket, etc. from the cylinder and set aside.

Fig. 35

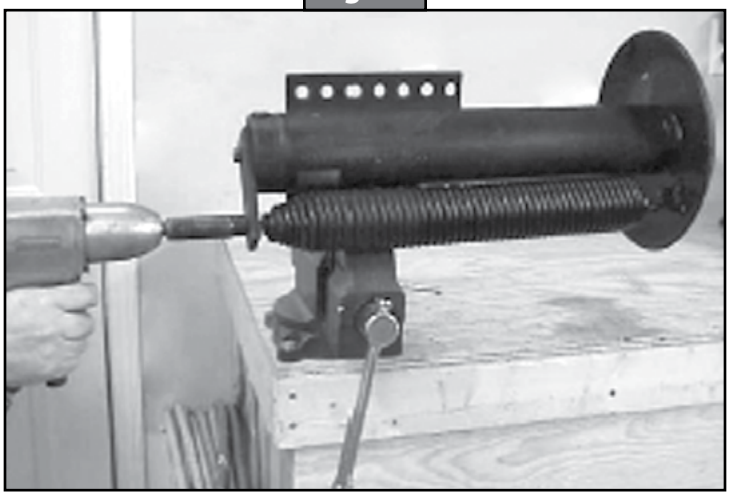
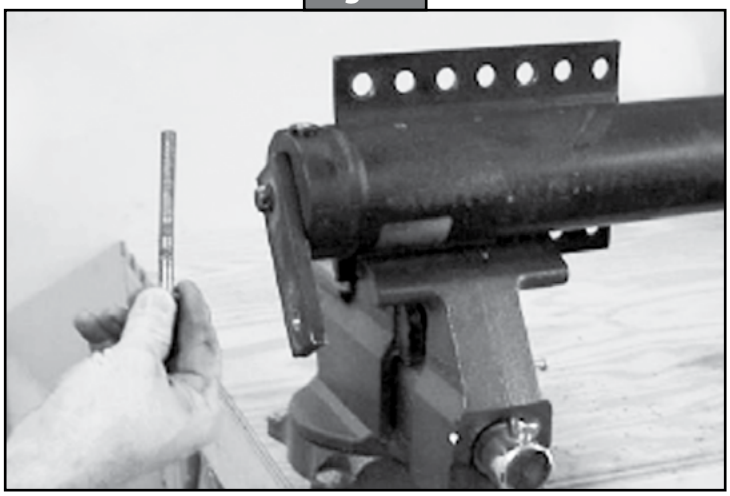


Fig. 36



5. After removing the spring, pull out the rod until it stops (Fig. 37). The rod should be free of dings, dents, corrosion or scratches. If the rod is not free of dings, corrosion or scratches, discard the leg. Push the rod back in about half way before proceeding to the next step to prevent damage to the piston.
6. Use a small propane torch to heat the bottom of the cylinder (Fig. 38). Heat around the entire diameter of the cylinder to soften the thread-locking fluid used to seal the rod guide.

Fig. 37

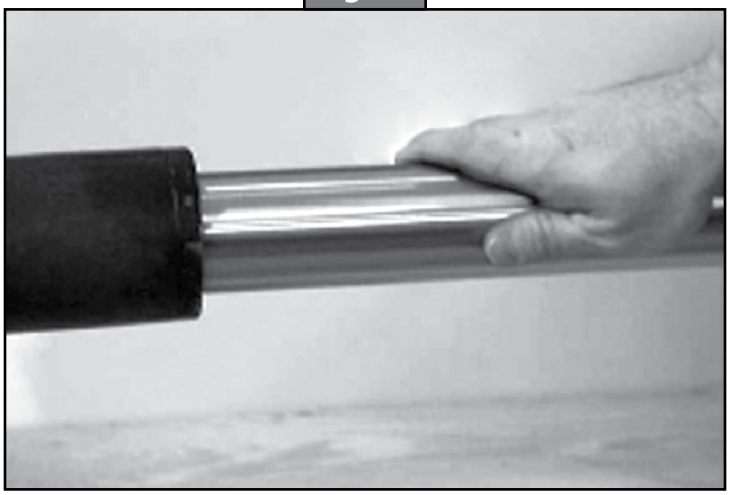
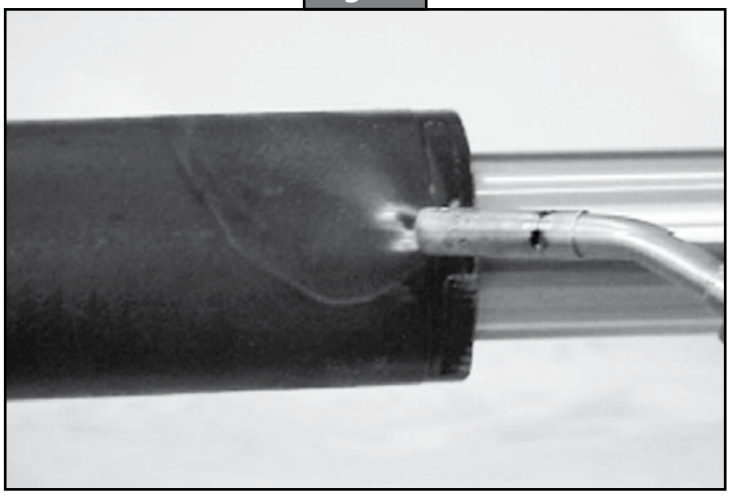


Fig. 38



7. Remove the grease fitting and use a chain wrench to loosen the rod guide for removal (Fig. 39).

NOTE: If a chain wrench is not available a large pipe wrench can also be used (Fig. 40).

8. Remove the rod assembly from the cylinder.

Fig. 39

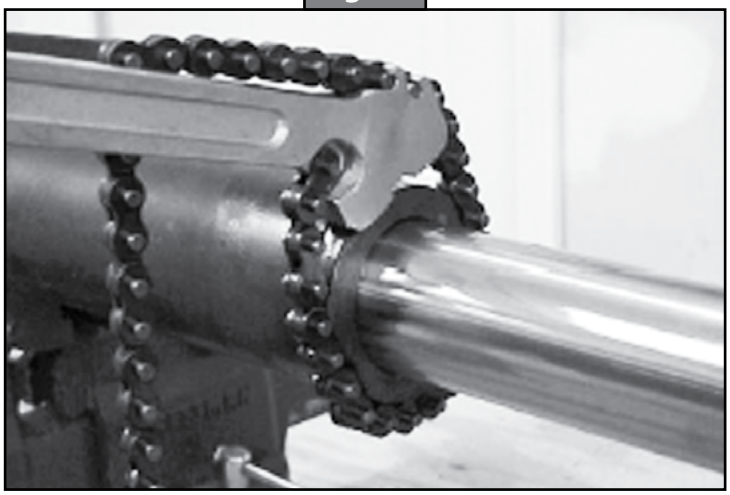


Fig. 40

9. Using a pneumatic impact wrench (Fig. 41), break the rod bolt free of the thread-locking fluid and remove the bolt and piston. The rod guide assembly can then be pulled up and off of the rod assembly.

NOTE: If the piston looks like Figure 42 then a strap wrench will be necessary for removal.

Fig. 41

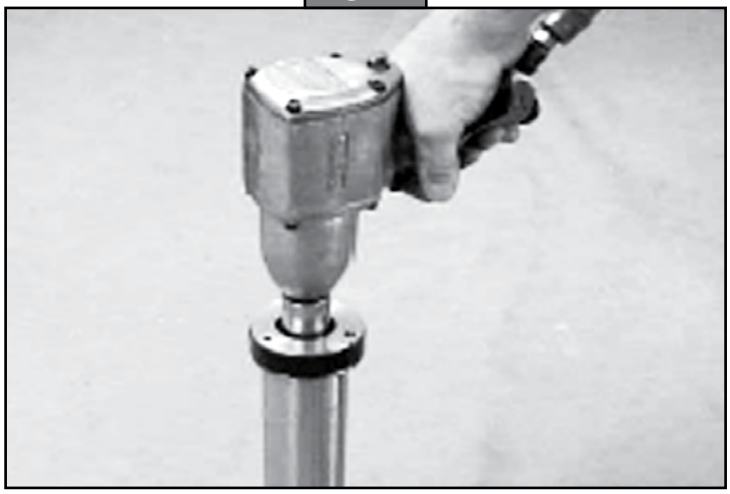
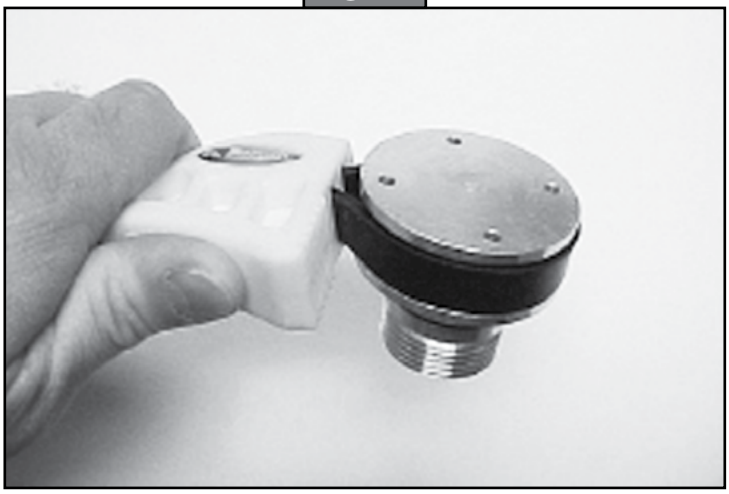


Fig. 42



NOTE: Skip to step 13 if the seal kit has a new rod guide.

10. Using a pick tool, remove the interior seal (Fig. 43).

NOTE: Seal may be either a T-type or V-type.

11. Remove the exterior O-ring and backup ring (Fig. 44).

12. Using a wire brush clean the threads and the inside of the rod guide of any rust or debris (Fig. 45).

Fig. 43

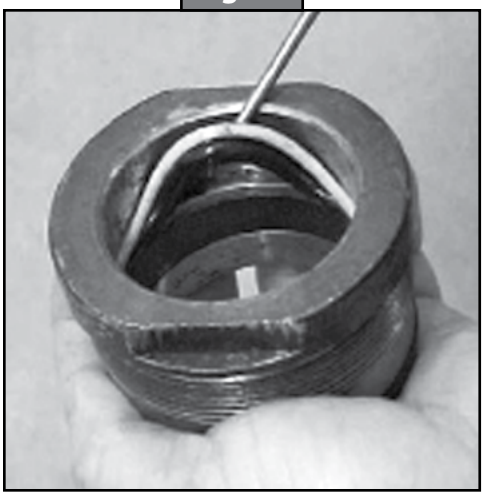


Fig. 44

Fig. 45

NOTE: Make sure seals are installed in the proper direction. Seals installed incorrectly will cause the leg to fail. Refer to the cross sectional drawing (Fig. 31) of the rod guide for proper installation of the seals and rings.

13. Using a wire brush, clean up the threads on the rod bolt (Fig. 46).

NOTE: Wire brush does not need to be pneumatic. Any wire brush can be used. Be careful not to damage the soft bearing material.

14. Clean the rod guide, even if it's new, with water displacing spray (Fig. 47).

Fig. 46

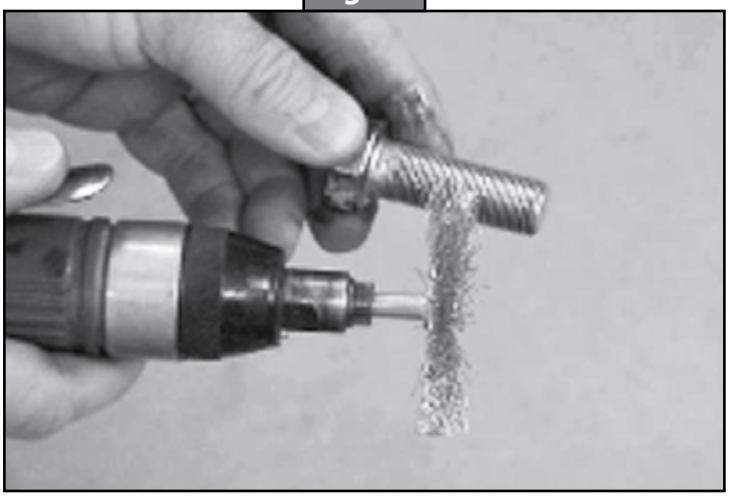
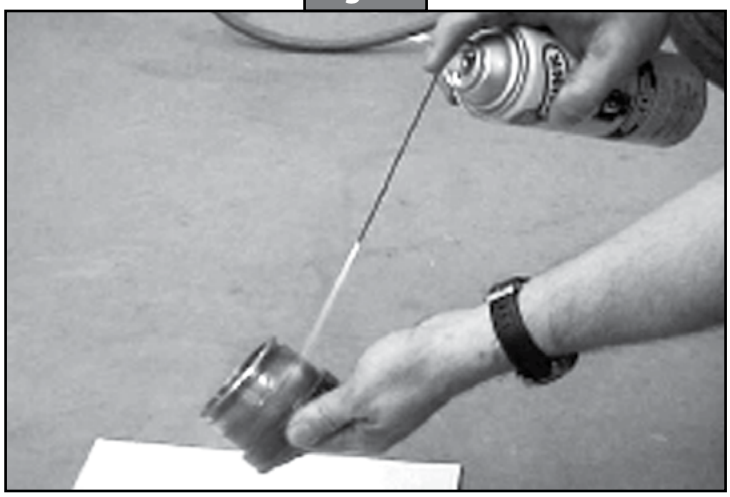


Fig. 47



15. Install the grease fitting using a 7mm socket slipped over the fitting. Seat the fitting with a hammer until the shoulder touches the rod guide (Fig. 48).

16. Install the lubricated O-ring and backup washer (Fig. 49). Be sure the O-ring and the washer are in the proper sequence (Fig. 31).

Fig. 48

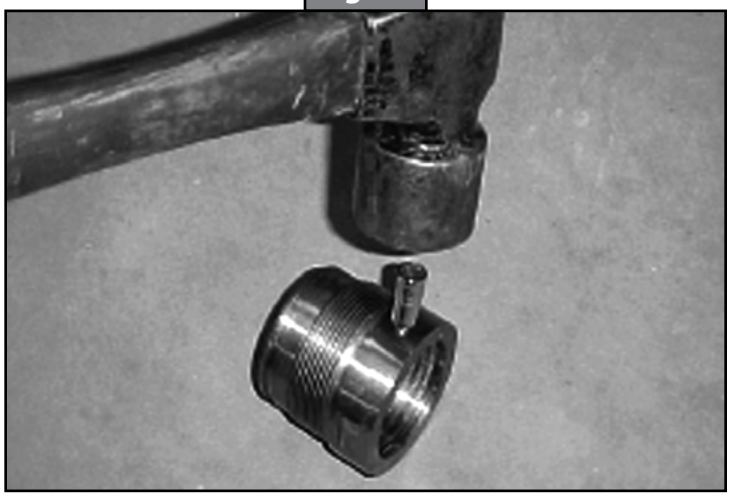


Fig. 49

17. Install the new wear ring by compressing it until the ends overlap. Install the new lip seal with the groove up (Fig. 50).

18. Install the new wiper seal with the inner diameter lip pointing down (Fig. 51).

Fig. 50

Fig. 51

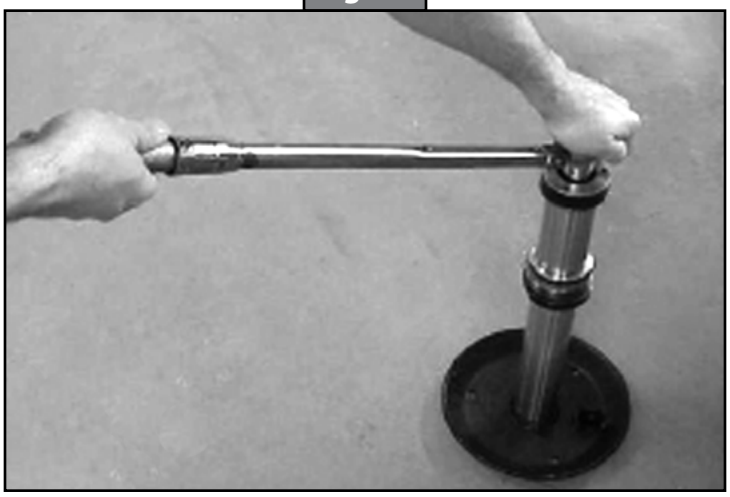
19. Place the rod guide back into the cylinder. Apply thread-locking fluid to three full threads on the piston bolt (Fig. 52).

A. If the piston looks like Figure 42, apply thread-locking fluid to three full threads on the piston bolt and use a strap wrench to install.

20. Mount the piston and bolt back on the cylinder and torque the bolt to 70 ft-lbs. (Fig. 53).

Fig. 52

Fig. 53



21. Clean the inside of the cylinder with a lint free cloth (Fig. 54). Make sure there is absolutely no debris or old thread-locking fluid left inside the cylinder.

22. Insert the rod assembly back into the cylinder (Fig. 55).

Fig. 54

Fig. 55

23. Apply a 2" bead of thread-locking fluid to the rod guide threads (Fig, 56).
24. Thread the rod guide into the cylinder and tighten until snug (Fig. 57).

Fig. 56

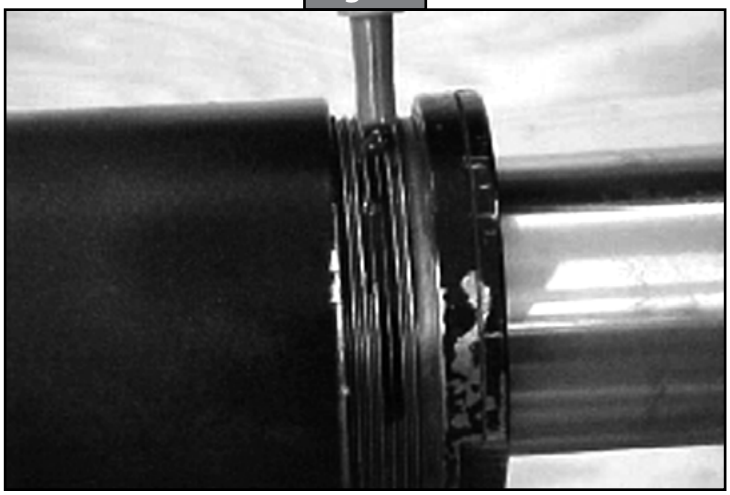
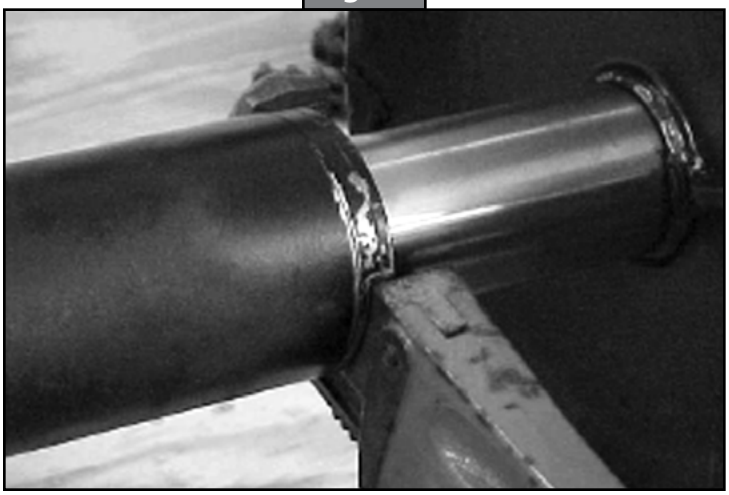


Fig. 57



25. Fill three threads on the bracket bolt the thread-locking fluid and torque to 20 ft-lbs (Fig. 58).
26. Reassemble the spring and bracket (Fig. 59).
27. Install the jack onto the coach and test.

Fig. 58

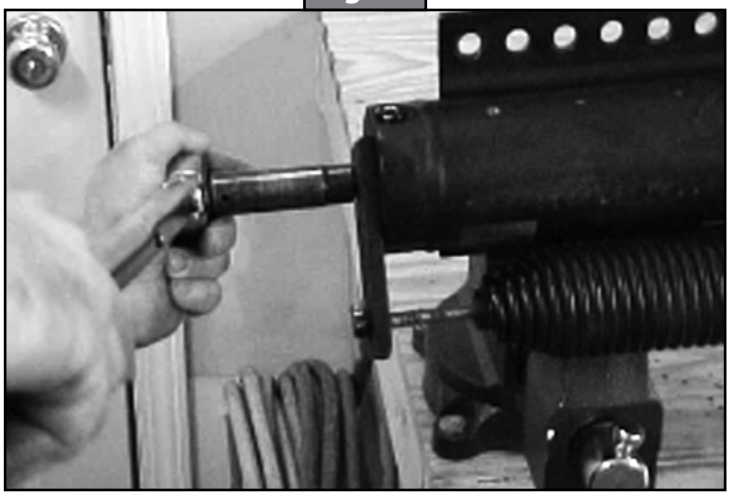
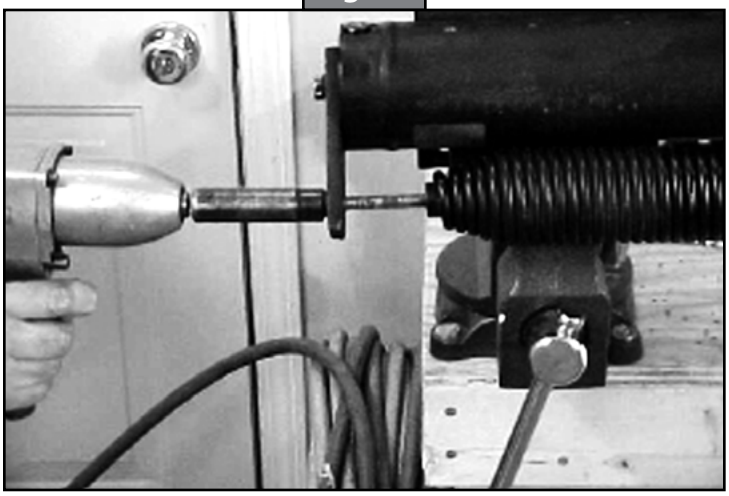


Fig. 59



28. Paint the rod guide once the jack is completely reassembled.
29. Grease the rod guide. Three pumps with a manual grease gun is recommended.
30. Reinstall leg on the frame and test to operate.
31. Flush and refill the hydraulic system with fresh fluid.
32. Cycle each leg two to three times from full extension to full retraction after filling reservoir to purge air from the system.
33. Make sure to check fluid level after each cycle of the legs.

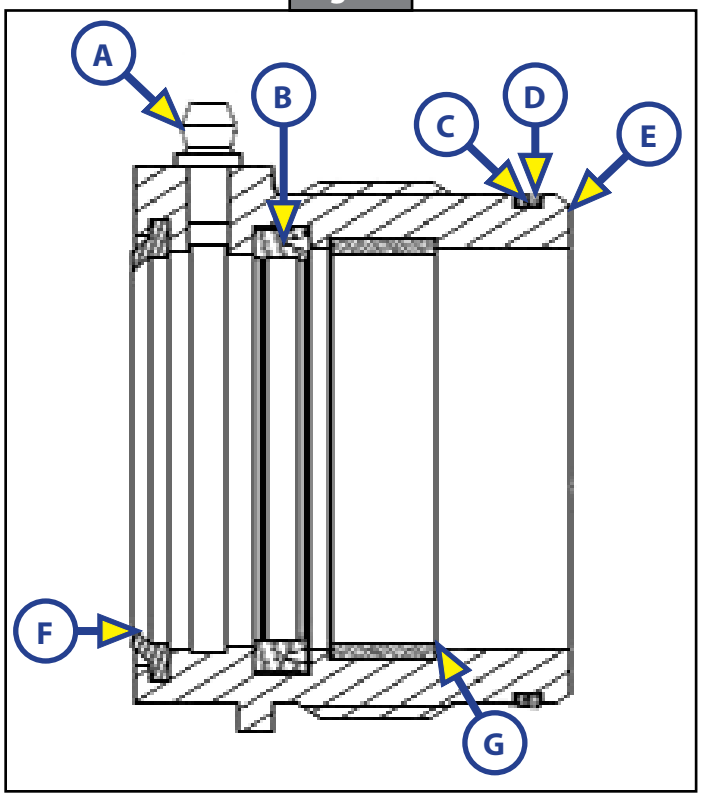
For comprehensive instructions on a basic purge of the system, see Basic Purge Procedure for Hydraulic Pump section.

Power Level Leg Seal Replacement

Figure 60 depicts an example of a typical rod guide section detail for leg part numbers 359394, 359377 and 359375.

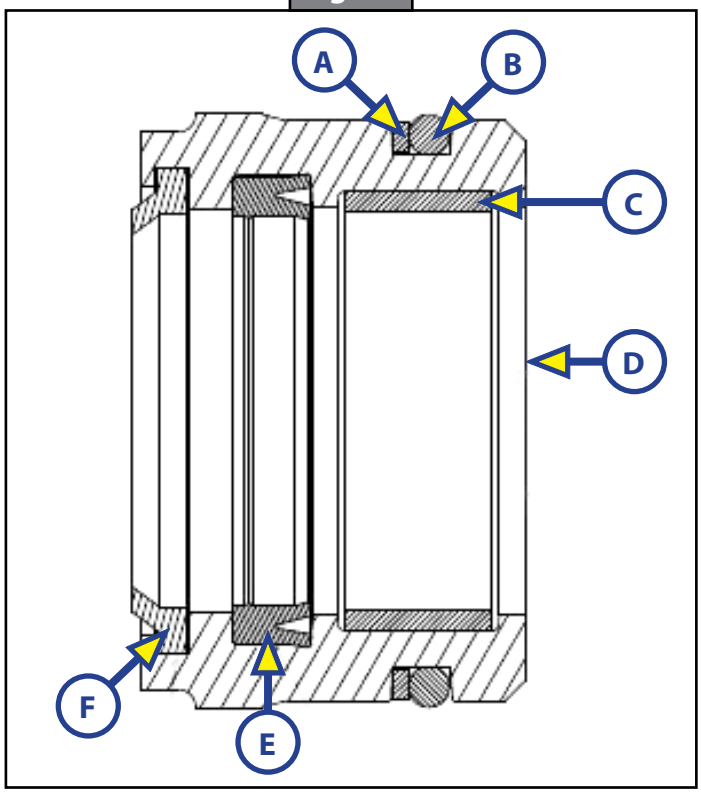
Figure 61 depicts an example of a typical rod guide section detail for leg part numbers 359404, 359378 and 359376.

Fig. 60



Callout	Description
A	Grease Fitting
B	Seal 605 1.75
C	Back-Up Washer
D	O-ring, 2.25
E	Rod Guide 1.75 Rod Hollow
F	Wiper Rod 9K-LW Jack
G	Wear Ring 1.75 Dia. Rod

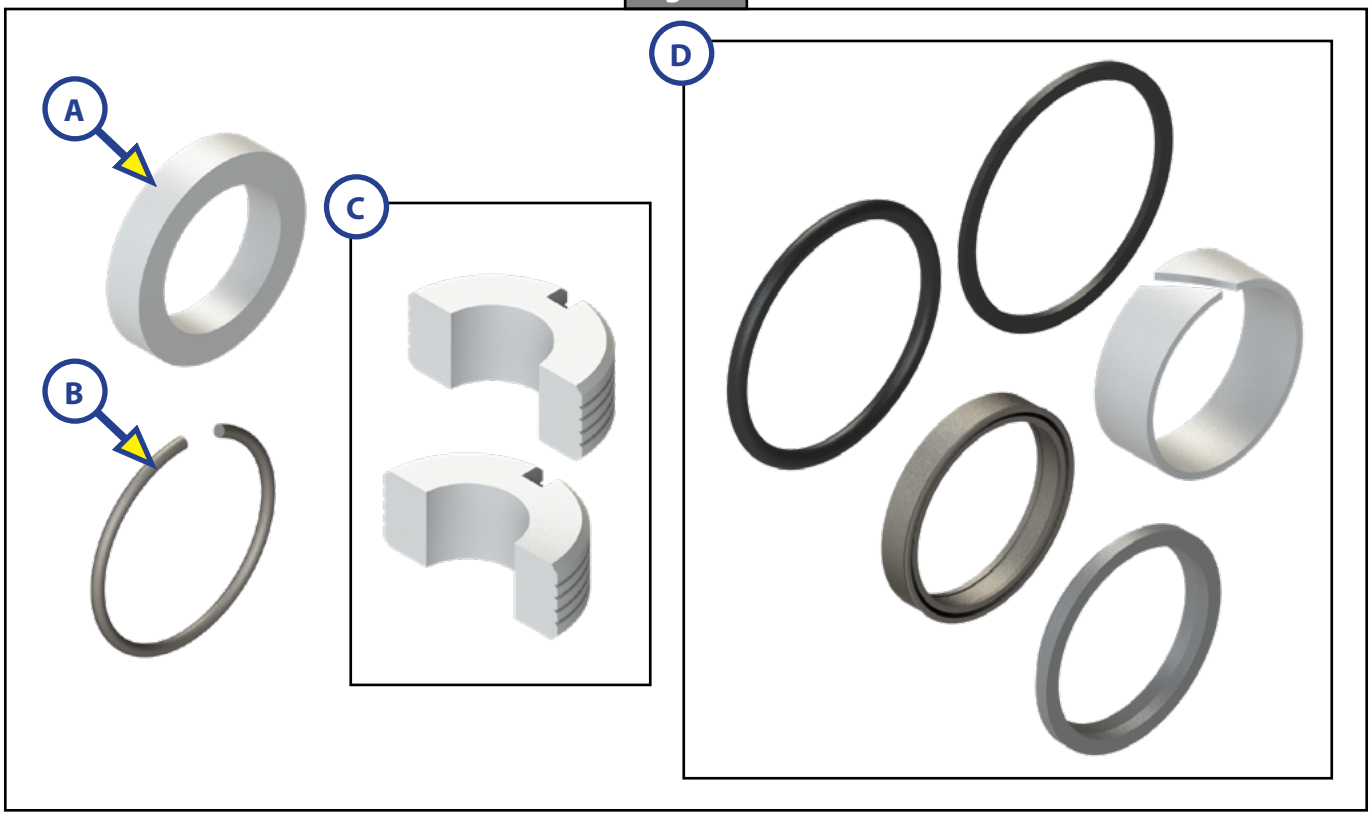
Fig. 61



Callout	Description
A	Back-Up Washer
B	O-ring
C	Wear Ring 1.375
D	6K Rod Guide
E	Rod Guide Seal
F	Rod Wiper 1.375

Figure 62 shows the seal replacement kit PN 359461 for 6,000 lb Power Level legs PN 359404, 359378, 359376 and 359363.

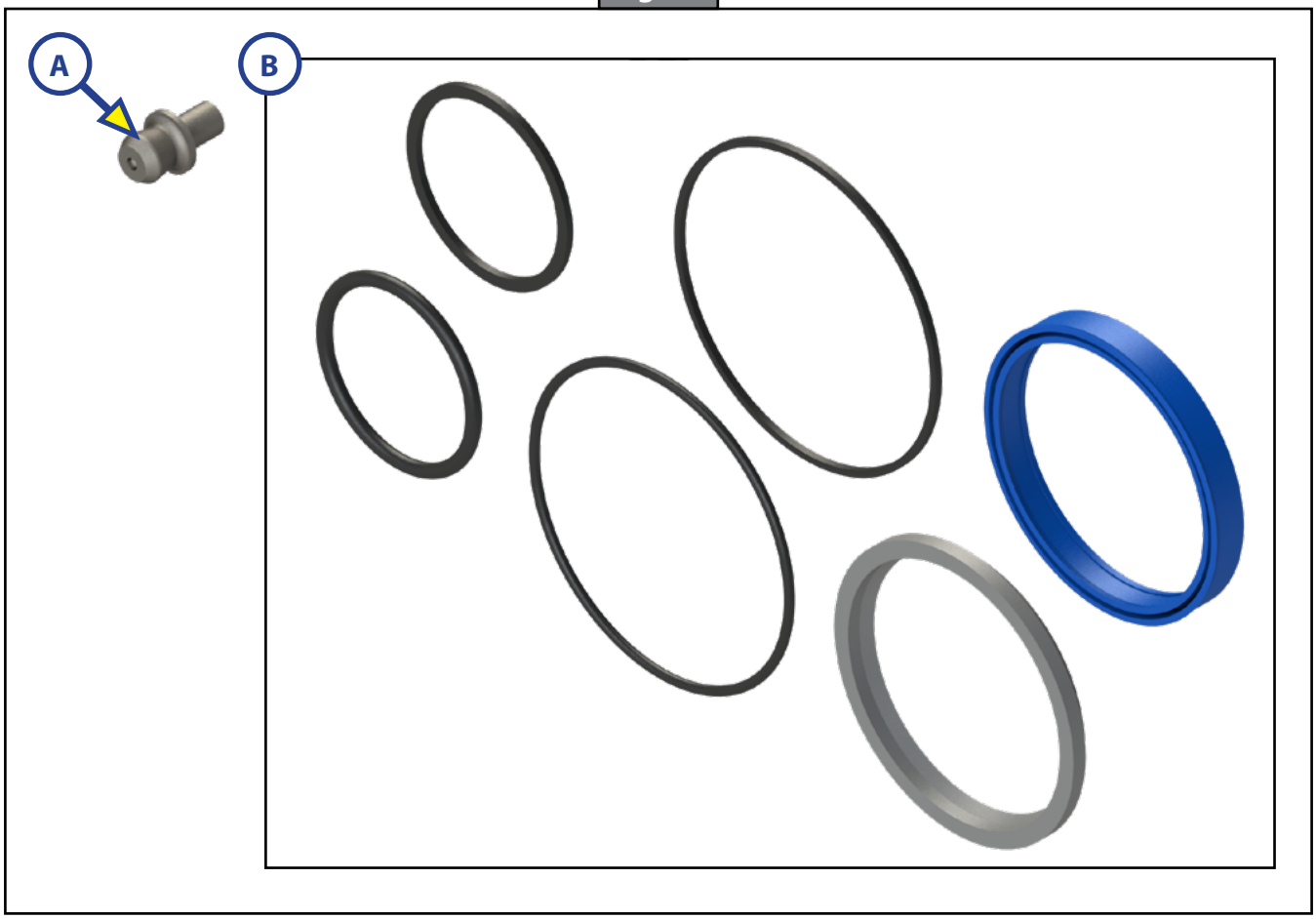
Fig. 62



Seal Replacement Kit PN 359461		
Callout	Part #	Description
A	354476	Nylon Stop
B	354480	Retaining Ring
C	354483	Nylon Piston
D	365199	Kit Elastomer Only 6K w/Clip

Figure 63 shows the seal replacement kit PN 359459 for 9,000 lb Power Level leg.

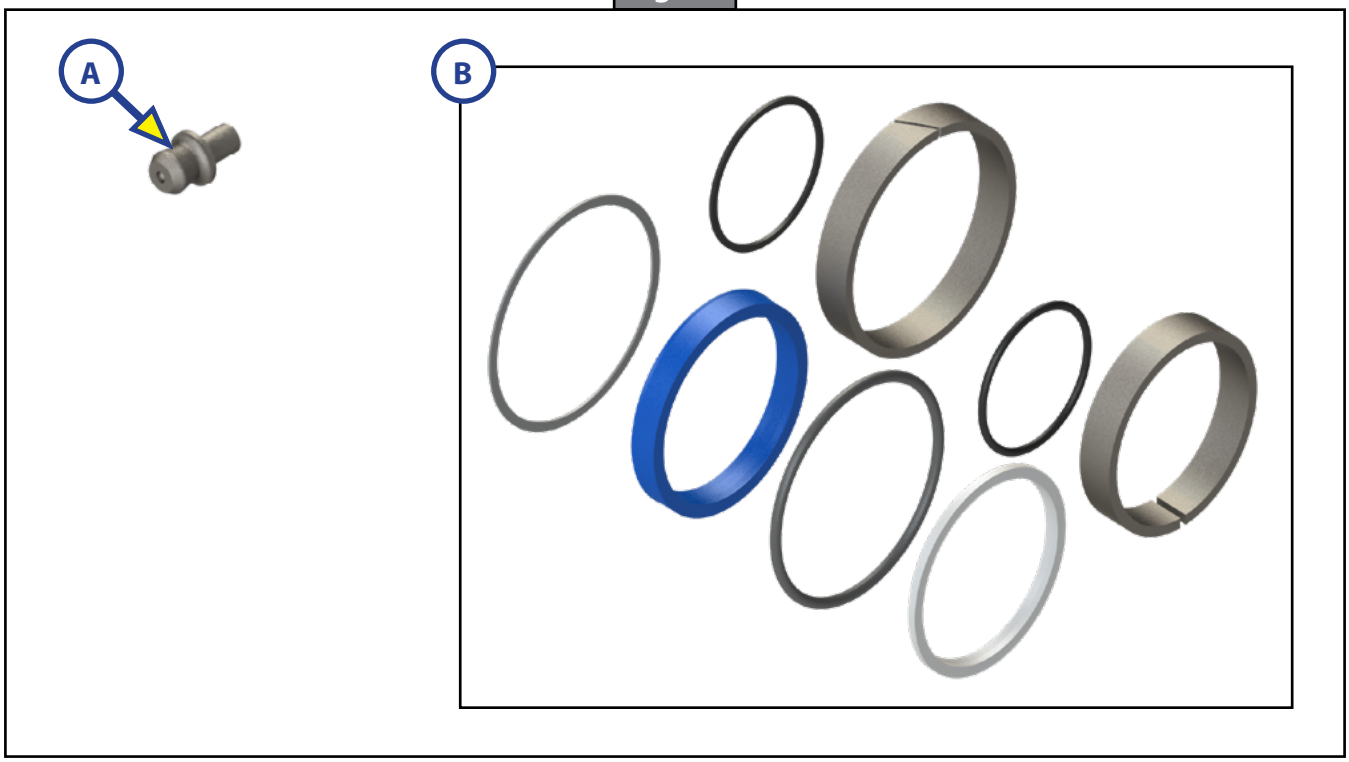
Fig. 63



Seal Replacement Kit PN 359459		
Callout	Part #	Description
A	359094	Grease Fitting
B	364446	Kit Elastomer Only 9K Leg

Figure 64 shows the seal replacement kit PN 359458 for 12,000 lb Power Level leg.

Fig. 64



Seal Replacement Kit PN 359458		
Callout	Part #	Description
A	359094	Grease Fitting
B	366412	Kit Elastomer Only 12K Leg

The following disassembly procedure is for 6K legs only. The 9K and 12K legs will use the same procedure as the External Spring Leg Seal Replacement section.

1. Pressure wash the exterior of the leg to prevent dirt from contaminating the interior of the leg during the re-assembly process.

NOTE: It may be helpful when mounting the jack in the vise to elevate the footpad end. This will prevent any remaining oil in the cylinder from draining out when the rod is removed.

2. Using an impact wrench, loosen the spring tension bolt until all the spring tension has been released (Fig. 65).
3. Remove the cylinder bracket bolt to remove the bracket bolt spring.

NOTE: When the spring tension and bracket bolt have been removed, the entire spring/bracket assembly can be removed (Fig. 66).

Fig. 65

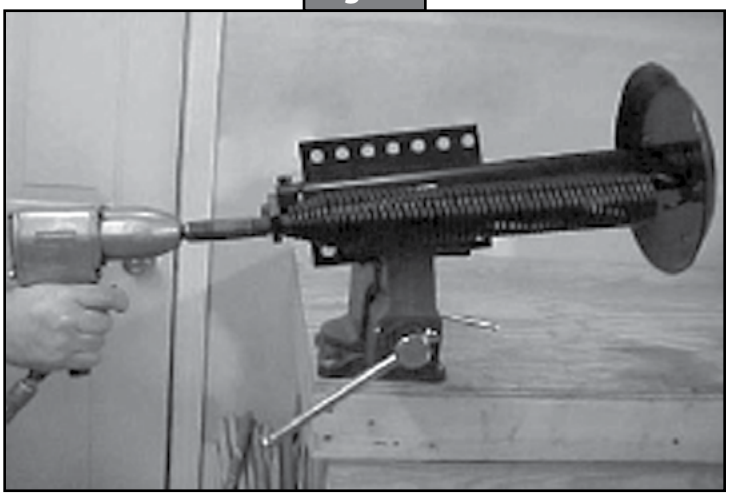
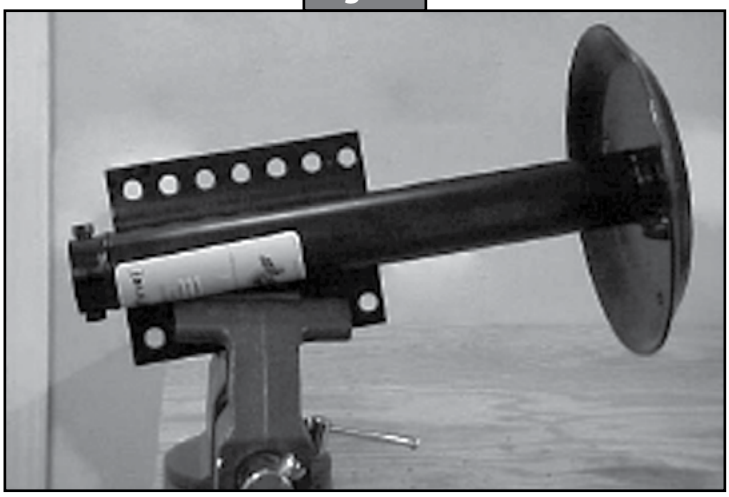


Fig. 66



4. After removing the spring, pull out the rod until it stops (Fig. 67). The rod should be free of dings, dents, corrosion or scratches. If the rod is not free of dings, corrosion or scratches, discard the leg.
5. Use a 1/4" drift punch and hammer to gently drive the rod guide in towards the top of the cylinder (Fig. 68).

Fig. 67

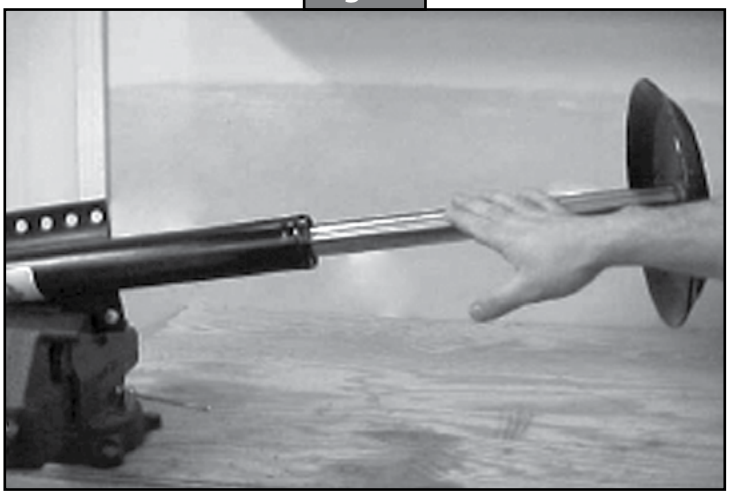


Fig. 68

6. Use a 1/8" or smaller drift pin punch and hammer to loosen the retaining ring (Fig. 69).
7. Insert a punch through the side hole to push in the retaining ring. Use a screwdriver to pry the retaining ring out (Fig. 70).

Fig. 69

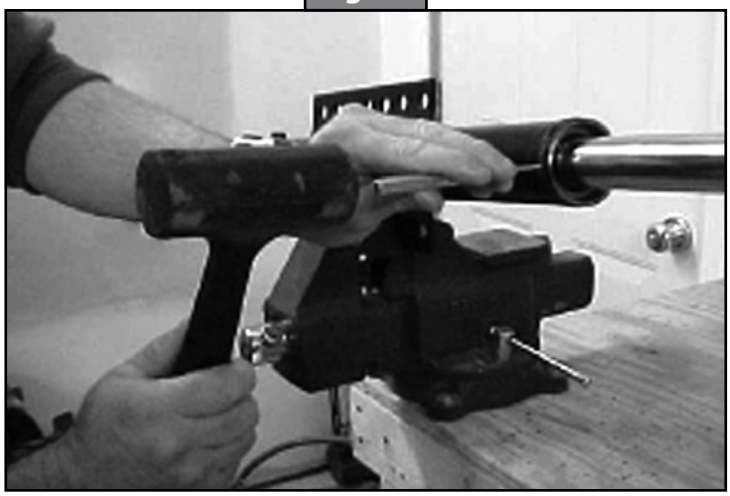
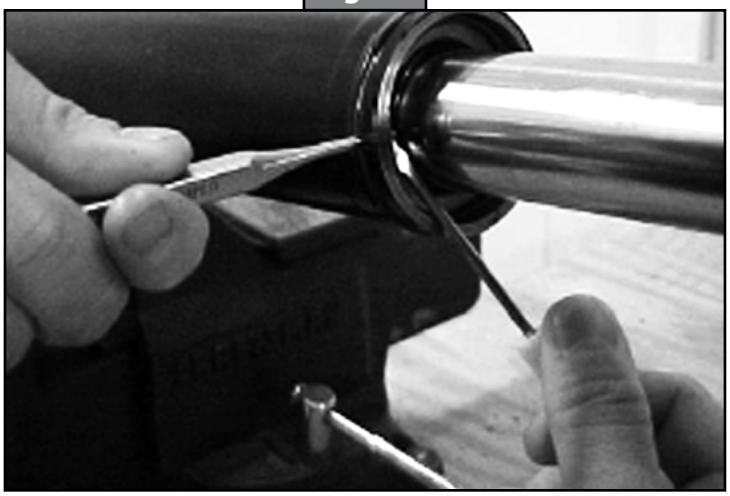


Fig. 70



8. Cup hand under the cylinder to catch the rod guide and related pieces as it is being removed from the cylinder (Fig. 71).
9. Remove the plastic piston from the end of the rod. The piston will come off in two pieces (Fig. 72).

Fig. 71

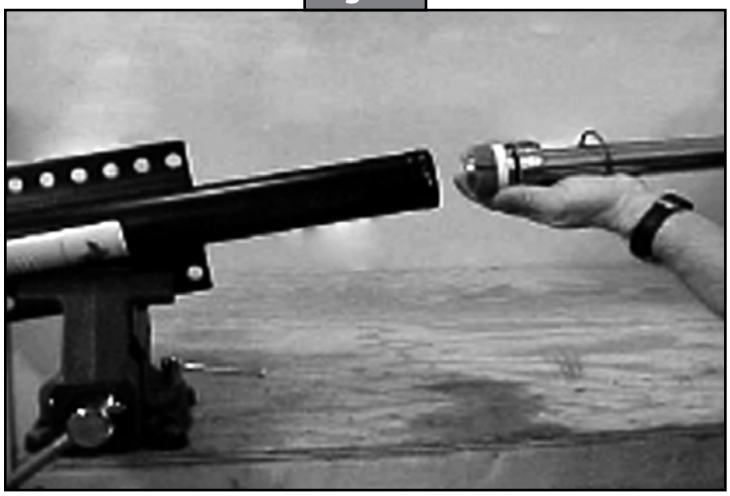


Fig. 72

10. Use a suitable tool to remove both seals from the rod guide (Fig. 73).

NOTE: Removal of the rod wiper may require the use of a pick-type tool and a small flat screwdriver.

11. Clean the rod guide and lube all seals with water displacing spray.

NOTE: Make sure seals are installed in the proper direction. Seals installed incorrectly will cause the leg to fail. Refer to Figure 60 and Figure 61 for the proper installation of the seals and rings.

12. Install the Back-up rings and O-ring (Fig. 74). Make sure they are oriented correctly and in the proper order on the rod guide.

Fig. 73

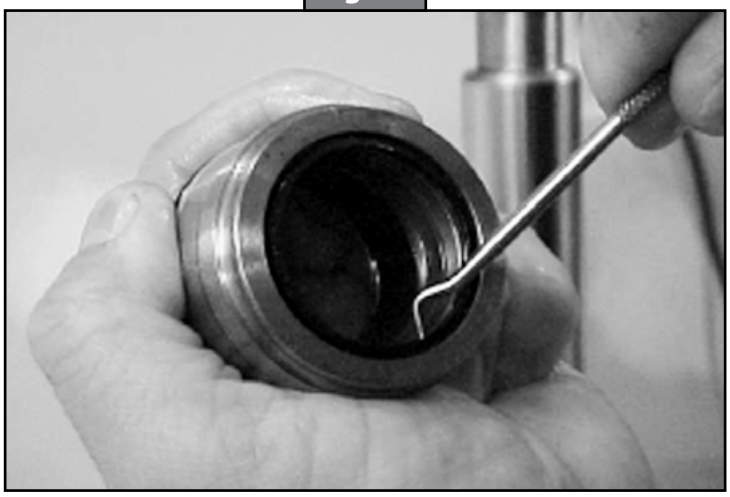
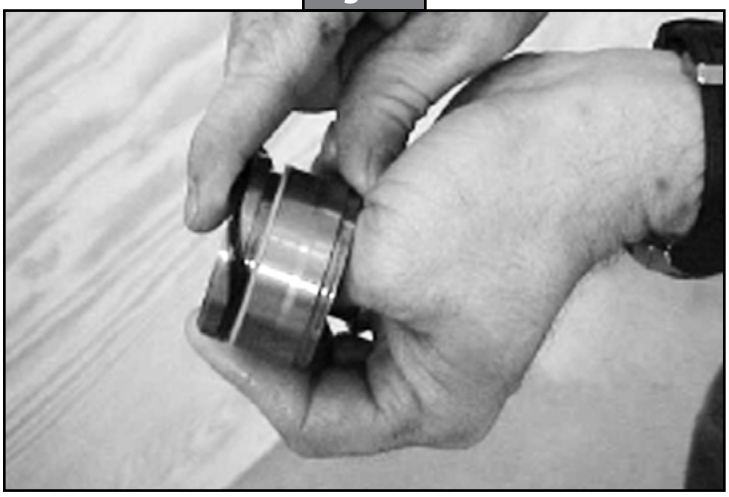


Fig. 74



13. Install the new wear ring by compressing it until the ends overlap.

14. Install the new lip seal with the groove pointed up (Fig. 75). Install from the top side to prevent damage to the seal edges.

15. Install the wiper seal (Fig. 76). Make sure the seal is oriented properly. Failure to do so will cause the leg to fail.

Fig. 75

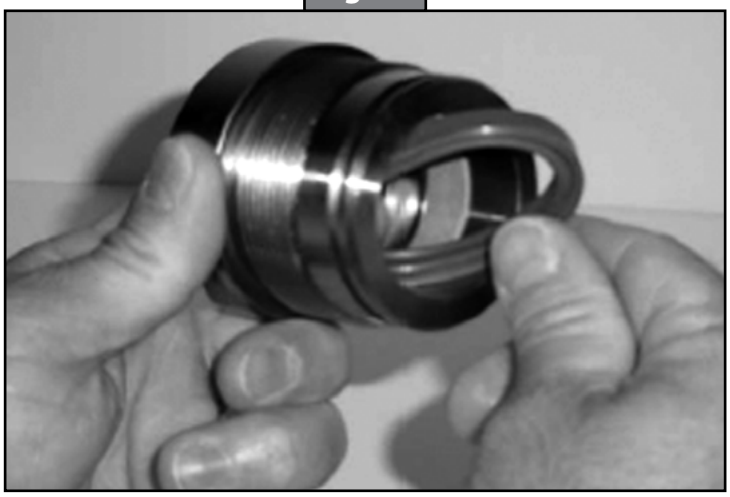


Fig. 76

16. Clean the interior of the cylinder with a lint free-cloth (Fig. 77). Make sure there is absolutely no debris or old thread-locking fluid left inside the cylinder.
17. Reinstall the rod guide onto the rod.
18. Reinstall both pieces of the piston. Cup a hand under the reassembled rod guide as the assembly is inserted back into the cylinder (Fig. 78).

Fig. 77

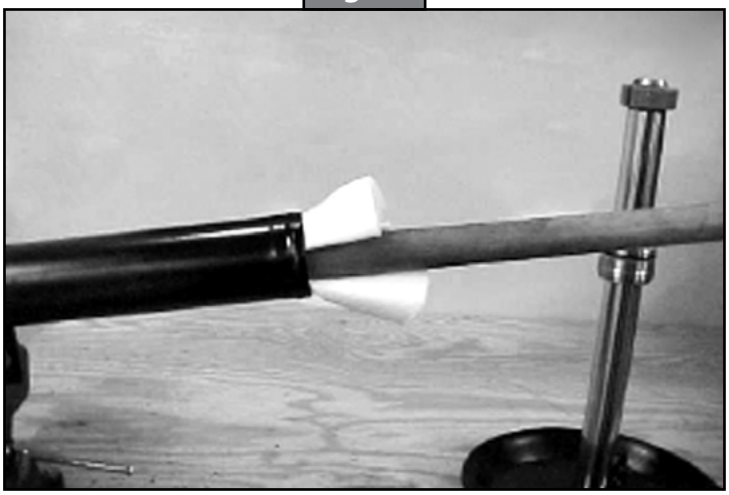


Fig. 78

19. Reinstall the retaining ring in the exact spot from which it was removed. Make sure the punch hole is not setting in the retaining ring's gap (Fig. 79).
20. Pull and wiggle the rod assembly back out. This motion allows the rod guide to slip into the middle of the retaining ring, locking it into place (Fig. 80).

Fig. 79

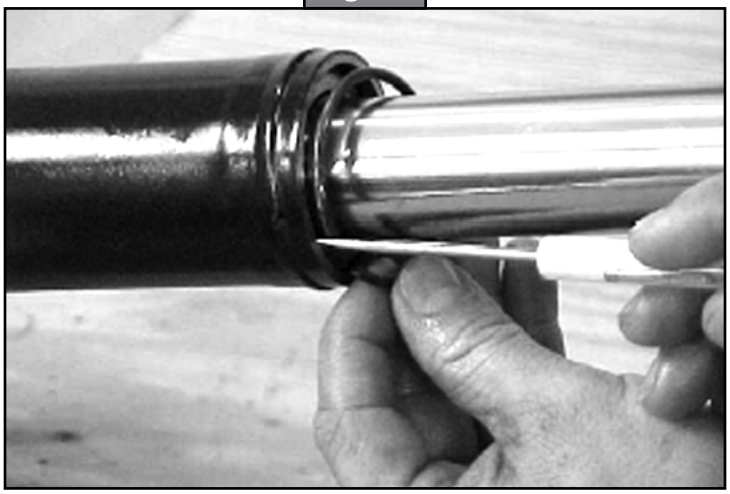


Fig. 80

21. Reassemble the spring and bracket assembly. Start the spring bolt into the spring.
22. Fill three threads on the bracket bolt with thread-locking liquid and thread it into the cylinder. Torque the bolt to 20 ft-lbs (Fig. 81).
23. Finish threading the spring bolt until tight (Fig. 82).
24. Install the jack on the coach and test.

Fig. 81

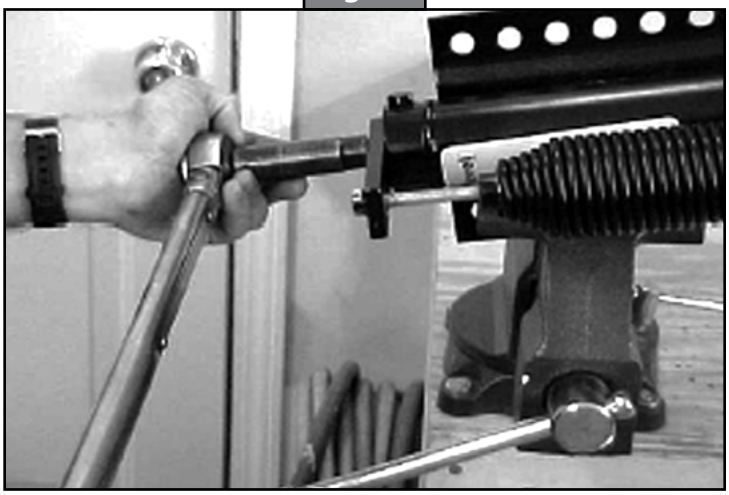
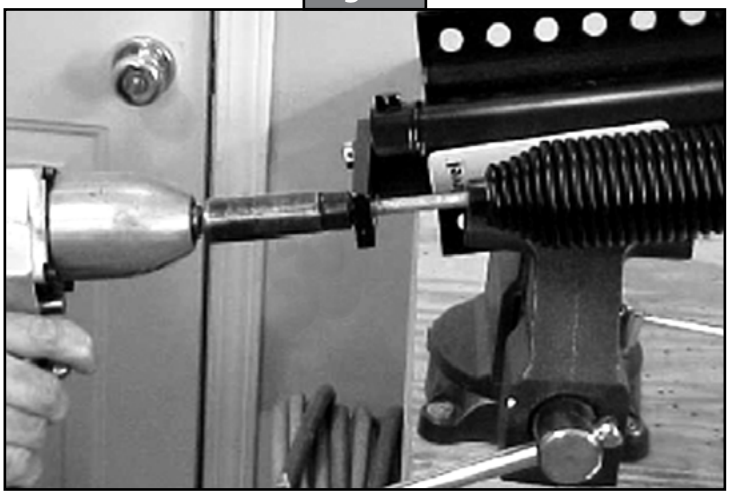


Fig. 82



Post Power Level Leg Seal Replacement

1. Reinstall leg on the frame and test to operate.
2. Flush and refill the hydraulic system with fresh fluid.
3. Cycle each leg two to three times from full extension to full retraction after filling reservoir to purge air from the system.
4. Make sure to check fluid level after each cycle of the legs.

For comprehensive instructions on a basic purge of the system, see Basic Purge Procedure for Hydraulic Pump section.

Troubleshooting

What Is Happening?	Why?	What Should Be Done?
Touchpad will not turn on, ON/OFF LED does not light.	Coach ignition not in run position.	Turn ignition to run position and have engine running.
	Touchpad has been left on for more than 4 minutes, auto-shutoff has occurred.	Push ON/OFF button until LED is lit on touchpad.
	No voltage at the touchpad.	Check harness at the touchpad on the 4-pin connector: Check between pin #3 (black power wire) and pin #4 (blue or green ground wire). There should be 10-12V DC between the pins.
	No voltage out of control box to the touchpad.	Check power out of control box at the 4-pin connector: Check between pin #3 (black power wire) and pin #4 (blue or green ground wire). There should be 10-12V DC between the pins.
	No power to control box on ignition input signal.	On the control box at the 6-pin connector: Check incoming voltage between pin #5 (ignition) and pin #1 (ground) of the 8-pin connector. There should be +12V DC between the pins. If low or no voltage is found, contact LCI Customer Service for further troubleshooting.
	Damaged or broken touchpad harness.	Check connectors and wires for damage or broken wires. Fix accordingly.
	Ground wire disconnected or shorted at control box.	Pin 1 of the 8-pin connector is the main ground. Test from pin 1 to chassis ground, there should be continuity with ground. If none is found, repair or replace ground wire.
	Neutral safety switch wires shorted or broken at control box.	On the control box at the 6-pin connector: Check for voltage at pin #6. If it has +12V DC verify pin #2 at the 6-pin connector also has +12V DC. If pin #2 is ground, ground pin #6. If the control then operates, repair or replace wires or neutral safety switch.
	Parking brake wire not grounded, or faulty parking brake switch.	On the control box, check for continuity between pin #1 of the 6-pin connector and ground. If there is no continuity, the switch is bad, the parking brake is not set, or the wires to the switch are bad.
	Faulty touchpad.	If all previous causes and actions do not apply, replace touchpad.
Jacks will not extend and the pump is not running.	Coach ignition not in run position.	Turn ignition to run position and have engine running.
	Touchpad as been left on for more than four minutes, auto-shutoff has occurred.	Push ON/OFF button until LED is lit on touchpad.
	No power from battery to pump.	Check for +12V DC at the large battery terminal of the motor solenoid; if no voltage or if voltage is less than +12V DC, recharge battery or replace power cable.
	Bad ground to pump assembly.	Inspect/clean surface of star washers around mounting bolt holes of pump assembly. The bolts lock into the pump block assembly through the pump mounting plate. Add a new ground from chassis to pump motor bolts.
	Motor starter solenoid blue wire defective (see wiring diagram).	Check for +12V DC at the blue signal wire at the motor starter solenoid when the FRONT or REAR button is pushed. If no voltage, check blue wire at pin #3 of the 8-pin connector for +12V DC when the FRONT or REAR button is pushed. If no voltage is present, remove blue wire from starter solenoid and check again at pin #3 for +12V DC while FRONT or REAR button is pushed. If there is +12V DC, check the blue wire for continuity; if no continuity, replace or repair blue wire. If no voltage is present at pin #3, contact LCI Customer Service.
	Motor starter solenoid defective.	Check for +12V DC at the blue signal wire at the motor starter solenoid when the FRONT or REAR button is pushed. If no voltage, check blue wire at pin #3 of the 8-pin connector for +12V DC when the FRONT or REAR button is pushed. If voltage is present, connect +12V DC to motor side terminal of starter solenoid; if motor runs, replace starter solenoid.

What Is Happening?	Why?	What Should Be Done?
Jacks will not extend and the pump is not running.	Pump motor defective.	Check for continuity between the motor and ground. Connect +12V DC to motor side terminal of motor starter solenoid; if motor does not run, replace pump motor. See Replacing The Hydraulic Pump Motor sheet at: https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_TIP_SHEET_216.pdf
One or more jacks will not extend and the pump is running.	Coach ignition not in run position.	Turn ignition to run position and have engine running.
	Fluid level low; pump cavitating.	Fill tank to proper level with automatic transmission fluid. See Maintenance section or TI-188 at https://www.lci1.com/assets/content/support/technical-information-sheets/Leveling%20and%20Stabilization/CCD_0002088.pdf
	No power at control box to energize valve coils (see wiring diagram).	Check for +12V DC at the control box between pin #8 (power) and pin #1 (ground) of the 8-pin connector. If there is no voltage present, see wiring diagram for power and ground inputs.
	Dump valve stuck open or defective valve.	Remove the dump valve assembly and bench test it by applying power and ground to the coil (not polarity sensitive). The valve should click as power and ground is applied. The pin should be moving in the end of the valve. If the valve clicks, but there is no pin movement, replace dump valve. **NOTE:** If there still is no pressure after replacing the valves, the pump may be faulty. See Hydraulic Leveling Pump Problem Diagnosis sheet at: https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_TIP_Sheet_215.pdf
	Leg valve wires damaged.	Check for +12V DC at leg valve wires (see wiring diagram) at the pump assembly while pushing the FRONT button or the REAR button depending on which jack leg valve is being tested. If no +12V DC signal, check for continuity on each wire between coil and controller. Check for ground at the black wire or red wire for each leg valve at the pump assembly. Repair if necessary.
	Valve coil miswired.	Check wiring diagram for correct location of wiring to the leg valve assemblies.
	Leg valve coil defective.	Check coil for continuity. If there is none, replace valve coil.
	Leg valve defective.	Swap jack leg valve with one of the working jack leg valves and extend jack. If jack extends, then replace cartridge valve.
	Pump harness defective.	Check for ground at the black or red wire for each leg valve at pump assembly harness. If there is none, repair the wire.
		While pushing the button to extend the jacks, check for +12V DC at the purple, orange and yellow wires at the leg valves. If no voltage is measured check for +12V DC at the 8-pin connector on pin #7 (purple), pin #6 (orange) and pin #5 (yellow) at the control box. If voltage is present, repair the wires.
		If no voltage is present, check the touchpad for trouble codes. See Leveling Control Error Codes for 500630 and 500674 at https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_82_L0359_T.pdf If there are no trouble codes, check for proper signals on the 6-pin harness (see first troubleshooting concern, "Touchpad will not turn on, ON/OFF LED does not light."). If proper signals are present, replace the controller.

What Is Happening?	Why?	What Should Be Done?
One or more jacks will not extend and the pump is running.	Pump itself is damaged.	See Hydraulic Leveling Pump Problem Diagnosis sheet at: https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_TIP_Sheet_215.pdf Remove tank and disassemble pump for visual inspection.
Jack(s) will not retract or will not retract fully.	Lubricate the jack(s).	While the jacks are extended down, spray the chrome rod with silicone spray. If the jacks have a zerk fitting in the bottom collar of the jack assembly, apply all purpose lithium grease. Three pumps with a manual grease gun are recommended. Retract the jacks and then extend the jacks. Lubricate the jacks again as above. Repeat this process two more times.
	Obstructions in jack pad.	Remove any rocks or foreign material out of the footpad before retracting the jacks.
	Broken jack spring(s).	Replace jack spring.
	Jack rod guide is rusted or dirty.	Clean the chrome rod and grease rod guide if equipped with grease fittings. Otherwise, lubricate with silicone fluid as previously described. It may be necessary to reseal jack or replace.
	System overfilled with hydraulic fluid.	Drain fluid to the recommended level. See Maintenance section or TI-188 at: https://www.lci1.com/assets/content/support/technical-information-sheets/Leveling%20and%20Stabilization/CCD_0002088.pdf
	Dump valve wires damaged.	While pushing RETRACT ALL JACKS button, check for +12V DC on the green wire at the dump valve. If no +12V DC, check for continuity on green wire between coil and controller. Check for ground on the black wire at the dump valve. Repair if necessary.
	Jacks down light not lit on touchpad.	Check the float switch for operation. Check the float switch for proper orientation (see label on tank of pump assembly for orientation—vertical tanks only). For fluid sensor and float switch ID chart, use Hydraulic Leveling Float Switch/Fluid Sensor ID Chart sheet at: https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_82_L0512.pdf For testing of horizontal fluid sensors or float switches, use Testing Float Switches/Fluid Sensors in Horizontal Tanks sheet at: https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_82_L0511_.pdf For testing of vertical fluid sensor or float switches, use Testing Float Switches/Fluid Sensors sheet or Testing Vertical Float Switches/Fluid Sensor 14-1136, 14-1137 sheet at: https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_82_L0509_.pdf or https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_82_L0510_.pdf, respectively. Check for continuity on brown wire from float switch to control. Check for ground to float on black wire.
	Dump valve coil defective	Check coil for continuity, if none replace valve.
	Dump valve defective.	Replace valve.
	Jack leg valve wire defective.	While pushing the front or rear buttons check for +12V DC on the 8-pin connector at pin #5 (yellow), pin #6 (orange) and pin #7 (purple). See wiring diagram for jack leg valve designations.
		Check for continuity from control box to jack coil. If there is none, replace wire.

What Is Happening?	Why?	What Should Be Done?
Jack(s) will not retract or will not retract fully.	Jack leg valve ground wire defective.	Check for ground at the coil terminal (black or red wire), and repair if necessary.
	Jack leg valve coil defective.	Check coil for continuity. If there is none, replace leg valve.
	Jack valve faulty.	Swap with another jack valve that is working correctly and test. Replace cartridge valve, if necessary.
	Shunt valve clogged.	Remove corresponding hose fitting on manifold to gain access to shunt valve. Clean valve passages with solvent and compressed air.
	Shunt valve spring damaged.	Replace spring.
	Hose damaged.	Replace kinked or damaged hose (damage may not be externally visible).
Any jack retracts very slowly.	Lubricate the jack.	While the jacks are extended down, spray the chrome rod with silicone spray. If the jacks have a zerk fitting in the bottom collar of the jack assembly, apply all purpose lithium grease. Three pumps with a manual grease gun are recommended. Retract the jacks and then extend the jacks. Lubricate the jacks again as previously described. Repeat this process two more times.
	Jack rod guide is rusted or dirty.	Clean the chrome rod and grease rod guide if equipped with grease fittings. Otherwise, lubricate with silicone fluid as previously described. It may be necessary to reseal jack or replace.
	Broken jack spring(s).	Replace jack spring.
	Shunt valve clogged.	Remove corresponding hose fitting on manifold to gain access to shunt valve. Clean valve passages with solvent and compressed air.
	Shunt valve spring damaged.	Replace spring.
	Hose damaged.	Remove corresponding hose fitting on manifold to gain access to shunt valve. Clean valve passages with solvent and compressed air.
	Internal failure within jack.	Rebuild / replace components of jack as necessary.
Any jack retracts with no power, with possible popping sound.	Air in system.	Check for vertical coil in hoses. Remove the vertical coil if present then fully extend all the jacks and retract fully. Repeat this for four cycles, waiting a few minutes between cycles. Check fluid level between cycles. Refill tank as necessary. See Maintenance section or TI-188 at: https://www.lci1.com/assets/content/support/technical-information-sheets/Leveling%20and%20Stabilization/CCD_0002088.pdf
	Lubricate the jack.	While the jacks are extended down, spray the chrome rod with silicone spray. If the jacks have a zerk fitting in the bottom collar of the jack assembly, apply all purpose lithium grease. Three pumps with a manual grease gun are recommended. Retract the jacks and then extend the jacks. Lubricate the jacks again as above. Repeat this process two more times.
	Jack legs create popping sound.	Due to changes in temperature, expanding and contracting of fluid will magnify the problem of popping jacks; see the recommended hydraulic fluid for cold operating weather.
	Contaminated fluid.	Replace fluid. See Fluid Recommendation section or TI-188 at: https://www.lci1.com/assets/content/support/technical-information-sheets/Leveling%20and%20Stabilization/CCD_0002088.pdf
	Leg valves stuck open.	Remove leg valve, clean or replace.
	Dump valve contaminated.	Remove dump valve, clean or replace.
	Dump valve stuck open.	Replace valve.
	All leg valves and dump valve stuck open.	Replace all the valves.

What Is Happening?	Why?	What Should Be Done?
JACKS DOWN light on touchpad will not light with jacks extended.	Fluid sensor faulty.	To identify the float sensor and float switch, refer to Hydraulic Leveling Float Switch/Fluid Sensor ID Chart sheet at: https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_82_L0512.pdf To test horizontal fluid sensors or float switches, use Testing Float Switches/Fluid Sensors In Horizontal Tanks sheet at: https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_82_L0511_.pdf To test vertical fluid sensor or float switches, use Testing Float Switches/Fluid Sensors sheet or Testing Vertical Float Switches /Fluid Sensor 14-1136, 14-1137 sheet at: https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_82_L0509_.pdf or https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_82_L0510_.pdf, respectively.
	Harness wire faulty.	Check for ground at fluid sensor wires. The brown wire to pin #2 at controller should read ground when jacks are down. The other fluid sensor wire should read ground at all times.
	Fluid sensor misadjusted.	Readjust fluid sensor.
	Open circuit on the brown sensor wire.	Check for continuity on the brown wire between the float sensor and pin #2 of the 8-pin connector at controller. If none replace wire.
	Defective light on touchpad.	Apply +12V DC to pin #2 of the 8-pin connector with the key on. Turn on touch pad, if no light then replace the touch pad.
JACKS DOWN light on touchpad will not extinguish with jacks retracted.	Low fluid level.	Fill tank with automatic transmission fluid. See Fluid Recommendation section or TI-188 sheet at: https://www.lci1.com/assets/content/support/technical-information-sheets/Leveling%20and%20Stabilization/CCD_0002088.pdf
	Fluid sensor misadjusted.	Readjust fluid sensor.
	Fluid sensor faulty.	To identify the float sensor and float switch, refer to Hydraulic Leveling Float Switch/Fluid Sensor ID Chart sheet at: https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_82_L0512.pdf To test horizontal fluid sensors or float switches, use Testing Float Switches/Fluid Sensors In Horizontal Tanks sheet at: https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_82_L0511_.pdf To test vertical fluid sensor or float switches, use Testing Float Switches/Fluid Sensors sheet or Testing Vertical Float Switches /Fluid Sensor 14-1136, 14-1137 sheet at: https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_82_L0509_.pdf or https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_82_L0510_.pdf, respectively.
	Open circuit on the brown sensor wire.	Check for continuity on the brown wire between the float sensor and pin #2 of the 8-pin connector at controller. If none replace wire.
JACKS DOWN light and alarm will go on while driving with jacks retracted.	Low fluid level.	Fill tank with automatic transmission fluid. See Fluid Recommendation section or TI-188 sheet at: https://www.lci1.com/assets/content/support/technical-information-sheets/Leveling%20and%20Stabilization/CCD_0002088.pdf
	Fluid sensor misadjusted.	Readjust fluid sensor.

What Is Happening?	Why?	What Should Be Done?
JACKS DOWN light and alarm will go on while driving with jacks retracted.	Float sensor faulty.	To identify the float sensor and float switch, refer to Hydraulic Leveling Float Switch/Fluid Sensor ID Chart sheet at: https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_82_L0512.pdf To test horizontal fluid sensors or float switches, use Testing Float Switches/Fluid Sensors In Horizontal Tanks sheet at: https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_82_L0511_.pdf To test vertical fluid sensor or float switches, use Testing Float Switches/Fluid Sensors sheet or Testing Vertical Float Switches /Fluid Sensor 14-1136, 14-1137 sheet at: https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_82_L0509_.pdf or https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_82_L0510_.pdf, respectively.
	Short in harness.	Check float switch wires for open circuit.
System levels, but retracts when key is turned off.	Improper wiring to 6-pin harness.	See 2003 Freightliner Diesel Chassis Control Hookup, 2004 Freightliner Diesel Chassis Control Hookup Wiring Diagram, 2003 Ford Chassis Hookup of PowerGear Controls, Hydraulic Leveling Set-Up Procedure for Manual Control #500731, Spartan Chassis Control Hookup Wiring Information for 500630 and 140-1227
System drops down slightly as key is shut off.	Improper wiring to 6-pin harness.	See 2003 Freightliner Diesel Chassis Control Hookup, 2004 Freightliner Diesel Chassis Control Hookup Wiring Diagram, 2003 Ford Chassis Hookup of PowerGear Controls, Hydraulic Leveling Set-Up Procedure for Manual Control #500731, Spartan Chassis Control Hookup Wiring Information for 500630 and 140-1227
Leveling system retracts when key is put into ACC position.	Improper wiring to 6-pin harness.	See 2003 Freightliner Diesel Chassis Control Hookup, 2004 Freightliner Diesel Chassis Control Hookup Wiring Diagram, 2003 Ford Chassis Hookup of PowerGear Controls, Hydraulic Leveling Set-Up Procedure for Manual Control #500731, Spartan Chassis Control Hookup Wiring Information for 500630 and 140-1227
System will not auto-retract when the coach is put into drive.	Improper wiring to 6-pin harness.	See 2003 Freightliner Diesel Chassis Control Hookup, 2004 Freightliner Diesel Chassis Control Hookup Wiring Diagram, 2003 Ford Chassis Hookup of PowerGear Controls, Hydraulic Leveling Set-Up Procedure for Manual Control #500731, Spartan Chassis Control Hookup Wiring Information for 500630 and 140-1227
	Neutral safety switch wires shorted.	At the 6-pin connector: Check for voltage at pin #6. If it has +12V DC, verify pin #2 at the 6-pin connector also has +12V DC. If pin #2 is ground, ground pin #6 at the 6-pin. If the control then operates, repair or replace wires or neutral safety switch.
System does not level to correct level position.	Controller needs to be recalibrated.	To level with the bubble level, see How To Level The Bubble Level sheet at: https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_82_L0125_T.pdf See Instructions For Calibration Of Hydraulic Leveling Controls sheet at: https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_82_L0316_T.pdf For control boxes with part number 101000102, see 12003 - Hydraulic Leveling Control Calibration Procedure For Control sheet at: https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_12003.pdf

What Is Happening?	Why?	What Should Be Done?
System does not level to correct level position.	Controller needs to be recalibrated.	For control boxes with part number 1010001284, see 12004 - Instructions For Hydraulic Leveling Control Calibration Procedure sheet at: https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_12004_Fleetwood_Hyd_Leveling_Calibration_Tip_Sheet.pdf
	Control box is not mounted in proper orientation.	Arrow on control box label must point forward. Mounting flange for control box must be on top, with wire harnesses coming out the bottom.
	Low voltage at control box.	Check between pin #8 (power) and pin #1 (ground) of the 8-pin connector. For specific voltage, see Low Voltage LED Indication for Hydraulic And Electric Leveling Controls sheet at: https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_3010002151.pdf
	Hoses plumbed wrong at jacks.	Verify front hoses are plumbed from front jacks to F and F1 on manifold of hydraulic pump assembly. Verify curbside rear hose is plumbed to CR at manifold at pump assembly. Verify that roadside rear jack is plumbed to RR at manifold at pump assembly.
	Hoses plumbed wrong at pump assembly.	Check valve block to make sure that the front hoses are plumbed to F and F1, CR is to curbside rear hose connector and RR to roadside rear hose connector.
	Valve coils wired incorrectly.	See wiring diagram for part location and wire color.
	Harness pinned incorrectly.	See wiring diagram for pin location and wire color on harness.
	Faulty control.	If previous causes and actions do not apply, replace control.
Touchpad lights are flashing.	Possible trouble code being displayed.	See Leveling Control Error Codes for 500630 and 500674 at https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_82_L0359_T.pdf
	Jacks are still down partially.	Press the RETRACT ALL JACKS button to allow jacks to fully retract.
	Coach is in emergency retract mode.	Fluid low, see Fluid Recommendation section or TI-188 sheet at: https://www.lci1.com/assets/content/support/technical-information-sheets/Leveling%20and%20Stabilization/CCD_0002088.pdf
		Fluid sensor is misadjusted. See Instructions For Fluid Sensor Replacement 1993-1994 sheet at: https://www.lci1.com/assets/content/support/technical-information-sheets/Power_Gear/Leveling/pg_81_1213.pdf
System turns on, but turns off as soon as a touchpad button is pushed.	Low system voltage.	Voltage must remain above 12V DC while in operation. Check battery condition and connections.
Touchpad LEDs are on solid.	Control box is defective.	Replace the control box.

Maintenance

Resources Required

- Dexron® III or Mercon® V Class "A" automatic transmission fluid (ATF)
- Electrical contact cleaner
- Lint-free cloth
- Zip ties

Procedure

1. Check fluid in reservoir every 12 months. If fluid is a clear red color, do not change. If fluid is milky, pink and murky and not clear red in color, drain reservoir and add new fluid. Hydraulic fluid in reservoir should be changed a minimum of every five years.

NOTE: Make sure that the hydraulic reservoir is properly filled. An incorrectly filled reservoir can lead to the float switch sending a false trigger to the emergency retract, due to the system not recognizing that the jacks are already retracted.

NOTE: Check the fluid only when all the jacks are fully retracted.

NOTE: When checking the hydraulic fluid, fill to the desired level indicated by the sticker on the system.

2. Inspect and clean all power coach electrical connections every 12 months. If corrosion is evident, spray power coach electrical connections with electrical contact cleaner.
3. Remove dirt and road debris from jacks as needed.
4. If jacks are down for extended periods, it is recommended to spray exposed jack rods with a silicone lubricant every three months for protection. If the coach is located in a salty environment, it is recommended to spray the rods every four to six weeks.

Fluid Recommendation

Automatic transmission fluid (ATF) with Dexron® III or Mercon® V or a blend of both is recommended by Lippert Components, Inc. For a list of approved fluid specifications, see TI-188. To obtain this Technical Information sheet on-line, go to https://www.lci1.com/assets/content/support/technical-information-sheets/Leveling%20and%20Stabilization/CCD_0002088.pdf.

NOTE: In colder temperatures (less than 10 °F) the jacks may extend and retract slowly due to the fluid's molecular nature. For cold weather operation, fluid specially formulated for low temperatures may be desirable.

Basic Purge Procedure For Hydraulic Pump

1. Start with all hydraulic components in the fully retracted position. This means that all jacks, are retracted as if it were ready to travel.
2. Find the hydraulic pump location and note the amount of fluid currently in the reservoir. The fluid level should be about 1/4" from the top of the reservoir and no more than 1/2" from the top.

NOTE: When checking the fluid level after making sure that all hydraulic components are retracted, note if there are any bubbles, froth or foam on top of the fluid. This is an indication that air has been pushed back to the reservoir when the hydraulic components were retracted in the last cycle. Wait 15-20 minutes for the foam to dissipate before beginning the purge process.

⚠ CAUTION

Failure to wait the mandatory 15 minutes for the motor to cool down may result in permanent damage to pump coach and void warranty.

3. If there is no froth or foam in the reservoir and the fluid is not within 1/2" of the top, fill the reservoir to within the level described in step 2.
4. With the fluid level full and no foam in the reservoir, begin cycling the hydraulic system.
   A. Extend Jacks fully, taking the coach off the tires. Immediately retract all Jacks.

⚠ WARNING

The coach MUST be supported per manufacturer's recommendations before performing this procedure. Failure to do so may result in death or serious injury.

5. Check the reservoir for foam. If foam is present, repeat steps 3 and 4 until no foam is present in the reservoir. If no foam is present, the system is purged of air.

Please recycle all obsolete materials.

For all concerns or questions, please contact
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