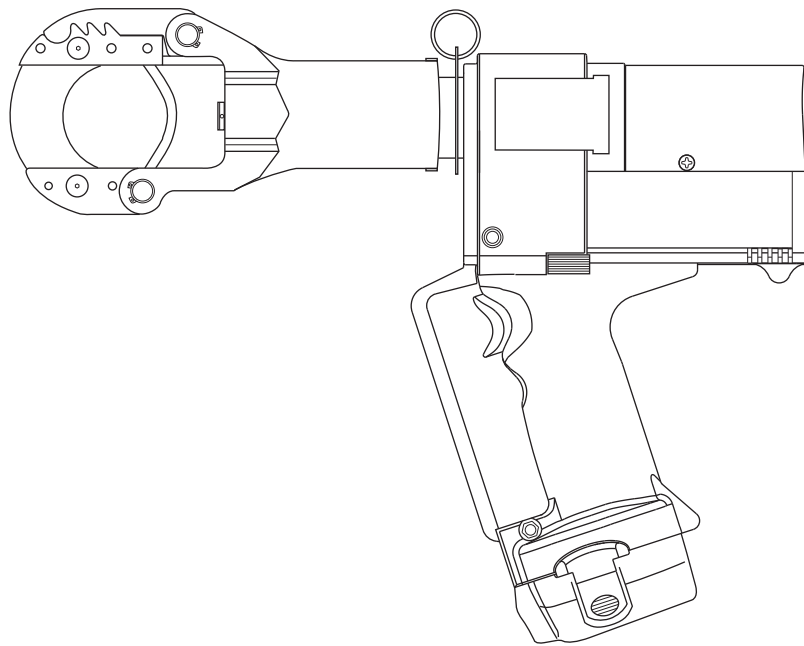


INSTRUCTION MANUAL



GREENLEE[®]
A Textron Company

Serialnummer



GATOR[®] Plus ESG50GL **Battery-powered,** **High-speed Cable Cutter**



Read and understand all of the instructions and safety information in this manual before operating of servicing this tool.

Register this product at www.greenlee.com



Table of Contents

Description 2
 Safety 2
 Purpose of this Manual 2
 Important Safety Information 3-4
 Identification 5
 Specifications 5
 Operation 6
 Maintenance 7
 Troubleshooting 8
 Disassembly 9
 Assembly 10
 Illustrations 11-13
 Parts List 14-16

Description

The ESG50GL Battery-powered, High-speed Cable Cutter is a hand-held tool intended to cut copper and aluminum cable up to 45 mm (1-3/4") in diameter. This tool is intended to cut most low and medium voltage copper and aluminum cable found on most job sites.

Safety

Safety is essential in the use and maintenance of Greenlee tools and equipment. This manual and any markings on the tool provide information for avoiding hazards and unsafe practices related to the use of this tool. Observe all of the safety information provided.

Purpose of this Manual

This manual is intended to familiarize all personnel with the safe operation and maintenance procedures for the following Greenlee tool:

ESG50GL Battery-powered, High-speed
Cable Cutter

Keep this manual available to all personnel.

Replacement manuals are available upon request at no charge at www.greenlee.com.

All specifications are nominal and may change as design improvements occur. Greenlee Textron Inc. shall not be liable for damages resulting from misapplication or misuse of its products. GATOR is a trademark of Greenlee Textron Inc. AVIA is a registered trademark of Avia International. Mobil is a registered trademark of Mobil Oil Corporation. NUTO is a registered trademark of Exxon Corporation. Tellus is a registered trademark of Shell Oil Company.

KEEP THIS MANUAL



IMPORTANT SAFETY INFORMATION



SAFETY ALERT SYMBOL

This symbol is used to call your attention to hazards or unsafe practices which could result in an injury or property damage. The signal word, defined below, indicates the severity of the hazard. The message after the signal word provides information for preventing or avoiding the hazard.

⚠ DANGER

Immediate hazards which, if not avoided, **WILL** result in severe injury or death.

⚠ WARNING

Hazards which, if not avoided, **COULD** result in severe injury or death.

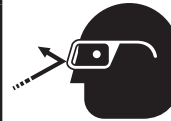
⚠ CAUTION

Hazards or unsafe practices which, if not avoided, **MAY** result in injury or property damage.

⚠ WARNING

- Electric shock hazard: The owner of this cutter must be certain that all users of this tool are trained in the applicable safety codes and standards as well as in the safe use of this tool and its accessories.
- Do not cut cable under tension.
- Use the tool for its intended purpose, which is cutting cable.

Failure to observe these warnings could result in severe injury or death.



⚠ WARNING

Wear eye protection when operating or servicing this tool.

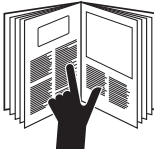
Failure to wear eye protection could result in serious eye injury from flying debris or hydraulic oil.



⚠ WARNING

Skin injection hazard:

Do not use hands to check for oil leaks. High pressure oil easily punctures skin causing serious injury, gangrene, or death. If injured, seek medical help immediately to remove oil.



⚠ WARNING

Read and understand all of the instructions and safety information in this manual before operating or servicing this tool.

Failure to observe this warning could result in severe injury or death.



⚠ WARNING

Electric shock hazard:

This tool is not insulated. When using this unit near energized electrical lines, use proper personal protective equipment.

Failure to observe this warning could result in severe injury or death.



⚠ WARNING

Do not use solvents or flammable liquids to clean the tool body. Solvents or flammable liquids could ignite and cause serious injury or property damage.



IMPORTANT SAFETY INFORMATION

| | |
|--|--|
| | ⚠ WARNING |
| | <p>Cutting hazard:</p> <ul style="list-style-type: none"> • Remove battery before changing dies, adapters, or jaws. • Keep hands away from the cutting head when cutting. <p>Failure to observe these warnings could result in severe injury or death.</p> |

| |
|--|
| ⚠ WARNING |
| <p>Do not dispose of batteries in a fire. They will vent fumes and may explode.</p> <p>Failure to observe this warning could result in severe injury from harmful fumes or burns from flying debris.</p> |

| |
|--|
| ⚠ CAUTION |
| <ul style="list-style-type: none"> • Do not cut steel or ACSR. Cut only copper and aluminum cable. • This tool is not designed for continuous use. After 30 to 40 cutting cycles, allow the tool to cool for 15 minutes. • Do not place the tool in a vise. The tool is designed for hand-held operation. • Protect the tool from rain and moisture. Water will damage the tool and battery. • Store the tool in the case when not in use. <p>Failure to observe these precautions may result in injury or property damage.</p> |

| |
|---|
| ⚠ CAUTION |
| <p>Do not allow anything to contact the battery terminals.</p> <ul style="list-style-type: none"> • Do not immerse the batteries in liquid. Liquid may create a short circuit and damage the battery. If batteries are immersed, contact your service center for proper handling. • Do not place the battery into a pocket, tool pouch, or tool box with conductive objects. Conductive objects may create a short circuit and damage the battery. • Do not place a battery on moist ground or grass. Moisture may create a short circuit and damage the battery. <p>Failure to observe these precautions may result in injury or property damage.</p> |

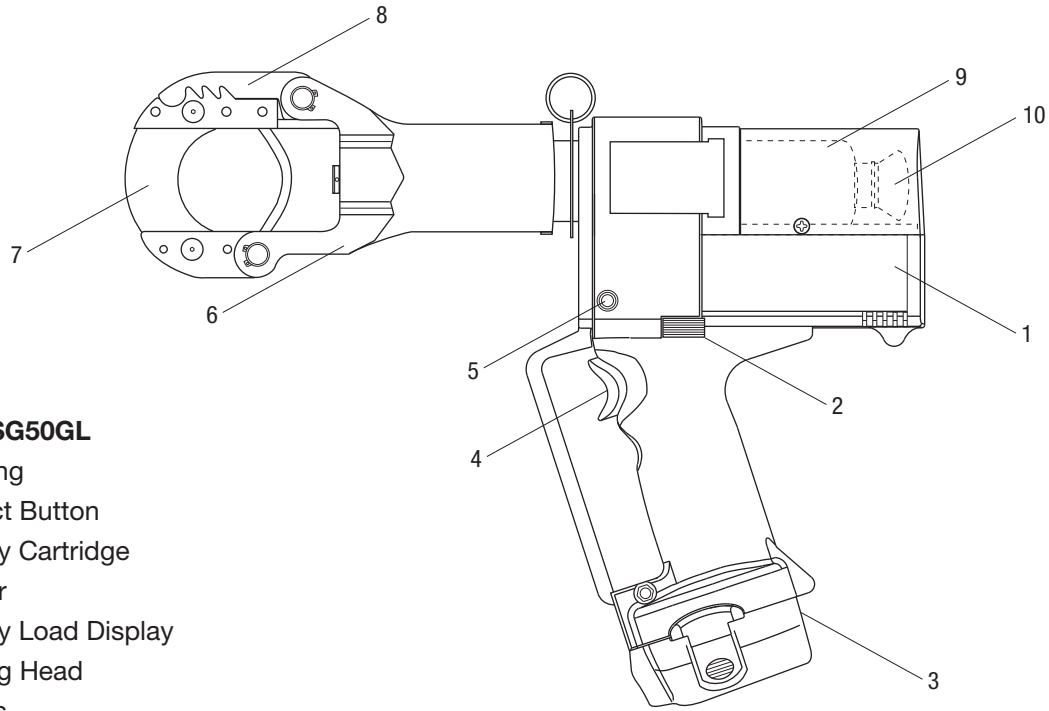
| |
|---|
| ⚠ CAUTION |
| <ul style="list-style-type: none"> • Do not store the battery at more than 60 °C (140 °F). Damage to the battery can result. • Do not use another manufacturer's charger. Other manufacturers' chargers may overcharge and damage the battery. • Do not attempt to open the battery. It contains no user-serviceable parts. <p>Failure to observe these precautions may result in injury or property damage.</p> |

| |
|---|
| ⚠ CAUTION |
| <p>Use all appropriate and applicable personal safety equipment as required such as safety shoes, hard hat, and safety glasses. Follow all safety rules and regulations for the job.</p> <p>Failure to comply may result in personal injury or property damage.</p> |

Note: Keep all decals clean and legible, and replace when necessary.



Identification



ESG50GL

- 1. Housing
- 2. Retract Button
- 3. Battery Cartridge
- 4. Trigger
- 5. Battery Load Display
- 6. Cutting Head
- 7. Blades
- 8. Locking Flange
- 9. Oil Reservoir
- 10. Oil Plug

Specifications

Cable Cutter

| | |
|---------------------------------|--|
| Length | 400 mm (15-3/4") |
| Width | 76 mm (3") |
| Height..... | 362 mm (14-1/4") |
| Mass/Weight (with battery)..... | 4.5 kg (10 lb) |
| Sound Level | 75 dB (A) at 1 meter |
| Vibration | < 2.5 m/s ² |
| Motor Type | DC permanent field motor |
| Motor Voltage..... | 12 VDC |
| Hydraulic Oil..... | 50 ml (0.1 pint) of Shell Tellus® T 15 |

Cutting Capacities


| | |
|-------------------------------------|------------------|
| Maximum Cable Cutting Diameter..... | 45 mm (1-3/4") |
| Cutting Cycles per Charge..... | approximately 50 |

Battery

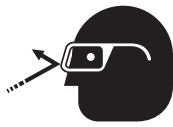
| | |
|-----------------------|--------|
| Charging Voltage..... | 12 V |
| Charging Time..... | 1 hour |




Operation

| | |
|---|--|
|  | ⚠ WARNING |
| | <p>Electric shock hazard: This tool is not insulated. When using this unit near energized electrical lines, use proper personal protective equipment.</p> <p>Failure to observe this warning could result in severe injury or death.</p> |

| | |
|---|--|
| ⚠ WARNING | |
| <ul style="list-style-type: none"> • Electric shock hazard: The owner of this cutter must be certain that all users of this tool are trained in the applicable safety codes and standards as well as in the safe use of this tool and its accessories. • Do not cut cable under tension. <p>Failure to observe these warnings could result in severe injury or death.</p> | |

| | |
|---|---|
|  | ⚠ WARNING |
| | <p>Wear eye protection when operating or servicing this tool.</p> <p>Failure to wear eye protection could result in serious eye injury from flying debris or hydraulic oil.</p> |

| | |
|---|--|
|  | ⚠ WARNING |
| | <p>Cutting hazard:</p> <ul style="list-style-type: none"> • Remove battery before changing dies, adapters, or jaws. • Keep hands away from the cutting head when cutting. <p>Failure to observe these warnings could result in severe injury or death.</p> |

| | |
|---|--|
| ⚠ CAUTION | |
| <ul style="list-style-type: none"> • Do not cut steel or ACSR. Cut only copper and aluminum cable. • This tool is not designed for continuous use. After 30 to 40 cutting cycles, allow the tool to cool for 15 minutes. • Protect the tool from rain and moisture. Water will damage the tool and battery. <p>Failure to observe these precautions may result in injury or property damage.</p> | |

Charging the Battery

Read the instructions supplied with the battery charger.

Testing the Battery

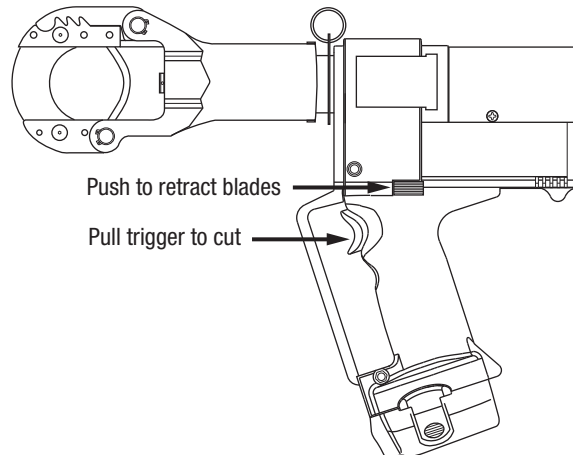
A flickering battery load display indicates a low charge level. A constant light when the tool is in neutral also indicates a low charge.

Note: It is normal for the battery load display to light at both the beginning of a cutting cycle and at the point of maximum pressure.

Cutting Cable

1. Open the head by lifting the locking flange.
2. Position the cable in the open cutting head.
3. Close the cutting head.
4. Pull the trigger. The blades will begin to close.
5. When the cut is completed, the ram retracts completely.

Note: At any time during cutting, pushing the return button will result in a complete return of the ram.






Maintenance

Each Operating Day

Before use:

1. Inspect blades for damage such as cracks, gouges, or chips.
2. Inspect the tool for damage or leaks. Return a damaged or leaking tool to an authorized Greenlee service center.

| | |
|---|---|
|  | ⚠ WARNING |
| | <p>Skin injection hazard:</p> <p>Do not use hands to check for oil leaks. High pressure oil easily punctures skin causing serious injury, gangrene, or death. If injured, seek medical help immediately to remove oil.</p> |

After use:

1. Wipe all tool surfaces clean with a damp cloth and mild detergent.

| | |
|---|--|
|  | ⚠ WARNING |
| | <p>Do not use solvents or flammable liquids to clean the tool body. Solvents or flammable liquids could ignite and cause serious injury or property damage.</p> |


2. Fully retract the blades. Place the tool in the carrying case. Store in a cool, dry place.
3. Charge the battery.

Monthly

1. Thoroughly clean all surfaces.
2. Check the oil level.
3. Oil the bolt joints.

Annually or Every 8000 Cutting Cycles

1. Change the hydraulic oil.
2. Return the tool to an authorized Greenlee service center for inspection.

| | |
|--|---|
|  | ⚠ WARNING |
| | <p>Cutting hazard:</p> <ul style="list-style-type: none"> • Remove battery before changing dies, adapters, or jaws. • Keep hands away from the cutting head when cutting. <p>Failure to observe these warnings could result in severe injury or death.</p> |

Checking the Oil Level

1. Remove the two screws that retain the tank housing cover.
2. Remove the tank housing cover.
3. Point the head downward and remove the oil plug. Add oil if necessary.
4. Replace the oil plug and the tank housing cover. Secure with screws.

Recommended Hydraulic Oils

- AVIA® HVI 15
- Shell Tellus T 15
- Mobil® DTE 11M
- NUTO® H 15



Troubleshooting

Before You Begin

1. Make sure that the battery is charged. Recheck the battery after several minutes to make sure the battery is holding its charge.
2. Use a **nonflammable** contact cleaner or pencil eraser to clean the electrical contacts on the battery and tool.
3. Reinstall the battery and check the tool again.

| Problem | Probable Cause | Probable Remedy |
|--|--|---|
| Tool is inoperative. | Dirt, contaminants, etc., in ram area of tool. | Clean tool. |
| | Tool battery contacts damaged. | Reform contacts. |
| | Tool components worn or damaged. | Return tool to an authorized Greenlee service center. |
| | Dead battery. | Charge or replace. |
| Cutting blades stop during operation. | Oil level is low. | Check oil level. Refill reservoir. |
| | Air in hydraulic system. | Pull trigger and hold retract button simultaneously. Hold for approximately 10 seconds. |
| Battery load display flashes constantly. | Battery charge low. | Charge or replace battery. |
| Tool loses oil. | Damaged internal seal. | Return tool to an authorized Greenlee service center. |
| | Oil plug not installed properly. | Refill reservoir and replace plug. |



Disassembly

Main Components

1. Remove the battery.
2. Remove the pin (19). Remove the cutting blade (26).
3. Loosen two screws (29).
4. Unscrew and remove the head assembly.
5. Remove the spring (17) and piston (18). Replace the piston O-ring (15) and piston backup ring (16).
6. Unscrew two tank cover screws (53) and remove the tank cover (58).
7. Remove the hydraulic reservoir plug (76) and drain the hydraulic fluid.
8. Reinstall the plug.
9. Remove the remaining housing screws (51, 53).
10. Remove the right housing half (59).
11. Remove the trigger cover (56).
12. Lift the pump/motor assembly and circuit card from the left housing half (60). Lift the LED from its housing (8).
13. Slide a plastic bag over the circuit card and electronic subassemblies. Tape the bag shut to protect the subassemblies from hydraulic oil and other contamination.
14. Unscrew the shoulder bolt (99) and remove the release lever (107).
15. Remove screws (108) and separate the gear housing/motor subassembly from the pump housing.

Pump

1. Use a hooked tool to remove the reservoir O-ring (80). Gently tug it over the reservoir.
2. Remove the reservoir (74).
3. Remove the pump piston (152).
4. Remove the screw plug (151), washer (153), pump piston (150), valve stem (156), and spring (155). Replace the sealing washer (154).
5. Use a piece of tape to mark the side of the relief that is facing up. (This is a reference point for reassembly). Remove the unloading valve by unscrewing the plug (126).
6. Remove the feeder tube subassembly by unscrewing the feeder tube (78). Replace the oil filter (77). Remove metal chips from the magnet (82).
7. Remove the threaded bushing (72) and replace the O-ring (73).

Motor, Gearbox, and Bearing

1. Remove the tamper-proof paper seal (96).
2. Remove two screws (92). Remove the end cap (102).
3. Apply pressure evenly at three points around the ball bearing (91) and gently pry the bearing up to remove it.
4. Remove the eccentric (103), grooved ball bearing (101), and snap ring (100) subassembly from the shaft.
5. Remove four screws (93). Remove the mounting block (109) from the gear housing (94).
6. Use a snap-ring removal tool to remove the snap ring (100).
7. Unscrew four bolts (not numbered) from the gear housing (94). Separate the gear housing from the spacer (not numbered). Unscrew two Fillister head screws (112) to separate the spacer from the motor (90).



Assembly

Motor, Gearbox, and Bearing

1. Install two Fillister head screws (112) into the spacer (not numbered) and motor (90). Tighten the screws.
2. Install four screws (not numbered) into the gear housing (94). Tighten the screws.
3. Install four screws (93) into the mounting block (109) and gear housing (94). Tighten the screws.
4. Replace the grooved ball bearing (101) and snap ring (100) subassembly.
5. Replace the eccentric (103). Use a fiber mallet to tap the eccentric onto the shaft. Replace the ball bearing (91).
6. Align the end cap (102). Use a fiber mallet to tap the cover until it is flush on the mounting block (109). Install two screws (92).
7. Align the gear housing/motor subassembly so that the pump piston (152) extends through the mounting block (109) and makes contact with the grooved bearing (101). Locate and start the screws (108) through the mounting block and into the pump housing. Tighten the screws.

Pump

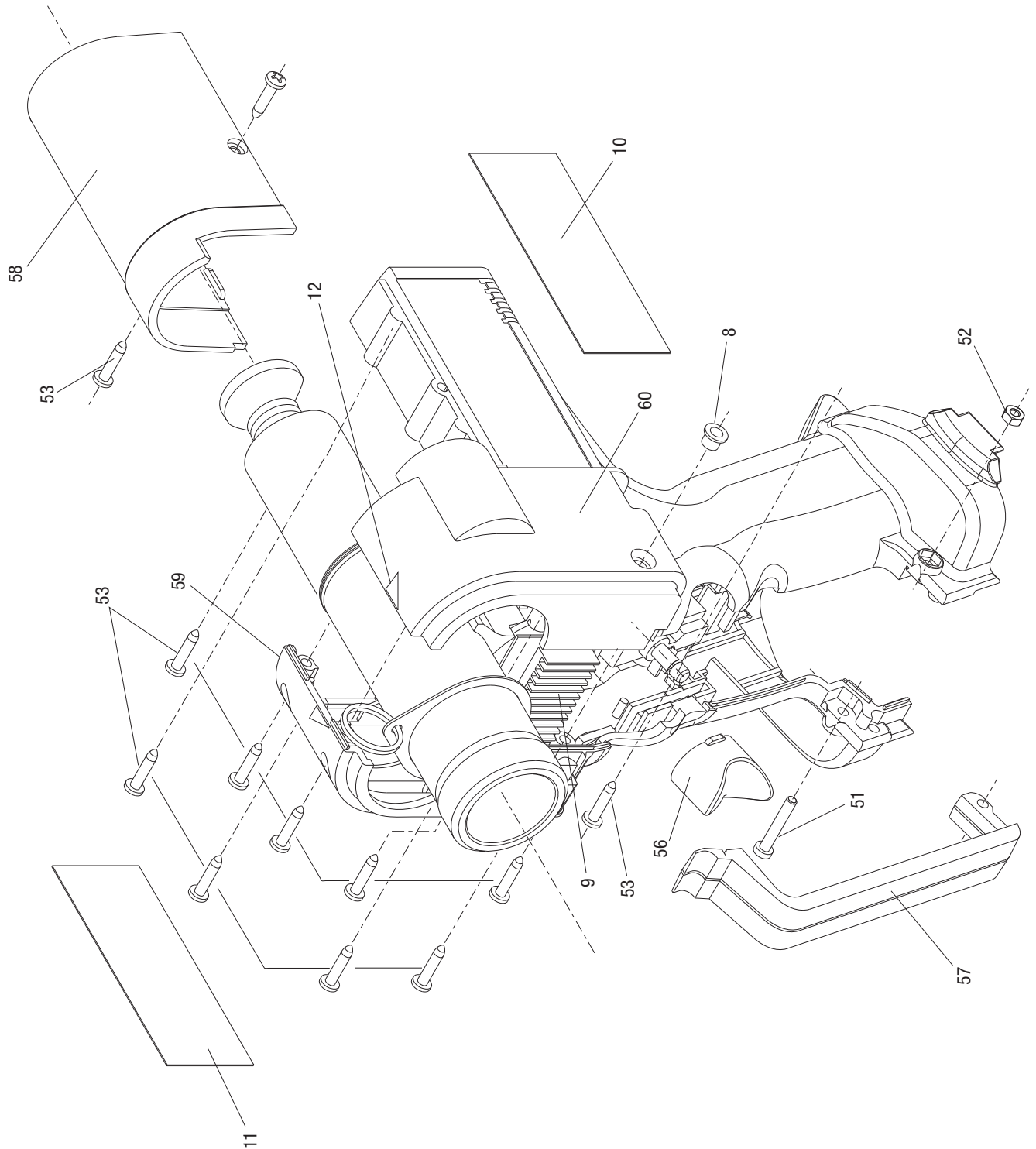
1. Insert the pump piston (152) into the pump housing.
2. Insert the seal (122) and unloading valve assembly into the pump housing. Grasp the needle valve subassembly by the pressure relief (126) and twist it several turns clockwise. Stop when the piece of tape is facing up.
3. Assemble the pump piston (150), valve stem (156), washer (153), spring (155), and screw plug (151). Be sure to replace the sealing washer (154). Torque the screw plug (151) to 101 Nm (75 ft-lb).
4. Install the release lever (107) so that the forked end engages the unloading valve subassembly between the pressure relief (126) and the support ring (127). Install the screw (99) and washer (104).
5. Insert the threaded bushing (79) and feed tube subassembly (77, 78, 82). Screw in until snug.
6. Install the reservoir (74). Slip the O-ring (80) over the reservoir. Using a hooked tool, carefully slip the O-ring over the lip of the pump housing.
7. Insert the plug (76) into the reservoir.

Main Components

1. Remove the protective plastic bag from the electronics subassembly. Insert the LED into the LED bushing (8).
2. Lay the gear housing/motor subassembly into the left half of the housing. Insert the circuit board into the circuit board slot so that the wires and chip face in the direction of the trigger.
3. Lay the wires into the case. Be sure that the wires will not be pinched.
4. Guide the wires for the battery clip so that the battery wires lay on top of the electronics box; install the battery clip so the red wire is upward.
5. Install the trigger cover (56). Press and release the trigger to be sure that it operates freely.
6. Locate the right housing half (59) on top of the left housing half (60). Check for pinched wires.
7. Install the housing screws (51, 53).
Note: The handle screw (51) must engage the nut (52).
8. Install the piston (18).
9. Install the spring (17).
10. Replace the front head assembly. Twist the cutting head base (30) until it stops; back off 3/4 of a turn and tighten the screws (29). Be sure that the cutting head assembly rotates freely approximately 350°.
11. Install the cutting blade (26). Insert the pin (19) through the ram.
12. Clamp the head assembly into a vise with the reservoir plug facing upward. Remove the fill plug (76) and fill the reservoir with hydraulic oil.
13. Install the battery.
14. Squeeze the trigger while pressing the release lever for 45 to 60 seconds. Fill the reservoir with hydraulic oil. Replace the fill plug (76).
15. Replace the tank cover (58) and tank cover screws (53).

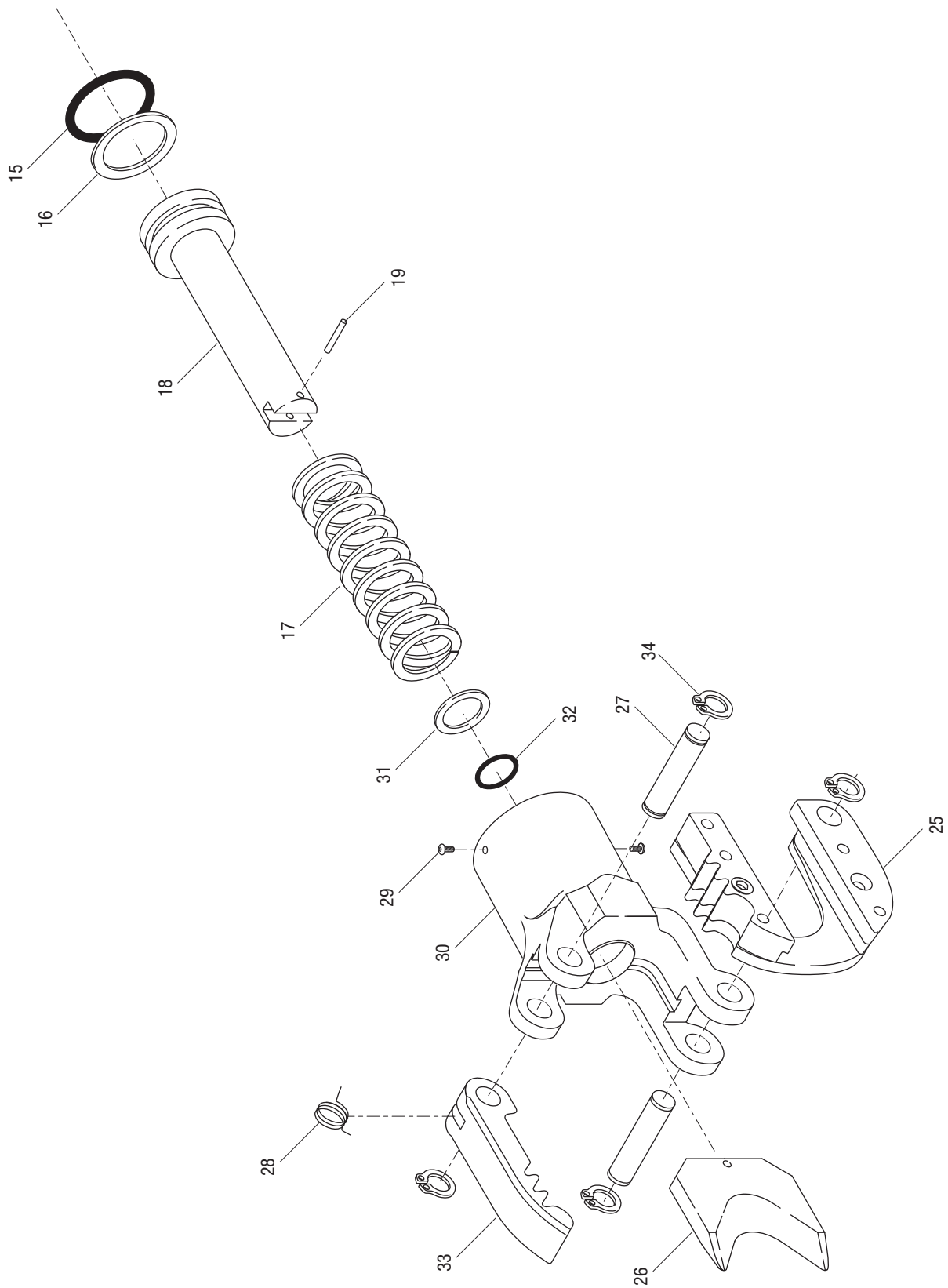


Illustration



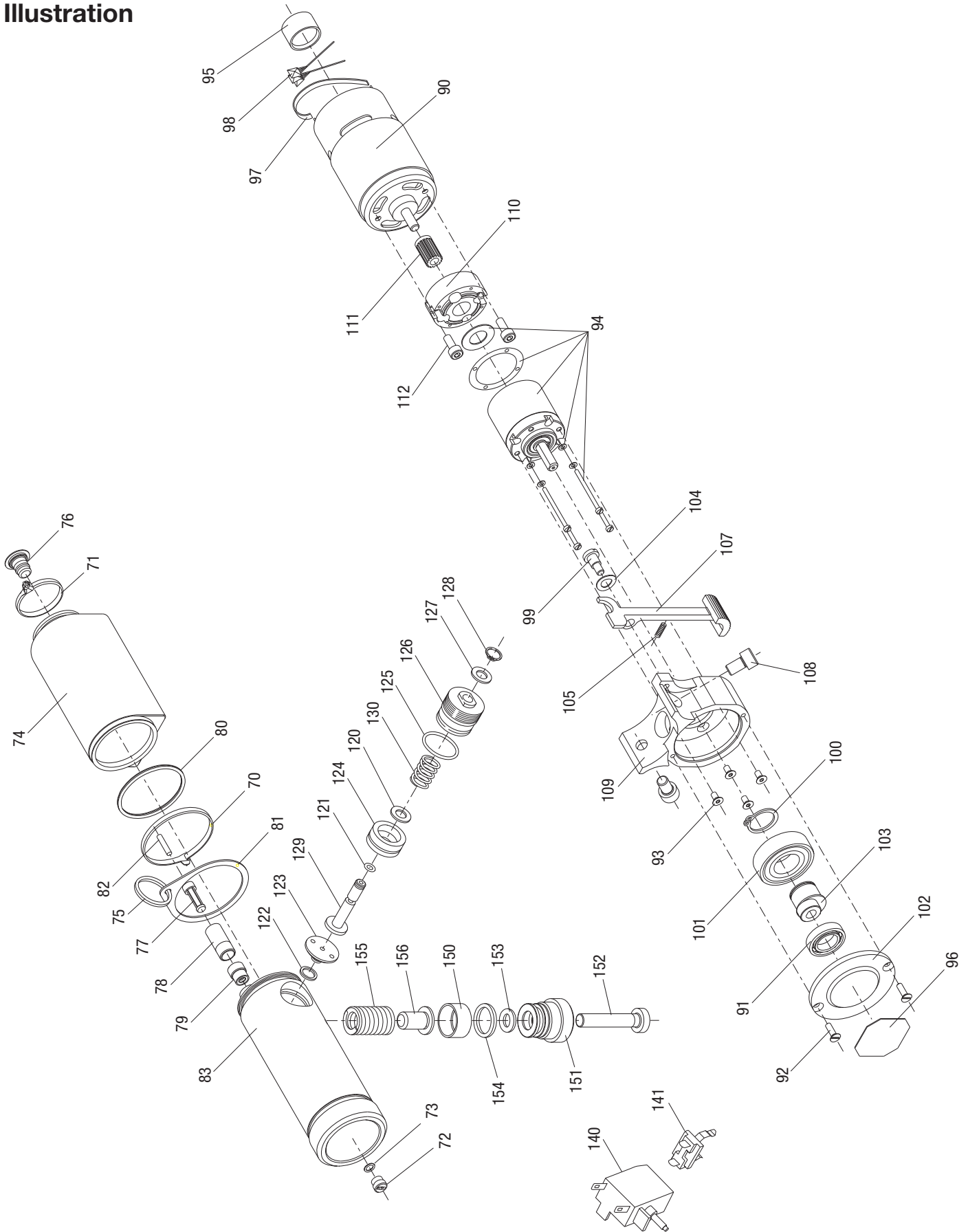


Illustration





Illustration





Parts List

| Key | Part No. | Description | Qty |
|-----|----------|---|-----|
| 8 | 50042416 | Bushing LED | 1 |
| 9 | 50054830 | Circuit board, programmed..... | 1 |
| 10 | 50029428 | Decal, identification..... | 1 |
| 11 | 50029444 | Decal, warning | 1 |
| 12 | 50062140 | Decal, pinch hazard | 1 |
| 15* | | O-ring | 1 |
| 16* | | Backup ring, piston..... | 1 |
| 17 | 50058258 | Compression spring..... | 1 |
| 18 | 50058266 | Piston | 1 |
| 19 | 50041967 | Pin | 1 |
| | | | |
| 25 | 50041843 | Cutting head | 1 |
| 26 | 50041819 | Cutting blade..... | 1 |
| 27 | 50041797 | Pin | 2 |
| 28 | 50041746 | Spring..... | 1 |
| 29 | 50041681 | Screw | 2 |
| 30 | 50058240 | Cutting head base..... | 1 |
| 31 | 50058371 | Adapter disk..... | 1 |
| 32* | | O-ring | 1 |
| 33 | 50041789 | Latch | 1 |
| 34 | 50034308 | Retaining ring | 4 |
| | | | |
| | 50013459 | Housing unit (green) (includes items 51–60) | |
| 51 | 50042203 | Screw | 1 |
| 52 | 50042211 | Nut..... | 1 |
| 53 | 50042076 | Screw | 12 |
| 56 | | Switch cover (black)..... | 1 |
| 57 | | Trigger guard | 1 |
| 58 | | Reservoir cover | 1 |
| 59 | | Housing, right side | 1 |
| 60 | | Housing, left side | 1 |
| | | | |
| | 50013467 | Pump housing, reservoir assembly (includes items 70–83) | |
| 70 | 50103407 | Ring tie | 1 |
| 71 | 50071777 | Cable tie | 1 |
| 72 | 50041444 | Threaded bushing | 1 |
| 73* | | O-ring | 1 |
| 74 | 50058738 | Hydraulic reservoir | 1 |
| 75 | 50041983 | Ring | 1 |
| 76 | 50058789 | Reservoir plug | 1 |
| 77 | 50058800 | Filter | 1 |
| 78 | 50058827 | Filter adapter | 1 |
| 79 | 50058851 | Threaded bushing | 1 |
| 80* | | O-ring | 1 |
| 81 | 50058290 | Attachment ring..... | 1 |
| 82 | 50058983 | Magnet | 1 |
| 83 | 50103644 | Pump housing | 1 |



Parts List (cont'd)

| Key | Part No. | Description | Qty |
|------------|-----------------|--|------------|
| | 50013491 | Motor assembly (includes items 90–112) | |
| 90 | 50041320 | Motor | 1 |
| 91 | 50041380 | Ball bearing | 1 |
| 92 | 50041550 | Screw | 2 |
| 93 | 50041576 | Screw | 4 |
| 94 | 50041339 | Gearbox..... | 1 |
| 95 ** | | Spacer..... | 1 |
| 96 * | | Seal | 1 |
| 97 ** | | Ground strap | 1 |
| 98 ** | | Capacitor..... | 3 |
| 99 † | | Screw, socket head..... | 1 |
| 100 | 50041517 | Retaining ring | 1 |
| 101 | 50041398 | Grooved ball bearing..... | 1 |
| 102 | 50041088 | End cap | 1 |
| 103 | 50041231 | Eccentric | 1 |
| 104 † | | Lock washer | 1 |
| 105 † | | Spring..... | 1 |
| 107 † | | Release lever | 1 |
| 108 | 50121839 | Screw | 2 |
| 109 | 50084022 | Eccentric case..... | 1 |
| 110 | 50013513 | Gearbox..... | 1 |
| 111 | 50013521 | Gear..... | 1 |
| 112 | 50103385 | Screw | 2 |
| | 50015931 | Relief valve assembly (includes items 120–130) | |
| 120 | 50058606 | Washer | 1 |
| 121* | | O-ring | 1 |
| 122* | | Seal | 1 |
| 123 | 50058630 | Valve seat | 1 |
| 124 | 50058649 | Plunger..... | 1 |
| 125* | | O-ring | 1 |
| 126 | 50058711 | Pressure relief..... | 1 |
| 127 | 50058754 | Support ring | 1 |
| 128* | | Retaining ring | 1 |
| 129 | 50058770 | Needle valve..... | 1 |
| 130 | 50058940 | Spring..... | 1 |
| 140 | 50041266 | Switch | 1 |
| 141 | 50041274 | Battery contacts..... | 1 |
| 143 | | Wire (not shown) | 1 |
| 144 | | Wire (not shown) | 1 |



Parts List (cont'd)

| Key | Part No. | Description | Qty |
|------|----------|--|-----|
| | 50013483 | Piston pump assembly (includes items 150–156) | |
| 150 | 50058916 | Pump piston..... | 1 |
| 151 | 50103652 | Screw plug..... | 1 |
| 152 | 50103709 | Pump piston..... | 1 |
| 153* | | Washer..... | 1 |
| 154* | | Sealing washer..... | 1 |
| 155 | 50103679 | Spring..... | 1 |
| 156 | 50103687 | Valve stem..... | 1 |
| | | | |
| * | 50014072 | Seal kit (includes items marked with an asterisk) | |
| ** | 91871417 | Capacitor assembly (includes items marked with double asterisks) | |
| † | 50118927 | Release lever assembly (includes items marked with a †) | |
| | | | |
| | 50059556 | Case with inserts | |
| | 50029991 | 12 V battery NiCd | |
| | 50030469 | 12 V charger 110 VAC | |
| | 50030477 | 12 V charger 220 VAC | |
| | 50030485 | 12 V charger 12 VDC | |



| | | |
|---------------|-----------------|----------------------|
| USA | 800-435-0786 | Fax: 800-451-2632 |
| | 815-397-7070 | Fax: 815-397-1865 |
| Canada | 800-435-0786 | Fax: 800-524-2853 |
| International | +1-815-397-7070 | Fax: +1-815-397-9247 |

4455 Boeing Drive • Rockford, IL 61109-2988 • USA • 815-397-7070
 An ISO 9001 Company • Greenlee Textron Inc. is a subsidiary of Textron Inc.
www.greenlee.com