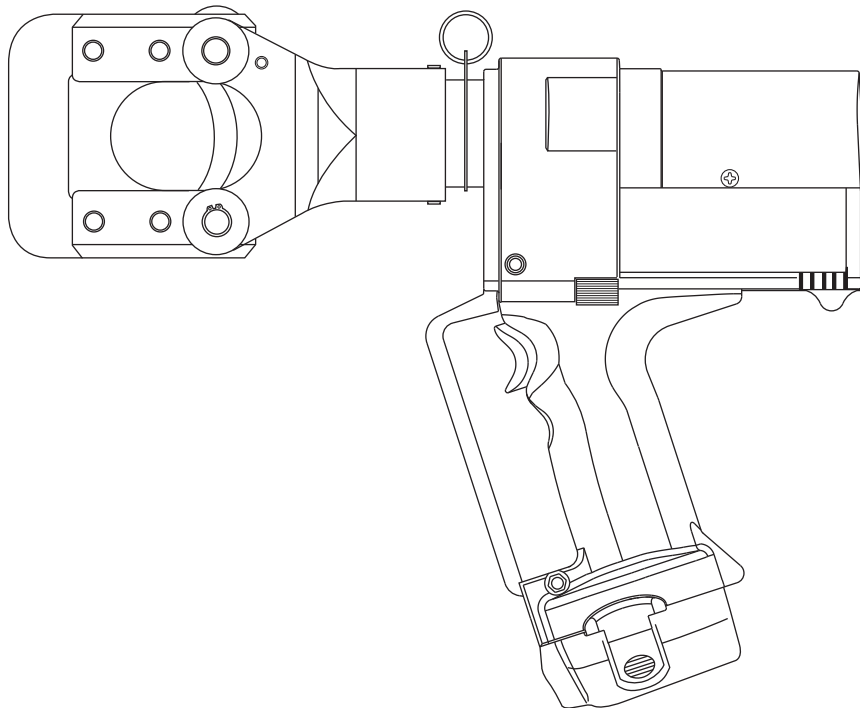


INSTRUCTION MANUAL



GREENLEE®
A Textron Company

Serialnummer



GATOR® Plus ESG45GL **Battery-powered** **Cable Cutter**



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

Register this product at www.greenlee.com

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Description

Greenlee GATOR® Plus cable cutters are hand-held, battery-operated tools designed for cutting ACSR, guy strand, and wire rope.

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:

ESG45GL Battery-powered 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 registered 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

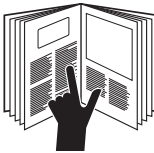
Immediate hazards which, if not avoided, **WILL** result in severe injury or death.

⚠ 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

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 on or near energized electrical lines, use proper personal protective equipment.

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



⚠ WARNING

Skin injection hazard:

Do not use hands to check for oil leaks. Oil under pressure easily punctures skin. If injured, seek medical attention immediately to remove oil.

Failure to observe this warning could result in serious injury, gangrene, 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.




⚠ 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.

IMPORTANT SAFETY INFORMATION

	<p style="text-align: center;">⚠ WARNING</p> <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>
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⚠ WARNING
<p>Do not cut cable under tension.</p> <p>Failure to observe this warning could result in severe injury or death.</p>

⚠ WARNING
<p>Do not dispose of the battery in a fire. The battery will vent fumes and it could explode.</p> <p>Failure to observe this warning could result in severe injury from harmful fumes or burns from flying debris.</p>

⚠ WARNING
<p>Inspect tool before use. Replace any worn or damaged parts. A damaged or improperly assembled tool can break and strike nearby personnel.</p> <p>Failure to observe this warning could result in severe injury or death.</p>

⚠ CAUTION
<ul style="list-style-type: none"> • Do not use this tool for continuous use. After 30 to 40 cycles, allow the tool to cool for 15 minutes. • Do not secure this tool in a vise. This tool is designed for hand-held operation. • Protect the tool from moisture. Any moisture inside the housing can damage internal circuitry. • Use this tool for the manufacturer's intended purpose only. <p>Failure to observe these precautions may result in injury or property damage.</p>

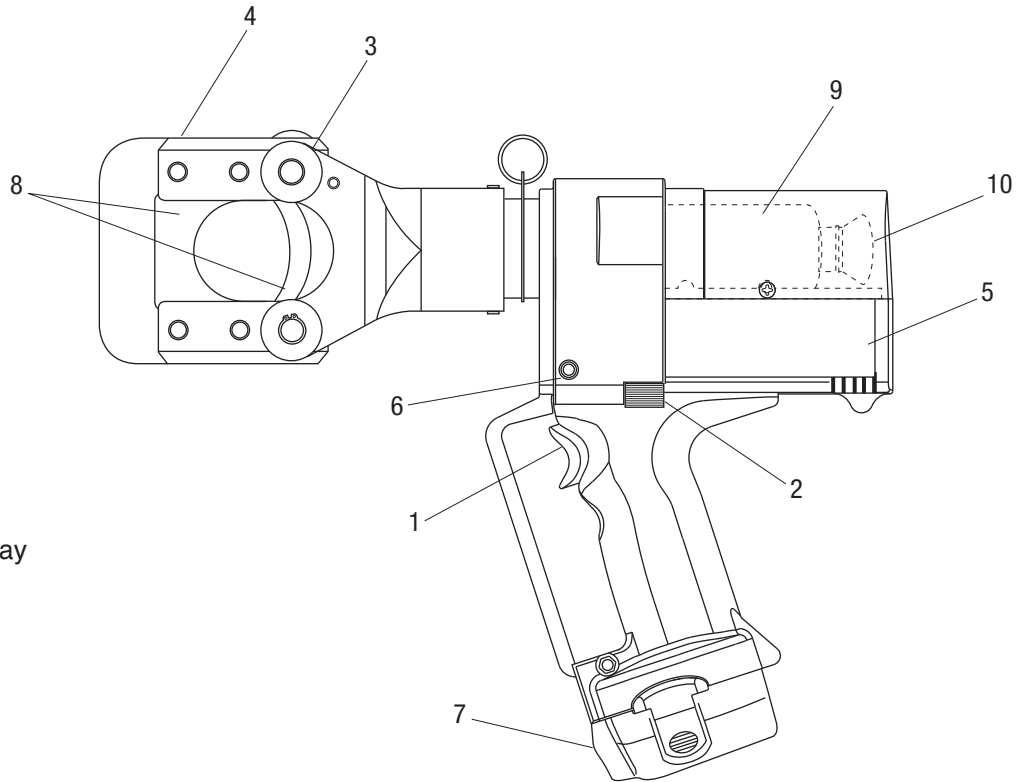
⚠ CAUTION
<p>Do not allow anything to contact the battery terminals.</p> <ul style="list-style-type: none"> • Do not immerse the batteries in liquid. Liquid may create a short circuit and damage the battery. If batteries are immersed, contact your service center for proper handling. • Do not place the 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>Do not perform any service or maintenance other than as described in this manual. Injury or damage to the tool may result.</p> <p>Failure to observe this precaution may result in injury and property damage.</p>

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

Identification



Battery-powered Cable Cutter

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

Specifications

Weight (with battery).....	5.8 kg (12.5 lb)
Overall Length	39.4 cm (15.5")
Width	80 mm (3")
Height.....	31.8 cm (12.5")
Maximum Cable Cutting Diameter	45 mm (1-3/4")
Motor.....	Direct-Current Permanent Field Motor
Motor Voltage.....	12 VDC
Charging Voltage.....	12 V
Charging Time	1 hour
Cutting Performance	approximately 70/charge
Hydraulic Oil	50 ml (0.1 pint) Shell Tellus® T 15
Sound Level.....	75 dB (A) at 1 meter
Vibrations.....	<2.5 m/s ²
Capacity:	
ACSR.....	1590 kcmil (Falcon 54/19)
Guy Strand	16 mm dia. (5/8" dia.)
EHS Guy Strand	13 mm dia. (1/2" dia.)
Copper and Aluminum Cable.....	8002 mm (1500 kcmil)
Ground Rod.....	16 mm dia. (5/8" dia.)
Rebar (Schedule 60).....	13 mm dia. (1/2" dia.)
Wire Rope.....	16 mm dia. (5/8" dia.)

Operation

Charging the Battery

Read the instructions supplied with the charger for explanation of proper use.

Testing the Battery

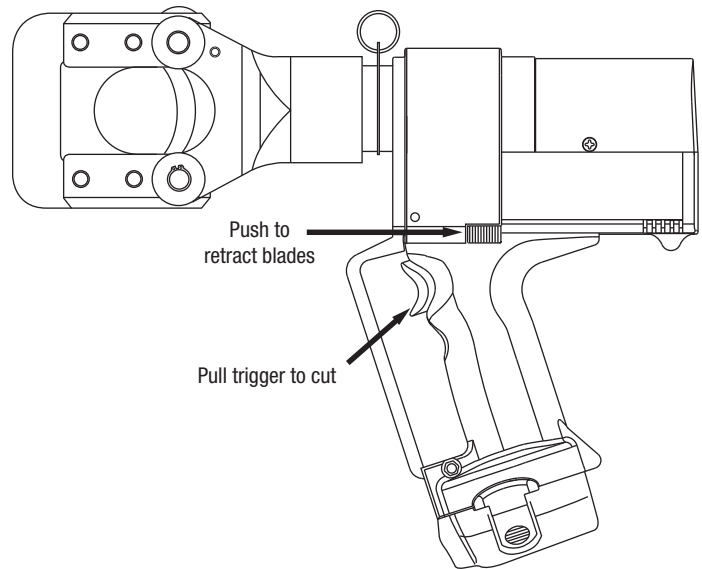
A flickering battery load display indicates a low charge level. A constant light when the tool is in neutral also indicates a low charge.

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 using the pull pin.
2. Position the cable in the open cutting head.
3. Close the cutting head and insert pull pin.
4. Pull the trigger. The blades will begin to close.
5. When the cut is completed, the ram will retract 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 defects, such as cracks, gouges or chips.
2. Inspect the cutter for damage or leaks. If damage is detected, return the tool to an authorized Greenlee service center.

	⚠ WARNING
	<p>Skin injection hazard:</p> <p>Do not use hands to check for oil leaks. Oil under pressure easily punctures skin. If injured, seek medical attention immediately to remove oil.</p> <p>Failure to observe this warning could result in serious injury, gangrene, or death.</p>

After use:

1. With a slightly damp cloth and a mild detergent, wipe clean and dry all exposed surfaces.

	⚠ 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 blades, Place the cable cutter in the carrying case. Store in a cool, dry place.
3. Fully discharged batteries should be recharged so that they are ready for use. (Refer to battery charger instructions.)

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>

General

The hydraulic oil needs to be changed annually or every 8000 cuts.

Store the cable cutter in the carrying case when it is not in use.

Checking the Oil Level

1. Remove the two screws holding the tank housing cover.
2. Remove the tank housing cover.
3. Point the cutting head towards the ground and remove the oil plug. Refill reservoir if necessary.
4. Replace the oil plug and the tank housing cover.

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 cable cutter.
3. Reinstall battery and check the tool again.

Problem	Probable Cause	Probable Remedy
Tool is inoperative.	Dirt, contaminants, etc., in ram area of tool. Crimper battery contacts damaged. Tool components worn or damaged.	Clean tool. Reform contacts. Return tool to an authorized Greenlee service center.
Cutting blades stop during operation.	Oil level is low. Air in hydraulic system.	Check oil level. Refill reservoir. 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. Oil plug not installed properly.	Return tool to an authorized Greenlee service center. Refill reservoir and replace plug.

Service

Should your battery-powered cable cutter require service, return it to an authorized Greenlee service center.

Customer Center and Field Service: 800/435-0786

Fax (24 Hour) Customer Center: 800/451-2632 or 815/397-1865

Disassembly (refer to Illustrations)

1. Remove battery.
2. Remove pin (31). Remove cutting blade (26).
3. Loosen two screws (17).
4. Unscrew and remove head assembly.
5. Remove spring (18) and piston (21). Replace the piston O-ring (15) and piston backup ring (16).
6. Unscrew two tank cover screws (53) and remove tank cover (58).
7. Remove the hydraulic reservoir plug (76) and drain hydraulic fluid.
8. Reinstall plug.
9. Remove the remaining housing screws (51, 53).
10. Remove right housing half (59).
11. Remove trigger cover (56).
12. Lift pump/motor assembly and circuit card from left housing half (60). Lift 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 shoulder bolt (99) and remove release lever (107).
15. Remove screws (108) and separate the gear housing/motor subassembly from pump housing.
16. Use a hooked tool to remove the reservoir O-ring (80). Gently tug it over the reservoir.
17. Remove the reservoir (74).
18. Remove pump piston (152).
19. Remove screw plug (151), washer (153), pump piston (150), valve stem (156), and spring (155). Replace sealing washer (154).
20. Use a piece of tape to mark the side of the relief (126) that is facing up. (This is a reference point for reassembly.) Remove unloading valve by unscrewing the plug (126).
21. Remove feeder tube subassembly by unscrewing feeder tube (78). Replace the oil filter (77). Remove metal chips from magnet (82).
22. Remove threaded bushing (72) and replace O-ring (73).

Motor / Gearbox / Bearing Disassembly

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

Reassembly

Motor / Gearbox / Bearing Reassembly

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

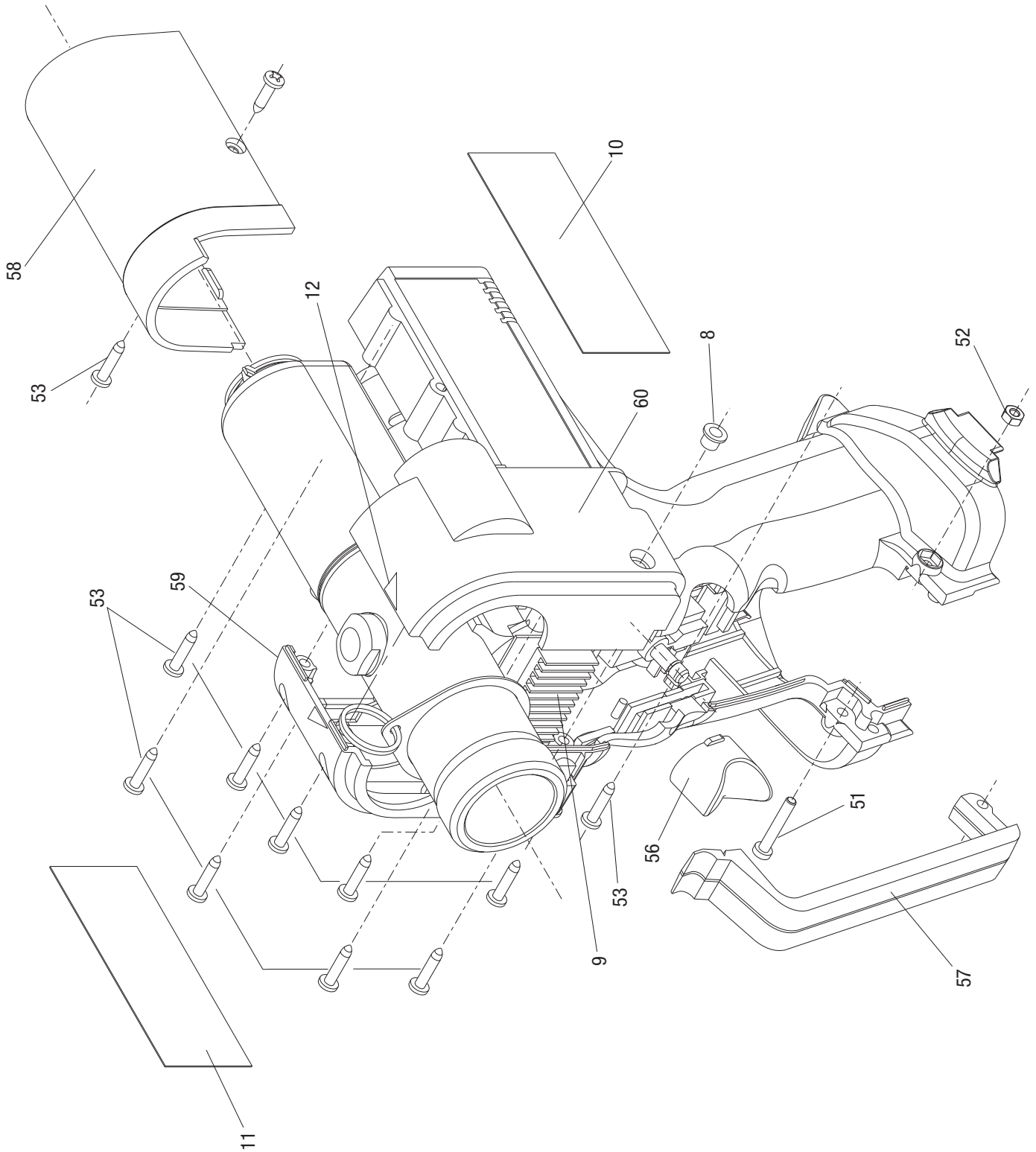
Pump Subassembly

8. Insert pump piston (152) into pump housing.
9. Insert seal (122) and unloading valve assembly into pump housing. Grasp needle valve subassembly by the pressure relief (126) and twist it several turns clockwise. Stop when the mark or piece of tape is facing up.
10. Assemble pump piston (150), valve stem (156), washer (153), spring (155) and screw plug (151). Be sure to replace sealing washer (154). Torque screw plug (151) to 75 ft-lb.
11. Install release lever (107) so that the forked end engages the unloading valve subassembly between the pressure relief (126) and the support ring (127). Install screw (99) and washer (104).
12. Insert threaded bushing (79) and feed tube subassembly (77, 78, 82). Screw in until snug.
13. Install 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.
14. Insert the plug (76) into the reservoir.

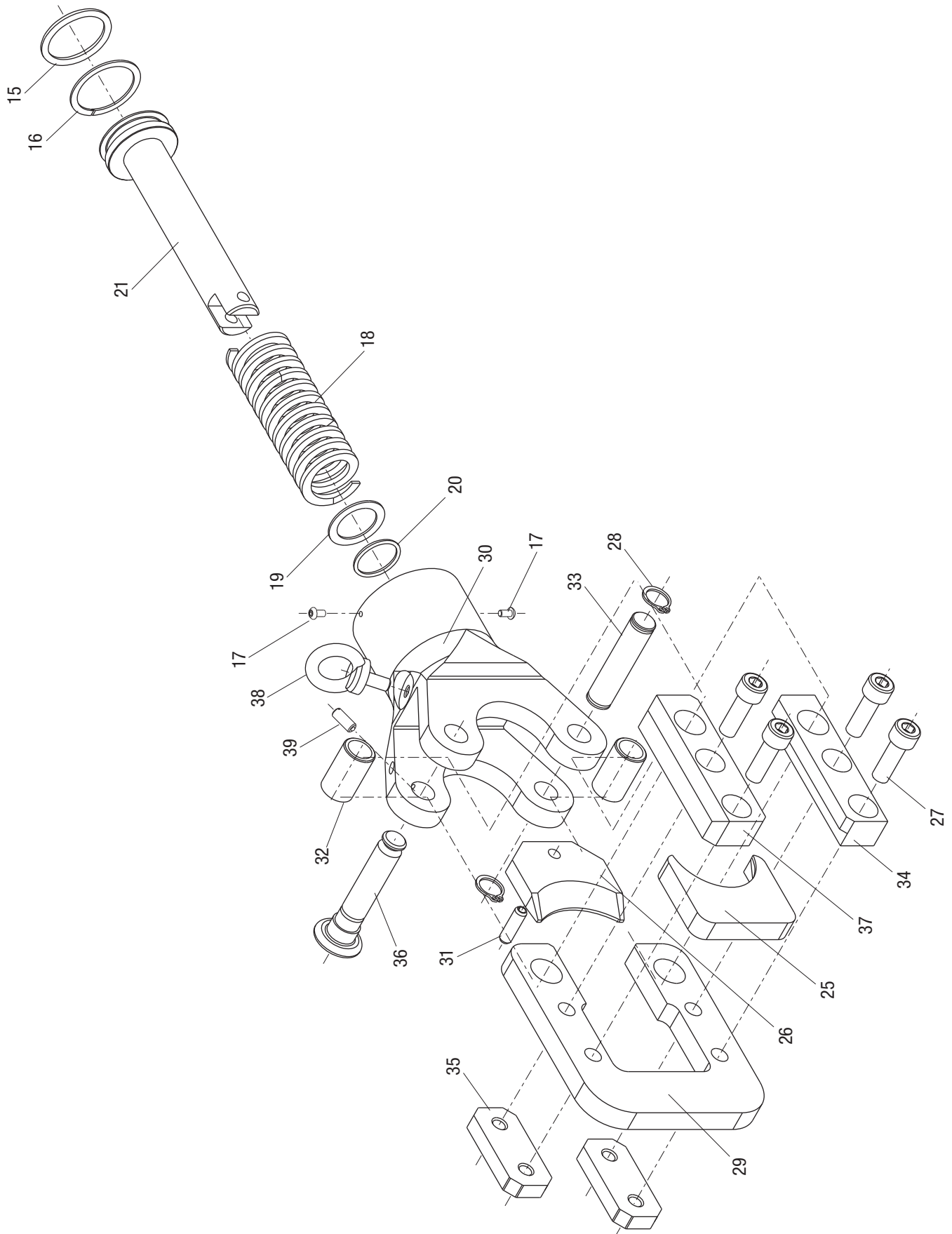
Misc. Components Reassembly

15. Remove the protective plastic bag from the electronics subassembly. Insert the LED into the LED bushing (8).
16. 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.
17. Lay the wires into case. Be sure that the wires will not be pinched.
18. Guide the wires for the battery clip so the battery wires lay on top of the electronics box; install the battery clip so the red wire is upward.
19. Install the trigger cover (56). Depress and release the trigger to be sure that it operates freely.
20. Locate the right housing half (59) on top of the left housing half (60). Check for pinched wires.
21. Install the housing screws (51, 53).
Note: Handle screw (51) must engage the nut (52).
22. Install the piston (21).
23. Install the spring (18).
24. 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 (17). Be sure that the cutting head assembly rotates freely approximately 350°.
25. Install the cutting blade (26). Insert the pin (31) through the ram.
26. 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.
27. Install the battery.
28. Squeeze the trigger while depressing the release lever for 45–60 seconds. Fill the reservoir with hydraulic oil. Replace the fill plug (76).
29. Replace the tank cover (58) and tank cover screws (53).

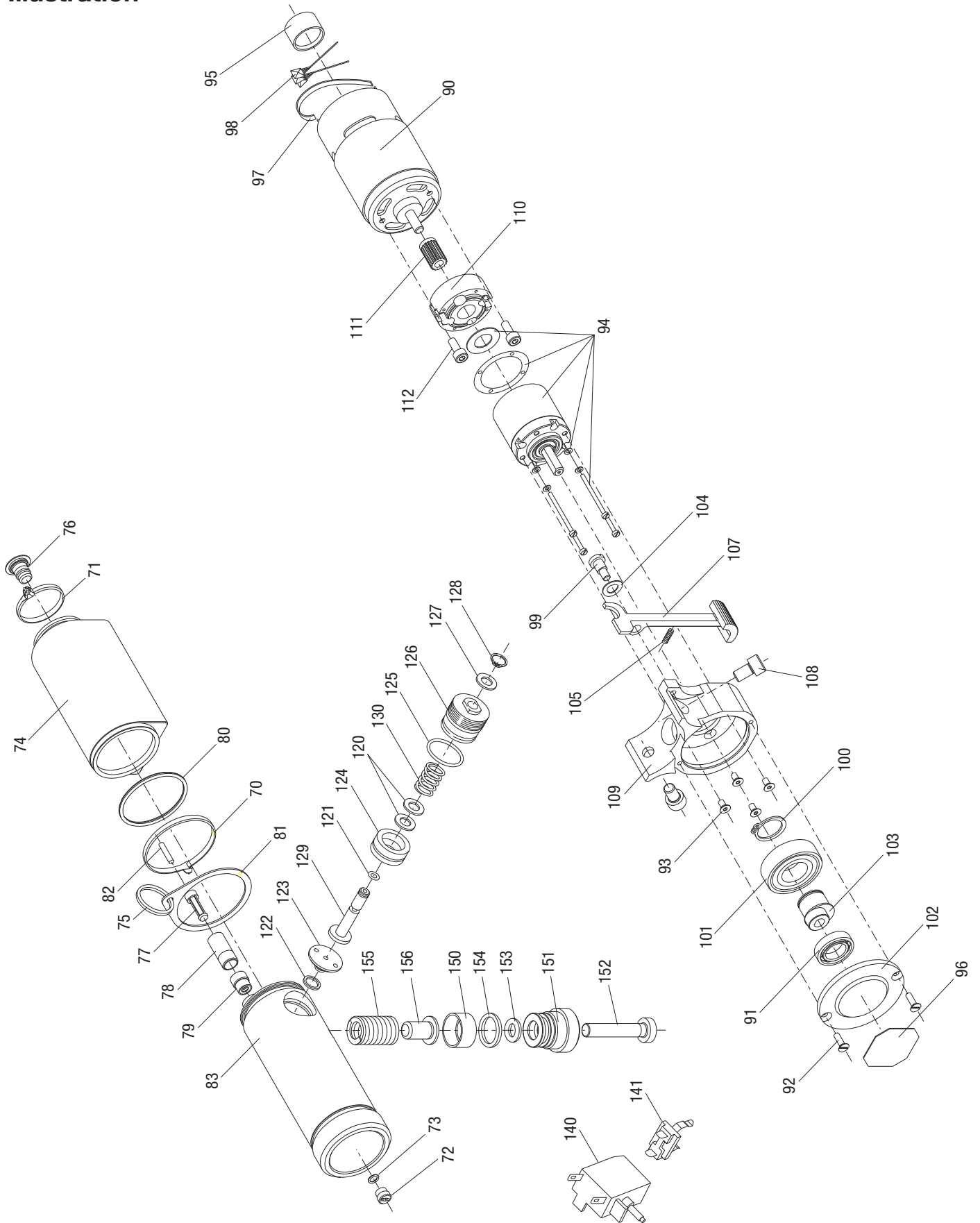
Illustration



Illustration



Illustration



Parts List

Key	Part No.	Description	Qty
1	50103946	Head and Ram Unit (15–39)	
2	50013459	Housing Unit (51–61)	
3	50013467	Pump Housing, Reservoir Assembly (70–83)	
4	50013491	Motor Assembly (90–112)	
5	50059033	Relief Valve Assembly (120–130)	
6	50013475	Electrical Assembly (140–144)	
7	50013483	Piston Pump Assembly (150–156)	
8	50042416	Bushing LED	1
9	50071769	Circuit board, programmed	1
10	50103086	Decal, identification.....	1
11	50103094	Decal, warning	1
12	50062140	Decal, pinch hazard	1
13	50063340	Oil (not shown)	1
15*		O-ring	3
16*		Backup ring, piston	1
17	50041681	Screw	2
18	50058258	Compression spring.....	2
19	50058371	Adapter disk.....	2
20*		O-ring	1
21	50103962	Piston	1
25	50103970	Stationary blade.....	1
26	50103989	Cutting blade.....	1
27	50103997	Screw	4
28	50104004	Snap ring.....	2
29	50104012	Cutting head	1
30	50104020	Cutting head base.....	1
31	50106600	Pin, 8 x 20	1
32	50104039	Sleeve	2
33	50104047	Pin1	
34	50104055	Guide plate.....	1
35	50104063	Side plate	2
36	50104071	Pull pin	1
37	50104080	Brace plate.....	1
38	50104098	Pin, 3 x 18	1
39	50104101	Screw	1
	50013459	Housing unit (green) (includes item 51-60)	1
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

Parts List (cont'd)

Key	Part No.	Description	Qty
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
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

Parts List (cont'd)

Key	Part No.	Description	Qty
120	50058606	Washer	2
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
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 †)	
	50017586	Blade/pin kit (includes items 26 and 31)	
	50104110	Case w/inserts	
	50029991	12V Battery NiCd	
	50030469	12V Charger 110 VAC	
	50030477	12V Charger 220 VAC	
	50030485	12V Charger 12 VDC	



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