

# CHICAGO<sup>®</sup> Electric Power Tools

## TELESCOPING POLE SAW

### Model 96405

### SET UP AND OPERATING INSTRUCTIONS



Diagrams within this manual are not drawn proportionally.

Due to continuing improvements, actual product may differ slightly from the product described herein.



3491 Mission Oaks Blvd., Camarillo, CA 93011

Visit our website at: <http://www.harborfreight.com>



**Read this material before using this product.  
Failure to do so can result in serious injury.  
SAVE THIS MANUAL.**

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**For technical questions or replacement parts, please call 1-800-444-3353.**

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## SAVE THIS MANUAL

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Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

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## IMPORTANT SAFETY INFORMATION

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In this manual, on the labeling, and all other information provided with this product:



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

 **DANGER**

**DANGER** indicates a hazardous situation which, if not avoided, will result in death or serious injury.

 **WARNING**

**WARNING** indicates a hazardous situation which, if not avoided, could result in death or serious injury.

 **CAUTION**

**CAUTION**, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

**NOTICE**

**NOTICE** is used to address practices not related to personal injury.

**CAUTION**

**CAUTION**, without the safety alert symbol, is used to address practices not related to personal injury.

## GENERAL SAFETY RULES



### **WARNING! Read all instructions**

**Failure to follow all instructions listed below may result in electric shock, fire, and/or serious injury.** The term “power tool” in all of the warnings listed below refers to your mains-operated (corded) power tool.

### SAVE THESE INSTRUCTIONS

1. **Work area safety**
  - a. Keep work area clean and well lit. *Cluttered or dark areas invite accidents.*
  - b. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. *Power tools create sparks which may ignite the dust or fumes.*
  - c. **Keep children and bystanders away while operating a power tool.** *Distractions can cause you to lose control.*
2. **Electrical safety**
  - a. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. *Unmodified plugs and matching outlets will reduce risk of electric shock.*
  - b. Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators. *There is an increased risk of electric shock if your body is earthed or grounded.*
  - c. **Do not expose power tools to rain or wet conditions.** *Water entering a power tool will increase the risk of electric shock.*
  - d. **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** *Damaged or entangled cords increase the risk of electric shock.*
  - e. When operating a power tool outdoors, use an extension cord suitable for outdoor use. *Use of a cord suitable for outdoor use reduces the risk of electric shock.*
3. **Personal safety**
  - a. Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. *A moment of inattention while operating power tools may result in serious personal injury.*
  - b. **Use safety equipment. Always wear eye protection. Safety equipment such as dust mask, non-skid safety shoes, heavy-duty work gloves, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.**

- c. Avoid accidental starting. Ensure the switch is in the “OFF” position before plugging in. *Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.*
- d. Remove any adjusting key or wrench before turning the power tool on. *A wrench or a key left attached to a rotating part of the power tool may result in personal injury.*
- e. Do not overreach. Keep proper footing and balance at all times. *This enables better control of the power tool in unexpected situations.*
- f. Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. *Loose clothes, jewelry or long hair can be caught in moving parts.*

#### 4. **Power tool use and care**

- a. Always plug this tool into a GFCI equipped 120V electrical outlet.
- b. Do not force the power tool. Use the correct power tool for your application. *The correct power tool will do the job better and safer at the rate for which it was designed.*
- c. Do not use the power tool if the switch does not turn it on and off. Do not use if the Safety Switch does not operate properly. *Any power tool that cannot be controlled with the switch is dangerous and must be repaired.*
- d. **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.**
- e. **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.**
- f. Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use. *Many accidents are caused by poorly maintained power tools.*
- g. Keep cutting tools sharp and clean. *Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.*
- h. Use the power tool in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed. *Use of the power tool for operations different from those intended could result in a hazardous situation.*

## 5. Service

- a. Have your power tool serviced by a qualified repair person using only identical replacement parts. *This will ensure that the safety of the power tool is maintained.*

## SPECIFIC SAFETY RULES

1. Only use the Pole Saw to cut wood. Never attempt to cut masonry, metal or any other material with the Pole Saw.
2. Clear the work area before beginning a cutting project, and plan a path of retreat to avoid falling branches.
3. Only use this tool while standing on a firm, level surface. Do not use this tool while mounted on a ladder or standing on any unstable platform.
4. Do not stand directly underneath the branch being cut. Always cut at no more than a 60° angle to the branch and extend the telescopic arm of the Pole Saw for best possible clearance.
5. Be mindful of where the branch will fall. Do not use within 50' of overhead power lines or above anything that could be damaged by falling branches.
6. Use extreme caution when cutting branches. Branches under tension could spring back and cause severe injury. Slender branches can catch in the chain and whip back towards the operator.
7. Do not address the tip of the Pole Saw to the material being cut, as it can kick back violently causing severe injury.
8. Maintain labels and nameplates on the tool. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
9. Avoid unintentional starting. Prepare to begin work before turning on the tool.
10. Do not lay the tool down until it has come to a complete stop. Moving parts can grab the surface and pull the tool out of your control.
11. When using the Pole Saw, maintain a firm grip on the tool with both hands to resist torque when cutting.
12. Do not leave the tool unattended when it is plugged into an electrical outlet. Turn off the tool, and unplug it from its electrical outlet before leaving.
13. This product is not a toy. Keep it out of reach of children.
14. **DANGER!** People with pacemakers should not use chain saws. Chain saws produce strong electromagnetic fields that can cause pacemaker interference or

pacemaker failure. People with pacemakers should consult their physician(s) for advice.

15. Some dust created by power sanding, sawing, grinding, drilling, and other construction activities, contains chemicals known [to the State of California] to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
- Lead from lead-based paints
  - Crystalline silica from bricks and cement or other masonry products
  - Arsenic and chromium from chemically treated lumber
- Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles. (California Health & Safety Code § 25249.5, *et seq.*)

### **Kickback Precautions**

16. Kickback is a dangerous reaction that can lead to serious injury. Kickback may occur when the moving Chain contacts an object at the upper portion of the tip of the Guide Bar or when the wood closes in and pinches the Saw Chain in the cut. Contact at the upper portion of the tip of the Guide Bar can cause the Chain to dig into the wood and stop the Chain for an instant. The result is a quick, reverse reaction which kicks the Guide Bar up and back toward the operator. If the Chain is pinched along the top of the Guide Bar, the Guide Bar can be driven rapidly back toward the operator. Either of these reactions can cause loss of Pole Saw control which can result in serious injury. Do not rely only upon the safety devices built into the Pole Saw. As an operator, you should take several steps to keep the cutting job free from accident or injury:
- Make sure the area in which you are cutting is free from obstructions. Do not allow the nose of the Guide Bar to contact a log, branch, fence, or any other obstruction while you are operating the tool.
  - Always cut with the Engine running at full speed. Fully squeeze the Throttle and maintain a steady cutting speed.
  - Always keep the Chain clean and sharp.
  - Keep all guards and safety devices in proper working order and properly adjusted.
  - Never use the Pole Saw on a ladder or unstable support.
  - Before starting the Engine, make sure the Chain is not contacting any object.
  - Shut off the Engine, and make sure the Chain has stopped before setting the tool down.
17. The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be

understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

## **SAVE THESE INSTRUCTIONS.**

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### **GROUNDING**

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#### **WARNING**

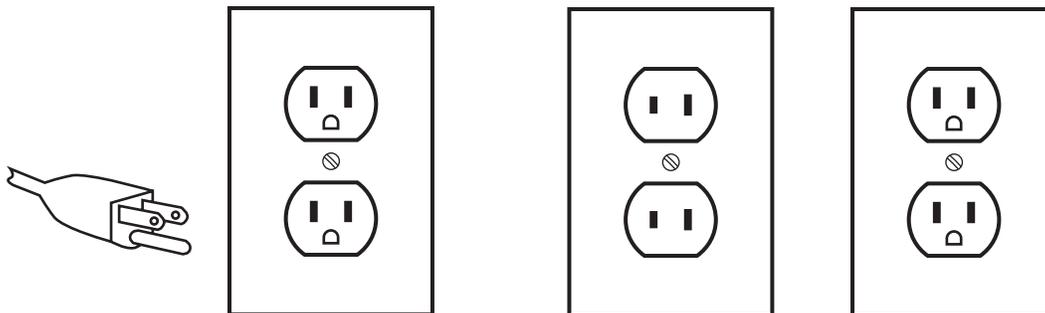
Improperly connecting the grounding wire can result in electric shock.



Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. Do not modify the power cord plug provided with the tool. Never remove the grounding prong from the plug. Do not use the tool if the power cord or plug is damaged. If damaged, have it repaired by a service facility before use. If the plug will not fit the outlet, have a proper outlet installed by a qualified electrician.

#### **Grounded Tools: Tools with Three Prong Plugs**

1. Tools marked with “Grounding Required” have a three wire cord and three prong grounding plug. The plug must be connected to a properly grounded outlet. If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user, reducing the risk of electric shock. **(See 3-Prong Plug and Outlet.)**
2. The grounding prong in the plug is connected through the green wire inside the cord to the grounding system in the tool. The green wire in the cord must be the only wire connected to the tool’s grounding system and must never be attached to an electrically “live” terminal. **(See 3-Prong Plug and Outlet.)**
3. The tool must be plugged into an appropriate outlet, properly installed and grounded in accordance with all codes and ordinances. The plug and outlet should look like those in the following illustration. **(See 3-Prong Plug and Outlet.)**



**3-Prong Plug and Outlet**

**Outlets for 2-Prong Plug**

## Double Insulated Tools: Tools with Two Prong Plugs

1. Tools marked "Double Insulated" do not require grounding. They have a special double insulation system which satisfies OSHA requirements and complies with the applicable standards of Underwriters Laboratories, Inc., the Canadian Standard Association, and the National Electrical Code.  
**(See Outlets for 2-Prong Plug.)**
2. Double insulated tools may be used in either of the 120 volt outlets shown in the preceding illustration. **(See Outlets for 2-Prong Plug.)**

## Extension Cords

1. **Grounded** tools require a three wire extension cord. **Double Insulated** tools can use either a two or three wire extension cord.
2. As the distance from the supply outlet increases, you must use a heavier gauge extension cord. Using extension cords with inadequately sized wire causes a serious drop in voltage, resulting in loss of power and possible tool damage.  
**(See Table A.)**
3. The smaller the gauge number of the wire, the greater the capacity of the cord. For example, a 14 gauge cord can carry a higher current than a 16 gauge cord.  
**(See Table A.)**
4. When using more than one extension cord to make up the total length, make sure each cord contains at least the minimum wire size required. **(See Table A.)**
5. If you are using one extension cord for more than one tool, add the nameplate amperes and use the sum to determine the required minimum cord size.  
**(See Table A.)**
6. If you are using an extension cord outdoors, make sure it is marked with the suffix "W-A" ("W" in Canada) to indicate it is acceptable for outdoor use.
7. Make sure the extension cord is properly wired and in good electrical condition. Always replace a damaged extension cord or have it repaired by a qualified electrician before using it.
8. Protect the extension cords from sharp objects, excessive heat, and damp or wet areas.

<b>RECOMMENDED MINIMUM WIRE GAUGE FOR EXTENSION CORDS* (120/240 VOLT)</b>					
<b>NAMEPLATE AMPERES (at full load)</b>	<b>EXTENSION CORD LENGTH</b>				
	<b>25 Feet</b>	<b>50 Feet</b>	<b>75 Feet</b>	<b>100 Feet</b>	<b>150 Feet</b>
0 – 2.0	18	18	18	18	16
2.1 – 3.4	18	18	18	16	14
3.5 – 5.0	18	18	16	14	12
5.1 – 7.0	18	16	14	12	12
7.1 – 12.0	18	14	12	10	-
12.1 – 16.0	14	12	10	-	-
16.1 – 20.0	12	10	-	-	-

**TABLE A** \* Based on limiting the line voltage drop to five volts at 150% of the rated amperes.

### Symbology

	Double Insulated		Volts Alternating Current
	Canadian Standards Association		Amperes
	Underwriters Laboratories, Inc.	$n_0$ xxxx/min.	No Load Revolutions per Minute (RPM)

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## SPECIFICATIONS

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Electrical Requirements	120 V~ / 60 Hz
Motor No Load Amperage	3.5<->4.0 AMPS
Blade	8" (Cutting Capacity = 6.7")
Chain Speed	3149 Feet Per Minute
Chain Specs	Pitch: 3/8" Gauge" 0.043" Center Links 33
Oil Capacity	5.07 Ounces
Cord Information	17-5/8" L 18-AWG X 2C
Features	Built in Oiler Pole Extends from 29" to 6'2" Polarized Plug Safety Trigger Oregon® Chain

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## UNPACKING

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When unpacking, check to make sure that the item is intact and undamaged. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the cover of this manual as soon as possible.

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## SET UP INSTRUCTIONS

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Read the **ENTIRE IMPORTANT SAFETY INFORMATION** section at the beginning of this manual including all text under subheadings therein before set up or use of this product.



### **WARNING**

**Risk of accidental starting; resulting in serious personal injury. Turn the Power Switch of the tool to its "OFF" position and unplug the tool from its electrical outlet before assembling or making any adjustments to the tool.**

**Note:** For additional information regarding the parts listed in the following pages, refer to the Assembly Diagram near the end of this manual.

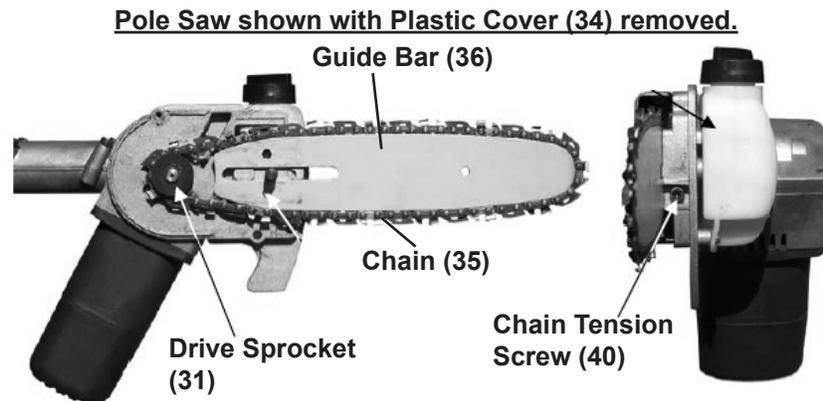
### Assembly

#### Oil Requirements.

1. The Chain of the Pole Saw requires oil to function. The Oil Tank of the Pole Saw must be kept full when in use, and drained before storage. Lubricate the Chain with a high-quality chain saw oil before each use.

2. Always turn the Power Switch of the Pole Saw to the “OFF” position, unplug it from the outlet, and allow it to cool down completely before adding oil.
3. To fill the Oil Tank (42), remove the Oil Cap (41) and add up to 5 Ounces of high-quality chain saw oil. Replace Oil Cap when full.

### **Attaching the Chain.**



1. Remove the Plastic Cover (34) and align the Chain (35) along the groove in the Guide Bar (36) and over the Drive Sprocket (31). The directional arrows on the Chain **must** correspond with the directional arrows on the Guide Bar or the Pole Saw will not function.
2. Adjust the Chain Tension Screw (40) until the Chain is secure. The Chain should not be adjusted too tightly, since it does have to be able to move. When properly adjusted, the Chain should be able to be pulled, using light force, about 1/4” away from the Guide Bar and snap back without sagging.
3. Replace the Plastic Cover before use.

### **Assembling the Telescopic Pole.**

1. Connect Aluminum Tube 1 (45) and Aluminum Tube 2 (52) with Connector 1 (46). Secure Plastic Coupling 1A (48) and Plastic Coupling 2A (51) with Screws (43), and Nuts (8, 47). Fasten with Locking Knob (50)
2. Connect Aluminum Tube 2 (52) and Aluminum Tube 3 (57) with Connector 2 (53). Secure Plastic Coupling 1B (55) and Plastic Coupling 2B (56) with Screws (43), and Nuts (8, 47). Fasten with Locking Knob (50).

## **Functions**

The Telescoping Pole Saw is designed to trim branches on trees.

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## OPERATING INSTRUCTIONS

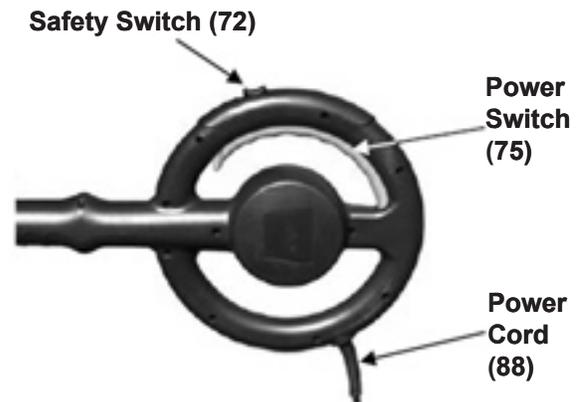
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Read the **ENTIRE IMPORTANT SAFETY INFORMATION** section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

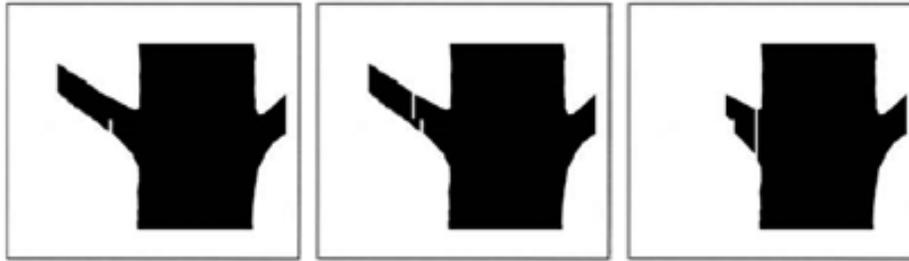
### General operating instructions

1. Turn the Power Switch of the tool to the “OFF” position and unplug the tool from the electrical outlet before assembling or making any adjustments to the tool.
2. Maintain a proper grip on the Pole Saw whenever it is running. Hold the tool with both hands. Always keep your left hand on the Front Handle (61) and your right hand on the Rear Handle (74, 86), so that your body is to the left of the Pole Saw. Never use a left-handed (cross-handed) grip or any stance which would place your body or arm across the chain line.
3. Always wear the Shoulder Strap (66) to properly support the Pole Saw when moving or using unit.
4. To activate the Saw, push the Safety Switch (72) forward and depress the Power Switch (75).
5. Allow the Saw Chain to cut for you. Exert only light downward pressure. If you attempt to force the cut, damage to the Guard Bar, Chain, or Motor can result.
6. Do not use a back and forth sawing type motion for cutting.
7. Release the Power Switch as soon as the cut is completed. Running the Pole Saw for long periods without a pause can cause unnecessary wear or damage to the Guard Bar, Chain, and Motor.



**Beware Kickback!** Never cut with tip of blade.

8. Cut longer branches down in sections for greater efficiency and safety. (See example below.)



First Cut

Second Cut

Third Cut

9. **IMPORTANT:** After running the Pole Saw for an extended period of time, allow the Engine to idle for several minutes to dissipate heat. This will prevent the Pole Saw from being damaged by overheating.
10. To prevent accidents, turn off the tool and disconnect from the power supply after use. Clean the Pole Saw, then store the tool indoors out of children's reach.

## MAINTENANCE AND SERVICING

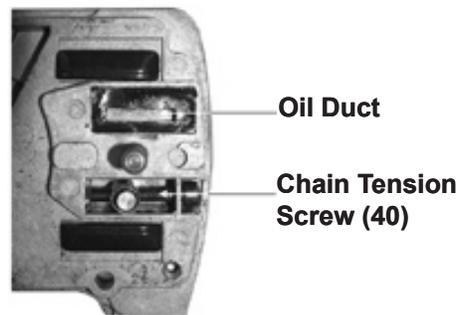
### **WARNING**

Risk of serious personal injury from accidental starting or electric shock. Turn the Power Switch of the tool to its "OFF" position and unplug the tool from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.

Damaged equipment can fail, causing serious personal injury. Do not use damaged equipment. If abnormal noise or vibration occurs, have the problem corrected before further use.

### Cleaning, maintenance, and lubrication

1. **BEFORE EACH USE**, inspect the general condition of the tool. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, damaged electrical wiring, and any other condition that may affect its safe operation.
2. **AFTER USE**, clean external surfaces of the tool with clean, moist cloth.
3. After each use, remove the Plastic Cover (34) and clean oil and sawdust out of the area underneath, especially the recess of the Chain Tension Screw (40) and oil duct, with a damp cloth or compressed air to extend the life of the Pole Saw.
4. **WARNING!** If the supply cord of this power tool is damaged, it must be replaced only by a qualified service technician.
5. Any repairs not specifically covered in this manual **MUST** be completed by a qualified service professional.



### Troubleshooting

Problem	Possible Causes	Probable Solutions
Pole Saw will not start	<ol style="list-style-type: none"> <li>1. No power at outlet.</li> <li>2. Cord not connected.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check power at outlet.</li> <li>2. Check that cord is plugged in.</li> </ol>
Pole Saw runs, but will not cut	<ol style="list-style-type: none"> <li>1. Chain is placed backwards on Guide Bar</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove Chain and reattach correctly</li> </ol>
Pole Saw only cuts when forced. Cutting yields only sawdust and large chips	<ol style="list-style-type: none"> <li>1. Chain is dull.</li> </ol>	<ol style="list-style-type: none"> <li>1. Have Chain sharpened by a professional sharpening service.</li> </ol>

<b>Problem</b>	<b>Possible Causes</b>	<b>Probable Solutions</b>
Pole Saw runs slowly and stalls easily	1. Power supply receiving low voltage.	1. Extension cord wire size is too small.
Pole Saw does not run when Power Switch is depressed.	1. Safety Switch not depressed enough to release Power Switch. 2. Extension cord connections are loose. 3. Open line fuse or circuit breaker fault. 4. Open wiring circuit on saw.	1. Press Safety Lock in before squeezing Power Switch. 2. Cord cord connections. 3. Check line fuse and circuit breaker. 4. Have the Pole Saw serviced by a qualified mechanic.
Motor of Pole Saw runs, but Chain does not move.	1. Chain tension too tight. 2. Gear Train Failure.	1. Adjust Chain Tension Screw to lower tension on Chain. 2. Have the Pole Saw serviced by a qualified mechanic.
Chain is not receiving enough oil.	1. Clogged oil slot in guide bar. 2. Oil is too thick.	1. Remove Guide Bar and clean oil slot. 2. Use lighter weight oil.
Chain comes off Guide Bar.	1. Chain is too loose. 2. Guide Bar and Chain are not assembled correctly.	1. Tighten Chain. 2. Review unit assembly.
Saw smokes.	1. Pole Saw is damaged. Do not use the Pole Saw.	1. Have the Pole Saw serviced by a qualified mechanic.
Saw leaks oil.	1. Oil Cover is not secure.	1. Tighten Oil Cover.
Guard Bar and Chain running hot and smoking.	1. Chain tension too tight. 2. Oil Tank empty.	1. Adjust Chain Tension Screw to lower tension on Chain. 2. Refill Oil Tank.

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## PLEASE READ THE FOLLOWING CAREFULLY

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THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

## PARTS LIST

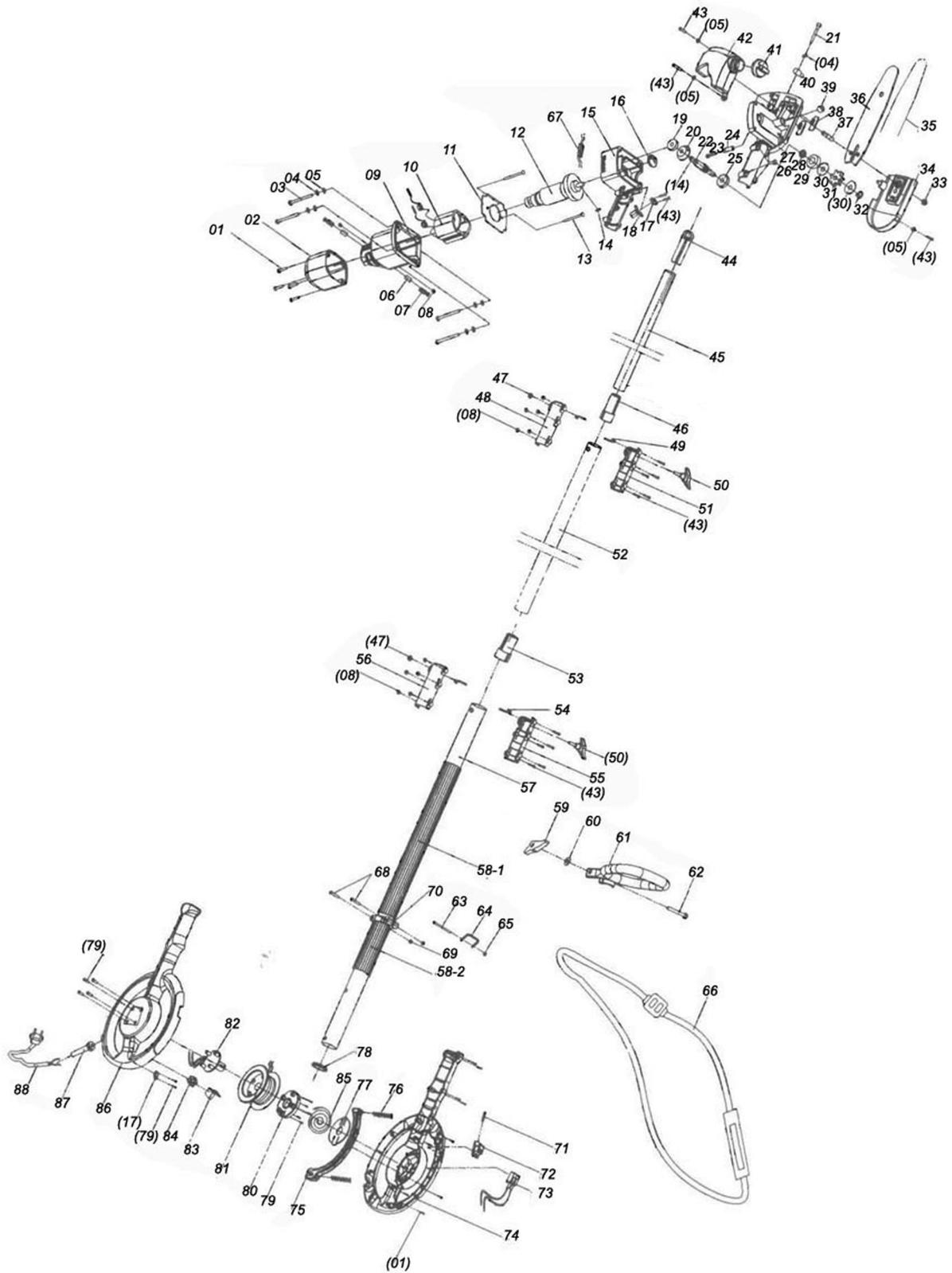
Part	Description	Part	Description	Part	Description
1	Screw ST 4x18	31	Drive Sprocket	60	Washer 16x6x1.5
2	Plastic End Cap	32	C-ring	61	Front Handle
3	Screw M5x58	33	Nut M8	62	Screw
4	Spring Washer	34	Plastic Cover	63	Retaining Screw
5	Washer 8x4.2x0.6	35	Chain	64	D-ring
6	Carbon Brush Housing	36	Guide Bar	65	Screw M3x5
7	Carbon Brush	37	Dowel Pin M8	66	Shoulder Strap
8	Nut M4	38	Plastic Slider	67	Wing Nut
9	Motor Housing	39	Oil Seal	68	Screw M5x20
10	Stator	40	Chain Tension Screw	69	Nut M5
11	Plastic Plate	41	Oil Cap	70	Plastic Bracket
12	Rotor Assembly	42	Oil Tank	71	Spring
13	Screw M4x65	43	Screw M4x15	72	Safety Switch
14	Key	44	Mounting Piece	73	Switch Assembly
15	Gear Box Housing	45	Aluminum Tube 1	74	Rear Handle Part A
16	Gleason Gear	46	Connector 1	75	Power Switch
17	Strain Relief	47	Nut M6	76	Spring
18	Strain Relief 2	48	Plastic Coupling 1A	77	Spring Housing Cover
19	Ball Bearing	49	Plastic Slider 1	78	Bushing 1
20	Output Gleason Gear	50	Locking Knob	79	Screw ST 4x10
21	Output Shaft	51	Plastic Coupling 2A	80	Plastic Spool Cover
22	Key 3x8	52	Aluminum Tube 2	81	Spool Assembly
23	Oil Pump Pin with Gear	53	Connector 2	82	Spool Shaft Assembly
24	Oil Pump Housing	54	Plastic Slider 2	83	Capacitor
25	Ball Bearing	55	Plastic Coupling 1B	84	Terminal Box
26	Adjustment Screw	56	Plastic Coupling 2B	85	Spiral Spring
27	Main Housing	57	Aluminum Tube 3	86	Rear Handle Part B
28	Bushing	58	Soft Handle	87	Cable Protection
29	Felt Seal	59	Plastic Knob for Front Handle	88	Power Cord
30	Washer				

**Record Product's Serial Number Here:** \_\_\_\_\_

**Note:** If product has no serial number, record month and year of purchase instead.

**Note:** Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

# ASSEMBLY DIAGRAM



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## LIMITED 90 DAY WARRANTY

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Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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