

Owner's Manual & Safety Instructions

Save This Manual 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.

18e

PORTLAND™

ELECTRIC **1.5 PEAK HP** **POLE SAW**



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63190

When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-888-866-5797 as soon as possible.

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⚠ WARNING

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

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SAFETY

ASSEMBLY

OPERATION

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WARNING SYMBOLS AND DEFINITIONS

	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.
	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
	Addresses practices not related to personal injury.

IMPORTANT SAFETY INSTRUCTIONS

WARNING

When using electric gardening appliances, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury, including the following:


READ ALL INSTRUCTIONS

Power Cord Safety



WARNING! - To reduce the risk of electric shock, use only with an extension cord intended for outdoor use, such as an extension cord of cord type

SW-A, SOW-A, STW-A, STOW-A, SJW-A, SJOW-A, SJTW-A. or SJTOW-A.

- Extension Cord** - Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized extension cord will cause a drop in line voltage resulting in loss of power and overheating.
- Ground Fault Circuit Interrupter (GFCI)** protection should be provided on the circuit(s) or outlet(s) to be used for the gardening appliance. Receptacles are available having built-in GFCI protection and may be used for this measure of safety.
- Do not Abuse Cord** - Do not carry appliance by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.
- To reduce the risk of electric shock, this appliance has a polarized plug (one blade is wider than the other) and will require the use of a polarized extension cord.** The appliance plug will fit into a polarized extension cord only one way. If the plug does not fit fully into the extension cord, reverse the plug. If the plug still does not fit, obtain a correct polarized extension cord.
- A polarized extension cord will require the use of a polarized wall outlet.** This plug will fit into the polarized wall outlet only one way. If the plug does not fit fully into the wall outlet, reverse the plug. If the plug still does not fit, contact a qualified electrician to install the proper wall outlet. Do not change the equipment plug, extension cord receptacle, or extension cord plug in any way. This design is referred to as double-insulated, indicated by .

Extension Cord Size

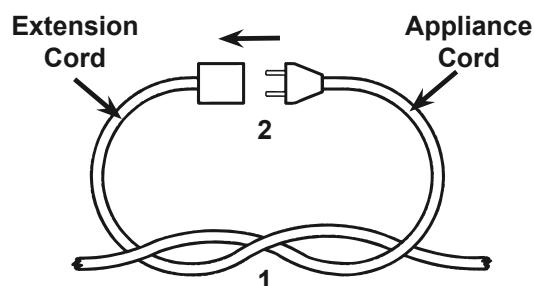
The following table shows the correct cord size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

TABLE A – MINIMUM WIRE GAUGE FOR EXTENSION CORDS (120 VOLT)				
Ampere Rating (at full load)	EXTENSION CORD LENGTH			
	25'	50'	100'	150'
0 – 6	18	16	16	14
6 – 10	18	16	14	12
10 – 12	16	16	14	12
12 – 16	14	12	Not recommended	

Connecting Cords


To reduce the risk of the cords pulling apart during operation, do one of the following:

- Make a knot as shown below then connect the cords:



- Or, use a plug-receptacle retaining strap or connector designed to hold extension cords to appliance cords.

Personal Safety

- Dress Properly** - Do not wear loose clothing or jewelry. They can be caught in moving parts. Use of rubber gloves and substantial footwear is recommended when working outdoors. Wear protective hair covering to contain long hair.
-  **Wear ANSI-approved safety goggles, hard hat and heavy-duty rubber work gloves.** Use face or dust mask if operation is dusty.
- Avoid Unintentional Starting** - Do not carry plugged-in appliance with finger on switch. Be sure switch is off when plugging in.
- Do not Overreach** - Keep proper footing and balance at all times.
- Stay Alert** - Watch what you are doing. Use common sense. Do not operate appliance when you are tired.
- DANGER! People with pacemakers should not use pole saws.** Pole saws produce strong electromagnetic fields that can cause pacemaker interference or pacemaker failure. People with pacemakers should consult their physician(s) for advice.

Gardening Appliance Use and Care

- Avoid Dangerous Environment** - Do not use appliances in damp or wet locations.
- Do Not Use In Rain.**
- Keep Children Away** - All visitors should be kept at a distance from work area.
- When servicing use only identical replacement parts.**
- Use Right Appliance** - Do not use appliance for any job except that for which it is intended.
- Do Not Force Appliance** - It will do the job better and with less likelihood of injury at the rate for which it was designed.
- Store Idle Appliances Indoors** - When not in use, appliances should be stored indoors in dry, and high or locked-up place - out of reach of children.
- Disconnect Appliance** - Disconnect the appliance from the power supply when not in use, before servicing, when changing accessories such as blades, and the like.
- Check Damaged Parts** - Before further use of the appliance, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other condition that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by a qualified technician unless indicated elsewhere in this manual.
- Carefully follow cutting procedures explained in this manual.** They are specifically planned to reduce risk to the operator.
- Lock pole in place securely before using Pole Saw.**

12. **Maintain Appliance With Care** - Keep cutting edge sharp and clean for best performance and to reduce the risk of injury. Follow instructions for lubricating and changing accessories. Inspect appliance cord periodically, and if damaged, have it repaired by an authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean, and free from oil and grease.

Vibration Hazard

This appliance vibrates during use. Repeated or long-term exposure to vibration may cause temporary or permanent physical injury, particularly to the hands, arms and shoulders. To reduce the risk of vibration-related injury:

1. **Anyone using vibrating appliances regularly or for an extended period should first be examined by a doctor and then have regular medical check-ups to ensure medical problems are not being caused or worsened from use.** Pregnant women or people who have impaired blood circulation to the hand, past hand injuries, nervous system disorders, diabetes, or Raynaud's Disease should not use this appliance. If you feel any symptoms related to vibration (such as tingling, numbness, and white or blue fingers), seek medical advice as soon as possible.
2. **Do not smoke during use.** Nicotine reduces the blood supply to the hands and fingers, increasing the risk of vibration-related injury.
3. **Wear suitable gloves to reduce the vibration effects on the user.**
4. **Use appliances with the lowest vibration when there is a choice between different processes.**
5. **Include vibration-free periods each day of work.**
6. **Grip appliance as lightly as possible (while still keeping safe control of it).** Let the appliance do the work.
7. **To reduce vibration, maintain the appliance as explained in this manual.** If any abnormal vibration occurs, stop use immediately.

General Safety

1. **Stop working when you feel tired or exhausted.** Make regular breaks to rest.
2. **Keep all parts of the body away from saw chain.** Do not remove cut material or hold material to be cut when saw chain is moving. Make sure the switch is off when clearing jammed material.
3. **Hold Pole Saw by insulated gripping surfaces only,** because the saw chain may contact hidden wiring or its own cord. Saw chains contacting a "live" wire may make exposed metal parts of the garden power tool "live" and could give the operator an electric shock.
4. **Keep power cord away from cutting area.** During operation the power cord may be hidden in shrubs and can be accidentally cut by the blade.
5. **Before use, make sure the saw chain is not contacting anything.**
6. **Hold Pole Saw with both hands on the handle.**
7. **Do not operate Pole Saw from within a tree.** Operation of tool while up in a tree may result in personal injury.
8. **Keep proper footing and operate the garden power tool only when standing on fixed, secure and level surface.** Slippery or unstable surfaces such as ladders may cause a loss of balance or control of the garden power tool.
9. **When cutting a limb that is under tension, be alert for spring back.** When the tension in the wood fibers is released, the limb may strike the operator and/or throw the tool out of control.
10. **Do not use for bore cutting, felling or bucking.**
11. **Keep bystanders and other workers at least 50 feet from the work area.**
12. **Do not operate within 50 feet of electrical lines.**
13. **Use extreme caution when cutting brush and saplings.** The slender material may catch the saw chain and be whipped around.
14. **Carry Pole Saw with tool switched off and away from your body.** Proper handling of the Pole Saw will reduce the likelihood of accidental contact with the moving saw chain.
15. **Follow instructions for lubricating, chain tensioning and changing accessories.** Improperly tensioned or lubricated chain may either break or increase the chance for kickback.

16. Kickback is the result of tool misuse and/or incorrect operating procedures or conditions.

Kickback may occur when the nose or tip of the guide bar touches an object, or when the wood closes in and pinches the saw chain in the cut.

Kickback can be avoided by taking proper precautions as given below:

- a. Maintain a firm grip, with thumbs and fingers encircling the Pole Saw handles, with both hands on the saw and position your body and arm to allow you to resist kickback forces. Kickback forces can be controlled by the operator, if proper precautions are taken. Do not let go of the garden power tool.
- b. Do not overreach. This helps prevent unintended tip contact and enables better control of the garden power tool in unexpected situations.
- c. Only use replacement bars and chains specified by the manufacturer. Incorrect replacement bars and chains may cause chain breakage and/or kickback.

- d. Follow the manufacturer's sharpening and maintenance instructions for the saw chain. Decreasing the depth gauge height can lead to increased kickback.

17. Keep handles dry, clean, and free from oil and grease.

- 18. Use for cutting wood only.** Do not use for cutting plastic, masonry or non-wood building materials.

- 19. Do not touch guide bar tip to any object.** Tip contact may cause guide bar to move suddenly upward and backwards.

- 20. Maintain labels and nameplates on the appliance.** These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.

- 21. 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.

Specifications

Electrical Rating	120VAC / 60Hz / 7A
Guide Bar	8", Sprocket Nose, Low Kickback
Saw Chain	Oregon #91 Gauge: 0.063" Pitch: 0.404 Lubrication: Bar and chain oil (sold separately) If not available, SAE 30W motor oil may be used

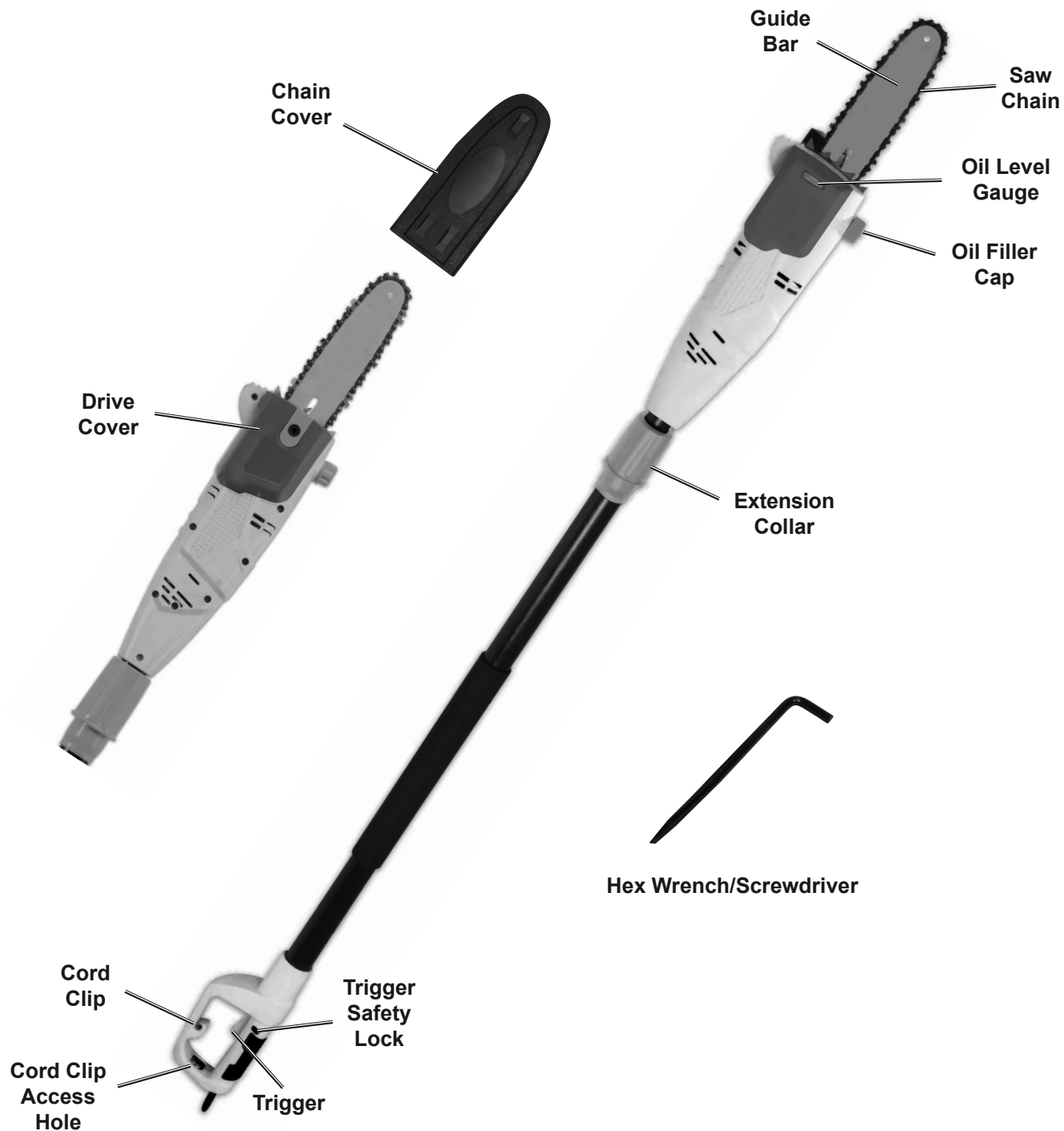
Setup - Before Use:



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.

Note: For additional information regarding the parts listed in the following pages, refer to *Parts List and Diagram* on page 14.

Functions



Assembly Instructions



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

⚠ WARNING

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:

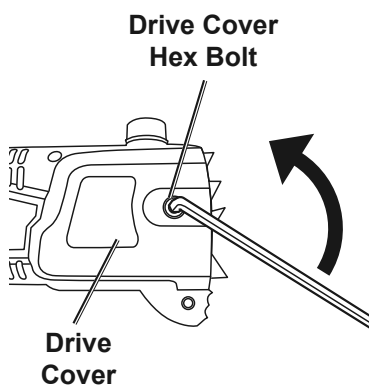
Release the Trigger and unplug the appliance from its electrical outlet before assembling or making any adjustments.

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

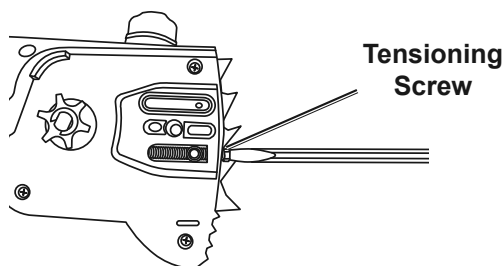
Install Guide Bar and Saw Chain

CAUTION! Wear heavy-duty work gloves when handling Saw Chain.

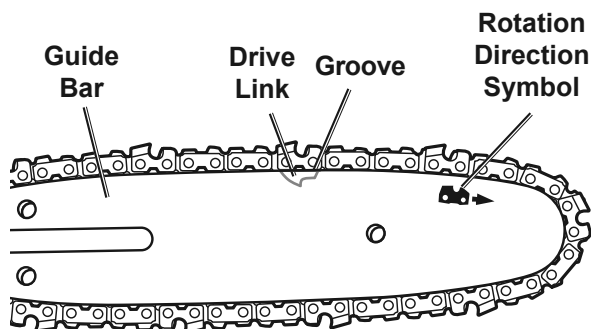
1. **BEFORE FIRST USE:** Soak Saw Chain in bar and chain oil (sold separately) overnight.
2. Remove Drive Cover Hex Bolt using Hex Wrench end of included tool, then remove Drive Cover.
5. Place Saw Chain around Drive Sprocket, place Guide Bar's lower oil hole over Tension Pin.



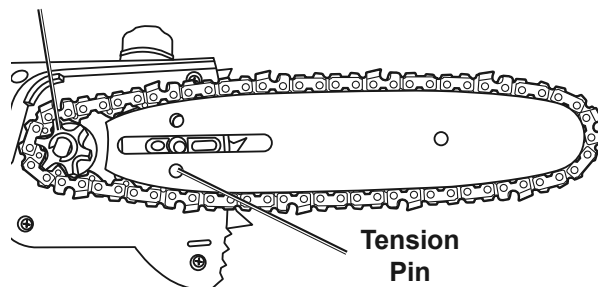
3. Loosen Tensioning Screw using Screwdriver end of tool.



4. Slide Saw Chain's drive links into Guide Bar's groove, making sure chain is installed in correct rotation direction.

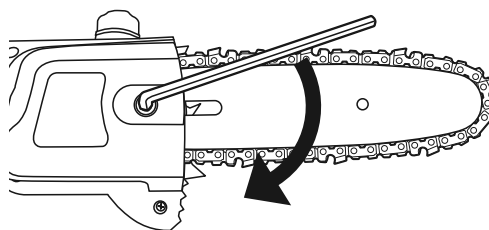


Drive Sprocket



Tension Pin

6. Tighten Tensioning Screw until bottoms of cutters contact bottom of Guide Bar, then tighten an additional 1/4 turn.
7. Replace Drive Cover, then tighten Drive Cover Hex Bolt.



8. Tension Saw Chain according to **Tension Saw Chain** on page 8.

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Tension Saw Chain

CAUTION! Wear heavy-duty work gloves when handling Saw Chain.

NOTICE: To prevent damage to Saw Chain, *do not tension hot chain*. Let chain cool before tensioning.

Check tension:

- a. Before every use.
 - b. Often during first half hour of use.
 - c. Periodically during use.
1. Snap Test: Pull Saw Chain away from bottom of Guide Bar, then let go. Saw Chain should snap back to its original position, solidly contacting bottom of Guide Bar.
 2. Pull Saw Chain by hand around Guide Bar several times, it should feel snug and move freely around Guide Bar.
 3. Adjust tension as necessary by tightening or loosening Tensioning Screw, then repeating steps 1. and 2., until proper tension is achieved.

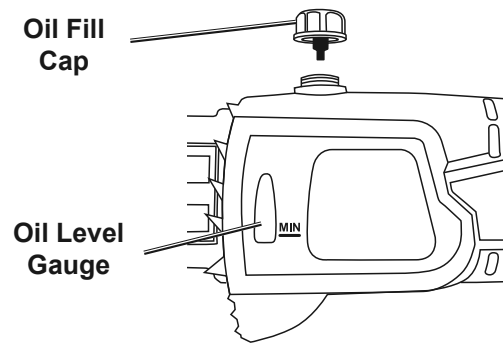
Fill Automatic Oiler Reservoir

NOTICE: To prevent damage to Saw Chain, Drive Bar and Drive Sprocket, keep Oil Reservoir full. Do not operate Pole Saw without oil. Do not put used oil in Reservoir.

Note: Oil is automatically applied to the Saw Chain during operation.

Fill Oiler Reservoir:

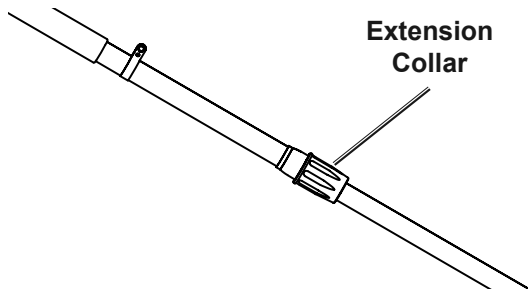
- a. Before every use.
 - b. When oil level reaches MIN mark on Oil Level Gauge.
1. Remove Oil Fill Cap.
 2. Using funnel, fill tank with bar and chain oil (sold separately).
 3. Use clean cloth to remove excess oil.
 4. Replace Oil Fill Cap and tighten.



Adjust Pole Saw Length

Loosen Extension Collar, extend pole to desired length, then tighten Extension Collar securely.

WARNING! To prevent serious injury, check Extension Collar for tightness periodically during use.



Operating Instructions



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.

- Before operating the gardening appliance, put on ANSI-approved safety goggles, hard hat and other safety gear. Safety goggles and other safety gear are sold separately.
- If an extension cord is used, ensure that it is an outdoor type extension cord and that it is the correct design to accept this appliance's plug.

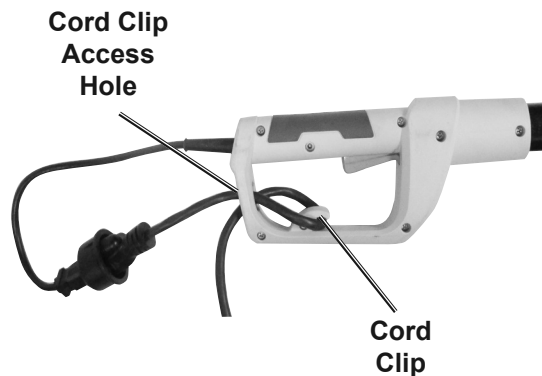


WARNING! TO PREVENT ELECTRIC SHOCK AND SERIOUS PERSONAL INJURY:

The extension cord must remain secured to the appliance's plug. Secure the extension cord by either using the knot method explained in the safety warning section, or by using a device designed specifically for retaining the extension cord.

Workpiece and Work Area Set Up

1. Designate a work area that is clean and well lit. The work area must not allow access by children or pets to prevent distraction and injury.
2. Route the extension cord along a safe route to reach the work area without creating a tripping hazard or exposing the extension cord to possible damage. The extension cord must reach the work area with enough extra length to allow free movement while working. Position the cord so that it will not be caught on branches and the like during cutting.
3. Secure the extension cord by passing it through Cord Clip Access Hole, then looping cord over Cord Clip, so there will be no tension on the connection between the Power Cord and the extension cord.



4. There must not be objects, such as utility lines, nearby that will present a hazard while working.

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Operation

⚠ DANGER

TO PREVENT SERIOUS INJURY AND DEATH:

- **Wear ANSI-approved safety goggles, hard hat and steel-toed boots during use.**
- **Avoid kick back. Do not touch Guide Bar tip to any object.** Tip contact may cause guide bar to move suddenly upward and backwards.
- **Do not operate Pole Saw with one hand.** Only hold Pole Saw with both hands. Do not stand directly under branch being cut.
- **Only stand on fixed, secure and level surface.** Do not stand on a ladder or other support.
- **Do not operate within 50 feet of electrical lines.**

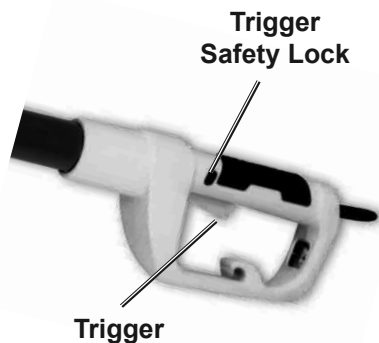
BEFORE EVERY USE:

- a. Check oil level, add oil as necessary (**see Fill Automatic Oiler Reservoir on page 8**).
- b. Run Pole Saw at half throttle for several minutes.
- c. Stop motor and **unplug Pole Saw.** Let chain cool, then check tension and adjust as necessary (**see Tension Saw Chain on page 8**).
- d. Make sure Saw Chain is sharp.

DURING EVERY USE:

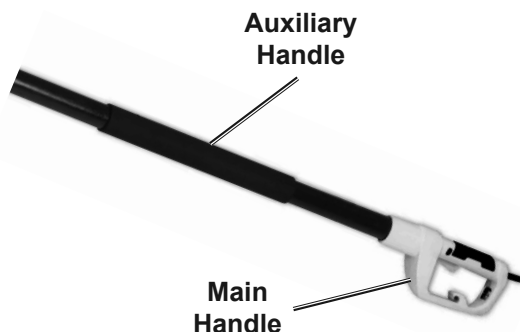
- a. Check tension often during the first half hour of use and periodically during use. Adjust tension as necessary (**see Tension Saw Chain on page 8**).
- b. Check oil level every 10 minutes of use. Fill oil reservoir when oil level reaches **MIN** mark on Oil Level Gauge (**see Fill Automatic Oiler Reservoir on page 8**).

1. Connect extension cord to 120VAC outlet.
2. To start, push and hold Trigger Safety Lock, then squeeze and hold Trigger. Release Trigger Safety Lock. To stop, release Trigger.

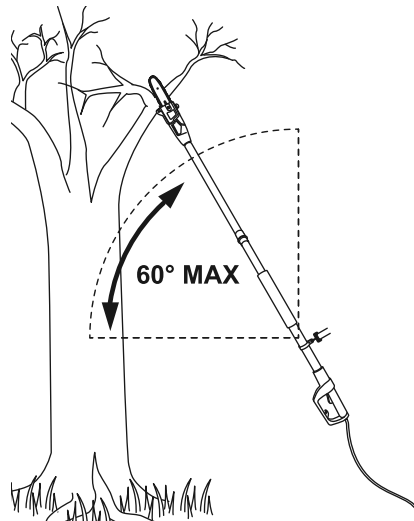


3. Make sure Automatic Oiler is distributing oil.

4. Maintain a firm grip, with thumbs and fingers encircling the Pole Saw's handles, with both hands on the saw and position your body and arm to allow you to resist kickback forces.



5. Hold the Pole Saw to the side of your body at maximum 60° from horizontal. Do not overreach.

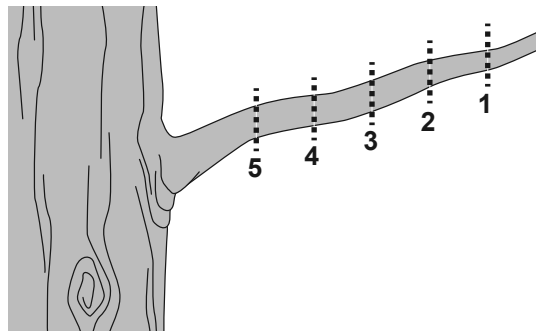


6. Make sure Saw is running at full speed before starting a cut.
7. Cut lower branches first.
8. Do not force Pole Saw, let Pole Saw do the work.
9. Remove the Pole Saw from a cut while it is running.

WARNING! To prevent serious injury, if branch starts to fall, causing the saw to bind, leave the saw and get away from where the saw and branch are likely to fall immediately.

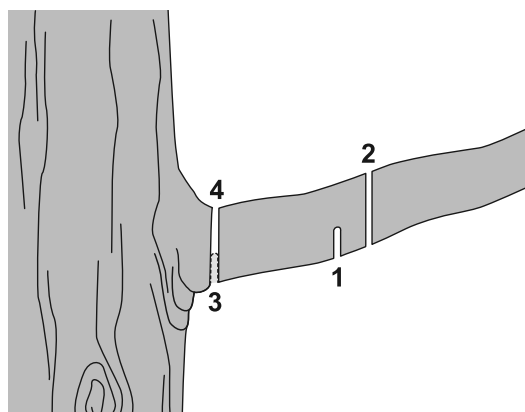
Cutting Long Branches

- a. Make first cut 4" to 6" from end of branch.
- b. Make next cuts 4" to 6" from the previous cuts, working toward the trunk.



Cutting Thick Branches:

- c. Make first cut 6" away from trunk, on underside, 1/3 way into branch.
- d. Make second cut 2" away. Sever branch from the top.
- e. Make third cut close to the trunk, on underside, 1/3 way into branch.
- f. Make fourth cut from top, severing branch.



10. When finished, release Trigger and unplug from outlet.
11. Clean, then store according to **Cleaning, Maintenance and Lubrication** on page 12.

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Maintenance And Servicing



Procedures not specifically explained in this manual must be performed only by a qualified technician.

⚠️WARNING

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION OR ELECTRIC SHOCK: Release the Trigger and unplug the appliance from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.

TO PREVENT SERIOUS INJURY FROM TOOL FAILURE: 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 hardware
 - misalignment or binding of moving parts
 - damaged cord/electrical wiring
 - cracked or broken parts
 - dull or damaged Saw Chain
 - any other condition that may affect its safe operation.
2. **BEFORE EACH USE**, tension Saw Chain and add bar and chain oil to oil reservoir.
3. **PERIODICALLY OR WHEN REPLACING SAW CHAIN**, turn the Guide Bar over to distribute the wear on it.
Replace the Guide Bar when bent, cracked, or when the Saw Chain moves excessively from side to side on the Guide Bar due to wear (**see Determining Guide Bar Wear on page 13**).
4. **AFTER USE:**
 - a. Remove Drive Cover, Saw Chain and Guide Bar.
 - b. Scrape debris loose from inside Drive Cover and around Drive Sprocket, then wipe with clean cloth and mild soap and water. *Do not use solvents. Do not immerse tool in liquid.*
 - c. Remove sawdust and sap from the Guide Bar's Groove using a bar groove cleaning tool (sold separately)
 - d. Wipe Guide Bar with clean cloth, including oil passages, then lubricate with bar and chain oil.
 - e. Wipe debris from Saw Chain, then lubricate with bar and chain oil.
 - f. Replace Guide Bar, Saw Chain and Drive Cover, leave Saw Chain loose during storage.
 - g. Clean outside surfaces with a clean, dry cloth. If necessary use mild soap and water.
 - h. Place Chain Cover over Saw Chain, then Store Pole Saw in a dry, secure location away from children.
5. **⚠️WARNING!** If the supply cord of this appliance is damaged, it must be replaced only by a qualified service technician.

Sharpening/Replacing Saw Chain

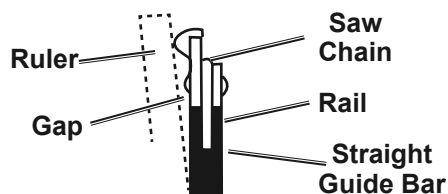
1. Have the cutters sharpened by a qualified technician when:
 - a. The sawdust becomes powder-like.
 - b. You can't make the cut without extra force.
 - c. The Pole Saw does not cut straight.
 - d. Vibration increases.
2. A Saw Chain that is damaged or too worn to be restored by sharpening will need to be replaced.

Replacing Drive Sprocket

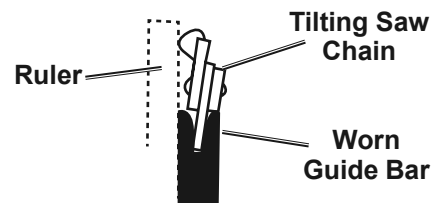
Have the Drive Sprocket replaced by a qualified technician when the Saw Chain is replaced.

Determining Guide Bar Wear

The rails of the Guide Bar groove should always be parallel to each other. Place a ruler along the side of the Guide Bar and Saw Chain. If there is a gap, the bar is normal.



If the ruler is flush with the Guide Bar and Saw Chain, or the Chain tilts to one side, then the Guide Bar is worn and needs to be replaced.



PLEASE READ THE FOLLOWING CAREFULLY

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

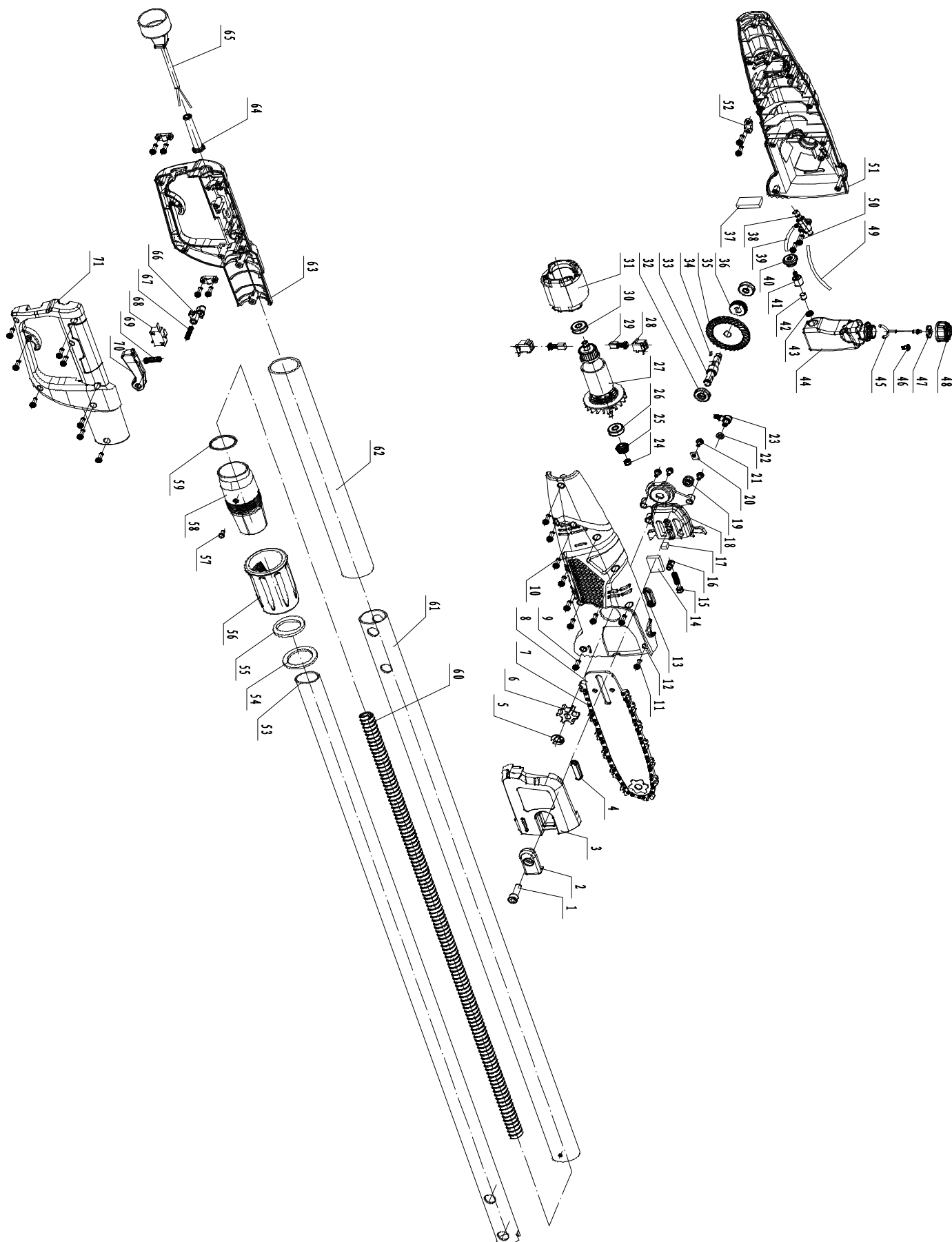
Part	Description		Part	Description	
1	Drive Cover Hex Bolt 8 x 25	1	37	Sponge Washer	1
2	Guide Bar Clamp	1	38	Oil Pump	1
3	Drive Cover	1	39	Oil Tube	1
4	Chain Cover Gasket	1	40	Oiler Blocking	1
5	Retaining Ring	1	41	Oil Filter Valve	1
6	Drive Sprocket	1	42	Oil Filter Sponge	1
7	Saw Chain	1	43	Oil Filter Cap	1
8	Guide Bar	1	44	Oiler	1
9	Pan Head Screw 4.2 x 12	11	45	Oil Cap Tether	1
10	Cup Head Screw 4.8 x 16	4	46	One Way Valve	1
11	Pan Head Screw 4.2 x 14	12	47	Oil Fill Cap Gasket	1
12	Right Housing	1	48	Oil Fill Cap	1
13	Oil Output Gasket	1	49	Oil Tube	1
14	Sponge Washer	2	50	Pan Head Screw 4.2 x 10	2
15	Adjustable Bolt	1	51	Left Housing	1
16	Stretching Screw	1	52	Cable Plate	3
17	Rubber Block	1	53	Upper Tube	1
18	Right Housing Inlay	1	54	Tube Connector	1
19	Lock Nut M8	1	55	Tube Connector Washer	1
20	Clamp	1	56	Tube Connector Sleeve	1
21	Machine Screw M4	1	57	Guide Pin	1
22	O-Ring	1	58	Tube Connector	1
23	Oil Output Connector	1	59	Retaining Ring	1
24	Lock Nut M5	1	60	Spring	1
25	Pinion	1	61	Lower Tube	1
26	Deep Groove Ball Bearing 608	2	62	Foam Handle	1
27	Rotor	1	63	Left Handle	1
28	Carbon Brush Holder	2	64	Power Cord Sheath	1
29	Carbon Brush	2	65	Power Cord	1
30	Deep Groove Ball Bearing 627	1	66	Trigger Lock	1
31	Stator	1	67	Trigger Lock Spring	1
32	Deep Groove Ball Bearing 6900	1	68	Control Switch	1
33	Output Shaft	1	69	Spring	1
34	Woodruff Key	1	70	Trigger	1
35	Large Gear	1	71	Right Handle	1
36	Worm Gear	1			

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



SAFETY

ASSEMBLY

OPERATION

MAINTENANCE

Limited 90 Day Warranty

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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