18" 14.5A ELECTRIC CHAINSAW

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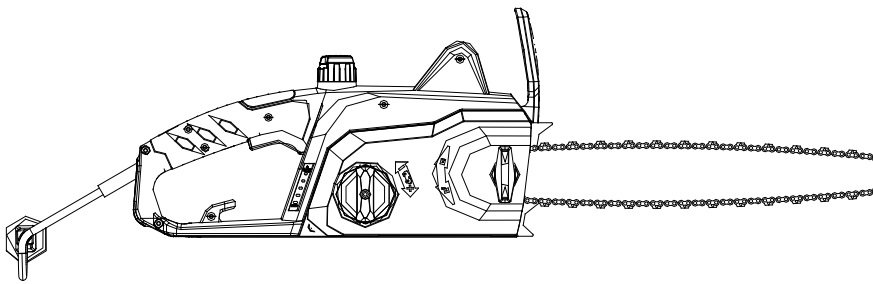

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Owner's Manual

TOLL-FREE HELPLINE: 1-888-90WORKS (888.909.6757)
www.greenworkstools.com

⚠ Read all safety rules and instructions carefully before operating this tool.

CONTENTS

Introduction 2
Specifications 2
Important Safety Instructions 3-5
General Safety Rules 6-7
Symbols 8-9
Electrical 10-11
Know Your Chainsaw 12-13
Assembly 14
Operation 15-26
Maintenance 27-36
Troubleshooting 37
Warranty 38
Exploded view 39
Parts list 40-41
Notes 42

SPECIFICATIONS

18" 14.5A ELECTRIC CHAIN SAW

Motor	120 V AC, 60 Hz, 14.5 Amp
Bar length	18" (45 cm)
Speed	6000 RPM (No load)
Chain pitch	3/8" (9.5 mm)
Chain gauge	0.05" (1.3 mm)
Chain speed	6000 RPM (no load)
Torque	1.76 N.m (1.29 ft/lbs)
Chain model #	91P062X
Bar model #	180SDEA041
Unit weight	11.44 lb (5.2 kg)

IMPORTANT SAFETY INSTRUCTIONS

⚠ W A R N I N G

Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term “power tool” in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

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.

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.

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 personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.

c) **Prevent unintentional starting. Ensure the switch is in the off position before connecting to power source and/or battery pack and when picking up or carrying the tool.** Carrying power tools with your finger on the switch or energizing 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 over-reach. 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 jewellery. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.

g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.

POWER TOOL USE AND CARE

a) **Do not force the power tool.** Use the power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.

b) **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.

c) **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.

d) **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.

e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.

f) **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

g) **Use the power tool, accessories and tool bits etc. in accordance with these instructions, 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.

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 WARNINGS

a) **Keep all parts of the body away from the saw chain when the chain saw is operating. Before you start the chain saw, make sure the saw chain is not in contact with anything.** A moment of inattention while operating chain saws may cause entanglement of your clothing or body with the saw chain.

b) **Always hold the chain saw with your right hand on the rear handle and your left hand on the front handle.** Holding the chain saw with a reversed hand configuration increases the risk of personal injury and should never be done.

c) **Hold the power tool by insulated gripping surfaces only, because the saw chain many contact hidden wiring.** Saw chains contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.

d) **Wear safety glasses and hearing protection. Further protective equipment for head, hands, legs and feet is recommended.** Adequate protective clothing will reduce personal injury by flying debris or accidental contact with the saw chain.

e) **Do not operate chain saw while up in a tree.** Operation of a chain saw while up in a tree may result in personal injury.

f) **Always keep proper footing and operate the chain saw only when standing on fixed, secure and level surface.** Slippery or unstable surfaces such as ladders may cause loss of balance or control of the chain saw.

g) **When cutting a limb that is under tension, be alert of spring back.** When the tension in the wood fibers is released, the spring loaded limb may strike the operator and/or throw the chain saw out of control.

h) **Use extreme caution when cutting brush and saplings.** The slender material may catch the saw chain and be whipped toward you or pull you off balance.

i) **Carry the chain saw by the front handle with the chain saw switched off and away from your body. When transporting or storing the chain saw always fit the guide bar cover.** Proper handling of the chain saw will reduce the likelihood of accidental contact with the moving saw chain.

j) **Follow instructions for lubricating, chain tensioning and changing accessories.** Improperly tensioned or lubricated chain may either break or increase the chance for kickback.

k) **Keep handles dry, clean, and free from oil and grease.** Greasy, oily handles are slippery, causing loss of control.

l) **Cut wood only. Do not use chain saw for purposes not intended. For example: do not use chain saw for cutting plastic, masonry or non-wood building materials.** Use of the chain saw for operations other than intended could result in a hazardous situation.

IMPORTANT SAFETY INSTRUCTIONS

⚠ WARNING (Proposition 65)
Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known 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 and other masonry products, and
- arsenic and chromium from chemically treated lumber.

Your risk of exposure to these chemicals 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 dust masks that are specially designed to filter out microscopic particles.

SAVE THESE INSTRUCTIONS. REFER TO THEM FREQUENTLY AND USE THEM TO INSTRUCT OTHERS WHO MAY USE THIS UNIT. IF YOU LOAN SOMEONE THIS UNIT, LOAN THEM THESE INSTRUCTIONS ALSO.

KICKBACK *(See Fig. 1 - 2.)*

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.

Tip contact in some cases may cause a sudden reverse reaction, kicking the guide bar up and back towards the operator.

Pinching the saw chain along the top of the guide bar may push the guide bar rapidly back towards the operator.

Either of these reactions may cause you to lose control of the saw which could result in serious personal injury. Do not rely exclusively upon the safety devices built into your saw. As a chain saw user, you should take several steps to keep your cutting jobs free from accident or injury.

Kickback is the result of tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below:

a. **Maintain a firm grip, with thumbs and fingers encircling the chain saw handles, with both hands on the saw and position your body and arm 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 chain saw.

b. **Do not overreach and do not cut above shoulder height.** This helps prevent unintended tip contact and enables better control of the chain saw 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.

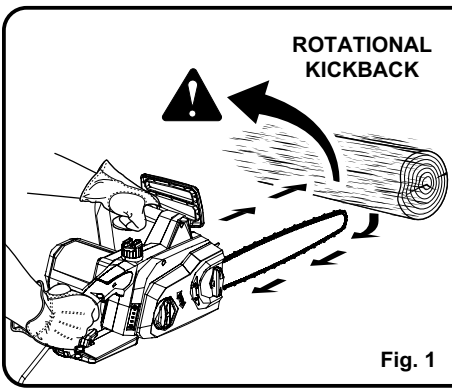


Fig. 1

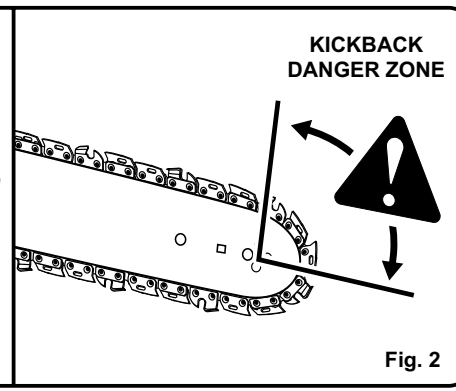


Fig. 2

• Push and Pull — This reaction force is always opposite to the direction the chain is moving where contact is made with the wood. Thus, the operator must be ready to control the PULL when cutting on the bottom edge of the bar, and the PUSH when cutting along the top edge. *(See Fig. 3)*

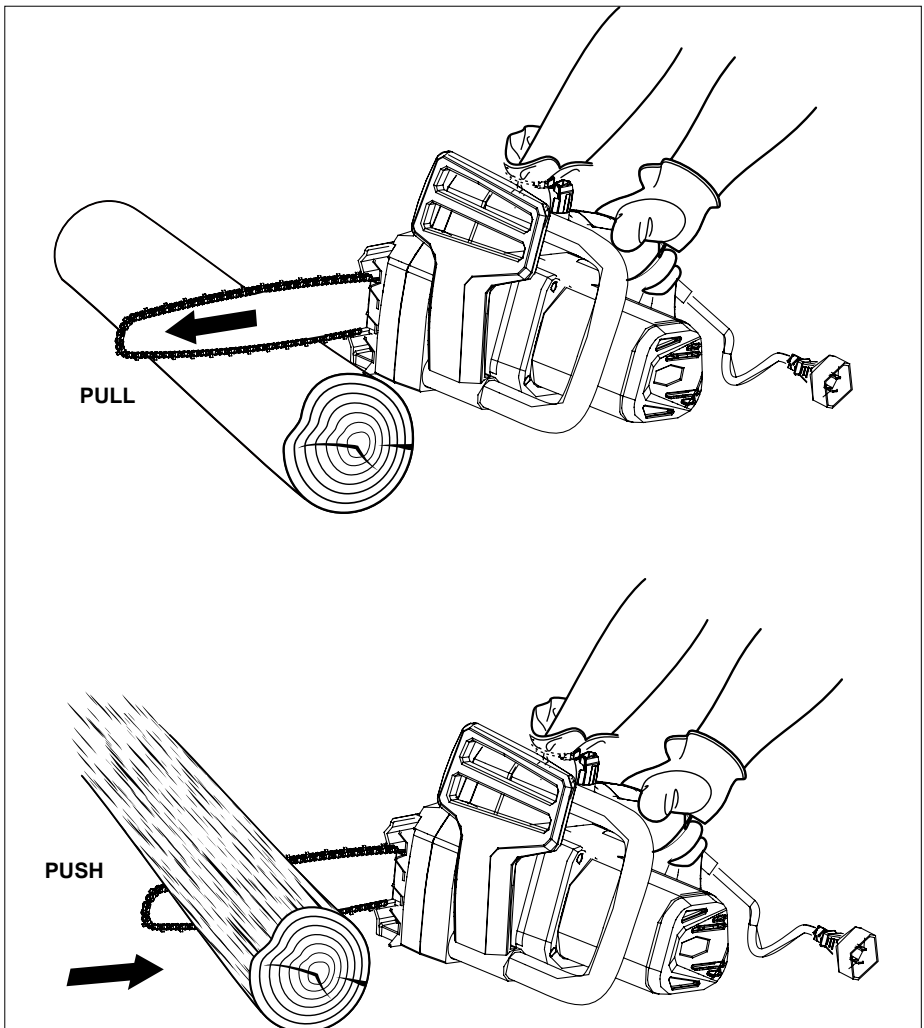


Fig. 3

SYMBOLS

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the product better and safer.

Symbol	Name	Designation/Explanation
V	Volts	Voltage.
A	Amperes	Current.
Hz	Hertz	Frequency (cycles per second).
W	Watts	Power.
min	Minutes	Time.
~	Alternating Current	Type of current.
⎓	Direct Current	Type or a characteristic of current.
n_0	No Load Speed	Rotational speed, at no load.
⧈	Class II Construction	Double-insulated construction.
/min	Per Minute	Revolutions, strokes, surface speed, orbits etc., per minute.
	Wet Conditions Alert	Do not expose to rain or use in damp locations.
	Read The Instruction Manual	To reduce the risk of injury user must read and understand instruction manual before using this product.
	Eye Protection	Wear eye protection when operating this equipment.
	Wear Ear Protection	Wear ear protection when operating this equipment.
	Safety Alert	Precautions that involve your safety.
	Operate With Two Hands	Hold and operate the saw properly with both hands.
	Electric Shock Precaution	Remove plug from the mains immediately if cable is damaged or cut.
	Kickback	DANGER! Beware of kickback.
	Bar Nose Contact	Avoid bar nose contact.
	Wear Gloves	Wear non-slip, heavy-duty protective gloves when handling the chainsaw.
	Wear Safety Footwear	Wear non-slip safety footwear when using this equipment.
	Keep Bystanders Away	Keep all bystanders at least 50' (15 m) away.
	One Handed	Do not operate the saw using only one hand.

SYMBOLS

The following signal words and meanings are intended to explain the levels of risk associated with this product.

SYMBOL	SIGNAL	MEANING
	DANGER	Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.
	WARNING	Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.
	CAUTION	ndicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.
	CAUTION	Without Safety Alert Symbol) Indicates a situation that may result in property damage.

WARNING

To avoid serious personal injury, do not attempt to use this product until you have read this Owner's Manual thoroughly and understand it completely. If you do not understand the warnings and instructions in this Owner's Manual, do not use this product. Call the Toll-free Helpline (1-888-909-6757) for assistance.

WARNING

The operation of any power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power tool operation, always wear safety goggles or safety glasses with side shields and, when needed, a full face shield. We recommend Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shields. Always use eye protection which is marked to comply with ANSI Z87.1.

ELECTRICAL

DOUBLE INSULATION

Double insulation is a concept in safety in electric power tools, which eliminates the need for the usual three-wire grounded power cord. All exposed metal parts are isolated from the internal metal motor components with protecting insulation. Double insulated tools do not need to be grounded.

NOTE: Servicing of a product with double insulation requires extreme care and knowledge of the system and should be performed only by a qualified service technician. For service, we suggest you return the product to your nearest authorized service center for repair. Always use original factory replacement parts when servicing.

⚠ WARNIN G

The double insulated system is intended to protect the user from shock resulting from a break in the tool's internal insulation. Observe all normal safety precautions to avoid electrical shock.

ELECTRICAL CONNECTION

This product has a precision-built electric motor. It should be connected to a power supply that is 120V, AC only (normal household current), 60 Hz. Do not operate this product on direct current (DC). A substantial voltage drop will cause a loss of power and the motor will overheat. If the product does not operate when plugged into an outlet, double-check the power supply.

EXTENSION CORDS *(See Figure 4)*

When using a power tool at a considerable distance from a power source, be sure to use an extension cord that has the capacity to handle the current the product will draw. An undersized cord will cause a drop in line voltage, resulting in overheating and loss of power. Use the chart to determine the minimum wire size required in an extension cord. Only round jacketed cords listed by Underwriter's Laboratories (UL) should be used.

When working outdoors with a product, use an extension cord that is designed for outside use. This type of cord is designated with "W-A" or "W" on the cord's jacket.

Before using any extension cord, inspect it for loose or exposed wires and cut or worn insulation.

A proper extension cord is available at an authorized service center.

It is possible to tie the extension cord and power cord in a knot to prevent them from becoming disconnected during use. Make the knot as shown in figure 4, then connect the plug end of the power cord into the receptacle end of the extension cord. This method can also be used to tie two extension cords together.

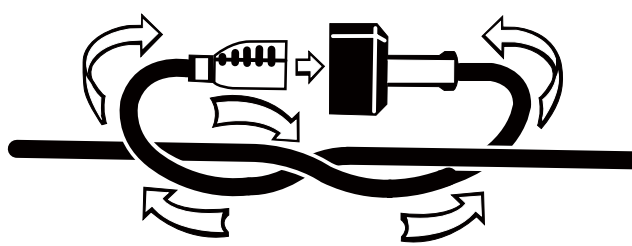


Fig. 4

**Ampere rating (on product data plate)

	0-2.0	2.1-3.4	3.5-5.0	5.1-7.0	7.1-12.0	12.1-16.0
Cord Length	**Wire Size (A.W.G.)**					
25'	16	16	16	16	14	14
50'	16	16	16	14	14	12
100'	16	16	14	12	10	—

**Used on 12 gauge - 20 amp circuit.
NOTE: AWG = American Wire Gauge

WARNING

Keep the extension cord clear of the working area. Position the cord so that it will not get caught on lumber, tools, or other obstructions while you are working with a power tool. Failure to do so can result in serious personal injury.

WARNING

Check extension cords before each use. If damaged replace immediately. Never use the product with a damaged cord since touching the damaged area could cause electrical shock resulting in serious injury.

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.

KNOW YOUR CHAINSAW

Read this operator's manual and safety rules before operating your lawn mower. Compare the illustration in Figure 5 to your chainsaw in order to familiarize yourself with the location of various controls and adjustments. Save this manual for future reference.

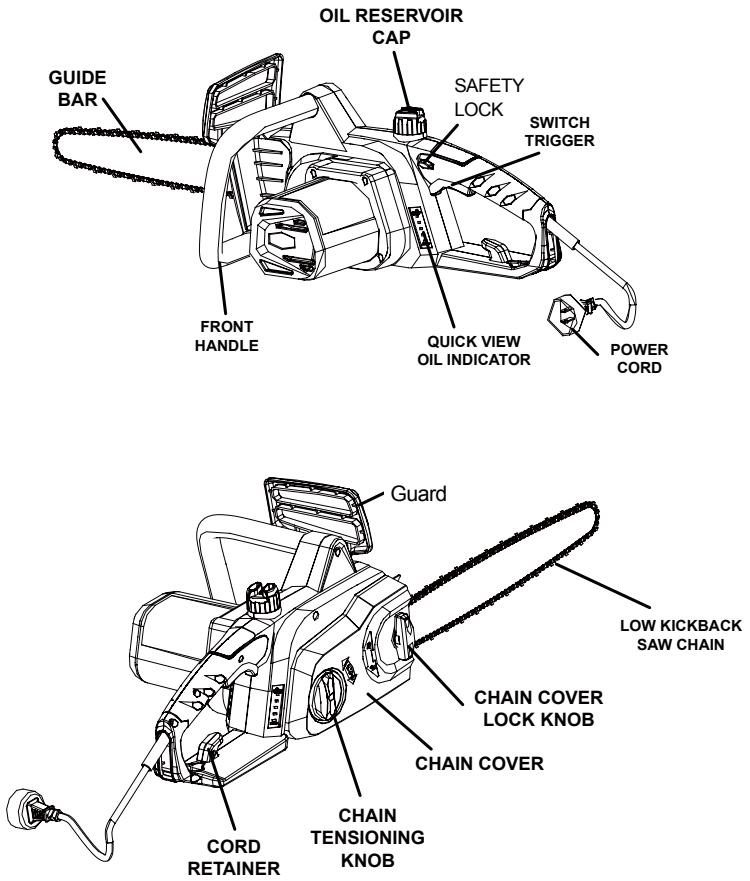


Fig. 5

KNOW YOUR CHAINSAW

The safe use of this product requires an understanding of the information on the tool and in this Owner's Manual, as well as a knowledge of the project you are attempting. Before using this product, familiarize yourself with all operating features and safety rules. (See Fig. 5)

CHAIN TENSIONING KNOB

This feature allows user to adjust the tension of the chain.

GUIDE BAR

The factory-equipped guide bar has a small radius tip that offers a somewhat lower kickback potential.

LOW-KICKBACK SAW CHAIN

The low-kickback saw chain helps minimize the force of a kickback reaction by preventing the cutters from digging in too deeply at the kickback zone.

QUICK-VIEW OIL INDICATOR

Semi-transparent oil reservoir that allows user to see when to add oil.

SAFETY LOCK

A control feature designed to prevent the motor from being started accidentally..

TRIGGER SWITCH

Squeeze the trigger switch to operate the unit after safety lock has been pushed in. Release the trigger switch to stop the unit.

ASSEMBLY

UNPACKING

This product has been shipped completely assembled.

- Carefully remove the product and any accessories from the box. Make sure that all items listed in the packing list are included.
- Inspect the product carefully to make sure no breakage or damage occurred during shipping.
- Do not discard the packing material until you have carefully inspected and satisfactorily operated the product.
- If any parts are damaged or missing, please call 1-888-909-6757 for assistance.

PACKING LIST

- Chainsaw
- Scabbard
- Owner's Manual

⚠ W A R N I N G

If any parts are damaged or missing, do not operate this product until the parts are replaced. Failure to heed this warning could result in serious personal injury.

⚠ W A R N I N G

Do not connect to power supply until assembly is complete. Failure to comply could result in accidental starting and possible serious personal injury.

⚠ W A R N I N G

Do not attempt to modify this product or create accessories not recommended for use with this product. Any such alteration or modification is misuse, and could result in a hazardous condition leading to possible serious personal injury.

⚠ W A R N I N G

Do not allow familiarity with this product to make you careless. Remember that a careless fraction of a second is sufficient to inflict serious injury.

⚠ W A R N I N G

Always wear safety goggles or safety glasses with side shields that comply with ANSI Z87.1 when operating power tools. Failure to do so could result in objects being thrown into your eyes, resulting in possible serious injury.

⚠ W A R N I N G

Do not use any attachments or accessories not recommended by the manufacturer of this product. The use of attachments or accessories not recommended can result in serious personal injury.

APPLICATIONS

You can use this product for the purposes listed below:

- Basic limbing, felling, and woodcutting
- Removing buttress roots

ADDING BAR AND CHAIN LUBRICANT *(See Fig. 6)*

Use a lubricant that is designed for chains and chain oilers, and is formulated to perform over a wide temperature range with no dilution required.

NOTE: The chainsaw comes from the factory with no bar and chain oil added. Level should also be checked after every 20 minutes of use, and refilled as needed.

- Remove oil cap.
- Carefully pour the bar and chain oil into the tank.
- Wipe off excess oil.
- Check and fill the oil tank when quick-view oil indicator is below the MIN. line.
- Repeat as needed.

NOTE: Do not use dirty, used or otherwise contaminated oils. Damage may occur to the bar or chain.

NOTE: It is normal for oil to seep from the saw when not in use. To prevent seepage, empty the oil tank after each use, then run for one minute. When storing the unit for a long period of time (three months or longer), be sure the chain is lightly lubricated. This will prevent rust on the chain and bar sprocket.

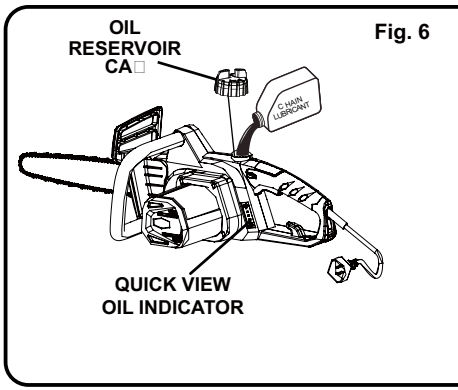


Fig. 6

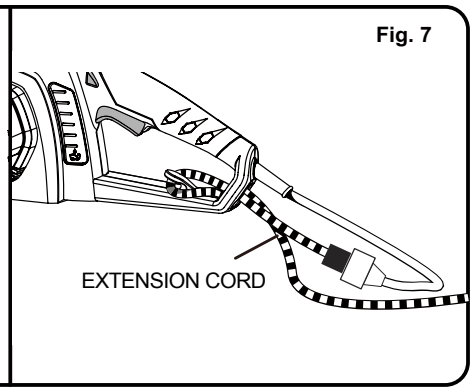


Fig. 7

CONNECTING TO POWER SUPPLY *(See Fig. 7)*

This chainsaw is designed with a cord retainer that prevents the extension cord from being pulled loose while using.

- Form a loop with the end of the extension cord.
- Insert loop portion of extension cord through the opening in the side of the rear handle, and place over cord retainer.
- Slowly pull loop against cord retainer until the slack is removed.
- Plug chainsaw into extension cord.

NOTE: Failure to remove all excess cord slack from extension cord retainer could result in plug loosening from receptacle.

STARTING AND STOPPING THE CHAINSAW *(See Fig. 8)*

⚠ W A R N I N G

Keep body to the left of the chain line. Never straddle the saw or chain, or lean over past the chain line.

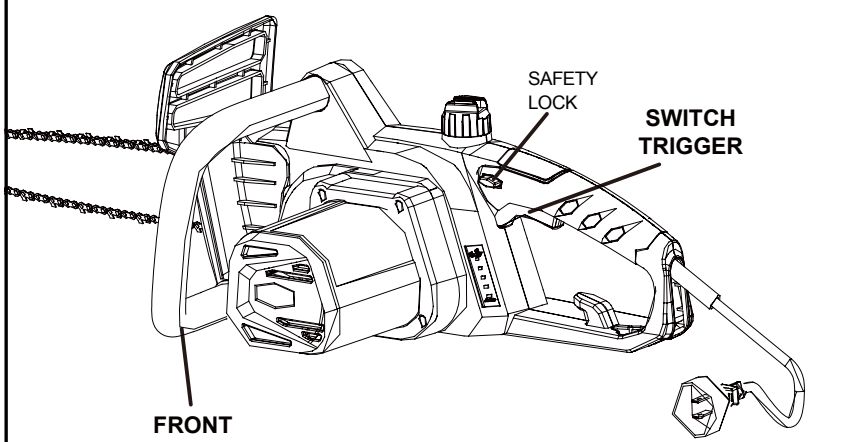
Starting the chain saw:

- Make sure chain tension is at desired setting. Refer to Adjusting the Chain Tension in the Maintenance section of this manual.
- Make sure the chain cover lock knob is tight to the chain cover.
- Make sure no objects or obstructions are in immediate vicinity which could come into contact with the bar and chain.
- Press and hold the safety lock. This makes the trigger switch operational.
- Press and hold the switch trigger, release the safety lock, and continue to squeeze the trigger switch for continued operation.

Stopping the chainsaw: .

- Release the switch trigger to stop the chainsaw.
- Upon release of the switch trigger, the safety lock will be automatically reset to the locked position.

Fig. 8



PREPARING FOR CUTTING

PROPER GRIP ON HANDLES *(See Fig. 9)*

See General Safety Rules for appropriate safety equipment.

- Wear non-slip gloves for maximum grip and protection.
- Hold the saw firmly with both hands. Always keep your left hand on the front handle and your right hand on the rear handle so that your body is to the left of the chain line.
- Maintain a proper grip on the saw whenever the motor is running. The fingers should encircle the handle, with the thumb wrapped under the handlebar. This grip is least likely to be broken by a kickback or other sudden reaction of the saw. Any grip in which the thumb and fingers are on the same side of the handle is dangerous, because a slight kick of the saw can cause loss of control.

⚠ W A R N I N G

Never use a left-handed (cross-handed) grip or any stance that would place your body or arm across the chain line.

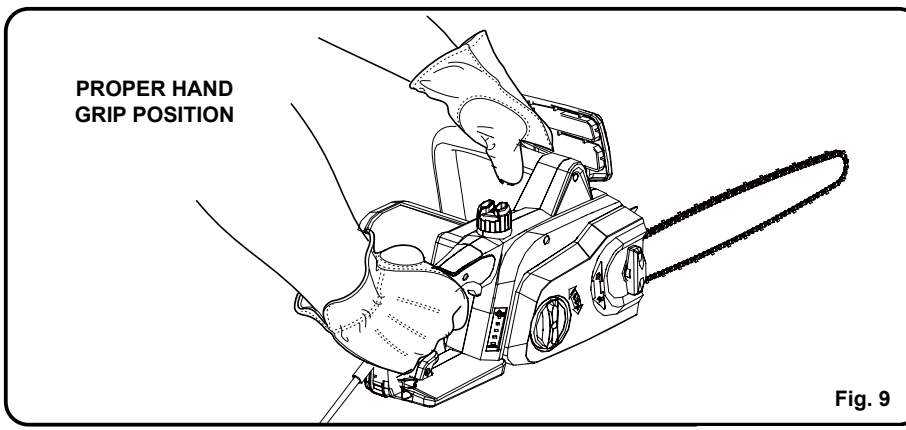


Fig. 9

⚠ W A R N I N G

DO NOT operate the switch trigger with your left hand and hold the front handle with your right hand. Never allow any part of your body to be in the chain line while operating a saw.

PROPER CUTTING STANCE *(See Fig. 10)*

- Balance your weight with both feet on solid ground.
- Keep left arm with elbow locked in a “straight arm” position to withstand any kickback force.
- Keep your body to the left of the chain line.
- Keep your thumb on underside of handlebar.

BASIC OPERATING/CUTTING PROCEDURES

Practice cutting a few small logs using the following technique to get the “feel” of using the saw before you begin a major sawing operation.

- Take the proper stance in front of the wood.
- Press the safety lock and squeeze the switch trigger, then release safety lock and let the chain accelerate to full speed before entering the cut.
- Begin cutting with the saw against the log.
- Keep the unit running the entire time you are cutting, maintain a steady speed.
- Allow the chain to cut for you; exert only light downward pressure. Forcing the cut could result in damage to the bar, chain, or motor.
- Release the trigger switch as soon as the cut is completed, allowing the chain to stop. If you run the saw without a cutting load, unnecessary wear can occur to the chain, bar, and unit.
- Do not put pressure on the saw at the end of the cut.

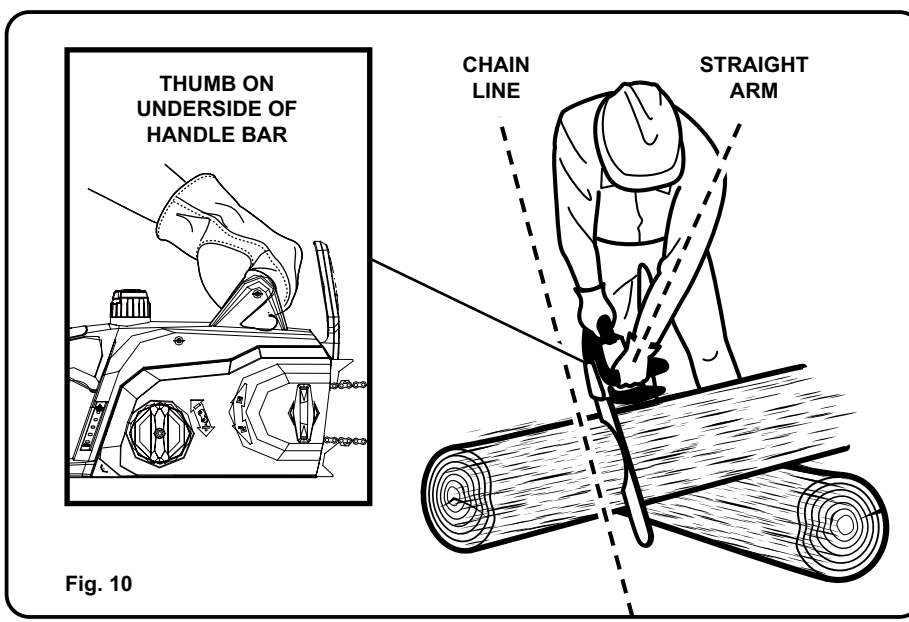


Fig. 10

WORK AREA PRECAUTIONS *(See Fig. 11)*

- Cut only wood or materials made from wood; no sheet metal, no plastics, no masonry, no non-wooden building materials.
- Never allow children to operate the saw. Allow no person to use this chainsaw who has not read this Owner's Manual or received adequate instructions for the safe and proper use of this chainsaw.
- Keep everyone – helpers, bystanders, children, and animals – at SAFE DISTANCE from the cutting area. During felling operations, the safe distance should be a least twice the height of the largest trees in the felling area. During bucking operations, keep a minimum distance of 15' (4.6 m) between workers.
- Always cut with both feet on solid ground to prevent being pulled off balance.
- Do not cut above chest height, because a saw held higher is difficult to control against kickback forces.
- Do not fell trees near electrical wires or buildings. Leave this operation for professionals.
- Cut only when visibility and light are adequate for you to see clearly.

Fig. 11

FELLING TREES

HAZARDOUS CONDITIONS *(See Fig. 12)*

When felling a tree, it is important that you heed the following warnings to prevent possble serious injury

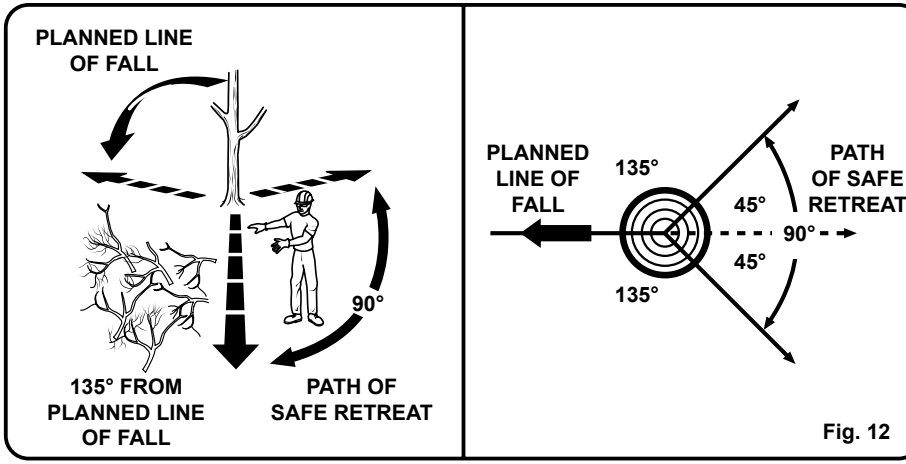


Fig. 12

- Do not cut down trees having an extreme lean, or large trees with rotten limbs, loose bark or hollow trunks. Have these trees pushed or dragged down with heavy equipment, then cut them up.
- Do not cut trees near electrical wires or buildings
- Check the tree for damaged or dead branches that could fall and hit you during felling
- Periodically glance at the top of the tree during the backcut to assure the tree is going to fall in the desired direction
- If the tree starts to fall in the worng direction, or if the saw gets caught or hung up during the fall, leave the saw and save yourself!

⚠ W A R N I N G

Do not fell trees during periods of high wind or heavy precipitation. Wait until the hazardous weather has ended.

PROPER PROCEDURE FOR TREE FELLING *(See Fig. 13)*

- Felling a tree — When bucking and felling operations are being perfrmed by two or more persons at the same time, the felling operations should be separated from the bucking operation by a distance of at least twice the height of the tree being felled. Trees should not be felled in a manner that would endanger any person, strike any utility line, or cause any property damage. If the tree does make contact with any utility line, the utility company hould be notified immediately.
- Operator should keep on the uphill side of terrain as the tree is likely to roll or slide after it is felled.
- Pick your escape route (or routes in case the intended route is blocked). Clear the immediate area around the tree and make sure there are no obstructions in your planned path of retreat. Clear the path of safe retreat approximately 135° from the planned line of fall.

- Consider the force and direction of the wind, the lean and balance of the tree, and the location of large limbs. These things influence the direction in which the tree will fall. Do not try to fell a tree along a line different from its natural line of fall.
- Remove dirt, stones, loose bark, nails, staples, and wire from the tree where felling cuts are to be made.

Notched Undercut:

- Cut a notch about 1/3 the diameter of the trunk in the side of the tree. Make the notch cuts so they intersect at a right angle to the line of fall. This notch should be cleaned out to leave a straight line. To keep the weight of the wood off the saw, always make the lower cut of the notch before the upper cut.

Felling Backcut:

- As the felling cut gets close to the hinge, the tree should begin to fall. If there is any chance the tree may not fall in the desired direction or it may rock back and bind the saw chain, stop cutting before the felling cut is complete, and use wedges of wood, plastic or aluminum to open the cut and drop the tree along its desired line of fall. Make the backcut level and horizontal, at least 2" (5 cm) above the horizontal cut of the notch.

NOTE: Never cut through to the notch. Always leave a band of wood between the notch and back cut (approximately 2" (5 cm) or 1/10 the diameter of the tree). This is called "hinge" or "hingewood." It controls the fall of the tree, and prevents slipping or twisting or shootback of the tree off the stump.

- On large diameter trees, stop the back cut before it is deep enough for the tree to either fall or settle back on the stump. Then insert soft wooden or plastic wedges into the cut so they do not touch the chain. Drive wedges in, little by little, to help jack the tree over.
- As tree starts to fall, stop the chainsaw and put it down immediately. Retreat along the cleared path, but watch the action in case something falls your way.

⚠ W A R N I N G

Never cut through to the notch when making a back cut. The hinge controls the fall of the tree. This is the section of wood between the notch and backcut.

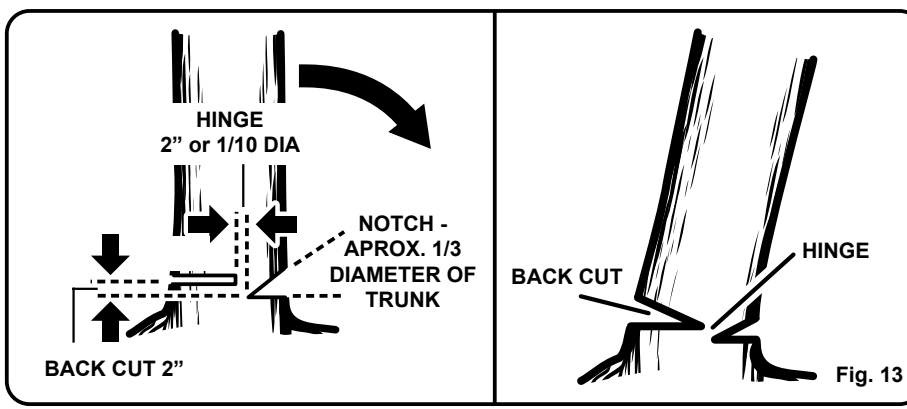


Fig. 13

REMOVING BUTTRESS ROOTS *(See Fig. 14)*

A buttress root is a large root extending from the trunk of the tree above the ground. Remove large buttress roots prior to felling. Make the horizontal cut into the buttress first, followed by the vertical cut. Remove the resulting loose section from the work area. Follow the correct tree felling procedure as stated in Proper Procedure For Tree Felling after you have removed the large buttress roots.

BUCKING *(See Fig. 15)*

Bucking is the term used for cutting a fallen tree to the desired log length.

- Always make sure your footing is secure and your weight is distributed evenly on both feet.
- Cut only one log at a time.
- Support small logs on a saw horse or another log while bucking.
- Keep a clear cutting area. Make sure no objects can contact the guide bar nose and chain during cutting, because this can cause kickback.
- When bucking on a slope, always stand on the uphill side of the log. To maintain complete control of the chainsaw when cutting through the log, release the cutting pressure near the end of the cut without relaxing your grip on the chainsaw handles. Do not let the chain contact the ground. After completing the cut, wait for the saw chain to stop before you move the chainsaw. Always stop the motor before moving from tree to tree.

Fig. 14

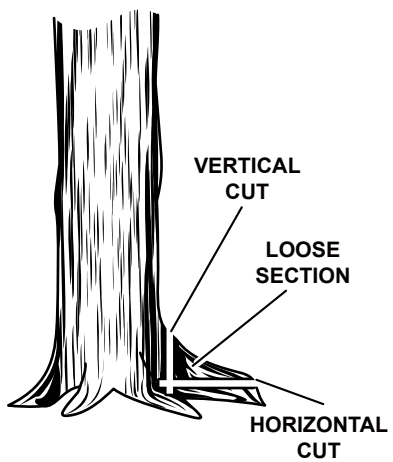
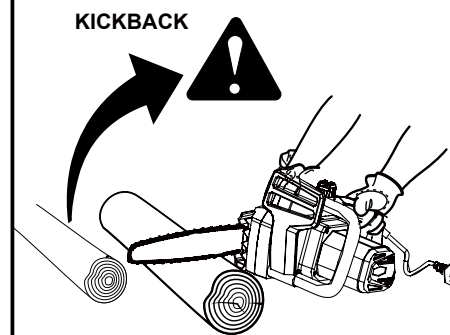


Fig. 15



BUCKING WITH A WEDGE *(See Fig. 16)*

If the wood diameter is large enough for you to insert a soft bucking wedge without touching the chain, you should use the wedge to hold the cut open to prevent pinching.

BUCKING LOGS UNDER STRESS *(See Fig. 17)*

Make the first bucking cut 1/3 of the way through the log, and finish with a 2/3 cut on the opposite side. As you cut the log, it will tend to bend. The saw can become pinched or hung in the log if you make the first cut deeper than 1/3 of the diameter of the log. Give special attention to logs under stress to prevent the bar and chain from pinching.

OVERBUCKING *(See Fig. 18)*

Begin on the top side of the log with the bottom of the saw against the log; exert light pressure downward. Note that the saw will tend to pull away from you.

UNDERBUCKING *(See Fig. 19)*

Begin on the under side of the log with the top of the saw against the log; exert light pressure upward. During underbucking, the saw will tend to push back at you. Be prepared for this reaction, and hold the saw firmly to maintain control.

Fig. 16

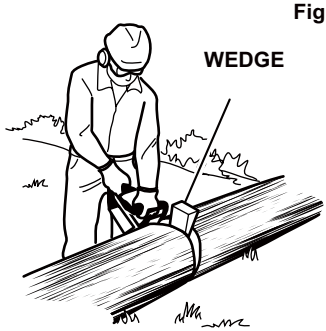
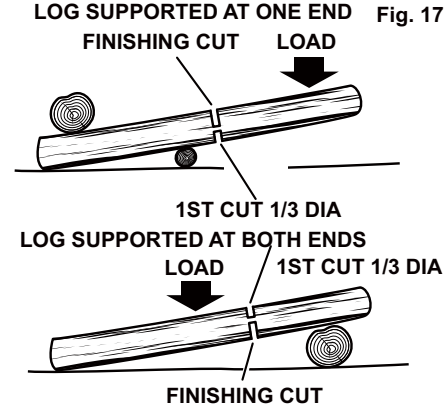


Fig. 17



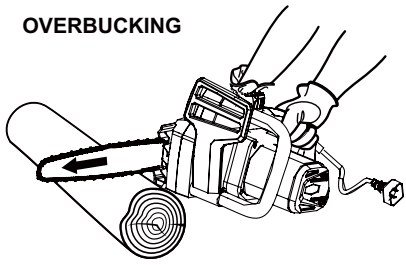


Fig. 18

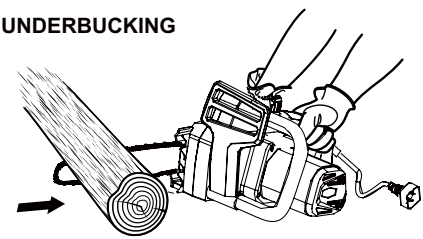


Fig. 19

LIMBING *(See Fig. 20)*

Limbing is removing branches from a fallen tree.

- Work slowly, keeping both hands on the chainsaw with a firm grip. Always make sure your footing is secure and your weight is distributed evenly on both feet.
- Leave the larger support limbs under the tree to keep the tree off the ground while cutting.
- Limbs should be cut one at a time. Remove the cut limbs from the work area often to help keep the work area clean and safe.
- Branches under tension should be cut from the bottom up to avoid binding the chainsaw.
- Keep the tree between you and the chainsaw while limbing. Cut from the side of the tree opposite the branch you are cutting.

PRUNING *(See Fig. 21)*

Pruning is trimming limbs from a live tree.

- Work slowly, keeping both hands on the chainsaw with a firm grip. Always make sure your footing is secure and your weight is distributed evenly on both feet.
- Do not cut from a ladder. This is extremely dangerous. Leave this operation for professionals.
- Do not cut above chest height, because a saw held higher is difficult to control against kickback.
- When pruning trees, it is important not to make the finishing cut next to the main limb or trunk until you have cut off the limb further out to reduce the weight. This prevents stripping the bark from the main member.
- Underbuck the branch 1/3 through for your first cut.
- Your second cut should overbuck to drop the branch off.
- Now make your finishing cut smoothly and neatly against the main member so the bark will grow back to seal the wound.

⚠ WARNING

Never cut through to the notch when making a back cut. The hinge controls the fall of the tree. This is the section of wood between the notch and backcut.

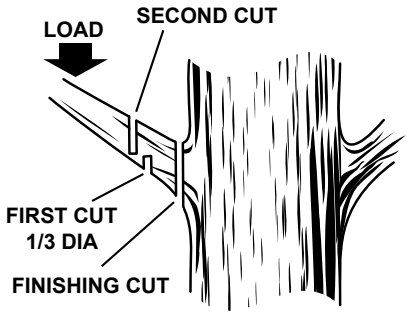
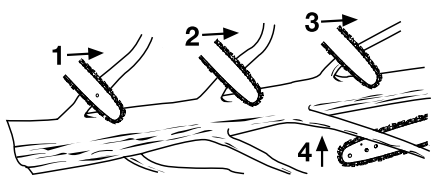


Fig. 20



CUT LIMBS ONE AT A TIME AND LEAVE SUPPORT LIMBS UNDER TREE UNTIL LOG IS CUT

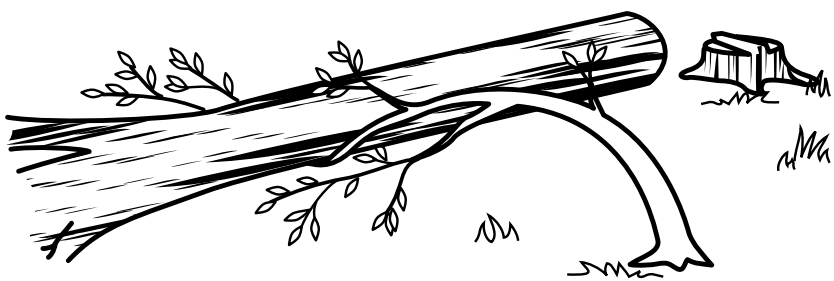
Fig. 21

CUTTING SPRINGPOLES *(See Fig. 22)*

A springpole is any log, branch, rooted stump, or sapling that is bent under tension by other wood, so that it springs back if the wood holding it is cut or removed. On a fallen tree, a rooted stump has a high potential of springing back to the upright position during the bucking cut to separate the log from the stump. Watch out for springpoles — they are dangerous.

⚠ WARNING

Springpoles are dangerous, and could strike the operator, causing the operator to lose control of the chainsaw. This could result in severe or fatal injury to the operator.



SPRINGPOLE

Fig. 22

MAINTENANCE

⚠ W A R N I N G

When servicing, use only identical GreenWorks™ replacement parts. Use of any other parts may create a hazard or cause product damage.

⚠ W A R N I N G

Always wear safety goggles or safety glasses with side shields that complies with ANSI Z87.1 during power tool operation or when blowing dust. If operation is dusty, also wear a dust mask.

GENERAL MAINTENANCE

Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents. Use a clean cloth to remove dirt, dust, lubricant, grease, etc.

⚠ W A R N I N G

Do not let brake fluids, gasoline, petroleum-based products, penetrating lubricants, etc., come into contact with plastic parts at any time. Chemicals can damage, weaken or destroy plastic, which may result in serious personal injury.

LUBRICATION

All of the bearings in this product are lubricated with a sufficient amount of high-grade lubricant for the life of the unit under normal operating conditions. Therefore, no further lubrication is required.

REPLACING THE GUIDE BAR AND CHAIN *(See Fig. 23 - 28.)*

⚠ D A N G E R

Never start the motor before installing the guide bar, chain, chain cover, and chain cover lock knob. Without all these parts in place.

⚠ W A R N I N G

To avoid serious personal injury, read and understand all the safety instructions in this section.

⚠ W A R N I N G

Before performing any maintenance, make sure the tool is unplugged from the power supply. Failure to heed this warning could result in serious personal injury.

⚠ C A U T I O N

Always wear gloves when handling the bar and chain. These components are sharp and may contain burrs.

⚠ W A R N I N G

Never touch or adjust the chain while the motor is running. The saw chain is very sharp. Always wear protective gloves when performing maintenance involving the chain to avoid possible serious lacerations.

NOTE: When replacing the guide bar and chain, always use the specified bar and chain listed in the ***specifications section on page 2 of this manual.***

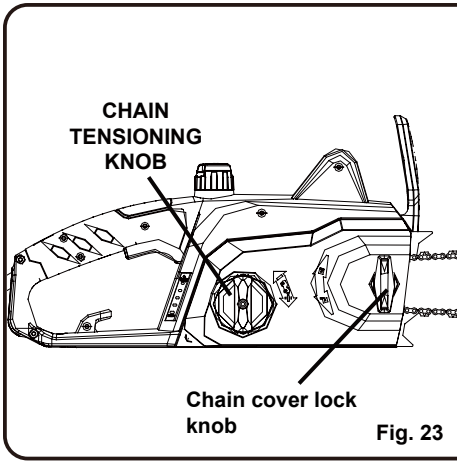


Fig. 23

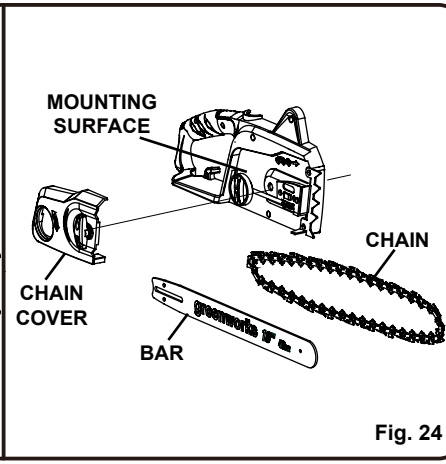


Fig. 24

- Disconnect chainsaw from power supply.
- Rotate the chain cover lock knob counter-clockwise, and remove knob. *(See Fig.23)*
- Remove the chain cover. *(See Fig.24)*
- Remove the bar and chain from the mounting surface. *(See Fig.24)*
- Remove the old chain from the bar. *(See Fig.24)*
- Lay out the new saw chain in a loop, and straighten any kinks. The cutters should face in the direction of chain rotation. If they face backwards, turn the loop over. *(See Fig.25)*
- Place the chain drive links into the bar groove as shown.*(See Fig.26)*

NOTE: Make certain of direction of chain.

- Position the chain so there is a loop at the back of the bar. *(See Fig.26)*
- Hold the chain in position on the bar, and place the loop around the sprocket.
- Fit the bar flush against the mounting surface so that the bar studs are in the long slot of the bar.
- When placing the bar on the bar studs, ensure that the adjusting pin is in the chain tension pin hole.
- Replace the chain cover.
- Replace the chain cover lock knob. Rotate knob clockwise to tighten. The bar should still be free to move for tension adjustment.
- Remove all slack from the chain by turning the chain tensioning knob clockwise until the chain seats snugly against the bar with the drive links in the bar groove.
- Lift the tip of the guide bar up to check for sag. *(See Fig.27)*

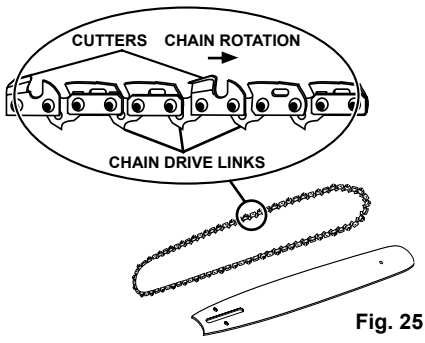


Fig. 25

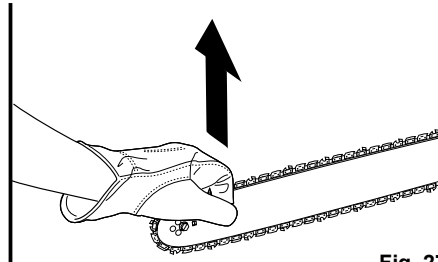


Fig. 27

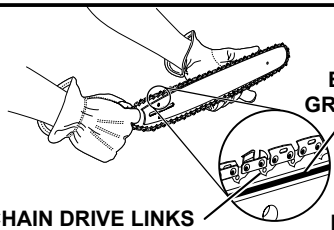


Fig. 26

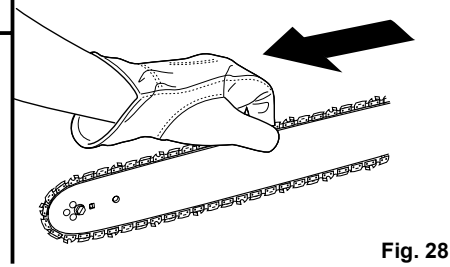


Fig. 28

• Release the tip of the guide bar, and turn the chain tensioning knob 1/2 turn clockwise.

• Hold the tip of the guide bar up and tighten the chain cover lock knob.

The chain is correctly tensioned when there is no sag on the underside of the guide bar, and when the chain is snug, but can be turned by hand without binding.*(See Fig.28)*

NOTE: If chain is too tight, it will not rotate. Loosen the chain cover lock knob slightly, and turn the chain tensioning knob 1/4 turn counter-clockwise. Lift the tip of the guide bar up, and retighten the chain cover lock knob. Ensure that the chain will rotate without binding.

ADJUSTING THE CHAIN TENSION *(See Fig. 29 - 30.)*

• Stop the motor and disconnect from power supply before setting the chain tension.

• Slightly loosen the chain cover lock knob.

- Turn the chain tensioning knob clockwise to tension the chain.

NOTE: A cold chain is correctly tensioned when there is no slack on the underside of the guide bar, the chain is snug, and it can be turned by hand without binding.

- Rotate the chain cover lock knob clockwise to secure. Retension the chain whenever the flats on the drive links hang out of the bar groove.

NOTE: During normal saw operation, the temperature of the chain increases. The drive links of a correctly tensioned warm chain will hang approximately 1/16" (1.3 mm) out of the bar groove.

NOTE: New chains tend to stretch. Check the chain tension frequently and tension as required.

⚠ C A U T I O N

A chain tensioned while warm may be too tight upon cooling. Check the “cold tension” before next use.

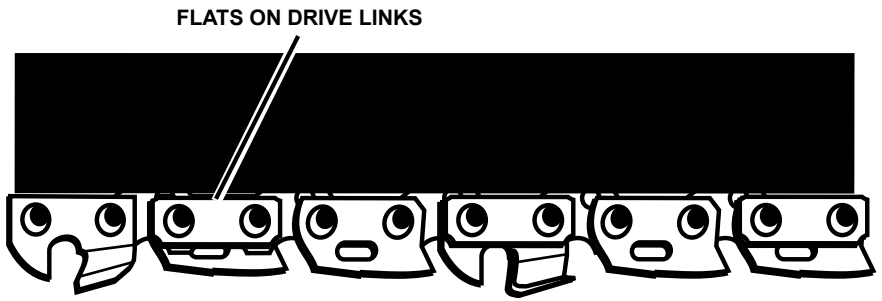


Fig. 29

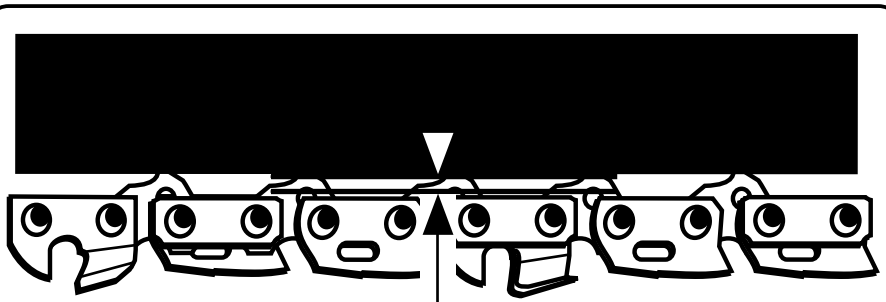


Fig. 30

⚠ C A U T I O N

Make sure the chainsaw is disconnected from the power supply before you work on the saw.

CHAIN MAINTENANCE *(See Fig. 31)*

Use only a low-kickback chain on this saw. This fast-cutting chain provides kickback reduction when properly maintained. For smooth and fast cutting, maintain the chain properly.The chain requires sharpening when the wood chips are small and powdery, the chain must be forced through the wood during cutting, or the chain cuts to one side. During maintenance of the chain, consider the following:

- Improper filing angle of the side plate can increase the risk of severe kickback.
- Raker (depth gauge) clearance.
- Too low increases the potential for kickback.
- Not low enough decreases cutting ability.
- If the cutter teeth hit hard objects such as nails and stones, or are abraded by mud or sand on the wood, have an authorized service centre sharpen the chain.

NOTE: Inspect the drive sprocket for wear or damage when replacing the chain. If signs of wear or damage are present in the areas indicated, have the drive sprocket replaced by an authorized service centre.

NOTE: If you do not fully understand the correct procedure for sharpening the chain after reading the instructions that follow, have the saw chain sharpened by an authorized service centre or replace with a recommended low-kickback chain.

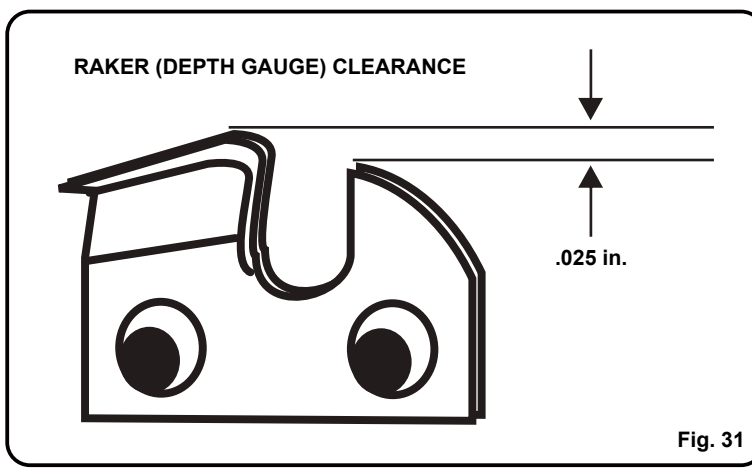


Fig. 31

SHARPENING THE CUTTERS *(See Fig. 32 - 35.)*

Be careful to file all cutters to the specified angles and to the same length, because fast cutting can only be obtained when all cutters are uniform.

⚠ C A U T I O N

Make sure the chainsaw is disconnected from the power supply before you work on the saw.

⚠ W A R N I N G

The saw chain is very sharp. Always wear protective gloves when performing maintenance involving the chain to prevent serious personal injury.

- Tension the chain prior to sharpening. Refer to Adjusting The Chain Tension.
- Use a 5/32" (4 mm) diameter round file and holder. Do all of your filing at the midpoint of the bar.
- Keep the file level with the top plate of the tooth. Do not let the file dip or rock.
- Use light but firm pressure. Stroke toward the front corner of the tooth.
- Lift the file away from the steel on each return stroke.
- Put a few firm strokes on every tooth. File all left-hand cutters in one direction. Then move to the other side and file the right-hand cutters in the opposite direction.
- Remove filings from the file with a wire brush.

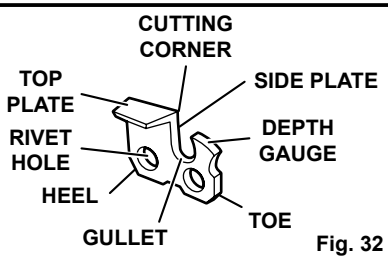


Fig. 32

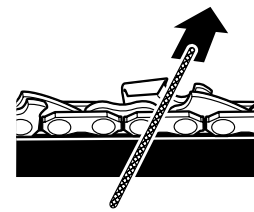


Fig. 34

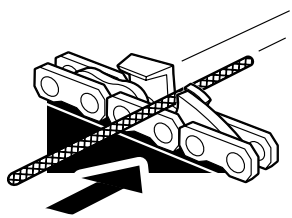


Fig. 33

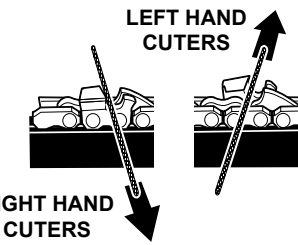


Fig. 35

⚠ C A U T I O N

A dull or improperly sharpened chain can cause excessive motor speed during cutting, which may result in severe motor damage.

⚠ W A R N I N G

Improper chain sharpening increases the potential for kickback.

⚠ W A R N I N G

Failure to replace or repair a damaged chain can cause serious injury.

TOP PLATE FILING ANGLE

- CORRECT 30° – file holders are marked with guide marks to align file properly to produce correct top plate angle.
- LESS THAN 30° – for cross cutting.
- MORE THAN 30° – feathered edge dulls quickly.
- Remove filings from the file with a wire brush.

SIDE PLATE ANGLE

- CORRECT 80° – Produced automatically if you use the correct diameter file in the file holder.
- HOOK – “Grabs” and dulls quickly; increases the potential for KICKBACK. Results from using a file with a diameter too small or a file held too low.
- BACKWARD SLOPE – Needs too much feed pressure; causes excessive wear to the bar and chain. Results from using a file with a diameter too large or file held too high.

MAINTAINING DEPTH GAUGE CLEARANCE

- Maintain the depth gauge at a clearance of .025" (.6 mm). Use a depth gauge tool for checking the depth gauge clearances.
- Every time the chain is filed, check the depth gauge clearance.
- Use a flat file and a depth gauge jointer to lower all gauges uniformly. Use a .025" (.6 mm) depth gauge jointer. After lowering each depth gauge, restore original shape by rounding the front. Be careful not to damage adjoining drive links with the edge of the file.
- Depth gauges must be adjusted with the flat file in the same direction the adjoining cutter was filed with the round file. Use care not to contact cutter face with flat file when adjusting depth gauges.

MAINTAINING THE GUIDE BAR *(See Fig. 36)*

⚠ C A U T I O N

Make sure the chain has stopped before you do any work on the saw.

Every week of use, reverse the guide bar on the saw to distribute the wear for maximum bar life. The bar should be cleaned every day of use, and checked for wear and damage. Feathering or burring of the bar rails is a normal process of bar wear. Such faults should be smoothed with a file as soon as they occur.A bar with any of the following faults should be replaced:

- Wear inside the bar rails that permits the chain to lay over sideways
- Bent guide bar
- Cracked or broken rails
- Spread rails

Lubricate guide bars weekly with a sprocket at their tip. Using a grease syringe, lubricate weekly in the lubricating hole. Turn the guide bar and check that the lubrication holes and chain groove are free of impurities.

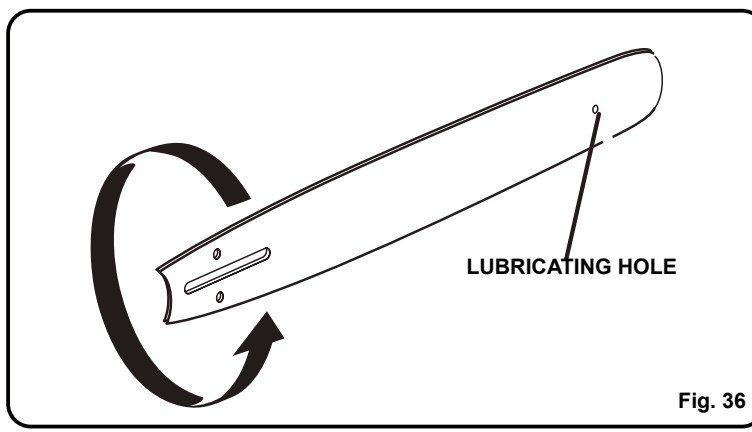
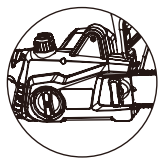


Fig. 36

STORING THE PRODUCT

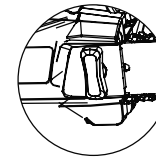
- Clean all foreign material from the product. Store it in a well-ventilated place that is inaccessible to children. Keep away from corrosive agents such as garden chemicals and de-icing salts.
- Always place the scabbard on the bar and chain before storing or transporting the chainsaw
- Use caution to avoid the sharp teeth of the chain

QUICK REFERENCE OF CHAIN&BAR ASSEMBLY (KNOB TENSION)

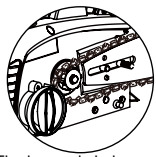


1, To remove the side cover, loosen the locking knob one full turn counterclockwise.

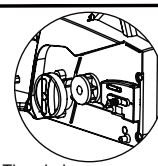
2, Then loosen the chain tension knob 2 or 3 turns.



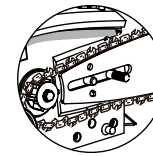
3, Now totally remove the locking knob and remove the side cover.



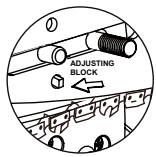
4, The bar and chain can now be removed by lifting it away from the main body of the saw and releasing the chain from the drive pulley.



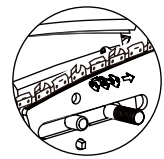
5, The chainsaw can now be cleaned with a brush or a rag to remove sawdust and oil



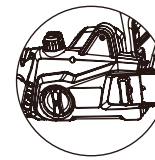
6, To replace the bar and chain, loop the chain over the drive pulley and place the bar against the centre alignment groove.



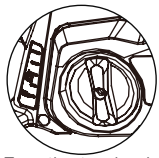
7, Ensure that the adjusting block is located in the tensioning hole on the chain bar.



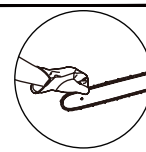
8, And that the rubber block and chain bar are free from oil, as this helps to keep tension on the chain.



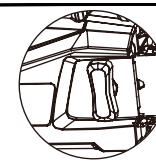
9, Replace the side cover and locking knob, but do not tighten.



10, Turn the tension knob clockwise to tighten the chain.



11, Until there is enough play that the chain can be pulled away from the bar, but not so much that the runners can be pulled out of the bar.



12, Once you have the correct tension, fully tighten the locking knob.

NOTE: 1) Chains stretch with use, check and adjust tension often.

2) Never tension a warm chain before storing, as chains shrink when cool, this can damage chain , bar and saw.

TROUBLESHOOTING

PROBLEM	CAUSE	REMEDY
Bar and chain running hot and smoking.	Check chain tension for over-tight condition Chain-oil tank empty.	Loosen Chain Tension Fill Chain-oil tank
Motor runs, but chain is not rotating.	Chain tension too tight.	Re-tension chain, refer to adjusting chain tension earlier in the manual.
	Check guide bar and chain assembly.	Refer to replacing bar and chain earlier in this manual
Motor runs, chain rotates but does not cut.	Dull chain.	Sharpen chain.
	Chain on backwards.	Reverse direction of chain.

LIMITED FOUR-YEAR WARRANTY

GREENWORKS™ hereby warranties this product, to the original purchaser with **proof of purchase**, for a period of four (4) years against defects in materials, parts or workmanship. GREENWORKS™, at its own discretion will repair or replace any and all parts found to be defective, through normal use, free of charge to the customer. This warranty is valid only for units which have been used for personal use that have not been hired or rented for industrial/ commercial use, and that have been maintained in accordance with the instructions in the owners' manual supplied with the product from new.

ITEMS NOT COVERED BY WARRANTY:

1. Any part that has become inoperative due to misuse, commercial use, abuse, neglect, accident, improper maintenance, or alteration; or
2. The unit, if it has not been operated and/or maintained in accordance with the owner's manual; or
3. Normal wear bar and chain,, except as noted below;
4. Routine maintenance items such as lubricants, chain sharpening;
5. Normal deterioration of the exterior finish due to use or exposure.

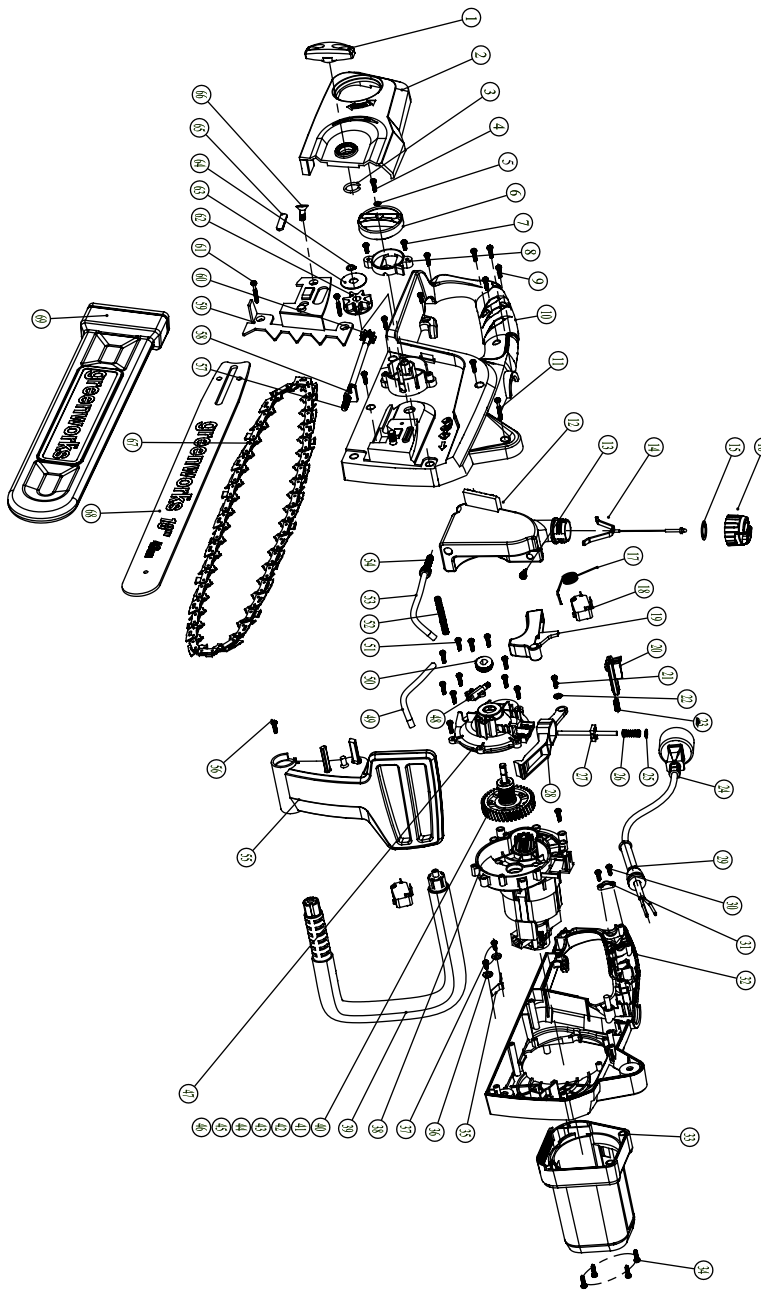
GREENWORKS HELPLINE (1-888-90WORKS):

Warranty service is available by calling our toll-free helpline at **1-888-909-6757 (1-888-90WORKS)**. greenworks.com

TRANSPORTATION CHARGES:

Transportation charges for the movement of any power equipment unit or attachment are the responsibility of the purchaser. It is the purchaser's responsibility to pay transportation charges for any part submitted for replacement under this warranty unless such return is requested in writing by GREENWORKS.

EXPLODED VIEW



PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY
1	34129583-2	fasten knob	1
2	341131607	side cover	1
3	32900583	baffle ring	1
4	3220313	screw	1
5	32903301A	washer	1
6	34105403-2	tension knob	1
7	3220313	screw	2
8	34111159	clamp	1
9	3220313	screw	8
10	341011067	right housing	1
11	3220404	screw	1
12	34191607	oil tank	1
13	342011607	oil tank inlet valve	1
14	341111607	oil tank wire	1
15	34205154	oil tank cap sealing gasket	1
16	341151607	oil tank cap	1
17	33200420	switch torsion spring	1
18	36301154	micro switch	2
19	341051607	trigger	1
20	341061607	lock-off button	1
21	3220313	screw	1
22	3290750	gasket ø6	1
23	33204154A	lock spring	1
24	36401404A	water proof plug power cord	1
25	3290408	gasket 5	1
26	33208159	spring	1
27	34114159-1	brake rod	1
28	341141607	brake bridge	1
29	34203159	power cord retainer	1
30	32203404	screw	2
31	34115124	cord clamp	1
32	341001067	left housing	1
33	341041067	motor cover	1
34	3220313	screw	4
35	33304404-1	bafffle spring	1
36	3290750	gasket 6	2
37	32201152	screw	2
38	361011063	chain saw motor	1
39	341021067	aux. handle	1
40	341081607	gear	1
41	332011607	tension spring	1

PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY
42	332001067	output shaft	1
43	33902159	sleeve	2
44	32101159	bearing 6902	1
45	32103154	bearing 608 2RS	1
46	32901159	retainer ring ø10	1
47	341071067	gear box cover	1
48	341121067	gear oil pump assy	1
49	34205159	output oil tube	1
50	341101607	oil pump rod	1
51	3220313	screw	16
52	33209159	spring	1
53	34202404	input oil tube	1
54	32208159	filter spring	1
55	341031067	front handle baffle	1
56	3220404	screw	1
57	32201404	tensioning gear shaft	1
58	33302404	tension block	1
59	333011607	bar gasket	1
60	33904159	tension gear	1
61	32204404	screw	2
62	33905159	7 teeth sprocket	1
63	33302102	sprocket washer	1
64	3290875	clamp spring ø10	1
65	342001067	oil seal gasket	1
66	32201329	screw	1
67	311011067	18" chain	1
68	311001067	18" bar	1
69	341161067	18" scabbard	1

NOTES

TOLL-FREE HELPLINE: 1-888-90WORKS (888.909.6757)

Greenworks Tools
P.O. Box 3130
Mooresville, North Carolina 28117

Rev: 03 (05-29-15)