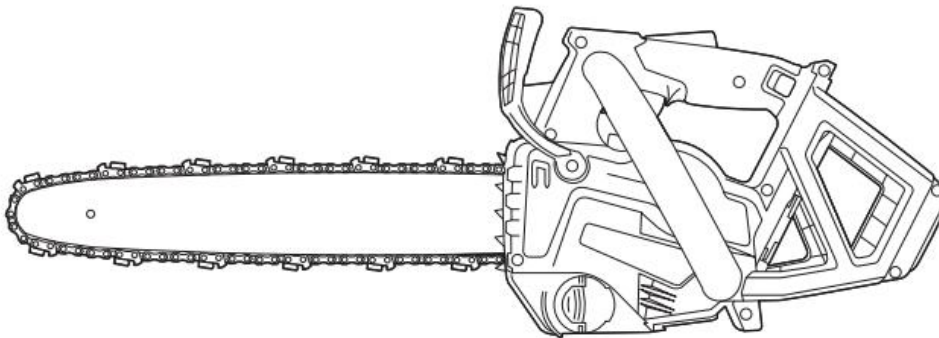




OPERATOR'S MANUAL

60V Lithium-Ion Cordless Commercial Series

Top-handle Chain Saw



Model number:TC717

Battery and Charger Sold Separately

⚠ WARNING: To reduce the risk of injury, the user must read and understand the Operator's Manual before using this product. Save these instructions for future reference.

READ ALL INSTRUCTIONS!



READ & UNDERSTAND OPERATOR'S MANUAL



WARNING: Some dust created by power sanding, sawing, grinding, drilling and other construction activities contains chemicals known to the state of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemical: work in a well-ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

SAFETY SYMBOLS

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols and the explanations with them deserve your careful attention and understanding. The symbol warnings do not, by themselves, eliminate any danger. The instructions and warnings they give are no substitutes for proper accident prevention measures.



WARNING: Be sure to read and understand all safety instructions in this Operator's Manual, including all safety alert symbols such as "DANGER," "WARNING," and "CAUTION" before using this tool. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious personal injury.



SYMBOL MEANING SAFETY ALERT SYMBOL: Indicates DANGER, WARNING, OR CAUTION. May be used in conjunction with other symbols or





pictographs.










⚠ WARNING! The operation of any power tools 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 a full-face shield when needed. We recommend a Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shields.



⚠ WARNING! THIS CHAIN-SAW IS FOR USE BY TRAINED TREE SERVICE OPERATORS ONLY. USE WITHOUT PROPER TRAINING CAN RESULT IN SEVERE INJURIES. SEE INSTRUCTIONS!

SAFETY INSTRUCTIONS

This page depicts and describes safety symbols that may appear on this product. Read, understand, and follow all instructions on the machine before attempting to assemble and operate it.

	Safety Alert	Indicates a potential personal injury hazard
	Read & Understand Operator's Manual	To reduce the risk of injury, user must read and understand the operator's manual before using this product. Failure to do so can result in serious injury to the operator and/or bystander
	Wear Ear Protection	Wear ear protection when using the product
	Wear Head Protection	Wear head protection when using the product

	Wear Gloves	Wear gloves when using the product
	Wear Boots	Wear slip-resistant footwear when using the device
	Do not expose to rain	Do not expose to rain
	Safe distance	Keep a distance from bystanders
		Take the replaceable battery from the appliance before any extension, cleaning and servicing works
	Wear Eye Protection	Always wear safety goggles or safety glasses with side shields and a full face shield when operating this product
	Be aware of kickback	Contact of the guide bar tip with any object should be avoided.
		Always operate unit with two hands.
		Filling hole for chainsaw oil.

		Wear cut-proof protective clothing.
V	Volt	Voltage
	Direct Current	Type or a characteristic of current
cm	Centimeter	Length or size
mm	Millimeter	Length or size
in.	Inch	Length or size
kg	Kilogram	Weight
lb	Pound	Weight

GENERAL BATTERY-OPERATED POWER TOOL

SAFETY WARNINGS

⚠ WARNING! Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below 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

- **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- **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.

- **Keep children and bystanders away while operating a power tool.**

Distractions can cause you to lose control.

Electrical safety

- **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.
- **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.*
- **Do not expose power tools to rain or wet conditions. *Water entering a power tool*** will increase the risk of electric shock.
- **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.***
- **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.
- **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

PERSONAL SAFETY

- **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.
- **Use personal protective equipment. Always wear eye protection.** Protective equipment such as a dust mask, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.
- **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.**

Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.

- **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.
- **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- **Dress properly. Do not wear loose clothing or jewelry. Keep your hair and clothing away from moving parts.** Loose clothes, jewelry or long hair can be caught in moving parts.
- **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.
- **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

POWER TOOL USE AND CARE

- **Do not force the power tool. Use the correct power tool for your application.**
The correct power tool will do the job better and safer at the rate for which it was designed.
- **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.
- **Disconnect the plug from the power source and/or remove the battery pack, if detachable, 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..**
- **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.
- **Maintain power tools and accessories. 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.

- **Keep cutting tools sharp and clean.**

Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

- **Use the power tool, accessories, 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.

- **Keep handles and grasping surfaces dry, clean and free from oil and grease.** *Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.*

BATTERY TOOL USE AND CARE

- **Recharge only with the charger specified by the manufacturer.**

A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.

- **Use power tools only with specifically designated battery packs.**

Use of any other battery packs may create a risk of injury and fire.

- **When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another.**

Shorting the battery terminals together may cause burns or a fire.

- **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contact eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritation or burns.

- **Do not use a battery pack or tool that is damaged or modified.** Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.
- **Do not expose a battery pack or tool to fire or excessive temperature.** Exposure to fire or temperature above 212 °F (100°C) may cause explosion.
- **Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions.** Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

SERVICE

- **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.
- **Never service damaged battery packs.**
Service of battery packs should only be performed by the manufacturer or authorized service providers

SAFETY INSTRUCTIONS FOR CHAIN SAW

- **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 contacting anything.** A moment of inattention while operating chain saws may cause entanglement of your clothing or body with the saw chain.
- **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.
- **Hold the chain saw by insulated gripping surfaces only, because the saw chain may contact hidden wiring.** Saw chains contacting a "live" wire may make exposed metal parts of the chain saw "live" and could give the operator an electric shock.
- **Wear eye protection. Further protective equipment for hearing, head, hands, legs**

and feet is recommended. Adequate protective equipment will reduce personal injury from flying debris or accidental contact with the saw chain.

- Do not operate a chain saw on a ladder, from a rooftop, or any unstable support.

Operation of a chain saw in this manner could result in serious personal injury.

- Always keep proper footing and operate the chain saw only when standing on fixed, secure and level surface. Slippery or unstable surfaces may cause a loss of balance or control of the chain saw.

- When cutting a limb that is under tension, be alert for 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.

- 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.

- 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.

- Follow instructions for lubricating, chain tensioning and changing the bar and chain. Improperly tensioned or lubricated chain may either break or increase the chance for kickback.

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

- This chain saw is not intended for tree felling. Use of the chain saw for operations different than intended could result in serious injury to the operator or bystanders.

- Follow all instructions when clearing jammed material, storing or servicing the chain saw. Make sure the switch is off and the battery pack is removed. Unexpected actuation of the chain saw while clearing jammed material or servicing may result in serious personal injury.

- **Do not operate a chain saw in a tree unless you have been specifically trained to do so. Operation of a chain saw in a tree without proper training could increase the risk of serious personal injury.**

CAUSES AND OPERATOR PREVENTION OF KICKBACK

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 chain saw misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below:

- **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 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 chain saw.
- **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.
- **Only use replacement guide bars and saw chains specified by the manufacturer.** Incorrect replacement guide bars and saw chains may cause chain breakage and/or kickback.
- **Follow the manufacturer's sharpening and maintenance instructions for the saw chain.** Decreasing the depth gauge height can lead to increased kickback.

Kickback Safety Precautions

Kickback safety precaution for chainsaw users: 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.

- In some cases, tip contact may cause a lightning-fast reverse reaction, kicking the guide bar up and back toward the operator (this is called a rotational kickback). Pinching the saw chain along the top of the guide bar may push the guide bar rapidly back toward the operator (this is called a linear kickback) (Fig 1).

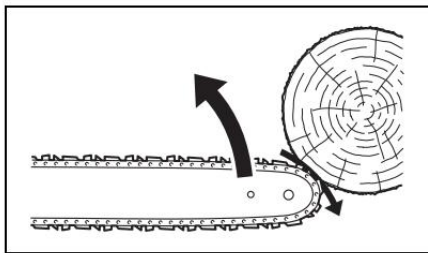


Fig 1

- Either or these reactions may cause you to lose control of the saw and come in contact with the moving chain, which could result in serious personal injury. As a chainsaw user, you should take several steps to keep your cutting jobs free from accident or injury (Fig 2).

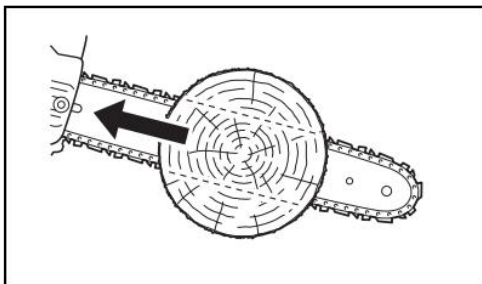


Fig 2

- With a basic understanding of kickback, you can reduce or eliminate the element of surprise. Sudden surprise contributes to accidents. Understand that rotational kickback is preventable by keeping an unshielded bar nose from touching an object or the ground.
- Do not operate a chainsaw with one hand! Serious injury to the operator, helpers or bystanders may result from one-handed operation. For proper control, always use two

hands when operating a chainsaw, one of which operates the trigger. Otherwise, this can result in the chain saw "skating" or skidding, which can result in personal injury due to loss of control.

- Keep a good firm grip on the saw with both hands (Fig 3), with the right hand on the rear handle and the left hand on the front handle, when the unit is running. Use a firm grip with thumbs and fingers encircling the chainsaw handles. A firm grip will help you reduce kickback and maintain control of the saw. Two hands must be used to control the saw at all times.

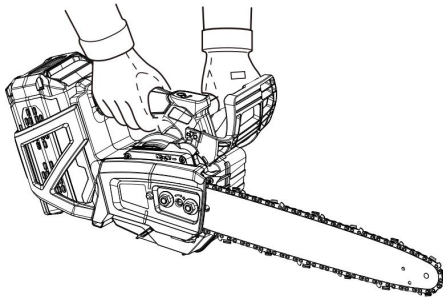


Fig 3

- Make sure that the area in which you are cutting is free from obstructions. Do not let the bar nose contact a log, branch, or any other obstruction which could be hit while you are operating the saw.
- Cutting at high speeds may reduce the likelihood of kickback. But cutting at part-throttle or low speeds may be preferable to control the chainsaw in tight situations and may also reduce the likelihood of kickback.

IMPORTANT SAFETY INSTRUCTIONS

- If the power tool should start to vibrate abnormally or become noisy, stop the motor and check immediately for the cause. Abnormal noise is generally a warning of trouble.
- Make sure all proper guards and other safety devices are properly and securely attached before using this product. Do not operate without guards in place.
- Do not charge the battery pack in rain, or in wet locations.
- Do not dispose of the battery in a fire.

The cells may explode. Check with local codes for possible special disposal instructions.

- Do not open or mutilate the battery.

Released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed.

- Battery tools do not have to be plugged into an electrical outlet; therefore, they are always in operating condition. Be aware of possible hazards even when the tool is not operating. Take care when performing maintenance or service.

- Do not wash with a hose; avoid getting water in motor and electrical connections.

- If situations occur that are not covered in this manual, use care and good judgment. Contact the Customer Service Center for assistance.

- **SAVE THESE INSTRUCTIONS.** Refer to them frequently and use them to instruct others who may use this tool. If you lend this tool to someone else, also lend these instructions to them to prevent misuse of the product and possible injury.

SAVE THESE INSTRUCTIONS!

SPECIFICATIONS

Model number	TC717
Motor Power	1800W (max)
Voltage	60V
Cutting length	14in / 350mm
Chain type	Oregon 90PX052X
Chain bar length	14in / 350mm
Chain pitch	3/8in/9.525mm
Bar type	Oregon 144MLEA041
Chain speed(constant)	20m/s
Battery	LBC60140 (sold separately)
Charger	CGB6055U / CGB6025U (sold separately)

PACKING LIST

PART NAME	QUANTITY
Chain saw	1
Guide bar cover	1
Wrench	1
Operator's Manual	1

DESCRIPTION

KNOW YOUR CHAIN SAW (Fig 4)

The safe use of this product requires an understanding of the information on the tool and in this operator's manual, as well as knowledge of the project you are attempting. Before using this product, familiarize yourself with all operating features and safety rules.

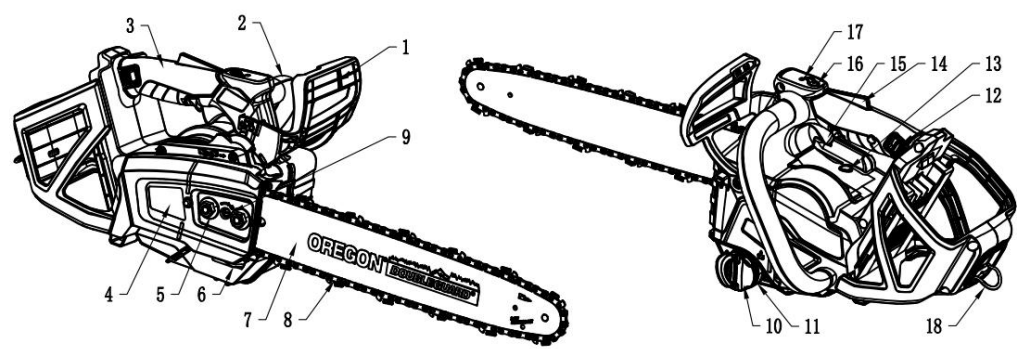


Fig 4

1. Front hand guard	10. Oil tank cover
2. Left handle (used for the left hand)	11. Oil tank
3. Rear handle (for the right hand)	12. Battery release button
4. Sprocket cover	13. Oil pump
5. Sprocket cover nut	14. Trigger switch lockout
6. Chain catcher	15. Trigger switch
7. Guide bar	16. Power button/ON/OFF Switch
8. Chain	17. Power indicator LEDLED
9. Chain tension adjuster	18. Lifting hook

Trigger switch lockout

Helps to prevent accidental or unauthorized activating of the variable-speed trigger. It must be pressed before the speed trigger can be activated.

ON/OFF Switch

Turning the ON/OFF switch to "Off" position locks the speed trigger to prevent the saw from being activated unintentionally.

Front hand guard

Serves as the lever for chain brake activation. It also provides protection against projecting branches and helps prevent the left hand from touching the saw chain if it slips off the front handle.

Front Handle

For holding, controlling and carrying the chainsaw.

Rear Handle

For operating, holding and controlling the chainsaw.

Oil-Tank Cover

Seals the oil tank.

Chain tension adjuster

Used to adjust chain tension.

Sprocket cover nut

Keep the sprocket cover and guide bar in place.

Lifting hook

For hanging the saw to the harness when working in the tree.

Chain Catcher

Reduces risk of operator contact with the chain if it comes off the bar or breaks.

⚠ WARNING: Never operate the tool without the guard firmly in place. The guard must always be on the tool to protect the user.

ASSEMBLY

⚠ WARNING: If any part is damaged or missing, do not operate this product until the part is replaced. Use of this product with damaged or missing parts could result in serious personal injury.

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

⚠ WARNING: To prevent accidental starting that could cause serious personal injury, always remove the power plug /battery pack from the tool when assembling parts, making adjustments, cleaning, or when not in use.

⚠ WARNING: All adjustments should be made cold. Always wear gloves when working on a saw chain. Do not operate with a loose chain. Otherwise personal injury might result.

UNPACKING

- This product requires assembly.
- Carefully remove the product and any accessories from the box. Make sure that all items

listed in the packing list are included.

- Inspect the tool carefully to make sure that no breakage or damage occurred during shipping.
- Do not discard the packing material until you have carefully inspected and satisfactorily operated the tool.
- If any part is damaged or missing, please return the product to the place of purchase.

Mounting guide bar and chain

Note: Move the chain brake lever (Front hand guard) fully rearward to remove or install the guide bar cover to the chain saw.

1. Loosen the two Sprocket cover nuts (A) (Fig 5).
2. Remove the Sprocket cover(B) (Fig 5).

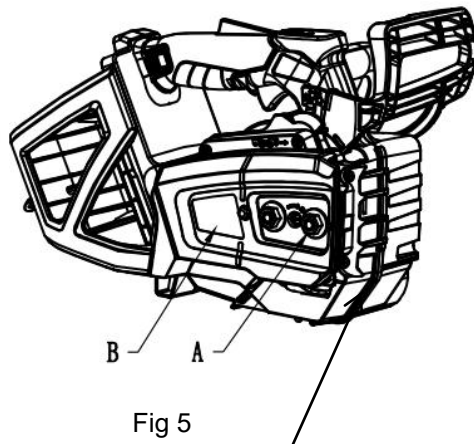


Fig 5

3. Assemble the chain (D) and guide bar (C) as shown in Fig 6. (Ensure cutters are pointing in the right direction.)

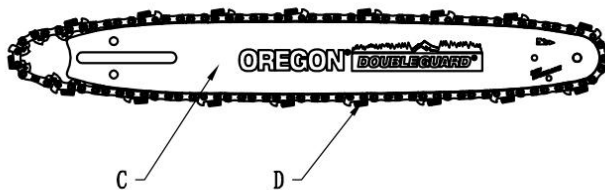


Fig 6

4. Adjust the chain tension adjuster (E) and assemble the guide bar (C) and chain (D) as shown in Fig 7.

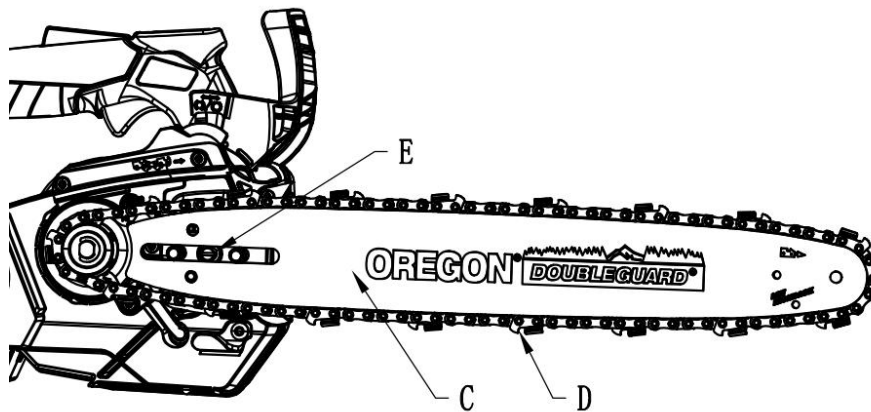


Fig 7

5. Tighten sprocket cover nut (A) to install the sprocket cover (B) (Fig 8).

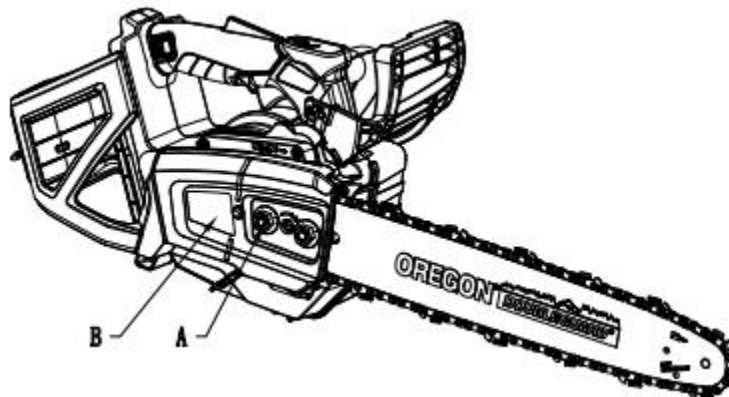


Fig 8

6. Hold the guide bar nose up and turn the adjuster (E) clockwise until the chain fits snugly against the underside of the bar. Then tighten the sprocket cover nut (A) to secure the sprocket cover (Fig 9).

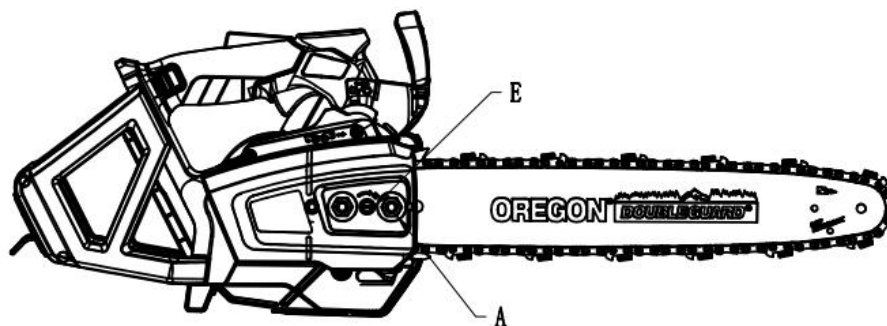


Fig 9

7. Pull the chain around the guide bar by hand. Loosen the adjustment if you feel tight spots (Fig 10).

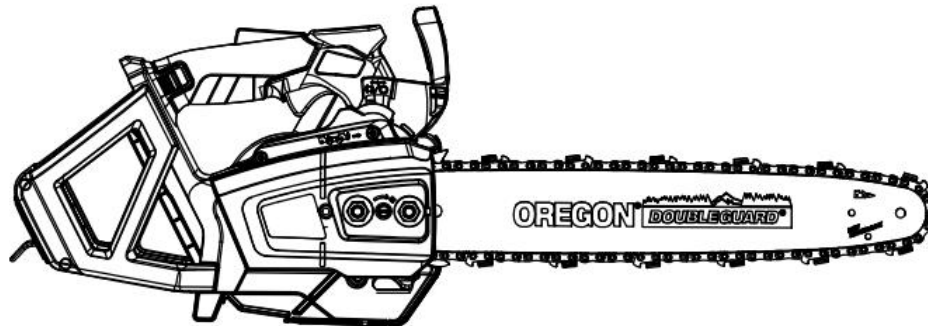


Fig 10

Chain Lubricant

Proper lubrication of the chain while in operation minimizes friction between the chain, the guide bar and sprocket. Use Sunseeker genuine chain oil or Sunseeker recommended chain oil specially formulated for bars and chains for proper lubrication. These oils contain tackifiers, anti-aging and anti-oxidizing agents. Consult your Sunseeker dealer for the proper chain oil. Never use waste or reclaimed oil to avoid various malfunctions of the oil system, chain and guide bar. Lubrication problems caused by the use of improper oil will void the warranty. Especially, vegetable based chain oil quickly turns to resin and adheres to oil pump, chain and guide bar. It causes malfunctions and shorten product life. Flush chain oil system with mineral or chemical based chain oil after use, if it is required to use vegetable oil due to local / municipal restrictions or any other reason. For a short time of emergency operation, fresh SAE 10W-30 motor oil can be used (Fig 11).

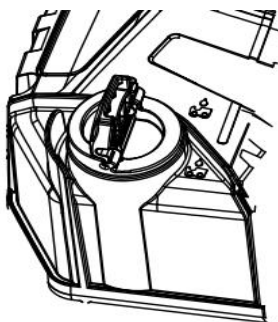


Fig 11

OPERATION

⚠ WARNING: Make sure the bar and chain is in position before operation.

⚠ WARNING: Always wear eye protection that is marked to comply with ANSI Z87.1. or EN 166. Failure to do so could result in objects being thrown into your eyes and other possible serious injuries.

⚠ WARNING: 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.

⚠ WARNING: To prevent serious personal injury, remove the power plug/battery pack from the tool before servicing, cleaning, changing attachments or removing material from the unit.

APPLICATION

You may use this product for the purposes of pruning jobs, cutting small firewood, and garden tidy-ups.

CONNECTING WITH/ DISCONNECTING FROM THE BATTERY

NOTE: Fully charge the battery pack before first use.

This grass trimmer has a quick insert battery package connection. Please use it with the battery and charger listed above on Battery Tool Use and Care section.

The battery and charger are sold separately.

1. **Insert Sunseeker 4Ah battery pack (Model# LBC60140) into the socket, until you hear a clear “click” sound (Fig 12).**

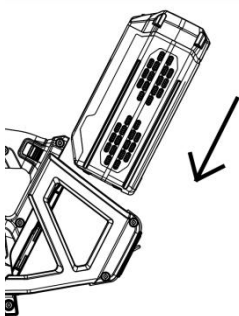


Fig 12

2. To disconnect from the battery, pull the battery lock button on handle towards the guide

bar, then pull the battery pack out from the socket (Fig 13).

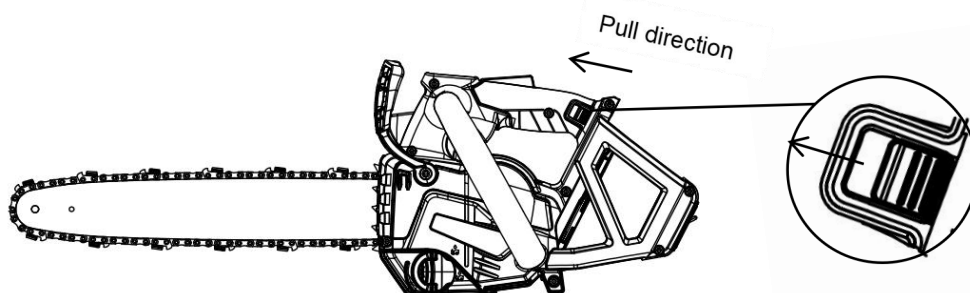


Fig 13

HOLDING AND USING THE CHAIN SAW

⚠ WARNING: Dress properly to reduce the risk of injury when operating this tool. Do not wear loose clothing or jewelry. Wear eye and ear/hearing protection. Wear heavy-duty, long trousers, boots and gloves. Do not wear short trousers, sandals or go barefoot. Wear a face mask or dust mask in dusty locations.

Before operating, look around you to ensure a safe working area without other people or animals. Remove all objects, such as rocks, broken glass, nails, wire, or string. Dust can be whipped up during operation: Whipped up dust can damage the respiratory passages and cause allergic reactions. If dust is generated: Wear a dust respirator mask. Check that you have eye protection, proper clothing and balanced footing. There still may be risk to bystanders from thrown objects. Bystanders should be encouraged to wear eye protection. If they are approached, stop the motor immediately.

- Wear non-slip gloves for maximum grip and protection.
- Hold and control the chain saw with the left hand on the front handle and with the right hand on the rear handle - wrap your thumb around the handles (Fig 14).

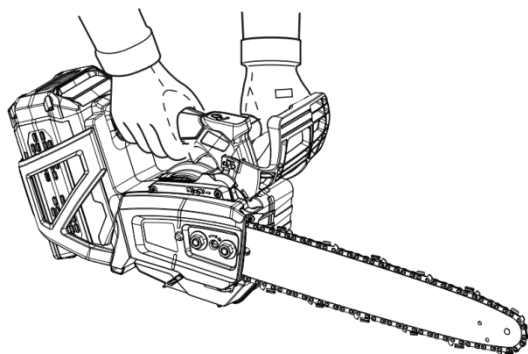



Fig 14

STARTING/STOPPING THE CHAIN SAW

To Start

1. Press the power button “” on Multi Control Display Unit to light the screen (Fig 15).
2. Pull the Front hand guard towards the front handle (Fig 16).
3. Squeeze the Trigger switch lockout and Trigger switch at the same time to start the chain saw (Fig 16)..

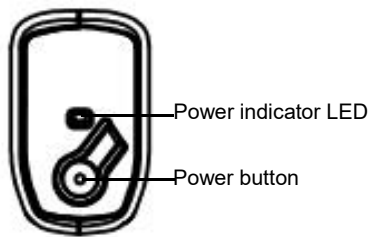


Fig 15

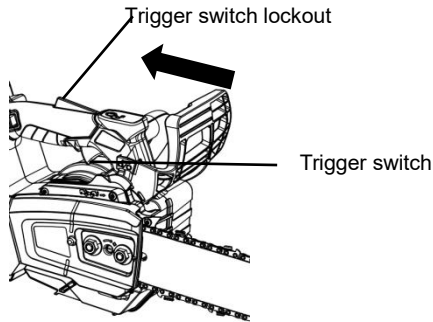


Fig 16

SWITCHING OFF THE CHAIN SAW

1. Release Trigger switch lockout and Trigger switch.
2. Push the Front hand guard forward to the brake position.
3. Press the power button on MCDU to shut down the tool to avoid accidental starting.

⚠ WARNING: Always remove the battery from the tool during work breaks and after finishing work.

⚠ WARNING: Never use water for cleaning your chain saw. Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents. Use clean clothes to remove dirt, dust, oil, grease, etc.

⚠ WARNING: Make sure that the display screen is OFF before next use to avoid serious personal injury.

⚠ WARNING: Always wear heavy gloves when performing any maintenance on the saw chain. Be careful of the saw chain and protect your hands from being injured by the saw chain.

⚠ WARNING: When servicing, use only identical replacement parts. Use of any other parts may create a hazard or cause product damage. To ensure safety and reliability, all repairs should be performed by an authorized dealer/distributor.

⚠ WARNING: To avoid serious personal injury, always remove the power cord from the product when cleaning or performing any maintenance.

Before Use

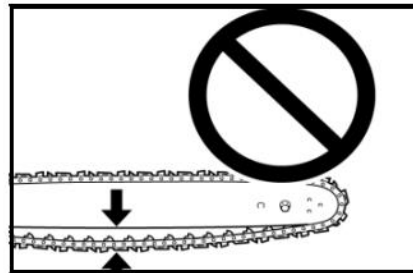
Checking Chain Tension

⚠ WARNING: *Remove battery from unit when checking chain tension.*

Always loosen sprocket cover nut before turning the chain tension adjuster, otherwise damage can occur to the sprocket cover and tensioner.

1. Chain tension should be checked frequently during work and adjusted if necessary.

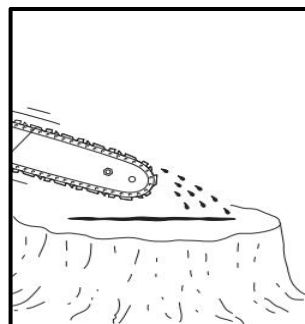
2. Tension the chain as tight as possible, but so that it can still be pulled easily along the guide bar by hand.



Chain Lubrication Test

Hold the chain just above a dry surface and open the throttle to half speed for 30 seconds.

A thin line of “thrown” oil should be seen on the dry surface.



Pre Cutting Test

- Familiarize yourself with your chainsaw before you start actual cutting.
- For this purpose it may be wise to practice by cutting some small logs or limbs several times on a sawhorse or cradle.
- Do not allow either people or animals into the work area. Multiple operators - Keep a

safe distance between two or more operators when working together simultaneously.

Correct Use of Chain Brake

⚠ WARNING: Kickback is very hazardous. If the tip of the bar touches wood or the like, the guide bar kicks back instantly. The chain brake reduces the possibility of injury due to kickback. Always check that the chain brake works properly before use. Otherwise serious personal injury can result.

⚠ WARNING: Be sure to install a guide bar and saw chain when performing a chain brake test.

Note:

- For practice, while cutting a small tree, push the front hand guard forward to engage the brake.
- At all times, confirm whether the brake works properly before each task.
- If the chain brake is clogged with wood chips, function of the brake deteriorates a little. Always keep the device clean.
- Do not increase motor revolutions while the chain brake is engaged.
- Never test the brake in an area where petrol fumes are present.

Chain Brake

- The chain brake's function is to stop chain rotation after a kickback.
- It neither prevents nor reduces kickback.
- Do not depend on the chain brake for protection against kickback.
- Even with a chain brake, depend on your own good sense and proper cutting methods just as though there were no chain brake.
- Even with normal use and proper maintenance, the response time of the brake may lengthen.
- The following may interfere with the brake's ability to protect the operator:
 1. Saw incorrectly held too close to operator's body. Kickback time may be too fast even for a perfectly maintained brake to work in time.

2. The operator's hand may not be in position to contact the front hand guard. Brake will not be tripped.
3. Lack of proper maintenance lengthens the brake's stopping time, making it less effective.
4. Dirt, grease, oil, pitch, etc. getting into the working parts of the mechanism may lengthen the stopping time.
5. Wear and fatigue of the activating brake spring, and wear of the brake/brake drum and pivot points may lengthen the brake's stopping time.
6. A damaged front hand guard may render the brake inoperative.

Checking the Function of the Brake

1. Place the chainsaw on the ground.
2. Hold the handle with both hands and accelerate the motor to high speed by using the trigger switch.
3. Operate the chain brake by turning your left wrist against the front hand guard while maintaining your grip.
4. The chain should stop immediately.
5. Release the trigger switch.

If the chain does not stop immediately, take the chain saw to your authorized dealer to repair.

Release the Chain Brake

When the hand guard is fully pulled rearward, the chain brake is released (Fig 17).

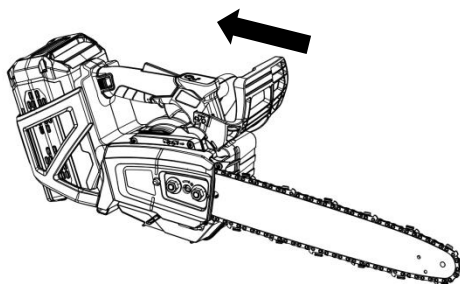


Fig 17

Using The Chainsaw In a Tree

An analysis of accidents with these saws during tree service operations shows the primary cause as being one-handed use of the saw. In the vast majority of accidents, operators fail to

adopt a secure work position that allows them to hold both handles of the saw. This results in an increased risk of injury due to:

- not having a firm grip on the saw if it kicks back,
- a lack of control of the saw such that it is more likely to come into contact with climbing lines and the operator's body (particularly the left hand and arm), and
- loss of control owing to an insecure work position and resulting in contact with the saw (unexpected movement during operation of the saw).

MAINTENANCE

Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use a clean cloth to remove dirt, dust, oil, grease, etc.

Operating a poorly maintained unit can result in serious injuries to operator or bystanders. Always follow all maintenance instructions as written, otherwise serious personal injury can result.

Your unit is designed to provide many hours of trouble free service. Regular scheduled maintenance will help your unit achieve that goal. If you are unsure or are not equipped with the necessary tools, we recommend that you take your unit to a Servicing Dealer for maintenance. To help you decide whether you want to DO-IT-YOURSELF or have the Dealer do it, each maintenance task has been graded. If the task is not listed, see your Dealer for repairs.

The use of emission control components other than those specifically designed for this unit is a violation of federal law.

Skill Levels

Level 1 = Easy to do. Common tools may be required.

Level 2 = Moderate difficulty. Some specialized tools may be required.

Level 3 = See your dealer

Servicing Guidelines

COMPONENT OR SYSTEM	MAINTENANCE PROCEDURE	Skill Level
Daily Or Before Use		
Saw Chain	Inspect / Sharpen / Replace / Clean	2
Battery / Battery Compartment	Inspect / Clean / Charge	1
Guide Bar	Inspect / Clean	1
Cooling System / Air Filter	Inspect / Clean / Replace	2
Chain Brake Inspect / Clean / Replace	Inspect / Clean / Replace	2
Screws / Nuts / Bolts	Inspect / Tighten / Replace	1
Monthly		
Oil Filter / Oil Tank	Inspect / Clean / Replace	1
Sprocket	Inspect / Replace	2

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

⚠ WARNING: When cleaning the tool, DO NOT immerse it water or other liquids.

Chain maintenance

- A properly sharpened saw chain cuts through wood effortlessly, even with very little pressure. Never use a dull or damaged saw chain. A dull saw chain cutter leads to increased physical strain, increased vibration load, unsatisfactory cutting results, and increased wear.
- For smooth and fast cutting, the chain needs to be maintained 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 your chain, consider the following:
 - Improper filing angle of the side plate can increase the risk of a severe kickback.
 - Depth gauge clearance. Too low increases the potential for kickback. Not low enough decreases cutting ability.
 - If cutter teeth have hit hard objects, such as nails and stones, or have been abraded by mud or sand on the wood, have the chain sharpened by a qualified service technician.

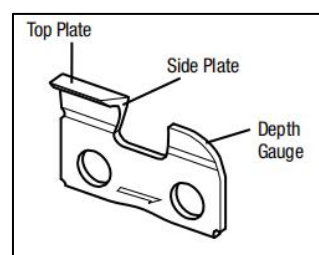
NOTICE: Inspect the drive sprocket, brake lining for wear or damage when replacing the chain.

If signs of wear or damage are present in the areas indicated, have the drive sprocket, brake lining replaced by qualified service technician.

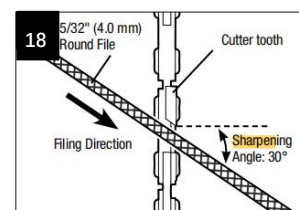
How to Sharpen the Cutters

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

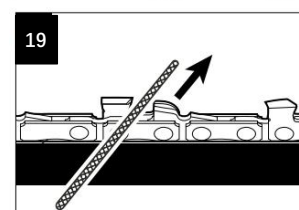
1. Disconnect the power plug. Wear gloves for protection.
2. Make sure that the chain is properly mounted and the bar nut is fully tightened, and the chain is correctly tensioned.
3. Use a 5/32" (4.0 mm) diameter round file and holder (available separately). Do all of your filing at the middle position of the guide bar for perfect balance.



4. Keep the file level with the top plate of the tooth. Do not let the file dip or rock.

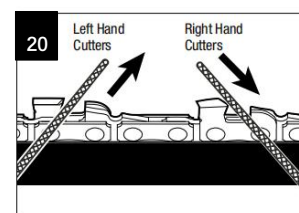


5. Keep a correct sharpening angle of 30° between the file and the saw chain; see Fig 18 & 19. Always use a file holder (available separately) when sharpening saw chains by hand. File holders have markings for the sharpening angle.



6. Using light but firm pressure, stroke towards the front corner of the tooth. Lift the file away from the steel on each return stroke.

7. Make 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. Occasionally remove filings from the file with a wire brush (Fig 20).



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

WARNING: Improper chain sharpening increases the potential of kickback.

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

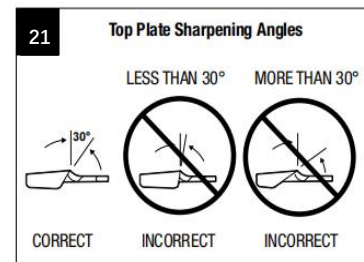
Top Plate Sharpening Angles

(Fig 21)

- **CORRECT 30°**- This optimal angle can be obtained only when the specified files and proper setting are used. File holders are marked with guide marks to align the file properly to produce the correct top plate angle.

- **LESS THAN 30°**- The tooth is too dull for cutting.

- **MORE THAN 30°**- The edge of the cutting tooth is feathered and dulls quickly.



Side Plate Sharpening Angle

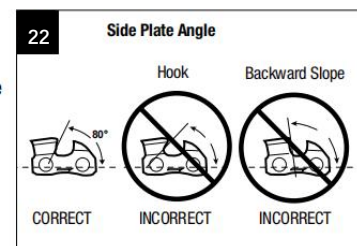
(Fig 22)

- **CORRECT 80°**- The optimal angle can be produced automatically if the correct diameter file is used in the file holder.

- **HOOK** "Grabs" and dulls quickly. Increases potential of KICKBACK. Results from using a file with a diameter that is too small, or a file held too low.

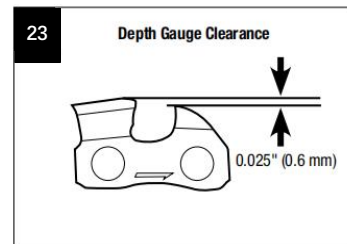
- **BACKWARD SLOPE** Needs too much feed pressure, causes excessive wear to bar

and chain. Results from using a file with a diameter too large, or a file held too high.



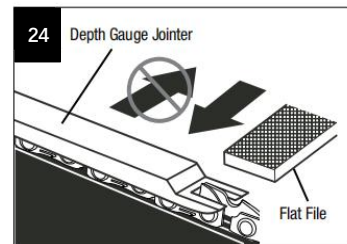
Depth-Gauge Clearance

1. The depth gauge should be maintained at a clearance of 0.025 in. (0.6 mm), as shown in Fig 23. Use a depth-gauge tool (available separately) to check the depthgauge clearances.



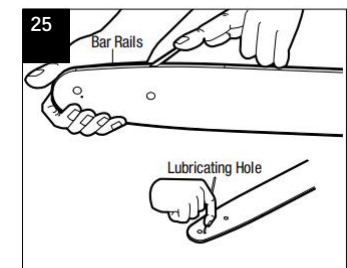
2. Check the depth-gauge clearance every time the chain is filed.

Use a flat file and a depth-gauge jointer (both available separately) to lower all gauges uniformly (Fig 24). Depth gauge jointers are available from 0.020 in. to 0.035 in. (0.5 mm to 0.9 mm). Use a 0.025 in. (0.6 mm) depth-gauge jointer.

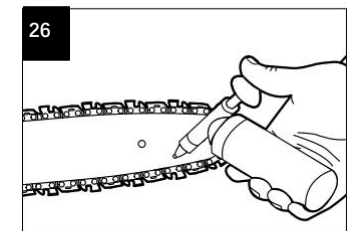


3. Depth-gauges must be adjusted with the flat file in the same direction the adjoining cutter was filed with the round file. Use care not to contact the cutter face with the flat file when adjusting depth-gauges.

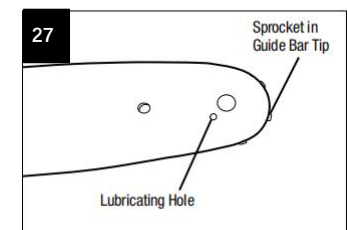
The bar should be cleaned (including bar rails and lubricating hole) every day of use and checked for wear and damage (Fig 25). Feathering or burring of the bar rails is a normal process of bar wear. Such faults should be smoothed with a file as soon as they occur. A bar with any of the following faults should be replaced.



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



The guide bar has a sprocket at its tip that must be lubricated weekly with a grease syringe to extend the guide bar life (Fig 26 & 27). Turn the nose sprocket while pumping the translucent yellow, translucent red or colorless translucent grease into the lubricating hole until the



entire sprocket has new grease. Do not push dirt into the hole.

CLEANING

- After each use, clean debris from the chain and guide bar with a soft brush. Wipe the chain saw surface with a clean cloth moistened with a mild soap solution.
- For deep clearing, remove the side cover assembly, take down the guide bar and saw chain and then use a soft brush to thoroughly remove debris from the guide bar, saw chain, and the drive sprocket on the chain saw power head.
- Always clean out wood chips, saw dust, and dirt from the guide bar groove when replacing the saw chain.

TRANSPORTING AND STORING

- Do not store or transport the chain saw when it is running. Always disconnect the power plug before storing or transporting.
- Always place the guide bar sheath on the guide bar and chain before storing or transporting the chain saw. Use caution to avoid the sharp teeth of the chain.
- Clean the chain saw thoroughly before storing. Store the chain saw indoors, in a dry place that is locked and/or inaccessible to children.
- Keep away from corrosive agents such as garden chemicals and de-icing salts.
- Clean the tool thoroughly before storing.
- Store the tool indoors, in a dry place that is inaccessible to children.
- Keep away from corrosive agents such as garden chemicals and deicing salts.

TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
The chain saw doesn't work.	Battery not installed properly	Check the battery installation.
Unit does not run when turned on.	Battery discharged. Battery outside acceptable temperature range.	Remove the battery and allow to cool
Running time is too short	Battery outside acceptable temperature range	Remove the battery and allow to cool
	Unit electronics too hot Battery discharged	Turn unit off and allow to cool Charge the battery
	Cutting attachment dirty	Clean the cutting attachment
	Chain tension too high	Readjust chain tension
Chain oil does not come out	No oil in the oil tank	Fill the chain oil
	Clogged chain oil pipe or oil filter	Clean the chain oil pipe and oil filter
	Fault in the oil passage	Consult your dealer
Unit vibrates excessively	Fault in internal parts	Consult your dealer

ERROR ALARM INDICATOR (Light flash times- 0.3s on, 0.3s off)	CAUSE	SOLUTION
1	MOS abnormal	Contact the service point for a professional consultant or repairing.
2	Wire short circuit	Contact the service point for a professional consultant or repairing.
3	Communication abnormal	Take out the battery and then slide in to restart. If issue not solved, contact the service point for a professional consultant or repairing.
4	Hardware over-current, peak over-current, average over-current	Release the trigger and then restart the machine.
5	Controller under-voltage, controller over-voltage, battery pack under-voltage	Restart the tool after the machine voltage is normal.
6	MOS high temperature, MOS low temperature, battery pack high temperature	Release the trigger, wait the machine/battery temperature cool down to normal and then restart.
7	/	/
8	Low speed protection, motor blocking	Release the trigger and then restart the machine.
9	Other -Power-on logic	Release the trigger and then restart the machine.
10	Light quick flash, 0.15s on, 0.15s off	Release the trigger and then restart the machine.

