kiwigarden™

PETROL CHAIN SAW 45cc

USER MANUAL

Dear Valued Customer,
Thank you for purchasing this KIWIGARDEN Power Tool. We are dedicated to providing quality KIWIGARDEN Power Tools at competitive prices. Whether you are serious about DIY or just a casual user, our range of power tools is perfect for any job.

All of our power tools are developed and produced under stringent ISO9001 Quality Management systems and are subject to a final production inspection before they leave the factory.

1–YEAR WARRANTY:

This product is covered by a 1 year warranty from the date of purchase against factory faults. Should your product be faulty, it may be replaced, repaired or refunded as deemed appropriate by the retailer. Valid proof of purchase will be required. As the product is intended for home DIY use only, commercial usage of this product for professional or industrial.

CONTENTS:

PRODUCT FEATURES:

1. Rear handle
2. Throttle lockoff
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21. Chain guard
22. Clutch cover (Fig. A)
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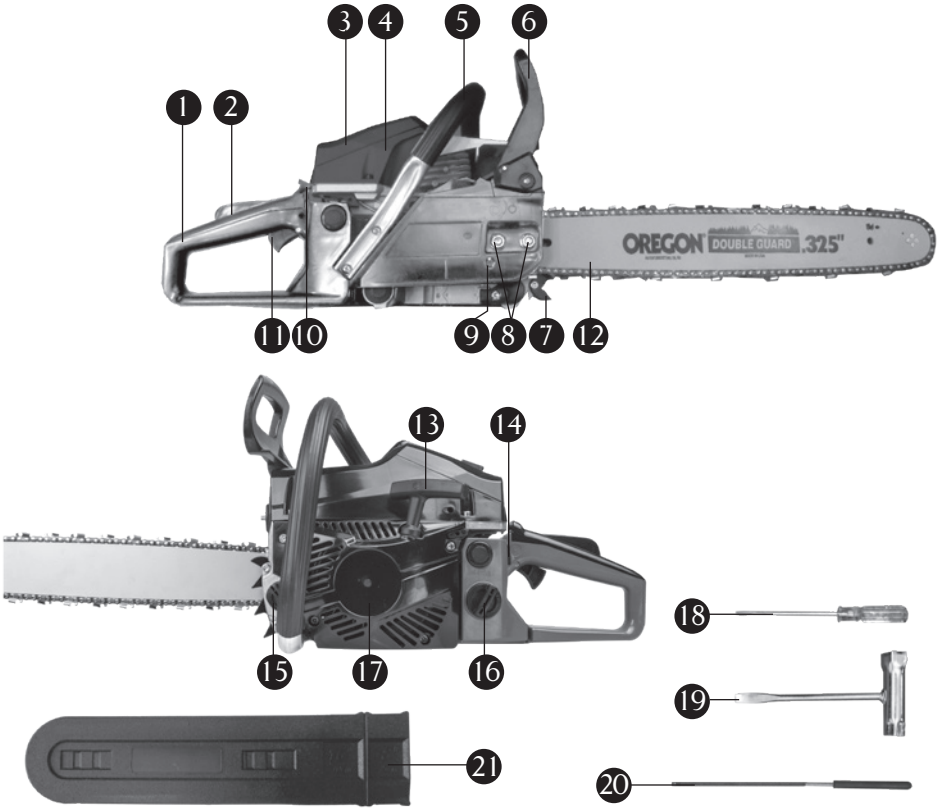

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KIWI GARDEN 1 – YEAR WARRANTY:

All kiwi garden Power Tools are backed by a comprehensive 1-year warranty. If for any reason you experience a fault with this power tool, please contact the retailer that it was purchased from, present the receipt and warranty card (at the back of the operating manual), for a full refund. The warranty is void if damage is not attributed to normal wear and tear, is used commercially, the motor is overloaded, is tampered with, damaged by accident or if it is bought second hand. Continued use after partial failure, or the use with the improper accessories will void the warranty.

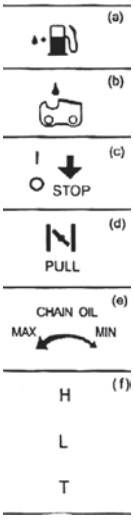
This warranty excludes all kiwi garden accessories.

Please call 0508 77 88 99 for advice and repairs.

SYMBOLS

	**Warning!** **See instruction handbook!**
	**WARNING: Appropriate ear, eye and head protection must be worn.**
	**Hot surfaces will burn fingers or palms**

	**Keep safety distance between user and machinery**
	**No smoking and naked flames**
	**Gloves with saw protection**
	**Boots with saw protection, steel toe-cap and non-slip sole**
	**Always grip the machine with two hands**
	**Kickback: never cut with the tip of the chainsaw.**
	**Chain brake Engage: push to forward position**
	**Chain brake Disengage: pull back to locking position**
	**Fuel and oil mixture**
	**Chain oil fill/oil pump**
	**Engine-manual start**
	**Heated handle-temperature control**
	**Choke-open**

	**Choke-closed**
You will notice the following symbols on the chain saw and in the Owner's and Safety Manual:	
	**The port to refuel the Petrol & Oil mixture** **Position: fuel tank cap** **The port to refuel the "CHAIN OIL"** **Position: oil cap** **On/Stop switch indication. Moving the engine switch to the "O" (STOP) position, the engine stops.** **Position: rear-left of the unit** **Choke position indication. Pulling the choke knob out will close the choke.** **Position: rear-right of the unit** **Chain oil adjuster nut idication.** **" MIN" direction-the oil flow will decrease.** **" MAX" direction-the oil flow will increase.** **Position: bottom of the clutch side** **The position of H-needle** **The position of L-needle** **The position of T-idle adjusting screw** **Position: rear-left of the unit**
	**Stop engine**
	**RCM marking**

SAFETY POINTS FOR YOUR PETROL CHAIN SAW

WARNING! The saw is intended only for the cutting of wood. The engine group is intended only for use with the recommended cutting equipment.

Before using the machine, read the operating instructions carefully to understand all of the content. Failure to follow all instructions listed below may result in fire and/or serious injury.

Only use this machine for usage specifically mentioned in this manual.

READ THE INSTRUCTIONS

GENERAL SAFETY INSTRUCTIONS

PLAN AHEAD

1. Read this manual carefully until you completely understand and can follow all safety rules, precautions, and operating instructions before attempting to use the unit.
2. For adult use only. Restrict the use of your saw to adult users who understand and can follow safety rules, precautions, and operating instructions found in this manual.
3. Wear protective gear. Always use steel toed safety footwear with non-slip soles; snug-fitting clothing; heavy-duty, non-slip gloves; eye protection such as non-fogging, vented goggles or face screen; an approved safety hard hat; and sound barriers (ear plugs or mufflers) to protect your hearing. Regular users should have hearing checked regularly as chain saw noise can damage hearing. Secure hair above shoulder length.
4. Keep all parts of your body away from the chain when the engine is running.
5. Keep children, bystanders, and animals a minimum of 10 meters away from the work area. Do not allow other people or animals to be near the chain saw when starting or operating the chain saw. If necessary use warning signs to keep on lookers at a distance.
6. Do not handle or operate a chain saw when you are fatigued, ill, or upset, or if you have taken alcohol, drugs, or medication. You must be in good physical condition and mentally alert. Chain saw work is strenuous. If you have any condition that might be aggravated by strenuous work, check with your doctor before operating a chain saw.
7. Carefully plan your sawing operation in advance. Do not start cutting until you have a clear work area, secure footing, and, if you are felling trees, a planned retreat path. Do not operate the chainsaw near a naked flame or spilled fuel. After re-fueling, always wipe off any spilled fuel, move the chainsaw away from the fueling point before starting the engine.

OPERATE YOUR SAW SAFELY

1. Do not operate a chain saw with one hand. Serious injury to the operator, helpers, bystanders or any combination of these persons may result from one-handed operation. A chain saw is intended for two-handed use. Always maintain a firm foothold. Ensure you are able to STOP the engine quickly if necessary.
2. Operate the chain saw only in a well-ventilated outdoor area.
3. Do not operate saw from a ladder or in a tree.
4. Make sure the chain will not make contact with any object while starting the engine. Never try to start the saw when the guide bar is in a cut.
5. Do not put pressure on the saw at the end of the cut. Applying pressure can cause you to lose control when the cut is completed.

6. Stop the engine before setting the saw down.
7. Do not operate a chain saw that is damaged, improperly adjusted, or not completely and securely assembled. Always replace bar, chain, hand guard, or chain brake immediately if it becomes damaged, broken or is otherwise removed.
8. With the engine stopped, hand carry the chain saw with the muffler away from your body, and the guide bar and chain to the rear, preferably covered with a scabbard.

PHYSICAL CONDITION

You must be in good physical condition and mental health and not under the influence of any substance (drugs, alcohol), which might impair vision, dexterity or judgment.

PROPER CLOTHING

Clothing must be sturdy and snug-fitting, but allow complete freedom of movement. Avoid loose-fitting jackets, scarfs, neckties, jewelry, flared or cuffed pants, or anything that could become entangled with the saw or brush. Wear overalls or jeans with a reinforced cutting resistant insert (A).

Protect your hands with gloves when handling saw and saw chain. Heavy-duty, nonslip gloves improve your grip and protect your hands.

Good footwear is most important in chain saw work.

Wear sturdy boots with nonslip soles. Steel-toed safety boots are recommended.

Proper eye protection is a must. Non-fogging, vented goggles and a face screen is recommended. Their use reduces the risk of eye and facial injury.

Wear an approved safety hard hat to protect your head. Chain saw noise may damage your hearing.

Always wear noise protection equipment (ear plugs or ear muffs) to protect your hearing.

Continual and regular users should have their hearing checked regularly.

MAINTAIN THE SAW IN GOOD WORKING ORDER

1. Have all chain saw service performed by a qualified service dealer with the exception of the items listed in the maintenance section of this manual. For example, if improper tools are used to remove or hold the flywheel when servicing the clutch, structural damage to the flywheel can occur and cause the flywheel to burst.
2. Make certain the saw chain stops moving when the throttle trigger is released. For correction, refer to:

CARBURETOR ADJUSTMENT.

1. Never modify your saw in any way.
2. Keep the handles dry, clean, and free of oil or fuel mixture.
3. Keep fuel and oil caps, screws, and fasteners securely tightened.
4. It is recommended you use **Prime Parts** to maintain your products.

HANDLE FUEL WITH CAUTION

1. Do not smoke while handling fuel or while operating the saw.
2. Eliminate all sources of sparks or flame in the areas where fuel is mixed or poured. There should be no smoking, open flames, or work that could cause sparks. Allow engine to cool before refueling.
3. Mix and pour fuel in an outdoor area on bare ground; store fuel in a cool, dry, well ventilated place; and use an approved, marked container for all fuel purposes. Wipe up all fuel spills before starting saw.
4. Move at least 3 meters from fueling site before starting engine.
5. Turn the engine off and let saw cool in a non-combustible area, not on dry leaves, straw, paper, etc. Slowly remove fuel cap and refuel unit.
6. Store the unit and fuel in an area where fuel vapors cannot reach sparks or open flames from water heaters, electric motors or switches, furnaces, etc.

KICKBACK SAFETY PRECAUTIONS

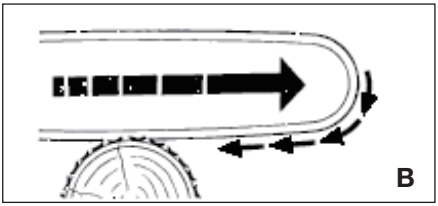
WARNING! Kickback may occur when the moving saw chain near the upper quadrant of the bar nose contacts a solid object or is pinched.
The reaction of the cutting force of the chain causes a rotational force on the chainsaw in the direction opposite to the chain movement. This may fling the bar up and back in an uncontrolled arc mainly in the plane of the bar. Under some cutting circumstances the bar moves towards the operator, who may suffer severe or fatal injury.
Kickback may occur when the nose of the guide bar is pinched unexpectedly,

unintentionally contacts solid material in the wood or is incorrectly used to begin a plunge or boring cut.
It may also occur during limbing. The greater the force of the kickback reaction, the more difficult it becomes for the operator to control the saw. Many factors influence the occurrence and force of the kickback reaction. These include chain speed, the speed at which the bar and chain contact the object, the angle of contact, the condition of the chain and other factors.
Pull-in occurs when the chain on the bottom of the bar is suddenly stopped when it is pinched, caught or encounters a foreign object in the wood. The reaction of the chain pulls the saw forward and may cause the operator to lose control.
Pull-in frequently occurs when the bumper spike of the saw is not held securely against the tree or limb and when the chain is not rotating at full speed before it contacts the wood.

WARNING! Use extreme caution when cutting small size brush and saplings which may easily catch the chain and pull you off balance.

TO AVOID PULL-IN (B)

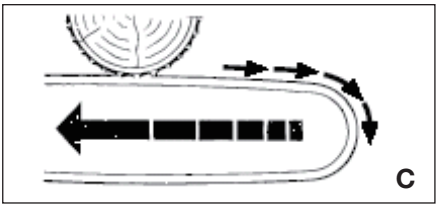
1. Always start a cut with the chain rotating at full speed and the bumper spike in contact with the wood.
2. Pull-in may also be prevented by using wedges to open the kerf or cut.



Pushback occurs when the chain on the top of the bar is suddenly stopped when it is pinched, caught or encounters a foreign object in the wood. The reaction of the chain drives the saw straight back toward the operator and may cause loss of saw control. Pushback frequently occurs when the top of the bar is used for cutting.

TO AVOID PUSHBACK (C)

1. Be alert to forces or situations that may cause material to pinch the top of the chain.
2. Do not cut more than one log at a time.
3. Do not twist the saw when withdrawing the bar from a plunge cut or underbuck cut because the chain can pinch.



DEVICES FOR REDUCING THE RISK OF KICKBACK INJURY

Quickstop chain brake

WARNING! To reduce the risk of injury, stop using the saw immediately if the chain brake does not function properly. Take the saw to your local Service Centre! Do not use the saw until the problem has been rectified.

Chain brake is designed to stop the chain in the event of kickback. When the chain brake/ hand guard is pushed towards the bar, the chain should stop immediately. A chain brake does not prevent kick-back; the chain brake should be cleaned and tested daily.

Low kickback chain

"Low kickback saw chain" is a chain which has met the kickback performance requirements. Low--Kickback Chain, designed with a contoured depth gauge and guard link which deflect kickback force and allow wood to gradually ride intothe cutter.

Reduced kickback bar

Reduced--Kickback Guide Bar, designed with a small radius tip which reduces the size of the kickback danger zone on the bar tip. A Reduced--Kickback Guide Bar has been demonstrated to significantly reduce the number and seriousness of kickbacks.

To avoid kickback

The best protection from personal injury that may result from kickback is to avoid kickback situations:

1. Hold the chainsaw firmly with both hands and maintain a secure grip.
2. Be aware of the location of the guide bar nose at all times.
3. Never let the nose of the guide bar contact any object. Do not cut limbs with the nose of the guide bar.Be especially careful when cutting small, tough limbs, small size brush and saplings which may easily catch the chain.
4. Don't overreach.
5. Don't cut above shoulder height.
6. Cut only one log at a time.
8. Use extreme caution when reentering a previous cut.
9. Do not attempt to plunge cut if you are not experienced with these cutting techniques.
10. Be alert for shifting of the log or other forces that may cause the cut to close and pinch the chain.
11. Maintain saw chain properly. Cut with a correctly sharpened, properly tensioned chain at all times.
12. Stand to the side of the cutting path of the chainsaw.

KNOW YOUR CHAIN SAW

Ignition SWITCH **(14)**
The Ignition switch is used to stop the engine.

THROTTLE TRIGGER (11)
The THROTTLE TRIGGER controls engine speed.

THROTTLE LOCK--OFF (2)
The THROTTLE LOCK--OFF must be pressed before you can squeeze the throttle trigger. This feature prevents you from accidentally squeezing the trigger.

CHOKE LEVER (10)
The choke and fast idle are set by pulling the CHOKE LEVER out to the full extent for cold starting or after refueling. The choke provides additional fuel to the engine during cold starting.

CHAIN BRAKE (6)
The chain brake is a device designed to stop the chain if kickback occurs. The chain brake activates automatically in the event of kickback.
The chain brake activates manually if the front hand guard is pushed forward.
The chain brake is disengaged by pulling the front hand guard back toward the front handle as far as possible.

CHAIN TENSION
It is normal for a new chain to stretch during the first 5 minutes of operation. Ensure the engine is always SWITCH OFF before fitting or adjusting the chain. You should check your chain tension frequently. See CHAIN TENSION under the ASSEMBLY section.

WARNING: Muffler is very hot during and after use. Do not touch the muffler or allow combustible material such as dry grass or fuel to do so.

ASSEMBLY

WARNING! Protective gloves (not provided) should be worn during assembly. Never start the saw before having mounted or regulated the chain.

1. MOUNTING THE GUIDE BAR AND SAW CHAIN

WARNING! If received assembled, repeat all steps to ensure your saw is properly assembled and all fasteners are secure. Always wear gloves

when handling the chain. The chain is sharp and can cut you even when it is not moving!

Put the chain saw on a stable surface and carry out the following steps for mounting the guide bar and saw chain: Release the chain brake (6) by pulling the hand guard in direction of arrow. (Fig. A) Ensure the chain brake lever is in disengaged position.

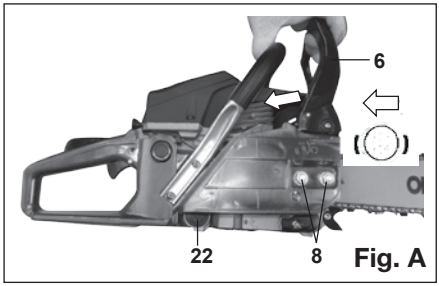


Fig. A

1) Unscrew the chain bar locking nuts(8) with Chain adjustment & Spark plug tool (19).
2) Pull off the clutch cover (22).
3) Install the Spiked bumper (7) to the power unit. (Fig. B)

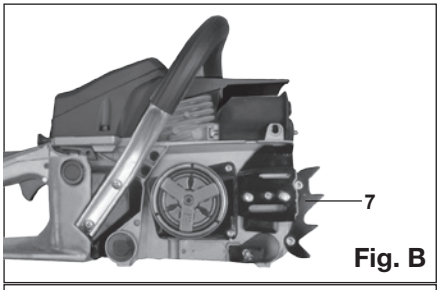


Fig. B

4) Put on the guide bar (12). (Fig. C)

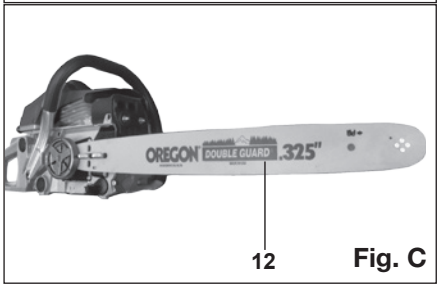


Fig. C

5) Carefully remove the chain from the package. Hold chain with the drive links as shown. Check the chain direction. (Fig. D &E)

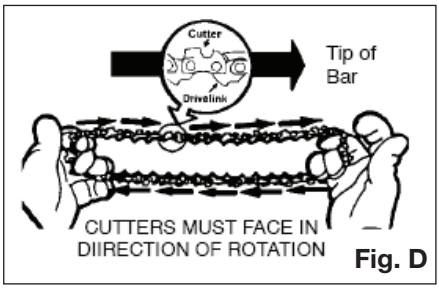


Fig. D

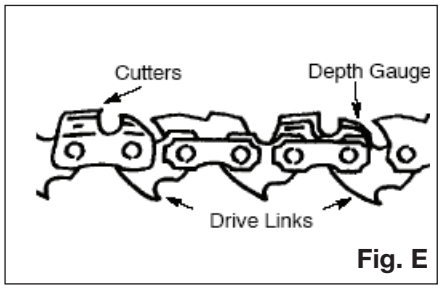


Fig. E

WARNING! Cutters must face in direction of rotation.

6) Lift the chain over and behind clutch retainer, fitting the drive links in the clutch drum sprocket. (Fig. F)

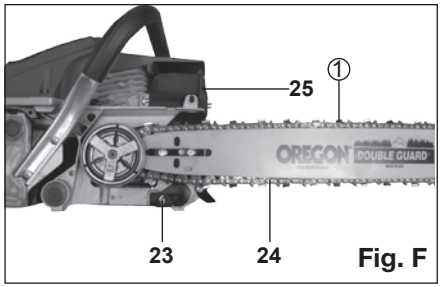


Fig. F

CAUTION: Do not insert the chain between the chain sprocket and the disc.

7) Fit bottom of drive links between the teeth in the front nose sprocket of the guide bar.

8) Fit chain drives links into chain bar groove (①). Place the chain(24) over the chain catcher (23) on the bottom.

9) Pull chain bar forward until chain is snug in chain bar groove. Ensure all drive links are in the bar groove.

10) Now, fit the metal spacer to the bar bolts, install clutch cover (22) making sure the adjusting pin (②) is positioned in the lower hole (③) in the chain bar. Remember this pin moves the bar forward and backward as the screw is turned. (Fig. G)

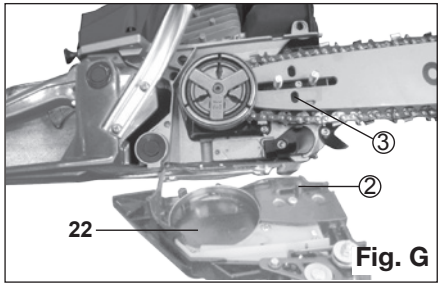


Fig. G

11) Install the chain bar locking nuts(8) and tighten with Chain adjustment & Spark plug tool (19) only. Tension the chain as detailed in the next section. (Fig. H)

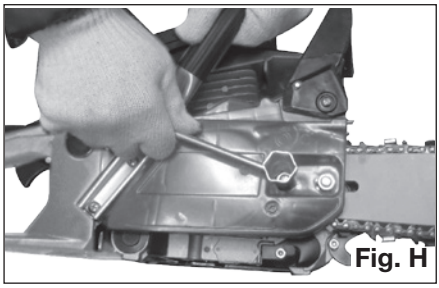


Fig. H

2. CHAIN TENSION

WARNING: Wear protective gloves when handling chain. The chain is sharp and can cut you even when it is not moving.

NOTE: When adjusting chain tension, make sure the chain brake nuts are finger tight only. Attempting to tension the chain when the chain brake nuts are tight can cause damage.

Checking the tension:

Use the end of the Chain adjustment & Spark plug tool (19) to move the chain(24) around guide bar(12) (Fig. I). If the chain is too tight, it will not rotate around the guide bar.
If the chain is too loose, it will sag below the guide bar.

Fig. I

Adjusting the tension (Fig. J):

Chain tension is very important. Chain stretch occurs during use. This is especially true during the first few times you use your saw. **Always check chain tension each time you use and refuel your saw.**

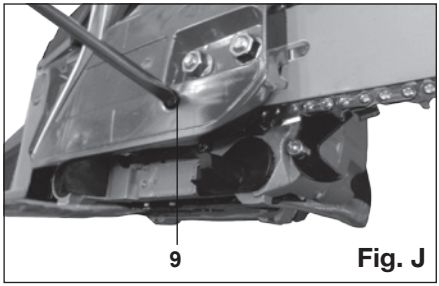


Fig. J

1) Loosen chain bar locking nuts (8) until they are finger tight against the clutch cover.

2) Turn chain adjusting screw (9) clockwise until chain solidly contacts bottom of guide bar rail.

3) Using the Chain adjustment & Spark plug tool (19), roll chain around guide

bar to ensure all links are in bar groove.

4) Lift up tip of guide bar to check for sag. Release tip of guide bar, then turn adjusting screw clockwise. Repeat until sag does not exist.

5) While lifting tip of guide bar, tighten chain bar locking nuts (8) securely with the Chain adjustment & Spark plug tool (19). (Fig K)

WARNING: DO NOT OVER TIGHTEN!

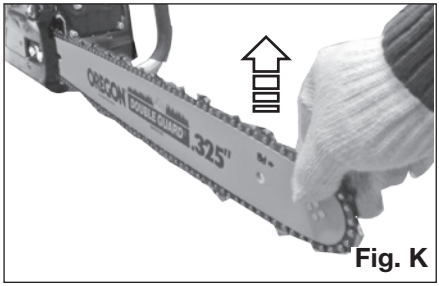


Fig. K

6) Use the end of the Chain adjustment & Spark plug tool (19)to move chain around guide bar (Fig I).

7) If the chain is too tight, it will not rotate around the guide bar. Slightly loosen the chain bar locking nuts(8) and loosen the chain by turning the chain adjusting screw (9) counterclockwise. Retighten the chain bar locking nuts(8).

8) If chain is too loose, it will sag below the guide bar. DO NOT operate the saw if the chain is loose.

WARNING: If the saw is operated with a loose chain, the chain could jump off the guide bar and result in serious injury.

OPERATION

1. BEFORE STARTING ENGINE

WARNING: Be sure to read the fuel handling information in the safety rules section of this manual before you begin. If you do not understand the fuel handling information do not attempt to fuel your unit. Seek help from someone that does understand the information.

1) FUELING and REFULING ENGINE

WARNING: Always turn off engine before refueling. Never add fuel to the machine with a running or hot engine. Move at least 3m from the refueling site before start the engine. DO NOT SMOKE. Failure to follow this warning can result in possible personal injury.

2) SAFETY TIPS FOR FUELING

• Always handle fuel with care. It is highly flammable.

• Always refuel outdoors where there are no sparks and flames. Do not inhale fuel vapors.

• Do not let petrol or oil come in contact with your skin.

• Keep petrol and oil away from the eyes. If petrol or oil comes in contact with the eyes, wash them immediately with clean water. If irritation is still present. Seek immediate medical help.

• Clean up spilled fuel immediately. Always store fuel in an approved container.

3) MIXING FUEL AND OIL

Warning! Read ''Safety Tips for Fueling" before you begin.

1) This engine is designed to operate on unleaded petrol .This product requires pre-mixing petrol and 2-stroke oil. Pre-mix unleaded petrol and 2-stroke oil in the container provided.

2) Before operation, petrol must be mixed with a good quality synthetic 2-stroke air cooled engine oil designed to be mixed at a ratio of 25:1 (25 parts petrol to 1 part oil). It is recommended that you use **Prime Parts** oil for fuelling your chainsaw

3) DO NOT USE automotive or marine oil. These oils will cause engine damage. We recommend the use of Prime Parts Super 2 Stroke Oil.

4) Mix the fuel thoroughly each time and when refueling.

5) Mix in small quantities. Do not mix a quantity that is larger than can be quantities used in a 30-day period.

6) Petrol is highly flammable and extreme precautions must be taken when handling or working with petrol. Petrol should only be stored in approved containers.

Please follow the mixing method described below to ensure that the correct mixture is used with your chain saw. Use the mixing container provided to mix the petrol and the oil. Use the funnel provided to prevent spillages.

① Unscrew and remove the cap from the mixing container.

② Pour unleaded petrol into the mixing bottle **(not supplied)** to the PETROL mark on the side of the container.

③ Pour oil into the mixing bottle **(not supplied)** to the OIL mark on the side of the container.

④ Refit and tighten the cap on the mixing container. Shake the container well to ensure that the petrol and oil is mixed together.

4) BAR AND CHAIN LUBRICATION

The service life of the bar and chain depends on good lubrication. We recommend using **Prime Parts** Chainsaw Chain Oil. Otherwise it will result in damage to the bar, the chain and oil pump.

The bar and chain require continuous lubrication. Lubrication is provided by the automatic oilier system when the oil tank is kept filled. Lack of oil will quickly ruin the bar and chain. Too little oil will cause overheating shown by smoke coming from the chain and/ or discoloration of the bar. Bar and chain oil must be free flowing for the oil system to pump enough oil for adequate lubrication. Never use waste oil for bar and chain lubrication.

Always stop the engine before removing the oil cap.

Refill the chain oil tank each time the saw is refueled.

To prevent possible restarting problems avoid running the fuel tank dry. This will help to extend engine life. We recommend the use of Prime Parts Chain Bar Lubricant.

5) IMPORTANT

Experience indicates that alcohol—blended fuels (called gasohol or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage.

Acidic gas can damage the fuel system of an engine while in storage. To avoid engine problems, the fuel system should be emptied before storage for 30 days or longer. Drain the gas tank, start the engine and let it run until the fuel lines and carburetor are empty. Use fresh fuel next season. See STORAGE section for additional information.

6) CHAIN BRAKE

Ensure chain brake is disengaged by pulling the front hand guard back toward the front handle as far as possible. The chain brake must be disengaged before cutting with the saw.

⚠ WARNING: The chain must not move when the engine runs at idle speed. If the chain moves at idle speed refer to CARBURETOR ADJUSTMENT within this manual. Avoid contact with the muffler. A hot muffler can cause serious burns.

2. TO START THE ENGINE (Fig. L)

The chain brake must be disengaged when starting the saw.

	COLD	HOT
Front chain brake lever	1	1
ON/OFF switch	2	2
Full choke position- CHOKE	3	
Pull cord handle	4 ×5	
Open choke position- START	5	
Pull cord handle	6	3

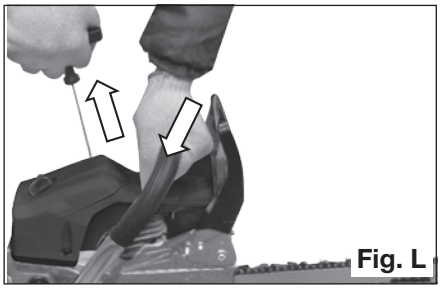


Fig. L

The chainsaw is started on the ground. Make sure the chain brake is disengaged and place the chainsaw on firm level ground or other solid surface in an open area. The chainsaw is started on the ground. Make sure the chain brake is disengaged and place the chainsaw on firm level ground or other solid surface in an open area.

Maintain good balance and secure footing.

Grip the front handlebar of the saw firmly with your left hand and press down. For saws with a rear handle level with the ground, put the toe of your right foot into the rear handle and press down. With your right hand pull out the starter pull cord slowly until you feel a definite resistance and then give it a brisk, pull until the engine starts.

Your chainsaw has Easy-start construction, which help to start the machine with minimum effort.

When you pull the starter grip, don't wrap the starter rope around your hands. Do not allow the grip to snap back, but guide the starter rope slowly back to permit the rope to rewind properly. Failure to follow this procedure may result in injury to hand or fingers and may damage the starter mechanism.

IMPORTANT POINTS TO REMEMBER

When pulling the starter rope, do not use the full extent of the rope as this can cause the rope to break. Do not let starter rope snap back. Hold the handle

and let the rope rewind slowly.
For cold weather starting, start the unit at FULL CHOKE; allow the engine to warm up before squeezing the throttle trigger.
NOTE: Do not attempt to cut material with the choke/fast idle lever in the FULLCHOKE position.

3. STARTING A COLD ENGINE (OR WARM ENGINE AFTER RUNNING OUT OF FUEL)

NOTE: In the following steps, when the choke lever is pulled out to the full extent, the correct throttle setting for starting is set automatically.
1) Disengage the chain brake (6) by pull the hand guard.
2) Move Ignition switch to the "I" position. (Fig. M1)
3) Pull the choke lever (10) out to the full extent (to the FULL CHOKE position). (Fig. M2)
4) Pull the starter rope (13) sharply 5 times with your right hand. Then, proceed to the next step. (Fig. L)
NOTE: If the engine sounds as if it is trying to start before the 5th pull, stop pulling and immediately proceed to the next step.
5) Push the choke lever (10) in to the OPEN CHOKE position. (Fig. M3)
6) Pull the starter rope(13) sharply with your right hand until the engine starts.
7) Allow the engine to run for approximately 5 seconds. Then, squeeze and release the throttle trigger (11) to allow engine to return to idle speed. The choke lever will in the OPEN CHOKE position. (Fig. M3)

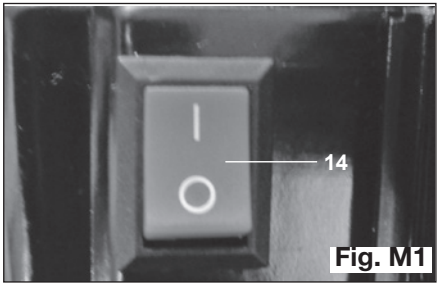


Fig. M1

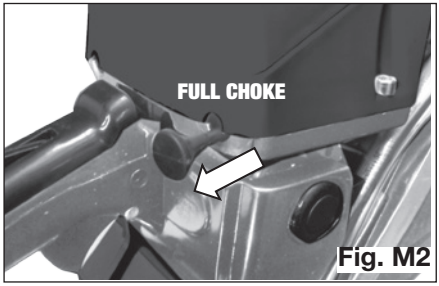


Fig. M2

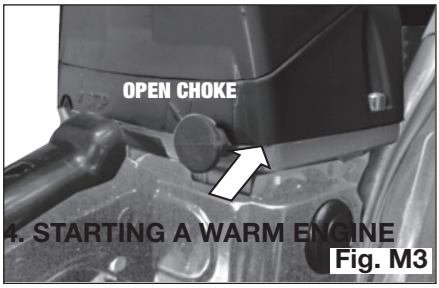


Fig. M3

4. STARTING A WARM ENGINE

1) Disengage the chain brake (6) by pull the hand guard.
2) Move Ignition switch to the “I” position.
3) Keep the choke lever(10) in the OPEN CHOKE position.
4) Pull the starter rope(13) sharply with your right hand until the engine starts.
5) Squeeze and release throttle trigger(11) to allow engine to return to idle speed.

5. TO STOP THE ENGINE

Move the Ignition switch(14) to the”O” position.

WARNING: DO NOT put the chainsaw on the ground when the chain is still moving. For additional safety, engage the chain brake when it is not in use.

6. CHECKING OIL SUPPLY (Fig. N)

Keep clear of the saw chain as it will start rotating upon starting of engine. After starting the engine, run the chain at medium speed and see if chain oil is scattered off as shown in the figure. The chain oil flow can be changed by inserting a screwdriver in the hole in bottom of the clutch side. Adjust according to your work conditions.

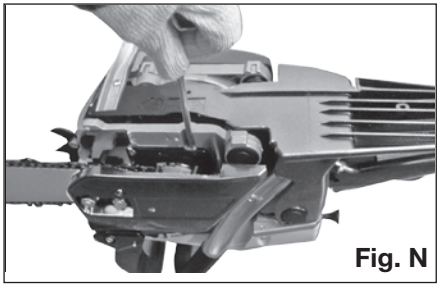


Fig. N

NOTE: The oil tank should become nearly empty by the time fuel is used up. Be sure to refill the oil tank every time when refueling the unit.

7. ADJUSTING CARBURETOR (Fig. O)

The carburetor on your unit has been factory adjusted, but may require fine tuning due to change in operating conditions. Before adjusting the carburetor, make sure that provided are clean air/fuel filters and fresh, properly mixed fuel. When adjusting, take the following steps:

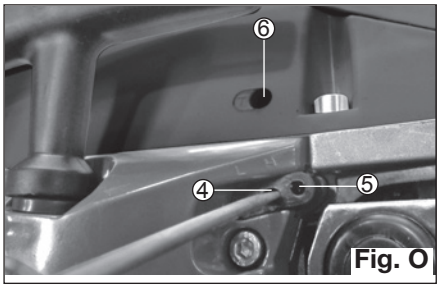


Fig. O

NOTE: Be sure to adjust the carburetor with the bar chain attached
1) Stop engine and screw in both H and L needles until they stop. Never force. Then set them back the initial number of turns as shown below.
L NEEDLE: $1_{1/4}$
H NEEDLE: $1_{3/8}$

2) Start engine and allow it to warm up at OPEN-throttle.
3) Turn L needle slowly clockwise to find a position where idling speed is maximum, then set the needle back a quarter(1/4)turn counterclockwise
4) Turn idle adjusting screw (T) counterclockwise to that saw chain dose not turn. If idling speed is too slow, turn the screw clockwise.
5) Make a test cut and adjust the H needle for best cutting power, not for maximum speed.
④ L needle
⑤ H needle
⑥ Idle adjusting screw

8. CHAIN BRAKE (Fig. P1&P2)

WARNING: If the brake band is worn too thin it may break when the chain brake is triggered. **DO NOT USE IT. It must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.** With a broken brake band, the chain brake will not stop the chain. The chain brake should be replaced by an authorized service dealer if any part is worn to less than 0.5 mm (0.020") thick. Repairs on a chain brake should be made by an authorized service dealer. Take your unit to the place of purchase if purchased from a servicing dealer, or to the nearest authorized master service dealer.

• This saw is equipped with a chain brake. The brake is designed to stop the chain if kickback occurs.
• The inertia--activated chain brake is activated if the front hand guard is pushed forward, either manually (by hand) or automatically (by sudden movement).
• If the brake is already activated, it is disengaged by pulling the front hand guard back toward the front handle as far as possible.
• When cutting with the saw, the chain brake must be disengaged.

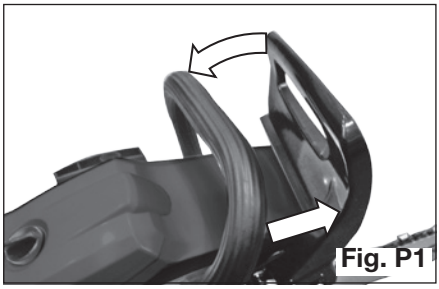


Fig. P1

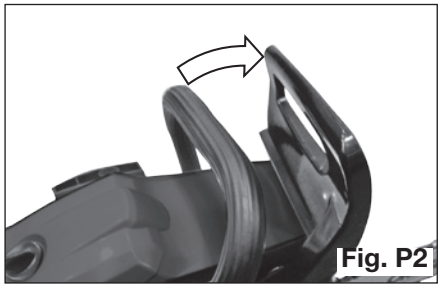


Fig. P2

BRAKING FUNCTION CONTROL

CAUTION: The chain brake must be checked several times daily. The engine must be running when performing this procedure. This is the only instance when the saw should be placed on the ground with the engine running.

Place the saw on firm ground. Grip the rear handle with your right hand and the front handle with your left hand. Apply full throttle by fully depressing the throttle trigger. Activate the chain brake by turning your left wrist against the hand guard without releasing your grip around the front handle. The chain should stop immediately.

9. OPERATING TIPS

• Check chain tension before first use and after 1 minute of operation. See CHAIN TENSION in the ASSEMBLY section.

• Cut wood only. Do not cut metal, plastics, masonry, non-wood building materials, etc.

• Stop the saw if the chain strikes a foreign object. Inspect the saw and repair or replace parts as necessary.

• Keep the chain out of dirt and sand prior to use. Even a small amount of dirt will quickly dull a chain and thus increase the possibility of kickback.

• Practice cutting a few small logs using the following techniques to get the "feel" of using your saw before you begin a major sawing operation.

• Squeeze the throttle trigger and allow the engine to reach full speed before cutting.

• Begin cutting with the saw frame against the log.

• Keep the engine at full speed the entire time you are cutting.

• Allow the chain to cut for you. Exert only light downward pressure. If you force the cut, damage to the bar, chain, or engine can result.

• Release the throttle trigger as soon as the cut is completed, allowing the engine to idle. If you run the saw at full throttle without a cutting load, unnecessary wear can occur to the chain, bar, and engine. It is recommended that the engine not be operated for longer than 30 seconds at full throttle.

• To avoid losing control when cut is complete, do not put pressure on saw at end of cut.

• Stop the engine before setting the saw down after cutting.

10. TREE FELLING TECHNIQUES (Fig. Q)

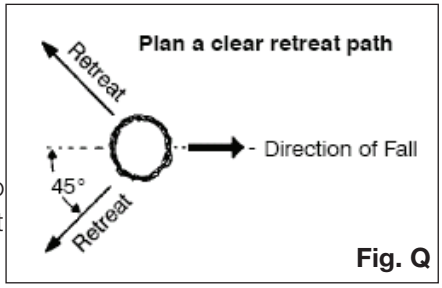


Fig. Q

WARNING: Check for broken or dead branches which can fall while cutting causing serious injury. Do not cut near buildings or electrical wires if you do not know the direction of tree fall, nor cut at night since you will not be able to see well, nor during bad weather such as rain, snow, or strong winds, etc. If the tree makes contact with any utility line, the utility company should be notified immediately.

- Carefully plan your sawing operation in advance.
- Clear the work area. You need a clear area all around the tree so you can have secure footing.
- The chain saw operator should keep on the uphill side of the terrain as the tree likely to roll or slide downhill after it is felled.
- Study the natural conditions that can cause the tree to fall in a particular direction.

Natural conditions that can cause a tree to fall in a particular direction include:

- The wind direction and speed.
- The lean of the tree. The lean of a tree might not be apparent due to uneven or sloping terrain. Use a plumb or level to determine the direction of tree lean.
- Weight and branches on one side.
- Surrounding trees and obstacles.

Look for decay and rot. If the trunk is rotted, it can snap and fall toward the operator. Check for broken or dead branches which can fall on you while cutting. Make sure there is enough room for the tree to fall. Maintain a distance of 2-1/2 tree lengths from the nearest person or other objects. Engine noise can drown out a warning call. Remove dirt, stones, loose bark, nails, staples, and wire from the tree where cuts are to be made. Plan a clear retreat path to the rear and diagonal to the line of fall.

11. FELLING LARGE TREES

(15 cm (6 inches) in diameter or larger) The notch method is used to fell large trees. A notch is cut on the side of the tree in the desired direction of fall. After a felling cut is made on the opposite side of tree, the tree will tend to fall into the notch.

NOTE: If the tree has large buttress roots, remove them before making the

notch. If using saw to remove buttress roots, keep saw chain from contacting ground to prevent dulling of the chain.

12. NOTCH CUT AND FELLING THE TREE (Fig. R & S)

• Make notch cut by cutting the top of the notch first. Cut through 1/3 of the diameter of the tree. Next complete the notch by cutting the bottom of the notch. See illustration. Once the notch is cut remove the notch of wood from the tree.

• After removing the wood from the notch, make the felling cut on the opposite side of the notch. This is done by making a cut about two inches (5 cm) higher than the center of the notch. This will leave enough uncut wood between the felling cut and the notch to form a hinge. This hinge will help prevent the tree from falling in the wrong direction.

NOTE: Before felling cut is complete, use wedges to open the cut if necessary to control the direction of fall. To avoid kickback and chain damage, use wood or plastic wedges, but never steel or iron wedges.

• Be alert to signs that the tree is ready to fall: cracking sounds, widening of the felling cut, or movement in the upper branches.

• As tree starts to fall, stop saw, put it down, and get away quickly on your planned retreat path.

• DO NOT cut down a partially fallen tree with your saw. Be extremely cautious with partially fallen trees that may be poorly supported. When a tree doesn't fall completely, set the saw aside and pull down the tree with a cable winch, block and tackle, or tractor.

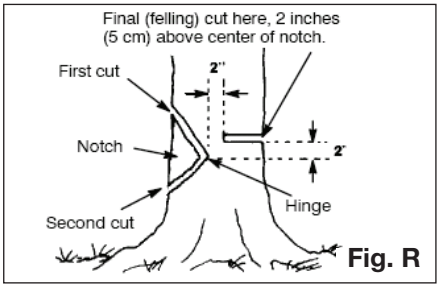


Fig. R

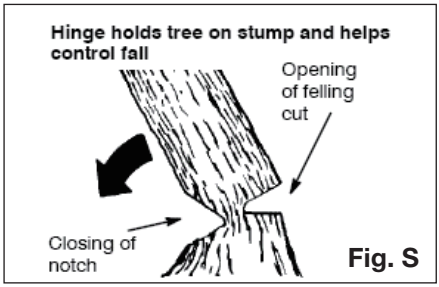


Fig. S

13. CUTTING A FALLEN TREE (BUCKING)

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

WARNING: Do not stand on the log being cut. Any portion can roll causing loss of footing and control. Do not stand downhill of the log being cut.

IMPORTANT POINTS

• Cut only one log at a time.

• Cut shattered wood very carefully; sharp pieces of wood could be flung toward operator.

• Use a sawhorse to cut small logs. Never allow another person to hold the log while cutting and never hold the log with your leg or foot.

• Do not cut in an area where logs, limbs, and roots are tangled such as in a blown down area. Drag the logs into a clear area before cutting by pulling out exposed and cleared logs first.

14. TYPES OF CUTTING USED FOR BUCKING

WARNING: If saw becomes pinched or hung in a log, don't try to force it out. You can lose control of the saw resulting in injury and/or damage to the saw. Stop the saw, drive a wedge of plastic or wood into the cut until the saw can be removed easily. Restart the saw and carefully reenter the cut. To avoid kickback and chain damage, do not use a metal wedge. Do not attempt to restart your saw when it is pinched or hung in a log. (Fig. T)

Overcutting begins on the top side of the log with the bottom of the saw against the log. When overcutting use light downward pressure. (Fig. U)

Undercutting involves cutting on the underside of the log with top of saw against the log. When undercutting use light upward pressure. Hold saw firmly and maintains control. The saw will tend to push back toward you. (Fig. V1 & V2)

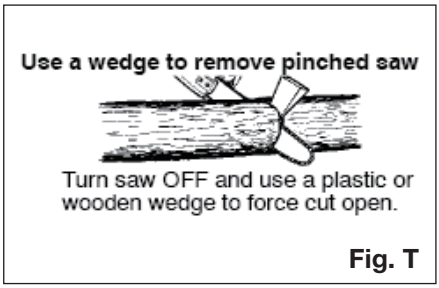


Fig. T

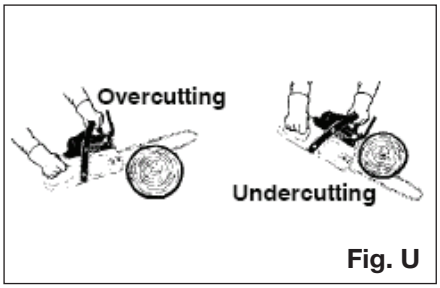


Fig. U

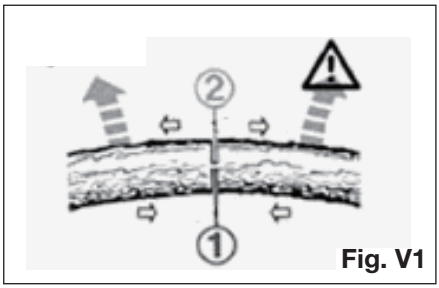


Fig. V1

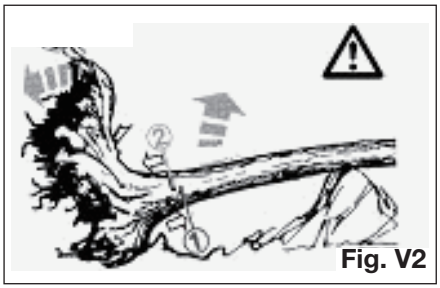


Fig. V2

WARNING: Never turn saw upside down to undercut. The saw cannot be controlled in this position.

Always make your first cut on the compression side of the log. The compression side of the log is where the pressure of the log's weight is concentrated.

15. BUCKING WITHOUT A SUPPORT

- Overcut through 1/3 of the diameter of the log.
- Roll the log over and finish with a second overcut.
- Watch for logs with a compression side to prevent the saw from pinching.

See illustrations for cutting logs with a compression side.

16. BUCKING USING A LOG OR SUPPORT STAND (Fig. W1 & W2)

- Remember your first cut is always on the compression side of the log. (Refer to the illustrations below for your first and second cut)
- Your first cut should extend 1/3 of the diameter of the log.
- Finish with your second cut.

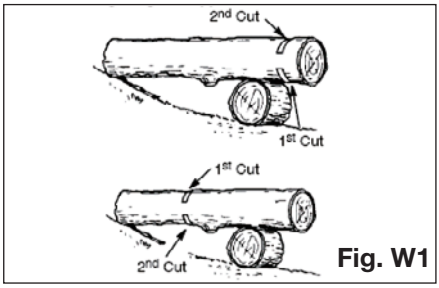


Fig. W1

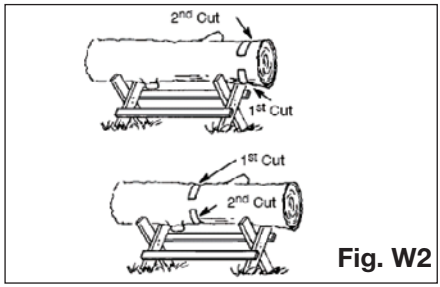


Fig. W2

17. LIMBING AND PRUNING

WARNING: Be alert for and guard against kickback. Do not allow the moving chain to contact any other branches or objects at the nose of the guide bar when limbing or pruning. Allowing such contact can result in serious injury.

WARNING: Never climb into a tree to limb or prune. Do not stand on ladders, platforms, a log, or in any position which can cause you to lose your balance or control of the saw.

IMPORTANT POINTS

- Work slowly, keeping both hands firmly gripped on the saw. Maintain secure footing and balance.
- Watch out for spring poles. Spring poles are small size limbs which can

catch the saw chain and whip toward you or pull you off balance. Use extreme caution when cutting small size limbs or slender material.
• Be alert for spring back. Watch out for branches that are bent or under pressure. Avoid being struck by the branch or the saw when the tension in the wood fibers is released.
• Keep a clear work area. Frequently clear branches out of the way to avoid tripping over them.

18. LIMBING

• Always limb a tree after it is cut down. Only then can limbing be done safely and properly.
• Leave the larger limbs underneath the felled tree to support the tree as you work.
• Start at the base of the felled tree and work toward the top, cutting branches and limbs. Remove small limbs with one cut.
• Keep the tree between you and the chain. Cut from the side of the tree opposite the branch you are cutting.
• Remove larger, supporting branches with the cutting techniques described in BUCKING WITHOUT A SUPPORT.
• Always use an overcut to cut small and freely hanging limbs. Undercutting could cause limbs to fall and pinch the saw.

19. PRUNING (Fig. X)

WARNING: Limit pruning to limbs shoulder height or below. Do not cut if branches are higher than your shoulder. Get a professional to do the job.

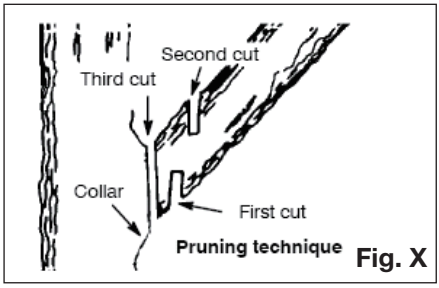


Fig. X

Make your first cut 1/3 of the way through the bottom of the limb. Next make a 2nd cut **all the way through the limb.** Then cut a third overcut leaving a 1to2 inch (2.5 to 5cm) collar from the truck of the tree.

MAINTENANCE

⚠ WARNING: Disconnect the spark plug before performing maintenance except for carburetor adjustments.
We recommend all service and adjustments not listed in this manual be performed by an authorized or Master Service Dealer.

1. CHECK FOR DAMAGED OR WORN PARTS
Contact an authorized service dealer for replacement of damaged or worn parts.
NOTE: It is normal for a small amount of oil to appear under the saw after engine stops. Do not confuse this with a leaking oil tank.
• Ignition switch -- Ensure Ignition switch functions properly by moving the switch to the ”O” switch position. Make sure engine stops; then restart engine and continue.
• Fuel Tank -- Do not use saw if fuel tank shows signs of damage or leaks.
• Oil Tank -- Do not use saw if oil tank shows signs of damage or leaks.

2. CHECK FOR LOOSE FASTENERS AND PARTS
• Bar Nuts
• Chain
• Muffler
• Cylinder Shield
• Air Filter
• Handle Screws
• Vibration Mounts
• Starter Housing
• Front Hand Guard

3. CHECK CHAIN SHARPNESS
A sharp chain makes wood chips. A dull chain makes a sawdust powder and cuts slowly. See CHAIN SHARPENING.

4. CHECK GUIDE BAR (Fig. Y1 & Y2)

Conditions which require guide bar maintenance:

• Saw cuts to one side or at an angle.

• Saw has to be forced through the cut.

• Inadequate supply of oil to bar/chain.

Check the condition of guide bar each time chain is sharpened. A worn guide bar will damage the chain and make cutting difficult. After each use, ensure Ignition switch is in the "O" position, then clean all sawdust from the guide bar and sprocket hole.

To maintain guide bar:

• **Move** Ignition switch **to** "O".

• **Loosen and remove** Chain bar locking nuts (8) and **clutch cover(22). Remove bar and chain from saw.**

• **Clean the oil holes and bar groove after each 5 hours of operation.**

• **Burring of guide bar rails is a normal process of rail wear. Remove these burrs with a flat file.**

• **When rail top is uneven, use a flat file to restore square edges and sides. Replace guide bar when the groove is worn, the guide bar is bent or cracked, or when excess heating or burring of the rails occurs. If replacement is necessary, use only the guide bar specified for your saw.**

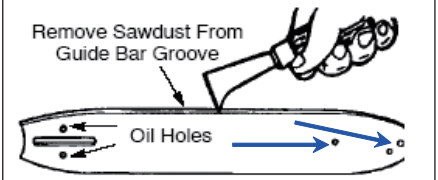


Fig. Y1

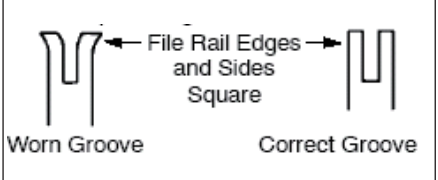


Fig. Y2

5. CHECK FUEL MIXTURE LEVEL

See **FUELING and REFULING ENGINE** under the OPERATION section.

6. CHECK CHAINSAW LUBRICATION

• Start the Chainsaw

• Hold the running chainsaw approx 15cm above a trunk or the ground(use appropriate base)

• If the lubrication is sufficient ,you will see a light oil trace because oil will be

flung off the saw
NB If No oil trace is seen check chain Oil reservoir and clean the chainsaw from debris/dirt.

7. INSPECT AND CLEAN UNIT AND DECALS

• After each use, inspect complete unit for loose or damaged parts. Clean the unit and decals using a damp cloth with a mild detergent.
• Wipe off unit with a clean dry cloth.

8. CHECK CHAIN BRAKE

See CHAIN BRAKE in the OPERATION section.

9. CLEAN AIR FILTER (Fig. Z1&Z2)

⚠ CAUTION: Do not clean filter in gasoline or other flammable solvent to avoid creating a fire hazard or producing harmful evaporative emissions.

Cleaning the air filter:

A dirty air filter decreases the life and performance of the engine and increases fuel consumption and harmful emissions. Always clean your air filter after 10 tanks of fuel or 5 hours of operation, whichever comes first. Clean more frequently in dusty conditions. A used air filter can never be completely cleaned. It is advisable to replace your air filter with a new one after every 50 hours of operation, or annually, whichever comes first.


Fig. Z1

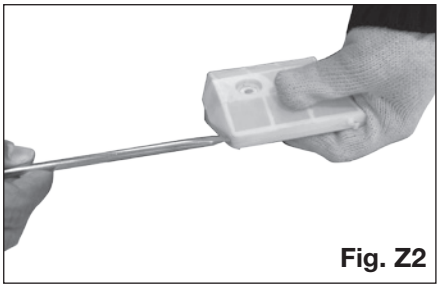


Fig. Z2

10. REPLACE SPARK PLUG

Cylinder fins (Fig. AA1)

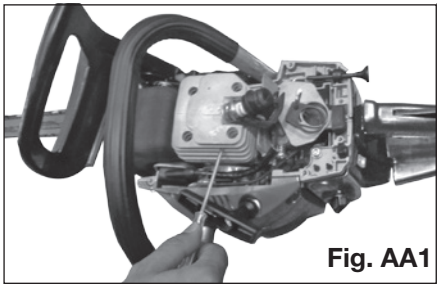


Fig. AA1

Dust clogging between the cylinder fins will cause overheating of the engine periodically check and clean the cylinder fins after removing the air cleaner and the cylinder cover.

When installing the cylinder cover, make sure that switch wires and grommets are positioned correctly in place.

NOTE: Be sure to block the air intake hole.

Spark plug (Fig. AA2)

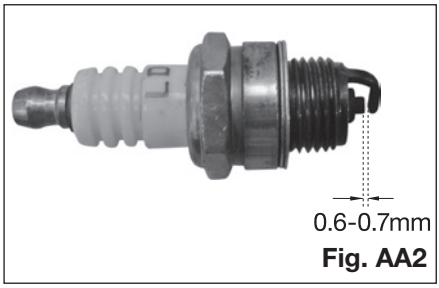


Fig. AA2

Clean the electrodes with a wire brush and reset the gap to 0.65mm as necessary.

The spark plug should be replaced each year to ensure the engine starts easier and runs better. Ignition timing is fixed and nonadjustable.

1) Loosen 3 screws on cylinder cover.
2) Remove the cylinder cover.
3) Pull off the spark plug boot.
4) Remove spark plug from cylinder and discard.
5) Replace with a new spark plug and tighten securely with a 3/4 inch (19mm) socket wrench. Spark plug gap should be 0.025 inch (0, 6 mm).
6) Reinstall the spark plug boot.
7) Reinstall the cylinder cover and 3 screws. Tighten securely.

11. REPLACE FUEL FILTER

To replace fuel filter, drain your unit by running it dry of fuel. Remove fuel cap and its connected retainer from tank. Pull filter from tank and remove from line. Replace and reassemble.

12. CHAIN ADJUSTMENT

See **CHAIN TENSION** in ASSEMBLY section.

13. SHARPENING THE SAW CHAIN

CAUTION: Before doing any work on the guide bar or chain, always switch off the engine and pull the plug cap off the spark plug (see "Replacing the spark plug"**). Always wear protective gloves!**

The chain needs sharpening when:

The sawdust produced when sawing damp wood looks like wood flour.
The chain penetrates the wood only under great pressure.
The cutting edge is visibly damaged.
The saw is pulled to the left or right when sawing. This is caused by uneven sharpening of the chain.

Important: Sharpen frequently, but without removing too much metal!

Cutter setting standards:

Before filing:

Make sure the saw chain in held securely.
Make sure the engine is stooped.
Use a round file of proper size for your chain.
Chain type: 21 VB
File size: 3/16(4.5mm)
Place your file on the cutter and push straight forward. Keep the file position as illustrated.
Place your file on the cutter and push. Straight forward. Keep the file position as illustrated. (Fig. AA3& AA4)

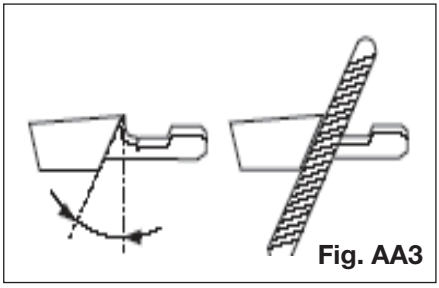


Fig. AA3

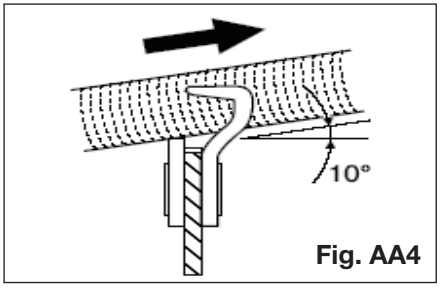


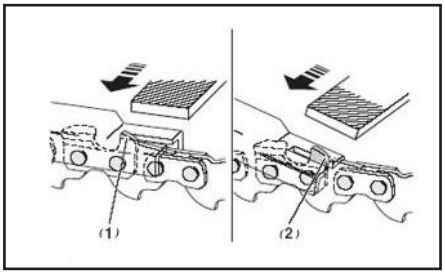
Fig. AA4

After each cutter has been filed, check the depth gauge and fil e it to the proper level as illustrated.

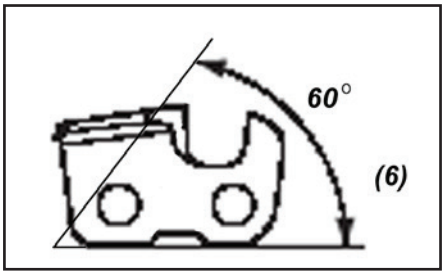
WARNING: Be sure to round off the front edge to reduce the chance of kickback or tie-strap breakage.

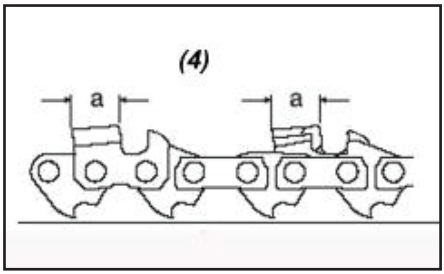
Correct even the smallest excess height with a special flat file (1).
Round off the front of the depth limiter (2).

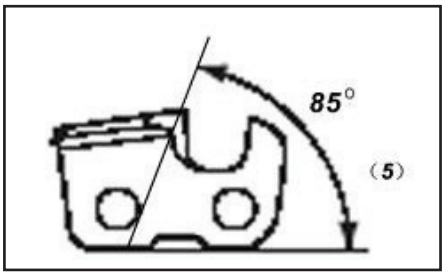
Depth gauge standard (3)



Make sure every cutter has the same length and edge angles as illustrated.
Cutter length (4).
Side plate angle (5).
Top plate cutting angle (6)







STORAGE THE CHAIN SAW

WARNING: Perform the following steps after each use:

• Allow the engine to cool, and secure the unit before storing or transporting.

• Store chain saw and fuel in a well ventilated area where fuel vapors cannot reach sparks or open flames from water heaters, electric motors or switches, furnaces, etc.

• Store chain saw with all guards in place and position chain saw so that any

sharp object cannot accidentally cause injury.
• Store chain saw well out of the reach of children.

SEASONAL STORAGE

Prepare your unit for storage at the end of the season or if it will not be used for 30 days or more.
If your chain saw is to be stored for a period of time:
• Clean saw thoroughly before storage.
• Store in a clean dry area.
• Lightly oil external metal surfaces and guide bar.
• Oil the chain and wrap it in heavy paper or cloth.

TRANSPORTING THE CHAIN SAW

WARNING!
Always stop the engine before putting a chain saw down or carrying it. Carrying a chain saw with the engine running is extremely dangerous. Accidental acceleration of the engine can cause the chain to rotate. Avoid touching the hot muffler.

By hand: When carrying your saw by hand, the engine must be stopped and the saw must be in the proper position. The chain protection cover should be over the chain and the guide bar must point backwards. When carrying your saw the bar should be behind you.

By vehicle: When transporting in a vehicle, keep chain and bar covered with the chain guard. Properly secure your saw to prevent turnover, fuel spillage and damage to the saw. Make sure the saw in not exposed to heat or sparks.

TROUBLESHOOTING TABLE

WARNING: Always stop unit and disconnect spark plug before performing all of the recommended remedies below except remedies that require operation of the unit.

TROUBLE	CAUSE	REMEDY
Engine will not start or will run only a few seconds after starting.	1. Ignition switch off. 2. Engine flooded. 3. Fuel tank empty. 4. Spark plug not firing. 5. Fuel not reaching carburetor.	1. Move ignition switch to "I". 2. Fill tank with correct fuel mixture. 3. Install new spark plug. 4. Check for dirty fuel filter; replace. Check for kinked or split fuel line; repair or replace.
Engine will not idle properly.	1. Idle speed requires adjustment. 2. Carburetor requires adjustment.	1. See “Carburetor Adjustment” in the service and adjustments section. 2. Contact an authorized service dealer.
Engine will not accelerate, lacks power, or dies under a load.	1. Air filter dirty. 2. Spark plug fouled. 3. Chain brake engaged. 4. Carburetor requires adjustment.	1. Clean or replace air filter. 2. Clean or replace plug and regap. 3. Disengage chain brake. 4. Contact an authorized service dealer.
Engine smokes excessively.	1. Too much oil mixed with gasoline.	1. Empty fuel tank and refill with correct fuel mixture.
Chain moves at idle speed.	1. Idle speed requires adjustment. 2. Clutch requires repair.	1. See “Carburetor Adjustment” in the service and adjustments section. 2. Contact an authorized service dealer.

TECHNICAL SPECIFICATIONS

Engine displacement	45cc
Engine power	1.7kW
Maximum engine speed	10500/min
Idle speed	3000/min
Bar length	40cm(16")
Chain pitch	0.325"
Chain gauge	0.058"
Chain link number	72
Volume of fuel tank	550ml
Volume of oil tank	260ml
Petrol and oil ratio	25:1
Weight with bar & chain	5.75kg
Spark plug gap dim	0.6-0.7mm
Spark plug spec	Torch L7T
Replacement BOSCH	L7T
CDK	L7T
CHAMPION	CJ-7Y
NGK	BPM7A

ACCESSORIES

Blade protection cover	1
Chain	1
Guide bar	1
File	1
Lubrication oil	1
Chain adjustment & spark plug tool	1
Screwdriver	1

Recommended Accessories
2 Stroke Premix Oil
PP01040002 1 Litre Bottle
PP01040006 1 Litre Chamber Bottle
Chain Bar Lubricant
PP01030002 1 Litre Bottle

We recommend that you purchase your accessories from the same store that sold you the tool. Use good quality accessories marked with a well-known brand name. Choose the type according to the work you intend to undertake. Refer to the accessory packaging for further details. Store personnel can assist you and offer advice.

WARRANTY

kiwigarden™

1 Year Warranty:

This product is covered by a 1 year warranty from the date of purchase against factory faults. Should your product be faulty, it may be replaced, repaired or refunded as deemed appropriate by the retailer. Valid proof of purchase will be required. As the product is intended for home DIY use only, commercial usage of this product for professional or industrial.

THIS WARRANTY FORM AND CONFIRMED THE WAREHOUSE PURCHASE RECEIPT SHOULD BE RETAINED BY THE CUSTOMER AT ALL TIMES.

THIS WARRANTY BECOMES VOID FOR GARDENING TOOLS USED COMMERCIALLY.

Type of Power Tool: _____

Model No: _____

Purchase Date: _____

Product Purchased From: _____

Your Name: _____

Your Address: _____

Phone Number: _____

IMPORTANT

Please retain this warranty card along with your purchase receipt. Please do not post to the retailer. If service is required, both of these documents are to be returned with the power tool to the retailer, otherwise a fee may be charged.

Should you have any questions prior to returning your product for warranty or repair please telephone our customer service helpline:

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