Qualcast
37 cm, 35 cc Petrol chainsaw PC40

Operation and Maintenance Manual

Original instruction

QUALCAST

After Sales Support

Phone 0844 801 3652
Email
customer.service@husqvarna.co.uk

Important - Please read these instructions fully before operating or maintaining your Chainsaw

These instructions contain important information that will help you get the best from your Chainsaw, ensuring it remains safe to operate.
If you need help or have damaged or missing parts, call the Customer Helpline on **0844 801 3652**.

Oct 2012

Contents

Safety Information

Important - Please read these instructions fully before operating or maintaining

Warnings Symbols

WARNING: Danger

Read and understand the Instruction Manual and all warning labels before using the machine.

Primer Bulb

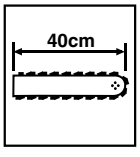
Whenever the machine is in use, safety glasses must be worn to safeguard against flying objects. Ear protection must also be used in order to protect operators hearing. If the operator is working in an area where there is a risk of falling objects a safety helmet must also be worn.

Wear safety boots to protect your feet

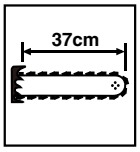
Wear gloves to protect your hands

Make Sure the Chain Brake is disengaged during cutting! Pull Hand Guard/ Chain Brake back to run.

Acoustic power level LWA accordance with directive 2000/14/EC + 2005/88/EC



The guide bar length is 40cm.



The usable cutting length is 37cm.

Safety Information

Important - Please read these instructions fully before operating or maintaining

Operating and Maintenance Safety (continued)

WARNING: This tool is designed only for use by one operator and intended for forest work. This tool is designed only to be operated with the right hand on the rear handle and the left hand on the front handle. The operator must read and understand the safety requirements in the instruction handbook and use the appropriate personal protective equipment (PPE) before operating this tool. This tool is designed to cut wood, it is not intended for cutting other material, such as rubber, stone, metals or wood products not clear of foreign objects.

WARNING: When using petrol tools, basic safety precautions, including the following, should always be followed to reduce the risk of serious personal injury and/or damage to the unit. Read all of these instructions before operating this product and save these instructions.

WARNING: This machine produces an electromagnetic field during operation. This field may under some circumstances interfere with active or passive medical implants. To reduce the risk of serious or fatal injury, we recommend persons with medical implants to consult their physician and the medical implant manufacturer before operating this machine.

- DO NOT operate a chainsaw with one hand! Serious injury to the operator, helpers, bystanders, or any combination of these persons may result from one-handed operation. A chainsaw is intended for two-handed use.
- DO NOT operate a chainsaw when you are fatigued, under the influence of drugs, alcohol or medication.
- Use safety footwear, snug-fitting Chainsaw protective clothing, protective gloves, and eye, hearing and head protection devices.
- To avoid the risk of fire use caution when handling the fuel and move the chainsaw at least 10 feet (3m) from the fuelling point before starting the engine.
- DO NOT allow other persons to be near when starting or cutting with the chainsaw.Keep bystanders and animals out of the work area.
- DO NOT start cutting until you have a clear work area, secure footing, and a planned retreat path from the falling tree.
- Keep all parts of your body away from the saw chain when the engine is running.
- Before you start the engine, make sure that the saw chain is not in contact with anything.
- Carry the chainsaw with the engine stopped, the guide bar and saw chain to the rear, and the muffler away from your body.
- DO NOT operate a chainsaw that is damaged, improperly adjusted, or not completely and securely assembled.Be sure that the saw chain stops moving when the throttle control trigger is released.
- Shut off the engine before setting the chainsaw down.
- Use extreme caution when cutting small size brush and saplings because slender material may catch the saw chain and be whipped toward you or pull you off balance.
- When cutting a limb that is under tension, be alert for springback so that you will not be struck when the tension in the wood fibers is released.
- Keep the handles dry, clean, and free of oil or fuel mixture.
- Operate the chainsaw only in well-ventilated areas.
- DO NOT operate a chainsaw in a tree.
- All chainsaw service, other than the items listed in the user manual safety and maintenance instructions, should be performed by competent chainsaw service personnel.
- When transporting your chainsaw, use the appropriate guide bar scabbard. Tighten the cap of oil and fuel tank to prevent the loss of oil and fuel during transport.
- DO NOT operate your chainsaw near or around flammable liquids or gases whether in or out of doors. An explosion and/or fire may result.
- Do not fill fuel tank, oil tank or lubricate when the engine is running.
- USE THE RIGHT TOOL: Cut wood only.Do not use the chainsaw for purposes for which it was not intended.For example, do not use the chainsaw for cutting plastic, masonry, or nonbuilding materials.
- The first time user should have practical instruction in manual page 10 (barking Saw horse) in the use of chainsaw and the protective equipment form an experienced operator.
- Do not attempt to hold the saw with one hand only. You cannot control reactive forces and you may lose control of the saw, which can result in the skating or bouncing of the bar and chain along the limb or log.
- Never run the chainsaw indoors. Your chainsaw produces poisonous exhaust fumes as soon as the combustible engine is started, which may be colorless and odorless. This product can generate dust, mists and fumes containing chemicals known to cause reproductive harm.Be aware of harmful dust, mist (such as saw dust or oil mist from chain lubrication) and protect your self properly.
- A note alerting the user to the fact that national regulation can restrict the use of the machine.

⚠ Safety Information

Important - Please read these instructions fully before operating or maintaining

Operating and Maintenance Safety (continued)

- Prolonged chainsaw use exposes the operator to vibrations which have been proven to cause whitefinger disease. In order to reduce the risk of whitefinger disease, please wear gloves and keep your hands warm. If any symptoms of whitefinger disease appear please seek medical advice immediately.
- When transporting or storing the chainsaw always fit the guide bar cover.
- Drive in the spiked bumper of the chainsaw directly behind the intended hinge and pivot the saw around this point. The spiked bumper rolls against the trunk.
- There are 3 parts only, chain, bar and spark plug, these can be replaced by the user themselves and it is essential that the same parts are used which a shown in the specifications in the user manual. (Type for the plug is NGK CMR7H). If the other components beyond the prior parts are defective, then please take your tools to the nearest Authorized Service Center for service.

NOTE **NOTE:** This appendix is intended primarily for the consumer or occasional user. These models are intended for infrequent use by homeowners, cottagers, and campers, and for such general applications as clearing, pruning, cutting firewood, etc. They are not intended for prolonged use. If the intended use involves prolonged periods of operation, this may cause circulatory problems in the user's hands due to vibration.

Kickback Safety Precautions

KICKBACK may occur when the **NOSE** or **TIP** of the guide bar touches an object, or when wood closes in and pinches the saw chain in the cut.
Tip contact in some cases may cause a lightning-fast reverse reaction, kicking the guide bar up and back toward the operator.
PINCHING the saw chain along the **BOTTOM** of the guide bar may **PULL** the saw forward away from the operator. **PINCHING** the saw chain along the **TOP** of the guide bar may **PUSH** the guide bar rapidly back toward the operator.
Any of these reactions may cause you to lose control of the saw, which could result in serious personal injury.

1. With a basic understanding of kickback, you can reduce or eliminate the element of surprise. Sudden surprise contributes to accidents.
2. Keep a good firm grip on the saw with both hands, the right hand on the rear handle, and the left hand on the front handle, when the engine 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. Don't let go.
3. Make sure that the area in which you are cutting is free from obstructions. Do not let the nose of the guide bar contact a log, branch, or any other obstruction which could be hit while you are operating the saw.
4. Cut at high engine speeds.
5. Do not overreach or cut above shoulder height.
6. Follow manufacturer's sharpening and maintenance instructions for the saw chain.
7. Only use replacement bars and chains specified by the manufacturer or the equivalent.

NOTE **NOTE:** Low kickback saw chain helps significantly reduce Kickback, or the intensity of kickback , due to specially designed depth gauges and guard links.

Safety Information

Important - Please read these instructions fully before operating or maintaining

Important Safety

Your Chainsaw is provided with a safety label located on the chain brake lever/hand guard.This label, along with the safety instructions on these pages, should be carefully read before attempting to operate this unit.

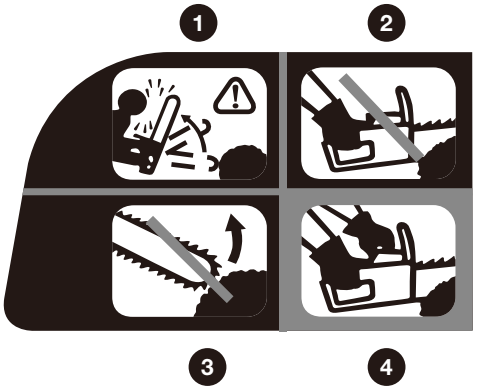
HOW TO READ SYMBOLS AND COLORS (FIG.1)

WARNING: RED Used to warn that an unsafe procedure should not be performed.

GREEN **RECOMMENDED**

Recommended cutting procedure.

Fig. 1



WARNING

1. Beware of kickback.
2. Do not attempt to hold saw with one hand.
3. Avoid bar nose contact.

RECOMMENDED

4. Hold saw properly with both hands.

DANGER! BEWARE OF KICKBACK!

WARNING: Kickback can lead to dangerous loss of control of the chainsaw and result in serious or fatal injury to the saw operator or to anyone standing close by. Always be alert. Rotational kickback and pinch-kickback are major chainsaw operational dangers and the leading cause of most accidents.

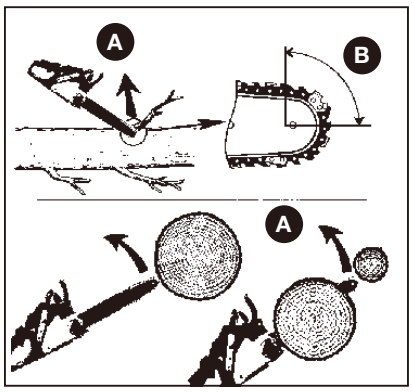


Fig. 2A

BEWARE OF:

ROTATIONAL KICKBACK (Fig. 2A)

- A Kickback path
- B Kickback reaction zone

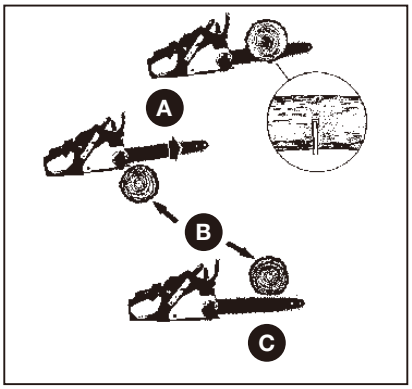


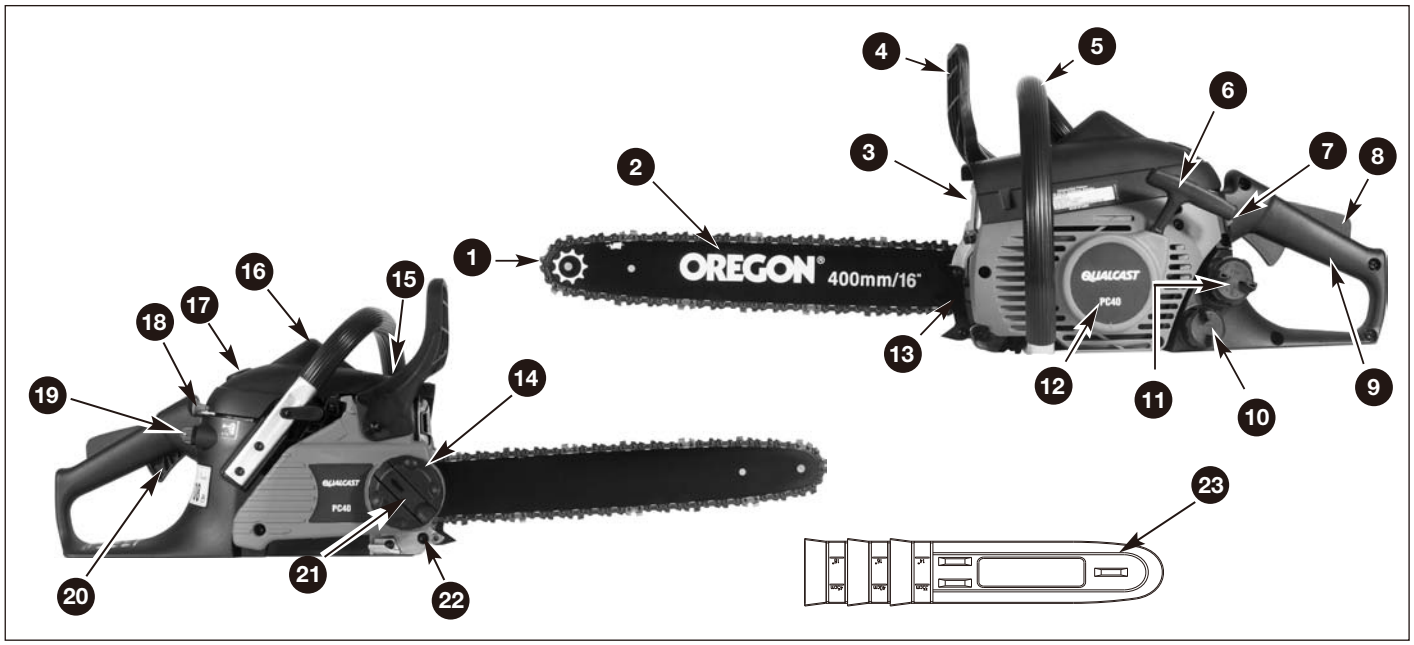
Fig. 2B

THE PUSH (PINCH KICKBACK) AND PULL REACTIONS (Fig. 2B)

- A Pull
- B Solid objects
- C Push

Preparing to Operate the Chainsaw

Step 1 - Identification



1. Saw chain
2. Guide Bar
3. Spark Arrester Screen
4. Chain Brake Lever / Hand Guard
5. Front Handle
6. Starter Handle
7. ON/OFF Switch
8. Safety Trigger
9. Rear Handle / Boot Loop
10. Oil Tank cap
11. Fuel Tank Cap
12. Starter Cover
13. Spiked Bumper
14. Chain Tension Ring
15. Muffler Shield
16. Spark Plug
17. Air Cleaner Cover
18. Choke Lever for Auto Choke
19. Primer Bulb
20. Throttle/Trigger
21. Chain Cover Control Button
22. Chain Catcher
23. Guide-bar Cover

SAFETY FEATURES

Numbers preceding the descriptions correspond with the numbers above to help you locate the safety feature.

1 ***LOW KICKBACK SAW CHAIN*** helps significantly reduce kickback, or the intensity of kickback, due to specially designed depth gauges and guard links.

3 ***SPARK ARRESTER SCREEN*** retains carbon and other flammable particles over 0.023 inches (0.6mm) in size from engine exhaust flow. Compliance with local, state and federal laws and/or regulations governing the use of a spark arrester screen is the user's responsibility. See Safety Precautions for additional information.

4 ***CHAIN BRAKE LEVER / HAND GUARD*** protects the operator's left hand in the event it slips off the front handle while saw is running.

4 ***CHAIN BRAKE*** is a safety feature designed to reduce the possibility of injury due to kickback by stopping a moving saw chain in milliseconds.It is activated by the CHAIN BRAKE lever.

7 ***STOP SWITCH*** immediately stops the engine when tripped.Stop switch must be pushed to ON position to start or restart engine.

8 ***SAFETY TRIGGER*** prevents accidental acceleration of the engine.Throttle trigger (20) cannot be squeezed unless the safety latch is depressed.

22 ***CHAIN CATCHER*** reduces the danger of injury in the event saw chain breaks or derails during operation. The chain catcher is designed to intercept a whipping chain.

Preparing to Operate the Chainsaw

Step 2 - Assembly instructions

INTRODUCTION

This unit is designed for occasional homeowner use and should not be used for commercial purposes or subjected to heavy continuous use.
Your new chainsaw can be used for a variety of projects such as cutting firewood, making fence posts, felling small trees, limbing, pruning at ground level, and light carpentry.
Cut only wood or wood products with your saw.

ASSEMBLY REQUIREMENTS

WARNING: DO NOT start saw engine until unit is properly prepared.

Your new chainsaw will require adjustment of chain, filling the fuel tank with correct fuel mixture and filling the oil tank with lubricating oil before the unit is ready for operation.

Read the entire user manual before attempting to operate your unit. Pay particular attention to all safety precautions.

Your user manual is both a reference guide and handbook provided to furnish you with general information to assemble, operate and maintain your saw.

GUIDE BAR / SAW CHAIN / CLUTCH COVER INSTALLATION

WARNING: Always wear protective gloves when handling chain.

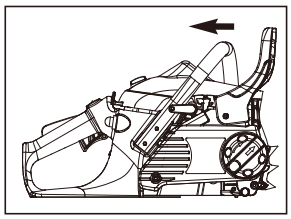


Fig. 3A

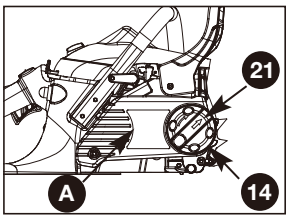


Fig. 3B

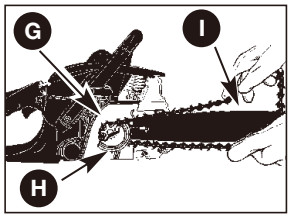
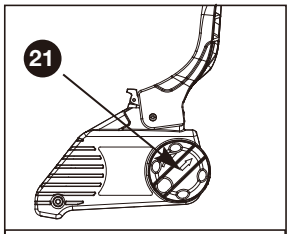


Fig. 3E



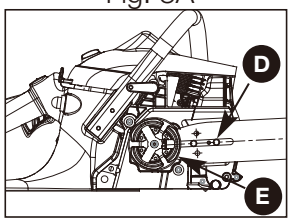


Fig. 3C

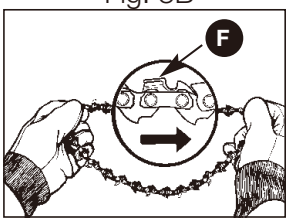


Fig. 3D

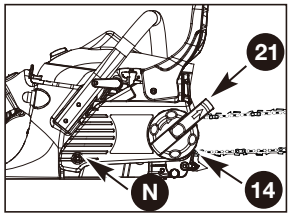


Fig. 3G

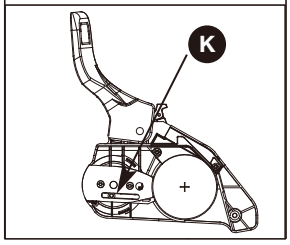


Fig. 3F

1. Place power unit on flat surface.
2. Make sure the CHAIN BRAKE® lever is pulled back into the DISENGAGED position. (Fig.3A)
3. Loosen button 21 slightly by turning knob counterclockwise and then turn the chain tension ring 14 counter-clockwise to relieve chain tension . (Fig.3B)
4. To remove the clutch cover A , turn button 14 counter-clockwise. (Fig.3B)
5. Remove saw chain from around the guide bar and the sprocket. Slide the guide bar, from the unit.
6. Place the slotted end of the guide bar over the bar bolt D . Slide guide bar behind clutch drum E until the guide bar stops. (Fig.3C)
7. Spread the chain out with the cutting edges F of the chain pointing in the DIRECTION OF ROTATION (Fig.3D).
8. Slip the chain around the sprocket G behind the clutch H . Make sure the links fit between the sprocket teeth. (Fig.3E)
9. Guide the drive links into the groove I and around the end of the bar. (Fig.3E)

NOTE

NOTE: The saw chain may droop slightly on the lower part of bar. This is normal.

10. Turn the knob 21 COUNTERCLOCK- WISE until the TANG K is to the end of its travel. (Fig. 3F)

Preparing to Operate the Chainsaw

Step 2 - Assembly instructions

11. Install the clutch cover making sure the tang is positioned in the lower hole in the guide bar. Make sure the chain does not slip off of the bar.
12. Lock the screw (N) be tight, and follow step 13 to adjust the chain tension.
13. Turn the tension ring clockwise until tight (14); pull the control button by arrow direction (21) to turn tightly then push the control button back. (Fig.3G)

NOTE **NOTE:** The guide bar retaining knob is installed only hand tight at this point because saw chain adjustment is required. Follow instructions in Section, Saw Chain Tension Adjustment.

SAW CHAIN TENSION ADJUSTMENT

Proper tension of saw chain is extremely important and must be checked before starting, as well as during any cutting operation.

Taking the time to make needed adjustments to the saw chain will result in improved cutting performance and prolonged chain life.

WARNING: Always stop engine and wear heavy duty gloves when handling saw chain or making saw chain adjustments.

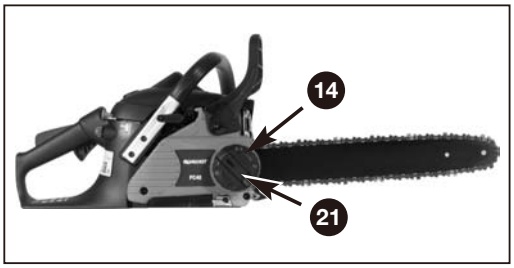


Fig. 4

TO ADJUST SAW CHAIN:

1. Hold nose of guide bar up and turn adjustment chain ring (14) CLOCKWISE to increase chain tension. Turning chain ring (14) COUNTERCLOCKWISE will decrease amount of tension on chain. Ensure the chain fits snugly all the way around the guide bar. (Fig.4)
2. After making adjustment, and while still holding nose of bar in the uppermost position, tighten the bar retaining button (21) securely.Chain has proper tension when it has a snug fit all around and can be pulled around by gloved hand. (Fig.4)

NOTE **NOTE:** If chain is difficult to rotate on guide bar or if it binds, too much tension has been applied.This requires minor adjustment as follows:

A. Loosen the bar retaining knob so they are finger tight. Decrease tension by turning the bar adjustment chain ring COUNTERCLOCKWISE slowly.Move chain back and forth on bar.Continue to adjust until chain rotates freely, but fits snugly. Increase tension by turning bar adjustment chain ring CLOCKWISE.
B. When saw chain has proper tension, hold nose of bar in the uppermost position and tighten the bar retaining knob securely.

CAUTION: A new saw chain stretches, requiring adjustment after as few as 5 cuts. This is normal with a new chain, and the interval between future adjustments will lengthen quickly.

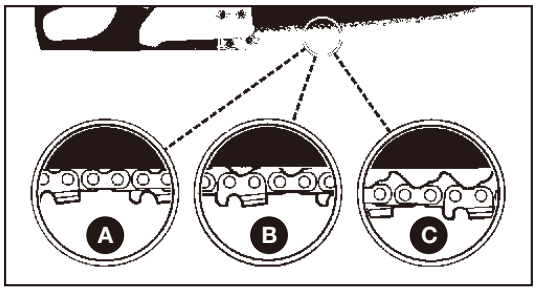


Fig. 5

CAUTION: If saw chain is TOO LOOSE or TOO TIGHT, the sprocket, bar, chain, and crankshaft bearings will wear more rapidly. Study Fig. 5 for information concerning correct cold tension (A), correct warm tension (B), and as a guide for when saw chain needs adjustment (C).

CHAIN BRAKE MECHANICAL TEST

Your chainsaw is equipped with a Chain brake that reduces possibility of injury due to kickback.The brake is activated if pressure is applied against brake lever when, as in the event of kickback, operator's hand strikes the lever.When the brake is actuated, chain movement stops abruptly.

Preparing to Operate the Chainsaw

Step 2 - Assembly instructions

WARNING: The purpose of the chain brake is to reduce the possibility of injury due to kickback; however, it cannot provide the intended measure of protection if the saw is operated carelessly. Always test the chain brake before using your saw and periodically while on the job.

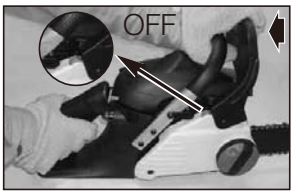


Fig. 6A

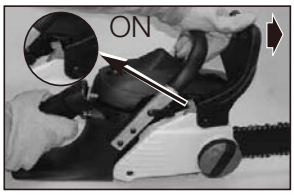


Fig. 6B

TO TEST CHAIN BRAKE:

1. The CHAIN BRAKE is DISENGAGED (chain can move) when BRAKE LEVER IS PULLED BACK AND LOCKED. Be sure the chain brake latch is in the OFF position. (Fig. 6A)
2. The CHAIN BRAKE is ENGAGED (chain is stopped) when brake lever is in forward position and the chain brake latch is in the ON position. You should not be able to move chain. (Fig. 6B)

CAUTION: The brake lever should snap into both positions. If strong resistance is felt, or lever does not move into either position, do not use your saw. Take it immediately to a Professional Service Centre for repair.

Step 3 - Fuel and lubrication

Fuel

Use regular grade unleaded petrol mixed with 40:1 fully synthetic 2 stroke engine oil for best results.Use mixing ratios in Section FUEL MIXING TABLE.

WARNING: Never use straight petrol in your unit. This will cause permanent engine damage and void the manufacturer's warranty for that product. Never use a fuel mixture that has been stored for over 90 days.

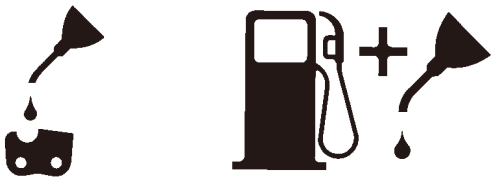
WARNING: If 2-stroke lubricant other than fully synthetic is to be used, it must be a premium grade oil for 2-stroke air cooled engines mixed at a 40:1 ratio. Do not use any 2-stroke oil product with a recommended mixing ratio of 100:1. If insufficient lubrication is the cause of engine damage, it voids the manufacturer's engine warranty for that occurrence.

Mixing Fuel

Mix fuel with 2 stroke oil in an approved container.Use mixing table for correct ratio of fuel to oil. Shake container to ensure thorough mix.

WARNING: Lack of lubrication voids engine warranty.

FUEL AND LUBRICATION



Oil Only **Petrol and Oil Mix 40:1**

FUEL MIXING TABLE - 40:1

Petrol - Litre	Two-Stroke Oil - ml
1 litre	25 ml
2 litre	50 ml
5 litre	125 ml
10 litre	250 ml

RECOMMENDED FUELS

Some conventional petrols are being blended with oxygenates such as alcohol or an ether compound to meet clean air standards.Your engine is designed to operate satisfactorily on any petrol intended for automotive use including oxygenated petrols.

CHAIN AND BAR LUBRICATION

Always refill the chain oil tank each time the fuel tank is refilled.We recommend using Qualcast Chain, Bar and Sprocket Oil, which contains additives to reduce friction and wear and to assist in the prevention of pitch formation on the bar and chain.

Operating the Chainsaw

Step 1 - Starting the Engine (continued)

ENGINE PRE-START CHECKS

WARNING: Never start or operate the saw unless the bar and chain are properly installed.

1. Fill the fuel tank 11 with correct fuel mixture. (Fig. 7)
2. Fill the oil tank 10 with correct chain and bar oil. (Fig. 7)
3. Be certain the chain brake is engaged 4 before starting unit. (Fig. 7)

TO START ENGINE

1. Move ON/OFF switch to ON “I”position. (Fig. 8A)
2. Pull choke lever/throttle 18 in advance. This sets choke and advances throttle for easier starting. (Fig. 8B)
3. Press primer bulb 19 10 times. (Fig. 8C)
4. With saw on ground, grip front handle firmly with left hand and place right foot inside rear handle. Pull starter rope 4 times with right hand. (Fig. 8D)

NOTE **NOTE:** Easy Start significantly reduces the effort required to start the engine. You must pull the starter rope out far enough to hear the engine attempt to start. There is no need to pull the rope briskly--there is no harsh resistance when pulling. Be aware that this starting method is vastly different from (and much easier than) what you may be used to.

5. Push choke lever 18 in completely. (Fig. 8E)
6. Pull starter rope quickly until engine starts.
7. Allow the engine to run for about 10 seconds. Squeeze and release throttle trigger 20 to idle engine. (Fig. 8F)
8. If the engine does not start up, repeat the above steps.

RE-STARTING A WARM ENGINE

1. Make sure the on/off switch is in the “I” position.
2. Depress the primer bulb 10 times.
3. Pull the starter rope rapidly 4 times. The engine should start.
4. If the engine still can not start, follow the step as “To start engine” in this user manual.

TO STOP ENGINE

1. Release trigger and allow engine to return to idle speed.
2. Press STOP switch down to stop engine. (Figure 9)

NOTE **NOTE:** For emergency stopping, simply activate CHAIN BRAKE and move STOP switch down. Please check no chain movement at idling speed. If movement occurs refer to the "carburettor adjustment" section in this user manual.

Fig. 7

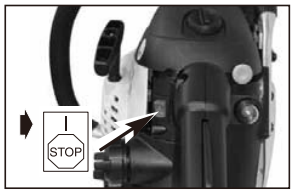


Fig. 8A

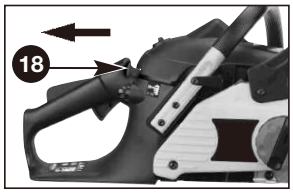


Fig. 8B

Fig. 8C

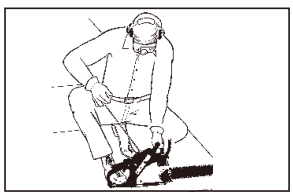


Fig. 8D

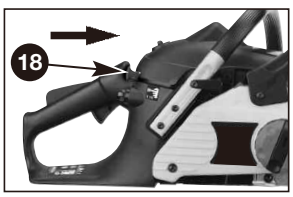


Fig. 8E

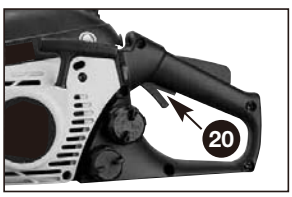


Fig. 8F

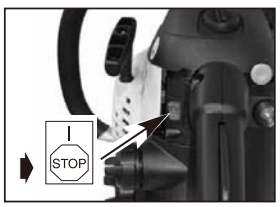


Fig. 9

Operating the Chainsaw

Step 1 - Starting the Engine (continued)

CHAIN BRAKE OPERATIONAL TEST

Test the CHAIN BRAKE periodically to ensure proper function.
Perform a CHAIN BRAKE test prior to initial cutting, following extensive cutting, and definitely following any CHAIN BRAKE service.

TEST CHAIN BRAKE AS FOLLOWS:

1. Place saw on a clear, firm, flat surface.
2. Start engine.
3. Grasp the rear handle (9) with your right hand (Fig. 10).
4. With your left hand, hold the front handle (5) [not CHAIN BRAKE lever (4)] firmly (Fig. 10).
5. Squeeze the throttle trigger to Full Throttle, then immediately activate the CHAIN BRAKE lever (C) (Fig. 10).
6. Chain should stop abruptly. When it does, immediately release the throttle trigger.

WARNING: Activate the chain brake slowly and deliberately. Keep the chain from touching anything; don t let the saw tip forward.

7. If chain brake functions properly, turn the engine off and return the chain brake to the DISENGAGED position.

WARNING: If chain does not stop, turn engine off and take your unit to the nearest Authorized Service Center for service.

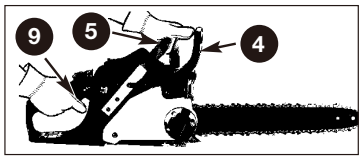


Fig. 10

SAW CHAIN / BAR LUBRICATION

Adequate lubrication of the saw chain is essential at all times to minimize friction with the guide bar. Never starve the bar and chain of oil. Running the saw with too little oil will decrease cutting efficiency, shorten saw chain life, cause rapid dulling of chain, and cause excessive wear of bar from overheating. Too little oil is evidenced by smoke, bar discoloration or pitch build-up.

NOTE **NOTE:** Saw chain stretches during use, particularly when it is new, and it will occasionally be necessary to adjust and tighten it. New chain will require adjustment after about 5 minutes of operation.

AUTOMATIC OILER

Your chainsaw is equipped with an automatic clutch driven oiler system. The oiler automatically delivers the proper amount of oil to the bar and chain. As the engine speed increases, so does the oil flow to the bar pad. There is no flow adjustment. The oil reservoir will run out at approximately the same time as the fuel supply runs out.

WARNING: Don't put pressure on the saw when reaching the end of the cut. The pressure may cause the bar and chain to rotate. If the rotating chain strikes some other object, a reactive force may cause moving chain to strike the operator.

General cutting instructions

Cutting

WARNING: To seek professional advice if in doubt about felling large trees.

FELLING A TREE:

WARNING: A retreat path (A) should be planned and cleared as necessary before cuts are started. The retreat path should extend back and diagonally to the rear of the expected line of fall, as illustrated in Fig.11A.

CAUTION: If felling a tree on sloping ground, the chainsaw operator should keep on the uphill side of the terrain, as the tree is likely to roll or slide downhill after it is felled.

NOTE

NOTE: Direction of fall (B) is controlled by the notching cut. Before any cuts are made, consider the location of larger branches and natural lean of the tree to determine the way the tree will fall.

WARNING: Do not cut down a tree during high or changing winds or if there is a danger to property. Consult a tree professional. Do not cut down a tree if there is a danger of striking utility wires; notify the utility company before making any cuts.

GENERAL GUIDELINES FOR FELLING TREES:

Normally felling consists of 2 main cutting operations, notching (C) and making the felling cut (D).
Start making the upper notch cut (C) on the side of the tree facing the felling direction (E). Be sure you don t make the lower cut too deep into the trunk.
The notch (C) should be deep enough to create a hinge (F) of sufficient width and strength. The notch should be wide enough to direct the fall of the tree for as long as possible.

WARNING: Never walk in front of a tree that has been notched.

Make the felling cut (D) from the other side of the tree and 1.5 - 2.0 inches (3-5 cm) above the edge of the notch (C) (Fig.11B)

Never saw completely through the trunk. Always leave a hinge. The hinge guides the tree. If the trunk is completely cut through, control over the felling direction is lost.
Insert a wedge or felling lever in the cut well before the tree becomes unstable and starts to move. This will prevent the guidebar from binding in the felling cut if you have misjudged the falling direction. Make sure no bystanders have entered the range of the falling tree before you push it over.

WARNING: Before making the final cut, always recheck the area for bystanders, animals or obstacles.

FELLING CUT:

1. Use wooden or plastic wedges (A) to prevent binding the bar or chain (B) in the cut. Wedges also control felling (Fig.11C).
2. When diameter of wood being cut is greater than the bar length, make 2 cuts as shown (Fig.11D).

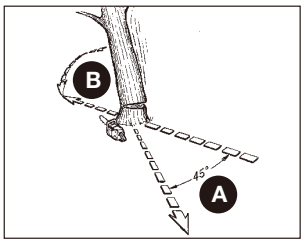


Fig. 11A

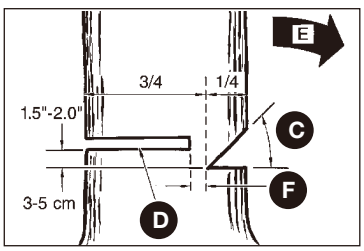


Fig. 11B

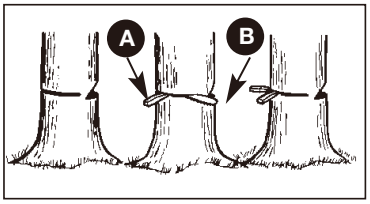


Fig. 11C

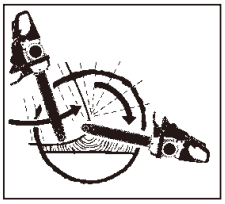


Fig. 11D

General cutting instructions

Cutting

WARNING: As the felling cut gets close to the hinge, the tree should begin to fall. When tree begins to fall, remove saw from cut, stop engine, put chainsaw down, and leave area along retreat path (Fig.11A).

LIMBING

Limbing a tree is the process of removing the branches from a fallen tree. Do not remove supporting limbs (A) until after the log is bucked (cut) into lengths (Fig.12). Branches under tension should be cut from the bottom up to avoid binding the chainsaw.

WARNING: Never cut tree limbs while standing on tree trunk.

BUCKING

Bucking is cutting a fallen log into lengths. Make sure you have a good footing and stand uphill of the log when cutting on sloping ground. If possible, the log should be supported so that the end to be cut off is not resting on the ground. If the log is supported at both ends and you must cut in the middle, make a downward cut halfway through the log and then make the undercut. This will prevent the log from pinching the bar and chain. Be careful that the chain does not cut into the ground when bucking as this causes rapid dulling of the chain.
When bucking on a slope, always stand on the uphill side.

1. Log supported along entire length: Cut from top (overbuck), being careful to avoid cutting into theground (Fig.13A).
2. Log supported on 1 end: First, cut from bottom (underbuck) 1/3 diameter of log to avoid splintering. Second, cut from above (overbuck) to meet first cut and avoid pinching (Fig.13B).
3. Log supported on both ends: First, overbuck 1/3 diameter of log to avoid splintering. Second, underbuck to meet first cut and avoid pinching (Fig.13C).

NOTE **NOTE:** The best way to hold a log while bucking is to use a sawhorse. When this is not possible, the log should be raised and supported by the limb stumps or by using supporting logs. Be sure the log being cut is securely supported.

BUCKING USING A SAWHORSE

For personal safety and ease of cutting, the correct position for vertical bucking is essential (Fig.14).

VERTICAL CUTTING:

A. Hold the saw firmly with both hands and keep the saw to the right of your body while cutting.
B. Keep the left arm as straight as possible.
C. Keep weight on both feet.

CAUTION: While the saw is cutting, be sure the chain and bar are being properly lubricated.

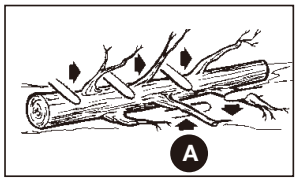


Fig. 12

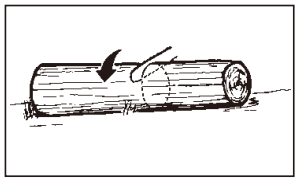


Fig. 13A

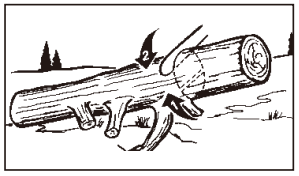


Fig. 13B

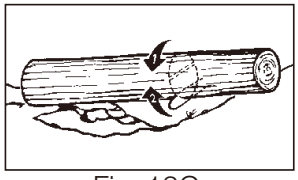


Fig. 13C

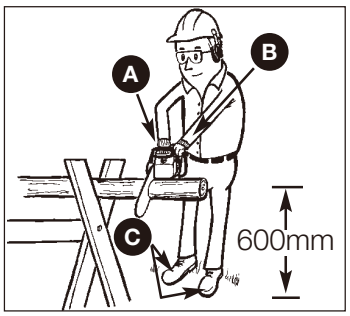


Fig. 14

Maintenance

Maintenance instructions

All chainsaw service, other than items listed here in your user manual maintenance instructions, should be performed by a professional.

PREVENTIVE MAINTENANCE

A good preventive maintenance program of regular inspection and care will increase life and improve performance of your chainsaw. This maintenance checklist is a guide for such a program.

Cleaning, adjustment, and parts replacement may be required, under certain conditions, at more frequent intervals than those indicated.

MAINTENANCE CHECKLIST		EACH USE	HOURS OF OPERATION	
ITEM	ACTION		10	20
Screws/Nuts/Bolts	Inspect/Tighten	✔		
Air Filter	Clean or Replace		✔	
Fuel Filter/Oil Filter	Replace			✔
Spark Plug	Clean/Adjust/Replace		✔	
Spark Arrester Screen	Inspect		✔	
	Replace as Required		✔	
Fuel Hoses	Inspect	✔		
	Replace as Required			
Chain brake components	Inspect	✔		
	Replace as Required			
Saw chain tension	Inspect/Adjust	✔		

AIR FILTER

CAUTION: Never operate saw without the air filter. Dust and dirt will be drawn into engine and damage it. Keep the air filter clean!

TO CLEAN AIR FILTER:

1. Remove knob (17) holding air filter cover in place, remove the top cover (16) by loosening the cover retaining screws. Cover will lift off. (Fig.15A)
2. Lift the air filter (C) out of air-box (D) (Fig.15B).
3. Clean air filter. Wash filter in clean, warm, soapy water. Rinse in clear, cool water. Air dry completely.

NOTE **NOTE:** It is advisable to have a supply of spare filters.

4. Install air filter. Install engine / air filter cover. Make sure (E) latch (F) and cover fit properly. Tighten the cover retaining knob securely. (Fig.15C & Fig.15D)

WARNING: Never perform maintenance when the engine is hot, to avoid any chance of burning hands or fingers.

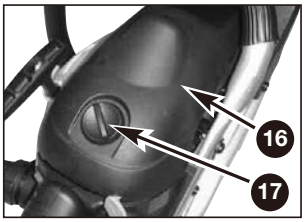


Fig. 15A

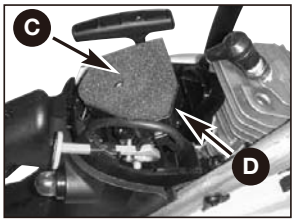


Fig. 15B

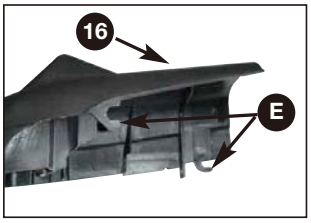


Fig. 15C

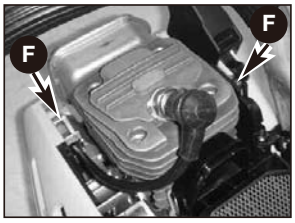


Fig. 15D

Maintenance

Maintenance instructions

FUEL FILTER

WARNING: Never operate your saw without a fuel filter. The fuel filter should be replaced after each 20 hours of use. Drain fuel tank completely before changing filter.

1. Remove the fuel tank cap.
2. Bend a piece of soft wire to from a hook at the end.
3. Reach into fuel tank opening and hook fuel line. Carefully pull the fuel line toward the opening until you can reach it with your fingers.

NOTE **NOTE:** Do not pull hose completely out of tank.

4. Lift filter **A** out of tank (Fig.16).
5. Pull filter off with a twisting motion. Discard filter.
6. Install new filter. Insert end of filter into tank opening. Make sure filter sits in bottom corner of tank. Use a long screwdriver to aid in filter placement if necessary.
7. Fill tank with fresh fuel / oil mixture. See Section FUEL AND LUBRICATION. Install fuel cap.

SPARK ARRESTER SCREEN

NOTE **NOTE:** A clogged spark arrester screen will dramatically reduce engine performance.

1. Remove the 2 bolts **A** and pull muffler out. (Fig. 17A).
2. Remove the 2 screws that holds the cover **C**. (Fig.17B)
3. Discard the used spark arrester screen **D** and replace it with a new one.
4. Reasemble the muffler components and install the muffler to the cylinder. Tighten securely.

SPARK PLUG

NOTE **NOTE:** For efficient operation of saw engine, spark plug must be kept clean and properly gapped.

1. Push STOP switch down.
2. Remove knob **17** holding air filter cover in place, remove the top cover **16** by loosening the cover retaining screws. Cover will lift off. (Fig.18A)
3. Disconnect the wire connector **C** from the spark plug **D** by pulling and twisting at the same time (Fig. 18B).
4. Remove spark plug with spark plug socket wrench. DO NOT USE ANY OTHER TOOL.
5. Check electrode gaps with wire feeler gauge and set gaps to .025” (.635mm) if necessary.
6. Reinstall a new spark plug.

NOTE **NOTE:** A resistor spark plug must be used for replacement.

NOTE **NOTE:** This spark ignition system meets all requirements of the Interference-Causing Equipment Regulations.

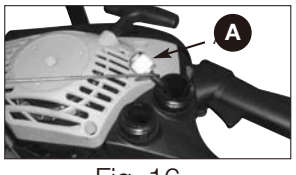


Fig. 16

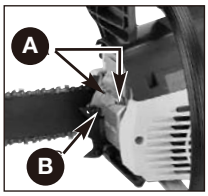


Fig. 17A

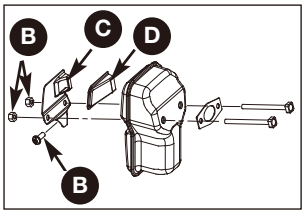


Fig. 17B

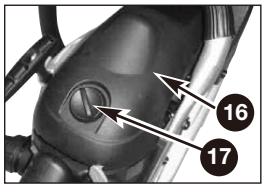


Fig. 18A

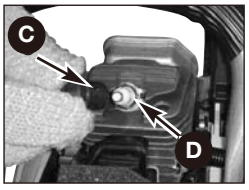


Fig. 18B

Maintenance

Maintenance instructions

CARBURETTOR ADJUSTMENT

The carburettor was preset at the factory for optimum performance. If further adjustments are necessary, please take your unit to the nearest qualified service technician.

STORING A CHAINSAW

CAUTION: Never store a chainsaw for longer than 30 days without performing the following procedures.

Storing a chainsaw for longer than 30 days requires storage maintenance. Unless the storage instructions are followed, fuel remaining in the carburettor will evaporate, leaving gum-like deposits. This could lead to difficult starting and result in costly repairs.

1. Remove the fuel tank cap slowly to release any pressure in the tank. Carefully drain the fuel tank.
2. Start the engine and let it run until the unit stops to remove fuel from carburettor.
3. Allow the engine to cool (approx. 5 minutes).
4. Using a spark plug wrench, remove the spark plug.
5. Pour 1 teaspoon of clean 2-stroke oil into the combustion chamber. Pull starter rope slowly several times to coat internal components. Replace spark plug. (Fig. 19)

NOTE **NOTE:** Store the unit in a dry place and away from possible sources of ignition such as a furnace, gas hot water heater, gas dryer, etc.

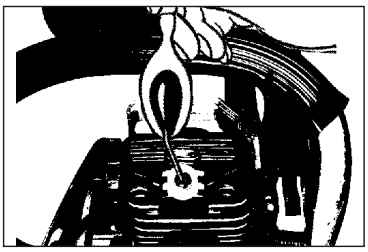


Fig. 19

REMOVING A UNIT FROM STORAGE

1. Remove spark plug.
2. Pull starter rope briskly to clear excess oil from combustion chamber.
3. Clean and gap spark plug or install a new spark plug with proper gap.
4. Prepare unit for operation.
5. Fill fuel tank with proper fuel / oil mixture. See FUEL AND LUBRICATION Section.

GUIDE BAR MAINTENANCE

Frequent lubrication of the guide bar (railed bar which supports and carries the saw chain) sprocket tip is required. Proper maintenance of the guide bar, as explained in this section, is essential to keep your saw in good working condition.

SPROCKET TIP LUBRICATION:

CAUTION: The sprocket tip on your new saw has been pre-lubricated at the factory. Failure to lubricate the guide bar sprocket tip as explained below will result in poor performance and seizure, voiding the manufacturer's warranty.

Storing a chainsaw for longer than 30 days requires storage maintenance. Unless the storage instructions are followed, fuel remaining in the carburettor will evaporate, leaving gum-like deposits. This could lead to difficult starting and result in costly repairs.
Lubrication of the sprocket tip is recommended after 10 hours of use or once a week, which ever occurs first. Always thoroughly clean guide bar sprocket tip before lubrication.

TOOLS FOR LUBRICATION:

The Lube Gun (optional) is recommended for applying grease to the guide bar sprocket tip. The Lube Gun is equipped with a needle nose tip which is necessary for the efficient application of grease to the sprocket tip.

Maintenance

Maintenance instructions

TO LUBRICATE SPROCKET TIP:

WARNING: Wear heavy duty work gloves when handling the bar and chain.

1. Press the STOP switch down.

NOTE **NOTE:** It is not necessary to remove the saw chain to lubricate the guide bar sprocket tip. Lubrication can be done on the job.

2. Clean the guide bar sprocket tip.
3. Using the Lube Gun (optional), insert needle nose into the lubrication hole and inject grease until it appears at outside edge of sprocket tip (Fig. 20).
4. Rotate saw chain by hand. Repeat lubrication procedure until the entire sprocket tip has been greased.

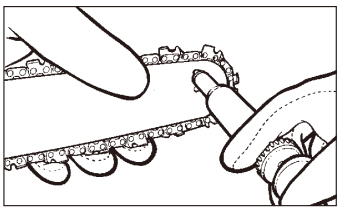


Fig. 20

GUIDE BAR MAINTENANCE:

Most guide bar problems can be prevented merely by keeping the chainsaw well maintained.

Insufficient guide bar lubrication and operating the saw with chain that is TOO TIGHT will contribute to rapid bar wear.

To help minimize bar wear, the following guide bar maintenance procedures are recommended.

WARNING: Always wear protective gloves during maintenance operations. Do not carry out maintenance when the engine is hot.

CHAIN SHARPENING:

Chain sharpening requires special tools to ensure that cutters are sharpened at the correct angle and depth. For the inexperienced chainsaw user, we recommend that the saw chain be professionally sharpened by the nearest professional Service Center. If you feel comfortable sharpening your own saw chain, special tools are available from the professional Service Center. For non-experienced users of the chainsaw, we recommend to have the chain sharpened by a specialist in any authorised service centre.

WARNING: An incorrectly sharpened chain increases the risk of kickback.

1. To sharpen the saw chain, use the suitable sharpening tools:
   - Round chain file ø5/32”(4mm).
   - File leading
   - Chain measuring calibre.

   These tools can be bought in any specialsed stores.
2. To gain well shaped sawdust particles, use sharp chain. If there appears wooden powder, you must sharpen the saw chain.

WARNING: All cutting teeth must be of a similar length. Different length of the teeth can cause rough run of the chain or its rupture, as well.

3. Minimum length of the teeth must be 4mm. If they are shorter, remove the saw chain.
4. Angles, which the teeth are under, must be followed.
5. To sharpen the chain basically, make 2 to 3 pulls of the file from the inside out.

WARNING: After you have sharpened the cutter teeth 3 to 4 times, have the saw chain sharpened by an authorised dealer. They will also sharpen the depth of the limiter , which provides the distance.

Maintenance

Maintenance instructions

CHAIN SHARPENING - The pitch of the chain (Fig. 21) is 3/8” LoPro x .050”.
Sharpen the chain using protective gloves and a round file of ø5/32” (4mm).
Always sharpen the cutters only with outward strokes (Fig. 22) observing the values given in Fig. 21.
After sharpening, the cutting links must all have the same width and length.

WARNING: A sharp chain produces well defined chips. When your chain starts to produce sawdust, it is time to sharpen.

After every 3-4 times the cutters have been sharpened you need to check the height of the depth gauges and, if necessary, lower them using the flat file and template supplied optional, then round off the front corner. (Fig. 23)

WARNING: Proper adjustment of the depth gauge is as important as proper sharpening of the chain.

GUIDE BAR - The bar should be reversed every 8 working hours to ensure uniform wear.
Keep the bar groove and lubrication hole clean using a bar groove cleaner (optional). (Fig. 24)
Check the bar rails frequently for wear and, if necessary, remove the burs and square-up the rails using a flat file. (Fig.25)

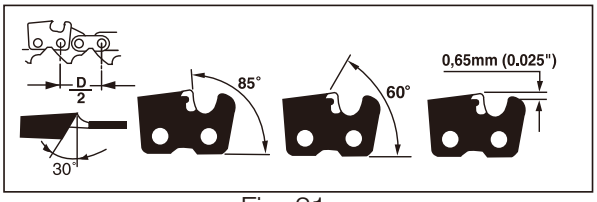


Fig. 21

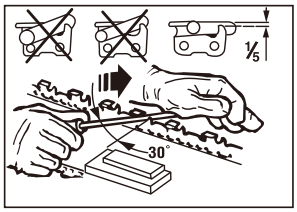


Fig. 22

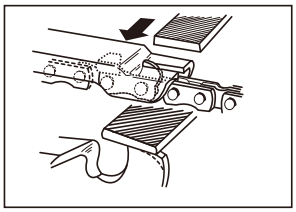


Fig. 23

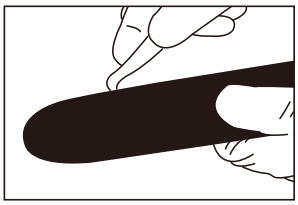


Fig. 24

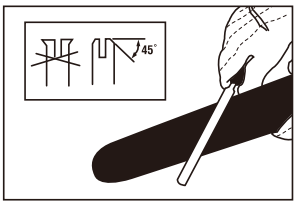


Fig. 25

WARNING: Never mount a new chain on a worn sprocket or self-aligning ring.

BAR WEAR - Turn guide bar frequently at regular intervals (for example, after 5 hours of use), to ensure even wear on top and bottom of bar.
OIL PASSAGES - Oil passages on the bar should be cleaned to ensure proper lubrication of the bar and chain during operation.

NOTE **NOTE:** The condition of the oil passages can be easily checked. If the passages are clear, the chain will automatically give off a spray of oil within seconds of starting the saw. Your saw is equipped with an automatic oiler system.

CHAIN MAINTENANCE

CHAIN TENSION:

Check the chain tension frequently and adjust as often as necessary to keep the chain snug on the bar, but loose enough to be pulled around by hand.

BREAKING IN A NEW SAW CHAIN:

A new chain and bar will need chain readjustment after as few as 5 cuts. This is normal during the break-in period, and the interval between future adjustments will begin to lengthen quickly.

Maintenance

Maintenance instructions

WARNING: Never have more than 3 links removed from a loop of chain. This could cause damage to the sprocket.

CHAIN LUBRICATION:

Always make sure the automatic oiler system is working properly. Keep the oil tank filled with Chain, Bar and Sprocket Oil.

Adequate lubrication of the bar and chain during cutting operations is essential to minimize friction with the guide bar.

Never starve the bar and chain of lubricating oil. Running the saw dry or with too little oil will decrease cutting efficiency, shorten saw chain life, cause rapid dulling of chain, and lead to excessive wear of bar from overheating. Too little oil is evidenced by smoke or bar discoloration.

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.

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
Unit won't start or starts but will not run.	Incorrect starting procedures.	Follow instructions in the User Manual.
	Incorrect carburettor mixture adjustment setting.	Have carburettor adjusted by an Authorized Service Center.
	Fouled spark plug	Clean / gap or replace plug.
	Fuel filter carburettor.	Replace fuel filter.
Unit starts, but engine has low power.	Dirty spark arrester screen.	Replace spark arrester screen.
	Dirty air filter.	Remove, clean and reinstall filter.
	Incorrect carburettor mixture adjustment setting.	Have carburettor adjusted by an Authorized Service Center.
Engine hesitates No power under load.	Incorrect carburettor mixture adjustment setting.	Have carburettor adjusted by an Authorized Service Center.
Runs erratically.	Incorrectly gapped spark plug.	Clean / gap or replace plug.
Smokes excessively.	Incorrect carburettor mixture adjustment setting.	Have carburettor adjusted by an Authorized Service Center.
	Incorrect fuel mixture.	Use properly mixed fuel (40:1 mixture).

Technical Data

Technical Data Table

Model No.	**PC40**
Engine Displacement	35 cm^3 (2.1 cu-in)
Rated Net Power	1.44 kW
The Usable Cutting Lengths	37cm
Bar Length	40cm
Chain Pitch	9,53mm (3/8”)
Chain Gauge	1.27mm (0.05”)
Idle Speed (Max.)	3300 min^{-1}
Recommended maximum speed with cutting attchment	13500 min^{-1}
Fuel Capacity	250 cm^3
Oil Capacity	150 cm^3
Anti Vibration	Yes
Drive Sprocket	6 Teeth
Easy Start	Yes
Auto Choke	Yes
Chain Brake	Yes
Clutch	Yes
Automatic Chain Oiler	Yes
Low Kick-back Chain Type (Oregon)	91PJ056X
Type of Guide Bar (Oregon)	160SDEA041
Low Kick-back Chain Type (Carlton)	N1C-BL-M56E SK
Type of Guide Bar (Carlton)	16-10N156-MHC
Net Weight (Without guide bar and chain)	4.7 Kg
Sound pressure level at ear (EN ISO 11681-1)(K=1.5)	103 dB(A)
Sound power level (EN ISO 11681-1)(K=1.5)	105 dB(A)
Guarantee sound power level (2000/14/EC+2005/88/EC)	108 dB(A)
Braking Time (Max.)	0.12 s
Vibration Level (Max.) (K=1.5).	15 m/s^2
Fuel Consumption	519.3 g/kWh
Maximum chain speed	22.8m/s

Guarantee

Dear Customer,

In the unlikely event that your device develops a fault, please contact our Customer service department on the telephone number shown below.

1. These guarantee terms cover additional guarantee rights and do not affect your statutory warranty rights. Claims must be accompanied by Proof of purchase. This must be in the form of a Sales receipt and must show that the product has been purchased within 2 years prior to the claim from the retailer that it was originally sold to.
2. Our guarantee covers problems caused by material or manufacturing defects, and will result in the repair of these defects or replacement of the device with a like for like or similar article. Please note that our devices have not been designed for use in commercial, trade or industrial applications or for other equivalent activities.
3. The following are also excluded from our guarantee:

- Faults due to accidents, customer misuse, or unauthorised repairs
- Consumable Parts such as Blades/Chains/Trimmer Lines/Spools/Vacuum Bags/Spark Plugs/ Electric Mains Cables/Belts/Cables or Filters.
- Failure due to lack of routine maintenance.
- Failure as a result of not using the equipment in accordance with the manual and safety instructions.
- The adjustment or lubrication cables, drive belts, or recoil starters.

4. The guarantee is valid for a period of 2 years starting from the purchase date of the device. Guarantee claims should be submitted before the end of the guarantee period within two weeks of the defect being noticed. No guarantee claims will be accepted after the end of the guarantee period. The original guarantee period remains applicable to the device even if repairs are carried out or parts are replaced. In such cases, the work performed or parts fitted will not result in an extension of the guarantee period, and no new guarantee will become active for the work performed or parts fitted. This also applies when an on-site Service is used.
5. Please keep sales receipt in a safe place. If the defect is covered by our guarantee your device will either be repaired under the terms of guarantee or we will send you a replacement device. This device may be re-conditioned or like for like replacement.

After Sales Support

Phone **0844 801 3652**
Email
customer.service@husqvarna.co.uk

CE

EC Declaration of Conformity

Year first placed on Market. 12

Argos Ltd

489-499 Avebury Boulevard
Saxon Gate West
Milton Keynes
Buckinghamshire
MK9 2NW

We hereby certify that the product stipulated above complies with all the relevant provisions of the following EC new approach directive/s.

This declaration of conformity is issued under the sole responsibility of the manufacturer

Type of Product: Petrol Chainsaw

Model Number: PC40

Cat / Article Number:7305485

Product Description: Petrol Chainsaw
Rated net power - 1.44 kW
Bar length - 40cm
Usable cutting length - 37cm
Fuel capacity - 250 cm3
Max Idle Speed - 3300 min

Photograph:

Applicable EC Directives		
☒ 2006/42/EC (MD)	☒ 2004/108/EC (EMC)	☐ 1999/5/EC (R&TTE)
☐ 2006/95/EC (LVD)	☐ 2009/105/EC (Pressure)	☒ 2000/14/EC Annex , 2005/88/EC
☐ 2005/32/EC (ERP)	☐ 2009/48/EC (Toys)	L_{WA} =105dB(A), L_{PA} = 99dB(A), K=108dB(A)
☐ 2009/142/EC (Gas)	☐ 89/106/EEC (Construction)	☒ 97/68 /EC (Others)

Applicable Harmonized Standards:		
EN ISO 11681-1:2011		
EN ISO 14982:2009		

Issued number: 1 Issued on : 26/10/12 Signed :

Creator: Barry West

Position: Assistant Technologist

Name : Mark Kennedy

Position: Technical Manager

The associated technical file for this product can be found within Home Retail Group idocument system

Document control number 1.0