

## Petrol Chainsaws

MCS25, MCS38, MCS46, MCS52, YR4503



## Owner's Manual

### Important

Please read this Owner's Manual and the Express Warranty before using this product. The Warranty does not cover damage due to misuse or failure to follow the operating and installation instructions

**Keep the instructions in a safe place for future use.**

This manual covers the Morrison MCS25, MCS38, MCS46, MCS52 and YR4503 Petrol Chainsaws.

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**Do not operate this machine before it has been assembled correctly and you have read and understood these instructions.**



**These instructions are intended as a general guide and do not supersede national or local codes in any way. Contact local Authorities for clarity of laws relating to the operation of this appliance.**

Keep the instructions in a safe place for future use.

## Symbols on the Machine

	Warning / Caution!
	Please read the instruction manual carefully.
	Wear ear protection!
	Wear eye protection!
	Always operate the chainsaw using two hands.
	Warning! Danger of kickback.
	Fuel tank cap. Use two stroke gasoline/oil mix.
	Oil tank cap. For automatic chain oil pump.
	Pull knob out to activate choke.
	Chain oil adjuster nut flow regulator nut.
	H- High speed adjustment screw L- Low speed adjustment screw T- Idle speed adjustment screw
	Kill switch stop the engine immediately in the 'O' position
	Chain Brake 'Off'–White arrow. Chain Brake 'On'–Black arrow.

## Symbols in this Owner's Manual



**Threatening hazard or hazardous situation.**  
Not observing this instruction can lead to injuries or cause damage to property.



**Important information on proper handling.**  
Not observing this instruction can lead to faults in the machine.



**User information.** This information helps you to use all the functions correctly.

## Proper Use

For safety reasons, the Petrol Chainsaw is not to be used by children, young people under 16 years of age, or any other persons who are not acquainted with these directions for use.



**Specific safety information** Please read this safety information and the directions for use carefully and be sure to follow the instructions to the letter.

## Safety Instructions

Use the chainsaw only to saw wood or objects made of wood. Any other types of use are at your own risk and could well be dangerous. The manufacturer cannot be held liable for damage caused by improper or incorrect usage.



### WARNING!

Read the operating instructions in their entirety before using the machine for the first time. All the information on the handling of the chainsaw is relevant to your personal safety. Ask a professional to show you how to use the machine!

### BEFORE USING THE MACHINE

- Read this owner's manual carefully to understand how to operate this unit properly.
- You should never use the product when under the influence of alcohol, when suffering from exhaustion or lack of sleep, when suffering from drowsiness as a result of having taken cold medicine. Nor at any other time when a possibility exists that your judgment might be impaired or that you might not be able to operate the machine properly or in a safe manner. 
- Avoid running the engine indoors. The exhaust gases contain harmful carbon monoxide. 
- Never use the product under circumstances such as those described below.
  - When the ground is slippery or when other conditions exist which might make it not possible to maintain a steady posture.
  - At night, at times of heavy fog, or at any other times when your field of vision might be limited and it could be difficult to gain a clear view of the area.
  - During rain storms, during lightning storms, at times

of strong or gale force winds, or at any other time when weather conditions might make it unsafe to use this product.

- When using this product for the first time, before beginning actual work, learn to use it from a skilled worker.
- Lack of sleep, tiredness, or physical exhaustion results in lower attention spans, and this in turn leads to accidents and injury. Limit the amount of time of using the machine continuously to somewhere around ten minutes per session, and take ten to twenty minutes of rest between work sessions. Also try to keep the total amount of work performed in a single day under two hours or less.
- Be sure to keep this manual handy so that you may refer to it later whenever any questions arise.
- Always be sure to include this manual when selling, lending or otherwise transferring the ownership of the product.
- Never allow children or anyone unable to fully understand the directions given in this manual to use this product. 

### WORKING GEAR AND CLOTHING

A. When using the product you should wear proper clothing and protective equipment as follows.

- Helmet.
- Protection goggles or face protector.
- Thick work gloves.
- Non-slip sole work boots.
- Ear protectors.



B. And you should carry with you.

- Provided tools and files.
- Properly mixed fuel and chain oil.
- Things to notify your working area— rope, warning signs.
- Whistle for collaboration or an emergency.
- Hatchet or saw, for removal of obstacles.

C. Never use the product when wearing pants with loose cuffs, when wearing sandals, or when barefoot.

### WARNING CONSIDERATIONS WHEN HANDLING FUEL

- The engine of this product is designed to run on a mixed fuel which contains highly flammable gasoline. Never store cans of fuel or refill the fuel tank in any place where there is a boiler stove, wood fire, electrical sparks, welding sparks, or any other source of heat or fire which might ignite the fuel. 
- Smoking while operating the product or refilling its fuel tank is extremely dangerous. Always be sure to keep lit cigarettes away from the product at all times. 
- When refilling the tank always turn off the engine first and take a careful look around to make sure that there are no sparks or open flames anywhere nearby before refuelling.
- If any fuel spillage occurs during refuelling, use a dry rag to wipe up spills before starting the engine again.
- After refuelling, screw fuel cap back tightly onto the fuel tank and then carry the chainsaw three meters or more away from where it was refuelled before restarting the engine.

### BEFORE STARTING ENGINE

- Check working place, the object being cut and felling direction. If there are obstacles, remove them.
- Never start cutting until you have a clear work area, secure footing and a planned retreat path from the falling tree.
- Use caution and keep bystanders and animals out of the

working area, about 2.5 the size of the object being cut. Inspect the machine for worn, loose, or damaged parts. Never operate the machine that is damaged, improperly adjusted, is incomplete or not securely assembled. Make sure that the saw chain stops moving when the throttle control trigger is released.

- Make sure the saw chain is not in contact with anything while it is in idle mode.

### AFTER STARTING THE ENGINE

- Always hold the machine firmly with both hands when the engine is running. Use a firm grip with thumb and fingers encircling the handles. 
- Keep all parts of your body away from the machine when the engine is running. 

### OPERATION

- Keep the handles dry, clean and free of oil or fuel mixture.
- Never touch the muffler, spark plug or other metallic parts of the engine while the engine is in operation or immediately after stopping the engine. Doing so could result in serious burns or electrical shock. 
- 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.
- Operating this chainsaw with the use of apparatus to gain height is extremely dangerous and requires specific, professional training for such work.
- Never work on a ladder, or any other support that is insecure.
- When cutting a tree limb that is under tension, be alert for spring back so that you won't be struck when the tension in the wood fibres is released.
- Check the tree for dead branches that could fall during the felling operation.
- Always shut off the engine before setting it down.
- Parts of the chainsaw get very hot. Do not sit the chainsaw on any combustible material that could cause a fire.

### KICKBACK SAFETY PRECAUTIONS



### WARNING!

Kickback may occur when the nose or tip of the guide bar touches an object, or when the wood closes in and pinches the saw chain in the cut. Tip contact in some cases may cause a lightning fast reverse reaction, kicking the guide bar up and back towards the operator. Pinching the saw chain along the top of the guide bar may push the guide bar rapidly back towards the operator. Either of these reactions may cause you to lose control of the saw which could result in serious personal or fatal injury

- Do not rely exclusively on the safety devices built into your saw. As a chain saw user you should take several steps to keep cutting jobs free from accident or injury.
  - With a basic understanding of kickback you can reduce or eliminate the element of surprise. Sudden surprise contributes to accidents.
  - Keep a good 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 chain saw handles. A firm grip will help you reduce kick



- back and maintain control of the saw.
- Make certain 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. 
- Cut at a high engine speed.
- Do not overreach or cut above shoulder height.
- Follow manufactures sharpening and maintenance instructions for the saw chain
- Only use replacement bars and chains specified by the manufacturer or the specified equivalent.

### MAINTENANCE

- In order to maintain your product in proper working order, perform the maintenance and checking operations described in the manual at regular intervals.
- Always be sure to turn off the engine before performing any maintenance or checking procedures.



### WARNING!

The metallic parts reach high temperatures immediately after stopping the engine. Leave all maintenance other than the items listed in the Owner's Manual to your competent servicing dealer.

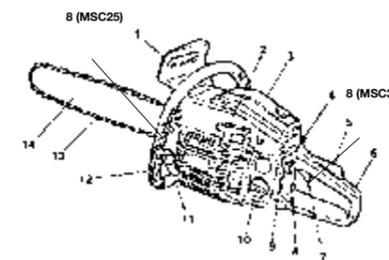
### TRANSPORTATION

Always carry the chainsaw with the engine stopped, the guide bar covered and with the protector to the rear. Keep the muffler away from your body.

## Location of parts

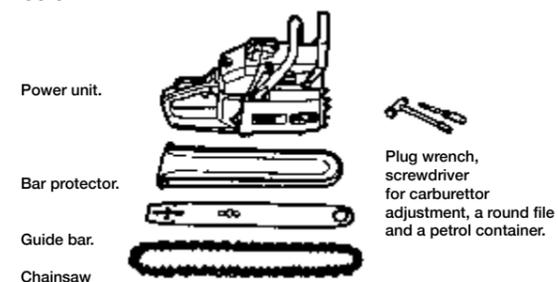
- Front guard
- Starter knob
- Air cleaner
- Choke knob
- Throttle interlock
- Rear handle
- Throttle trigger
- Priming bulb
- Engine switch
- Fuel tank
- Oil tank
- Front handle
- Saw chain
- Guide Bar

Note MCS38 Chain Oil Tank is below No. 10  
MCS25 Fuel Tank is at the rear  
MCS25 Engine Switch is at the right hand front of handle assembly



## Assembling the Guide Bar and Saw Chain

A standard saw unit package contains the items as shown below.



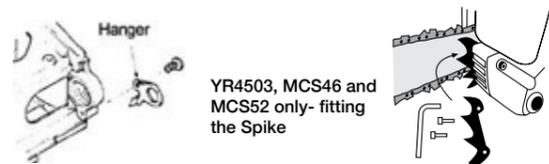
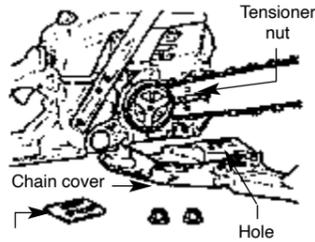
Open the box and assemble the guide bar and the saw chain on the power unit as follows:

**Note:** For 45, 46 & 52 models assemble spike first. Spike is not needed for models S25 & 38.



**WARNING!**  
The saw chain has very sharp edges. Use thick protective gloves for safety.

1. Pull the front guard towards the front handle to check that the chain brake is not engaged.
2. Loosen the nuts and remove the chain cover.
3. Attach the spike to the front, saw side of the power unit.
4. Fix the hanger on the rear of the power unit by screw - MSC25 only.



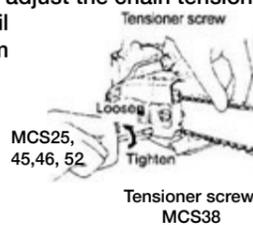
5. Fit the chain over the sprocket and, while feeding the saw chain around the guide bar, mount the guide bar to the power unit. Adjust the position of chain tensioner nut on the chain cover to the lower hole of guide bar.



**IMPORTANT!**  
Pay attention to the correct direction of the saw chain.



6. Fit the chain cover to the power unit and fasten the nuts until finger tight.
7. While holding up the tip of the bar, adjust the chain tension by turning the tensioner screw until the tie straps just touch the bottom side of the guide bar.
8. Tighten the nuts securely with the bar tip held up (12-15 Nm). Then check the chain for smooth rotation and proper tension while moving it by hand. If necessary, readjust.



**IMPORTANT!**  
A new chain will stretch at the beginning of use. Check and readjust the tension frequently as a loose chain can easily derail or cause rapid chain wear and damage to the guide bar.

## Fuel and Chain Oil Specifications



**WARNING!**  
Gasoline is very flammable. Avoid smoking or bringing any naked flame or sparks near the fuel.



Make sure to stop the engine and allow it to cool before refuelling the unit. Select outdoor bare ground for fuelling and move at least 3m (10ft) away from the fuelling point before starting the

engine.  
Mix a regular 91 octane gasoline (leaded or unleaded, alcohol free) and a quality proven motor oil for air cooled 2 cycle engines.

Recommended mixing ratios:  
**Models MCS25, MCS38, MCS46, MCS52 and YR4503**  
Engine Condition Gasoline to Oil  
Up to 20 hours use 25:1

**All Models**  
After 20 hours use 25:1 or 40:1 (see below charts)

When using a mineral oil:  
**Mixing Ratio 25:1**

Gasoline (litres)	1	2	3	4	5
2cycle oil (ml)	40	80	120	160	200

When using a semi-synthetic oil:  
**Mixing Ratio 40:1**

Gasoline (litres)	1	2	3	4	5
2cycle oil (ml)	25	50	75	100	125



**WARNING!**  
Keep open flames away from the area where fuel is handled or stored. Mix and store fuel only in an approved gasoline container.



**IMPORTANT!**  
Most engine troubles are caused, directly or indirectly, by the fuel used on the machine. Take special care not to mix a motor oil for 4 cycle engines.

## HOW TO MIX FUEL



**WARNING!**  
Thorough mixing of the oil and fuel is critical to the life and performance of the engine. Take extreme care.

1. Measure out the quantities of gasoline and oil to be mixed.
2. Put some of the gasoline into a clean, fuel container.
3. Pour in all of the oil and agitate well.
4. Pour in the rest of gasoline and agitate again for at least one minute. Some oils may take longer to mix depending on their ingredients. Thorough mixing is essential for engine longevity.

## FILLING THE FUEL TANK

1. Untwist and remove the fuel cap. Rest the fuel cap in a dust free place.
2. Fill fuel tank to 80% of the full capacity.  
MSC25 = 184mL, MSC38 = 264mL, MCS46, 52 & YR4503 = 440ml.
3. Fasten the fuel cap securely and wipe up any fuel spillage from around the engine.

## CHAIN OIL

**All models**  
Use Masport Chain Bar Oil Part # 833043. This is specially formulated to give best results. Alternatively you can use a good quality motor oil, SAE 10W ~ 30 all year round or SAE #30~#40 in Summer and SAE #20 in Winter.  
*Refer to specifications pg13 for OIL TANK capacities.*



**IMPORTANT!**  
Do not use waste or recycled oil that can cause damage to the oil pump.

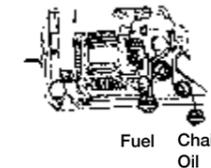
## TO GET MAXIMUM LIFE FROM YOUR ENGINE USE GOOD QUALITY, WELL MIXED FUEL - AVOID...

1. Fuel with no oil (raw gasoline) that will very quickly cause severe damage to the internal engine parts.
2. GASOHOL and E10. It can cause deterioration of rubber and/or plastic parts and disruption of engine lubrication.
3. Mixing oils intended for use in four cycle engines with your fuel. It can cause spark plug fouling, exhaust port blocking, or piston ring sticking.
4. Mixed fuels which have been left unused for a period of one month or more may clog the carburettor and result in the engine failing to operate properly.
5. In the case of storing the chainsaw for a long period of time, empty and clean the fuel tank. Turn the engine over to empty the carburettor of the stale fuel.
6. When disposing of stale mixed fuel, take it to an authorised disposal site.

## Operating the Engine

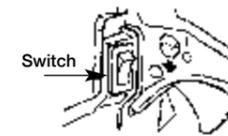
### STARTING THE ENGINE

Fill fuel and chain oil tanks respectively and tighten the caps securely.

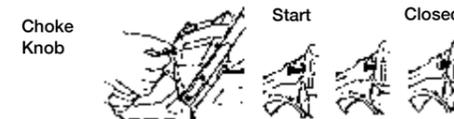


### For models MCS25 & 38

1. Continuously push the priming bulb until fuel comes into the bulb (MCS25/38).
2. Put the switch to 'I' or up position.
3. Hold the throttle lever together with the throttle interlock and push in the side throttle lock button. Release the throttle lever to hold it at the starting position.



4. Pull out the choke knob to the start position.



5. While holding the saw unit securely on the ground, pull the starter rope vigorously.



**WARNING!**  
Do not start the engine while dangling the chainsaw from one hand. The saw chain may touch your body and cause wounds that can be fatal.

6. If engine has started then stopped. Push the choke knob in a little and pull the starter again to restart the engine
7. Allow the engine to warm up with the throttle lever pulled out slightly.

### For models MCS46, MCS52 and YR4503

1. For cold start, pull choke start lever.
2. Pull the starter cord until the first firing sound is heard.

Push in the choke knob to closed position. Pull start handle vigorously again until engine runs.  
**NOTE** If the starter handle is pulled after the first firing sound is heard and the choke knob is in the start position, too much fuel will enter into the engine resulting in the engine failing to start.

3. Allow the engine to warm up with the choke lever pulled out slightly.



**WARNING!**  
Keep clear of the saw chain as it will start rotating immediately upon starting of engine.



**IMPORTANT!**  
When restarting immediately after stopping a hot engine, leave the choke knob at the closed position

## ADJUSTING THE OIL SUPPLY TO THE CHAIN



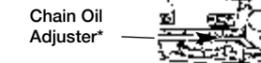
**WARNING!**  
Make sure to set up the bar and the chain correctly before adjusting the oil supply. If you don't the rotating parts may be exposed which is very dangerous.

After starting the engine, run the chain at medium speed and see if excessive chain oil is thrown off onto the ground.



### Adjusting the Chain oil output.

The chain oil flow can be changed by inserting a screwdriver in the hole on bottom of the clutch side. Adjust according to your work conditions.



\*This feature is not available on all models.



**IMPORTANT!**  
The oil tank should become nearly empty by the time fuel is used up. Be sure to refill the oil tank every time you refuel the unit.

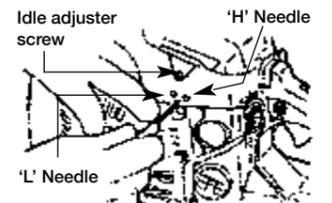
## STOPPING THE ENGINE

1. Release the throttle lever to allow the engine to idle for a few minutes.
2. Set the switch to the "O" (STOP) position.

## ADJUSTING THE CARBURETTOR

This is best done by an authorised Masport or Morrison dealer

The carburettor on your engine has been factory adjusted, but may require fine tuning due to changes in operating conditions. Before adjusting the carburettor make sure that the provided air and fuel filters are in good condition and the fuel is properly mixed.



When adjusting take the following steps:



**IMPORTANT!**  
Be sure to adjust the carburettor with the bar and chain attached.

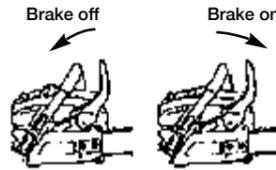
1. Stop engine and screw in both the 'H' and 'L' needles until they stop. Never force them. Then set them back the initial number of turns as shown below.

- Model MCS38 'H' Needle: rE - ± iE 'L' Needle: 1 wQ - ± rQ  
 Model MCS25 'H' Needle: 1 rQ - ± rQ 'L' Needle: 1 wQ - ± rQ  
 Model MCS45 'H' Needle: 1 iE - ± rQ 'L' Needle: 1 rQ - ± rQ  
 Model MCS52 'H' Needle: 1 iE - ± rQ 'L' Needle: 1 rQ - ± rQ  
 Model YR4503 'H' Needle: 1 iE - ± rQ 'L' Needle: 1 rQ - ± rQ

2. Start the engine and allow it to warm up at half-throttle.
3. Turn the '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 the idle adjusting screw 'T' counterclockwise so that the saw chain does not turn. If the 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.

## Chain Brake

This machine is equipped with an automatic brake to stop the saw chain rotating should kickback occur while the saw is being used for cutting. The brake is automatically operated by inertial force which acts on the weight fitted inside the front guard. This brake can also be operated manually with the Front guard push forward to the guide bar. To release brake, pull up the Front guard toward the Front handle till 'click' sound is heard.



**WARNING!**  
The kickback reaction happens so quickly that you will not be able to react in time to avoid serious injury, even if the chain brake works. The saw must never be in line with your face, but should be to the right of your body. Never be distracted.



**IMPORTANT!**  
Be sure to confirm brake operation is functioning correctly by inspecting daily.

How to confirm brake is functioning correctly.

1. Turn off the engine.
2. Holding the chain saw horizontally, release your hand from the Front handle, hit the tip of the guide bar to a stump or a piece of wood, to confirm brake operation. The Front guard should move away from you, to the 'On' position. Operating level varies by bar size. If the brake is not effective, ask your dealer to inspect and repair.



**IMPORTANT!**  
If the engine is kept rotated at high speed while the brake is engaged, it will overheat the clutch, causing damage. When the brake is operated while the engine is running, immediately release your fingers from the throttle lever and drop the engine speed to idle.

## Sawing

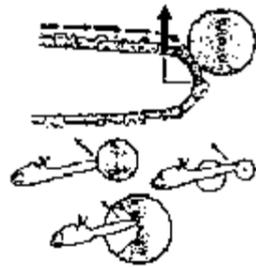


**WARNING!**

- Before proceeding to your job, read the 'Safety Instructions' section at the beginning of this Manual. It is recommended to first practice sawing easy logs. This also helps you get accustomed to your machine.
- Always follow the safety regulations. The chainsaw must only be used for cutting wood. Never attempt to cut other types of material due to vibrations and kickback which will vary with different materials and the requirements of the safety regulations would not be followed. Do not use the chain saw as a lever for lifting, moving or splitting objects. Do not lock it over fixed stands. Never hitch tools or devices to the P.T.O. that are not specified by the manufacturer.
- It is not necessary to force the saw into the cut. Apply only light pressure while running the engine at full throttle.
- When the saw chain is caught in the cut, do not attempt to pull it out by force, but use a wedge or a lever to open the cut.

### GUARDING AGAINST KICKBACK

This saw is equipped with a chain brake that will stop the chain in the event of kickback when operating properly. You must check the chain brake operation before each usage. Run the saw at full the throttle for twelve seconds and push the Front guard forward. The chain should stop immediately with the engine at full speed. If the chain is slow to stop or does not stop, you must replace the brake band and clutch drum before use. See your chainsaw dealer.



**WARNING!**  
It is extremely important that the chain brake is checked for proper operation before each use and that the chain is sharp in order to maintain the Kickback safety function of this saw. Removal of safety devices, inadequate maintenance, or incorrect replacement of the bar or chain may increase the risk or serious personal injury or death due to kickback.

### FELLING A TREE

1. Decide the felling direction. Consider the wind, lean of the tree, location of heavy branches, ease of work after felling and other factors.
2. While clearing the area around the tree, arrange a good foothold and retreat path.
3. Make a notch cut one third of the way into the tree on the felling side, 1.
4. Make a felling cut from the opposite side of the notch and at a level slightly higher than the bottom of the notch, 2.



1. Notch cut
2. Felling cut
3. Felling direction



**WARNING!**  
When you fell a tree, be sure to warn your neighbouring workers of the danger.

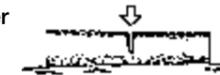
### Bucking and Limbing



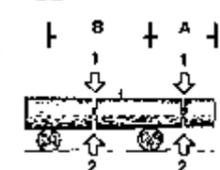
**WARNING!**  
• Always ensure your footing. Do not stand on the log.  
• Be alert to the rolling over of a cut log. Especially when working on a slope, stand on the uphill side of the log.  
• Follow the instructions in 'Safe Operation' to avoid kickback of the saw.

Before starting work, check the direction of bending force inside the log to be cut. Always finish cutting from the opposite side of bending direction to prevent the guide bar from being jammed in the cut.

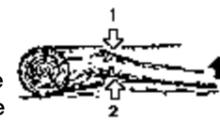
**Cutting a log lying on the ground.**  
Saw down halfway, then roll the log over and cut from the opposite side.



**Cutting a log hanging off the ground.**  
In area 'A' saw up from the bottom one third and finish by sawing down from the top. In area 'B' saw down from the top one third and finish by sawing up from the bottom



**Cutting a limb of fallen tree.**  
First check to which side the limb is bent. Then make the initial cut from the bent side and finish by sawing from the opposite side.



**WARNING!**  
Be alert to the springing back of a cut limb. Pruning of Standing Tree. Cut up from the bottom, finish down from the top.



- Do not use an unstable foothold or ladder.
- Do not overreach.
- Do not cut above shoulder height.
- Always use your both hands to grip the saw.

## Maintenance



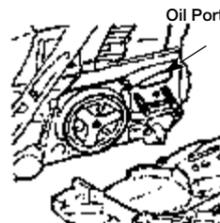
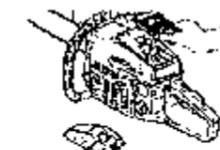
**WARNING!**  
Before cleaning, inspecting, or repairing your unit, make sure the engine has stopped and is cool. Disconnect the spark plug to prevent accidental starting.

### MAINTENANCE AFTER EACH USE

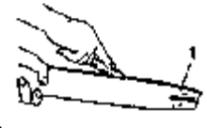
**1. Air filter**  
Dust on the cleaner surface can be removed by tapping a corner of the cleaner against a hard surface. To clean dirt in the meshes, split the cleaner into halves and brush with gasoline. When using compressed air, blow from the inside.



**2. Oiling port**  
Dismount the guide bar and check the oiling port for clogging.



**3. Guide bar.**  
When the guide bar is dismantled, remove sawdust in the bar groove and the oiling port. Grease the nose sprocket from the feeding port on the tip of the bar.



1. Oiling port
2. Grease port
3. Sprocket



**4. General Maintenance.**  
Check for fuel leakage, loose fastenings and damage to major parts. Especially handle joints and guide bar mounting. If any defects are found, make sure to have them repaired before operating the machine again.

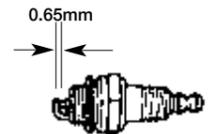
### PERIODICAL SERVICE CHECKS

**1. Cylinder fins.**  
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.



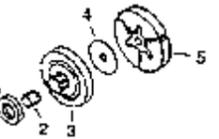
**IMPORTANT!**  
Be sure to cover the air intake hole whilst cleaning.

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

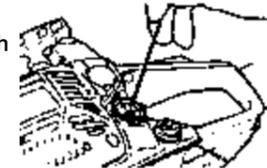


**3. Sprocket.**  
Check for cracks and for excessive wear interfering with the chain drive. If wear is obvious, replace it with new one. Never fit a new chain on a worn sprocket, or a worn chain on a new sprocket.

1. Sprocket
2. Needle bearing
3. Clutch drum
4. Spacer
5. Clutch shoe



**4. Fuel filter (MCS38 shown).**  
Disassemble the filter and wash with gasoline, or replace with new one if needed.



**5. Oil filter (MCS38 shown).**  
Disassemble the oil filter and wash with gasoline, or replace with new one if needed.



**6. Anti-vibration system**  
All models have rubber bumpers, have your dealer replace them should they show signs of cracking or damage.

# Maintenance of the Saw Chain and Guide Bar

## SAW CHAIN



**WARNING!**  
It is very important for smooth and safe operation to always keep the cutters sharp.

Your chain saw cutters need to be sharpened when.

- Sawdust becomes powder like.
- You need extra force to saw.
- The cut way does not go straight.
- Vibration increases.
- Fuel consumption increases.

### Cutter setting standards.

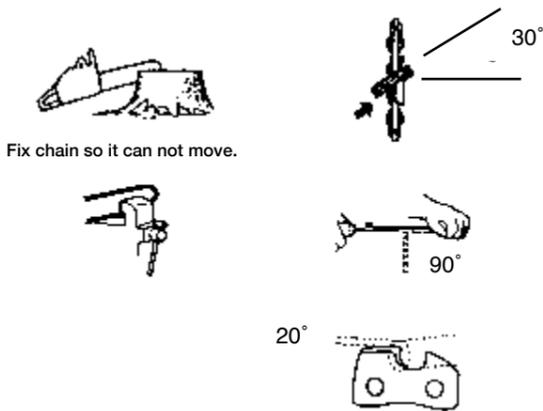


**WARNING!**  
Be sure to wear safety gloves when servicing.

Before filing:

- Make sure the saw chain is held securely.
- Make sure the engine is stopped and the spark plug disconnected.
- Use a round file of proper size for your chain.

- Model MCS25 Chain: 91VG File size: 5/32" (4.0 mm)
- Model MCS38 Chain: 91VG File size: 5/32" (4.0 mm)
- Model MCS46 Chain: 21VB File size: 3/16" (4.76 mm)
- Model MCS52 Chain: 21VB File size: 3/16" (4.76 mm)
- Model YR4503 Chain: 21VB File size: 3/16" (4.76 mm)



- Place your file on the cutter and push straight forward. Keep the file positioned as illustrated.
- After every cutter has been set, check the depth gauge and file it to the proper level.

Appropriate gauge checker.

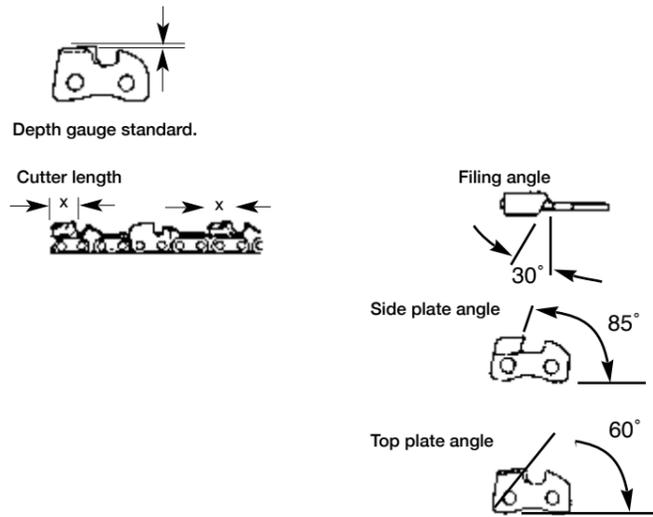


**WARNING!**  
Be sure to round off the front edge to reduce the chance of kickback or tiestrap breakage.



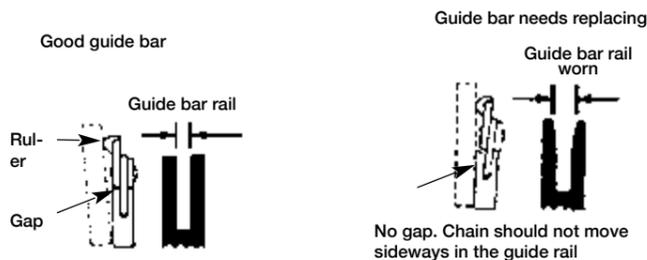
Make shoulder rounded.

Make sure every cutter has the same length and edge angles as illustrated.



## GUIDE BAR

- Flip the bar upside down occasionally to promote even wear.
- The bar rail should always be a square. Check for wear of the bar rail. Apply a ruler to the bar and the outside of a cutter. If a gap is observed between them- the rail is normal.



# Trouble shooting

## Engine does not start

What to Check	Possible Cause	Remedy
Does the engine crank? YES ↓	NO → Faulty recoil starter. Fluid in the crankcase. Internal damage.	Return chainsaw to dealer
Good compression? YES ↓	NO → Loose spark plug. Excess wear on cylinder, piston, rings	Tighten and re-test. Return unit to dealer
Does the tank contain fresh fuel of the proper grade? YES ↓	NO → Fuel/mixture incorrect, stale, contaminated.	Re-fill with fresh fuel (2-cycle engine oil and gasoline, as specified.)
Is fuel visible and moving in the return line when priming? YES ↓	NO → Check for clogged fuel filter and/or vent.	Clear as required. Re-start.
Check the spark plug	If the plug is wet, excess fuel may be in the cylinder  The plug may be fouled or improperly gapped  The plug may be damaged internally or of the wrong size.	Crank the engine with plug removed. replace the plug and restart. (Refer to page 7)  Clean and regap the plug to 0.65mm. Restart.  Replace the plug with the specified plug. Restart

## Low power output

What to Check	Possible Cause	Remedy
Is the engine overheating?	Operator is overworking the machine.  Carburettor mixture is too lean.	Use lower throttle setting.  Return chainsaw to dealer.
	Improper fuel ratio.	Re-fill with fresh fuel of the correct mixture (2-cycle engine oil and gasoline, in specified ratio Page 5.)
	Fan cover, cylinder fins dirty or damaged.	Clean, repair or replace as necessary.
	Carbon deposits on piston or in the muffler.	Decarbonize.
Engine is rough at all speeds.	Clogged air cleaner element.	Service the air cleaner.
May also have black smoke and/or unburned fuel at the exhaust.	Loose or damaged spark plug.  Air leakage or clogged fuel line.  Water in the fuel.	Tighten or replace.  Repair or replace filter and/or fuel line.  Drain the fuel replace the fuel with a fresh mix.
	Piston seizure.	Return chainsaw to dealer.
	Faulty carburettor and/or diaphragm.	Return chainsaw to dealer.
Engine is knocking.	Overheating condition.	Idle engine until cool; find reason for overheating.
	Improper fuel.	Check fuel octane rating; check for presence of alcohol in the fuel. Refuel as necessary.
	Carbon deposits in the combustion chamber.	Decarbonize

## Additional problems

Symptom	Possible Cause	Remedy
Poor Acceleration.	Clogged air cleaner element.	Clean the element.
	Clogged fuel filter.	Replace the fuel filter as required.
	Carburettor mixture too lean.	Return chainsaw to the dealer.
	Idle speed set too low.	Adjust: Refer to specs pg. 12.
Engine stops abruptly.	Fuel tank empty.	Refuel.
	Clogged fuel filter.	Clean or replace the fuel filter as required.
	Water in the fuel.	Drain; replace with clean fuel.
	Shorted spark plug or loose terminal.	Clean and replace spark tighten the terminal.
	Ignition failure.	Return chainsaw to the dealer.
Piston seizure.	Return chainsaw to the dealer.	
Engine difficult to shut off.	Ground (stop) wire is disconnected, or switch is defective.	Test and replace as required.
	Overheating due to incorrect spark plug.	Use correctly specified plug
	Overheated engine.	Idle engine until cool.
Excessive vibration.	Warped or damaged chainsaw fan.	Inspect and replace fan as required.
	Loose bolt or fastener.	Tighten as required.
	Internal engine damage.	Return chainsaw to dealer.

## Chain oiler problems

Symptom	Possible Cause	Remedy
Oil does not come out.	Oil tank empty.	Clean and fill
	Oil passages and ports clogged.	Clean and check

Check oil is of specified quality.

Replace with correctly specified oil

If the chainsaw seems to need further service, please consult with an authorised service agent in your area.

## Specifications

Model	MCS25	MCS38	MCS46	MCS52	YR4503
<b>Power Unit</b>					
Dimensions	265l x 220h x 220w	370l x 235h x 270w	410l x 235h x 265w	410 x 235h 265w	410l x 235h x 265w
Engine:	Two stroke air cooled petrol/oil engine, vertical cylinder.				EUV
Displacement	25.4cc	37.2cc	46cc	49.3cc	45cc
Engine Speed Max	10,000rpm	11,000rpm	11,000rpm	11,000rpm	11,000rpm
Max Idle	3,000rpm	3,000rpm	3,000rpm	3,000rpm	3,000rpm
Maximum power output	0.85kw	1.3kw	2.0kw	2.0kw	1.7kw
Fuel: All models	Gasoline / oil mixture 25:1				
Chain Oil: All models	Recommended Masport Chain Bar Oil Part # 833043, or SAE 10W-30 Motor oil				
Oil system: All Models	Automatic / Adjustable				
Oil Tank Capacity	160ml	220ml	260ml	260ml	260ml
Carburettor: All Models	Walbro WT-Diaphragm type				
Ignition System: All Models	All Models All transistor electronic				
Spark plug	M7/LD L8RTF/NHSP	LD L7T NHSP L8RTF	LD L7T/L7T/JL NHSP L8RTF	LD L7T/L7T/JL NHSP L8RTF	LD L7T/L7T/JL NHSP L8RTF
Starting: All Models	Recoil starter				
Stopping: All Models	Grounding (switch)				
Fuel Tank Capacity	230ml	320ml	550ml	550ml	550ml
Air Cleaner Type: All Models	Semi-wet				
Weight; power unit only	3.5kg	4.9kg	5.5kg	5.5kg	6.5kg

### Cutting Bar

Type: All Models	Sprocket nose				
Guide Bar Size	30cm; 12"	40cm; 16"	45cm; 18"	50cm; 20"	45cm; 18"
Sprocket-teeth, pitch	6T x 3/8"	6T x 3/8"	7T x 0.325	7T x 0.325	7T x 0.325

### Saw Chain

Type Oregon	Oregon 91VG, 45X	Oregon 91PO, 57X	Oregon 21BP, 72X	Oregon 21BP, 76X	Oregon 21BP, 72X
Pitch Inches/mm	3/8" / 9.53mm	3/8" / 9.53mm	0.325" / 8.26mm	0.325" / 8.26mm	0.325" / 8.26mm
Gauge Inches/mm	0.05" / 1.27mm	0.05" / 1.27mm	0.058" / 1.47mm	0.058" / 1.47mm	0.058" / 1.47mm



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