

## Petrol Line Trimmers

MX-27M & MX-27H



## 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.





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

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

## Contents

Symbols on the machine	3
Safety Rules	3
Parts	5
Specifications	6
Attachment Setup	7
Cutting Attachment - Line Trimmer	7
Cutting Attachment - Hedge Trimmer	8
Cutting Attachment - Pole Saw	9
Fuel Mixing	10
Start, Operate & Stop the Engine	10
Maintenance	11

## Symbols on the Machine

	Read and follow this operator's manual. Fail to do so could result in serious injury.
	Wear head, eye and hearing protection during operation.
	Wear heavy-duty gloves, preferably made of leather.
	Wear steel-toed safety boots.
	Beware of thrown objects.
	Make sure no one is within 15 meters from the machine during operation.
	The maximum speed of the cutting attachment shaft
	Do not operate closer from electrical hazards.
	Keep all children, bystanders and helpers 15M (50ft.) away from the unit.

## Safety Rules

### GENERAL

1. The grass trimmer was designed to cut grass and small soft vegetation. Never use the trimmer for any other purpose.
2. Use nylon cutting heads that meet the trimmer rotation rate requirements. Use nylon cords designated for the nylon cutting heads.
3. After starting the engine, pull the throttle lever gradually. The engine speed increases and the blade will start rotating.
4. When the throttle lever is released, the engine goes back to idle speed automatically.
5. Operate the unit at full throttle while cutting. Best fuel efficiency is obtained by releasing the throttle when swinging back after cut.
6. The blade rotates counterclockwise. For best performance and to minimize being stuck by debris, move the blade from right to left while advancing on your works.

### PROPER USE

For safety reasons, the Line Trimmers are 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.

1. This machine should never be used for anything other than the purpose for which it has been designed.
2. Do not use this line trimmer when tired or drowsy or under the influence of medication or alcohol, or at any time when you may not be able to operate it safely.
3. Avoid running the engine indoors. The exhaust gases contain harmful carbon monoxide.
4. Never use the machine in the circumstances described below:
  - When the ground is slippery or when other conditions exist which might make your footing unsteady.
  - At night or in times of fog where it would not be possible to have a clear view of the cutting area.
  - During rain or electrical storms, during gale force winds or at any time when weather conditions might make use of the product unsafe.
5. Before using this product for the first time, get an experienced operator to show you how to use the machine.
6. When you are new to the machine, limit your work sessions to 30-40 minutes with a 10 minute break between, and a total working time of 2 hours per day. Accidents can be caused by tiredness and physical exhaustion.
7. Be sure to keep this manual handy so that you may refer to it later if any questions arise.
8. Always be sure to include this manual when selling, or lending, this machine.
9. Never allow children or anyone to use this machine if they cannot fully understand the directions given in this manual.



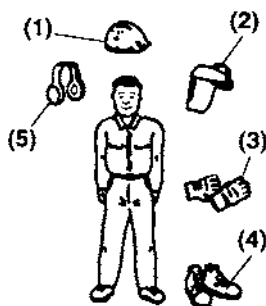
## WHEN USING THE UNIT

1. Wear close fitting, tough work clothing that will provide protection, such as long slacks or trousers, safety work shoes, heavy duty work gloves, head protector( helmet ), a safety face shield, or safety goggles for eye protection and a good grade of ear plugs or other sound barriers for hearing protection.
2. Prequel in a safe place. Open fuel cap slowly to release any pressure which may have formed in fuel tank. To prevent a fire hazard, move at least 3 meters from fueling area before starting.
3. Comply with all fire prevention regulations. Compliance with all local, state, or federal laws in the United States is the user's responsibility. Your unit comes with a spark arrester screen furnished in the user kit. Replacement spark arrester screen kits are available from distributor.
4. Turn off the unit before setting it down.
5. Always hold unit firmly with both hands, the thumb and fingers encircling the handles.
6. Keep all screws and fasteners tight. Never operate your equipment when it is improperly adjusted or not completely and securely assembled.
7. Keep handles dry, clean and free of fuel mixture.
8. Keep cutting-head as close to ground as practical. Avoid hitting small objects with cutting-head. When cutting on a slope, stand below cutting-head. Never cut or trim on a hill or slope, etc. if there is the slightest chance of slipping, sliding or losing firm footing.
9. Check area you will be trimming for debris that may be struck or thrown during operation.
10. Keep all parts of your body and clothing away from cutting-head when starting or running engine. Before starting engine, make sure cutting-head will not come in contact with any obstacle.
11. Stop engine before examining cutting line.
12. Store equipment away from possible ignition sources, such as gas-powered water heaters, clothes dryers, or oil-fired furnaces, portable heaters, etc.
13. Always keep the debris shield, cutting-head, and engine free of debris build-up.
14. Operation of equipment should always be restricted to mature and properly instructed individuals.
15. WARNING: The emission of exhaust gases is toxic.
16. Emergency Stopping Procedure. When it is necessary to stop engine immediately, move the switch to stop position
17. This unit has a clutch, routines for checking that the cutting attachment stops turning when the engine idles.

## WORKING GEAR AND CLOTHING

1. When using your line trimmer, you should wear long, close fitting trousers and protective equipment as follows.

- (1) Helmet
- (2) Protection goggles or face protector
- (3) Thick work gloves
- (4) Non-slip-sole work boots
- (5) Ear protectors

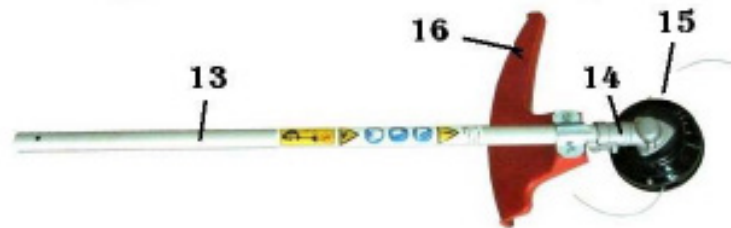


2. You should carry with you the following things as appropriate.
  - A. Reserve fuel
  - B. A spare blade
  - C. Something to indicate your working area. (Yellow rope, warning signs)
  - D. Hatchet or saw (for removal of obstacles)
3. Never use your line trimmer when barefoot or in sandals or wearing trousers with loose cuffs.

## FUEL HANDLING WARNING

1. The engine of this product is designed to run on a mixture of highly flammable petrol and oil.  
**For the 2 stroke Mitubishi engine** use the recommended 2 cycle oil mixture.  
**For the 4 stroke Honda engine** use petrol to fill the petrol tank, and 4 cycle oil to fill the separate oil tank.  
Do not store cans of fuel or refill the fuel tank in any place where there is a boiler, stove, wood fire, electrical or welding sparks, or any other source of heat or fire which might ignite the fuel.
2. Smoking while operating the line trimmer or refilling its fuel tank is extremely dangerous. Always be sure to keep lit cigarettes away from the line trimmer at all times.
3. When refilling the tank always turn off the engine first, wait for it to cool, and take a careful look around to make sure that there is nothing nearby which might ignite spilled fuel.
4. To avoid spilling fuel, always use a funnel when filling the fuel tank.
5. If any fuel spillage occurs during refuelling, use a dry rag to wipe up the spillage before starting the engine again.
6. After refuelling, screw the fuel cap back tightly onto the fuel tank and then carry the line trimmer to a spot 3m or more away from where it was refuelled before starting the engine.

## Parts



1. Engine
2. Air Cleaner
3. Fuel Tank
4. Clutch housing
5. Throttle trigger lockout
6. Engine Stopping device
7. Throttle lever lock bottom
8. Throttle trigger
9. Hanger
10. Shaft tube
11. Loop Handle w/bar
12. Coupler

### Line Trimmer Attachment

13. Shaft tube
14. Gear case
15. Nylon Head
16. Safety guard

### Hedge Trimmer Attachment

17. Shaft tube
18. Gear case
19. Double Blade
20. Support handle

### Pole Saw Attachment

21. Shaft tube
22. Gear case
23. Oil tank cap
24. Bar & Saw Chain

### 25. 1m Extension Pole

## Specifications

Model		Multi-Tool	
Engine	Brand & model	Mitsubishi	Honda
		TU26	GX25
		2 Stroke	4 Stroke
	Displacement	25.6cc	24.5cc
	Max output (Kw)	0.67	0.81
	Fuel tank capacity	0.6	0.5
	Carburetor Type	Diaphragm	
	Start System	Recoil Starter	
	Clutch System	Automatic centrifugal	
Drive System	Transmission and Tube	Solid Steel / Aluminum Ø 24mm x 750mm x 2 + Join Assy	
	Handle type	D-Loop with Bar	
	Throttle Lever	Trigger type w' stop switch	
CUTTING ATTACHMENT			
Option 1	Safety Guard	C.E.	
	Gear case	Ø 24: 7 x 7T	
	Blade	Nylon head or 3T	
OPtion 2	Bar & Chain Brand	10" Oregon Bar and Chain	
	Chain oil capacity	190cc	
	Oilling system	Automatic	
	Extension Shaft	Extension Aluminium Shaft * 750mm	
Option 3	Blade Length	380mm or 520mm	
	Blade Cutting Angle	135 ° (upper side 45 ° down side 90 °)	
	Blade Type:	Double-sided, Dural Reciprocating	
	Blade Thickness	0.09inch (2.3mm)	
	Blade Material:	Hardened Steel	
	Extension Shaft	Extension Aluminium Shaft Tube * 750mm	
Packing	Weight	8.60kg	
	L x H x W	1750mm x 356mm x 326mm	



### WARNING

Never use other cutting devices than those provided



## Attachment Setup



### Assemble Engine with shaft tube

1. Put engine and shaft tube on ground and start assembly. Fig. 1
2. Attach clutch to engine and fasten 4pcs of screws tightly to prevent loosening.

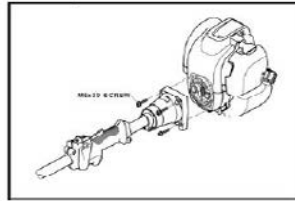
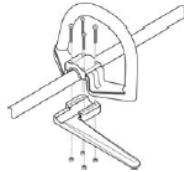


Fig. 1

### Handle

1. To joint loop handle with main pipe evenly.
2. Adjust loop handle joint to most comfortable position for user.
3. Lock tight bolts.



### Throttle wire mounting

1. Pass the throttle wire through adjust screw. Fig. 3
2. Move the carburetor swivel toward the attachment.
3. Fit the tip (thick portion) of the throttle wire into the ground hole in the swivel.
4. Fit the tip of the throttle wire from the throttle trigger to cut in the tip of the throttle wire from the engine. Fig. 4
5. Close the cover so that the arrow mark is set toward the lever by holding the joint of 2 throttle wires.

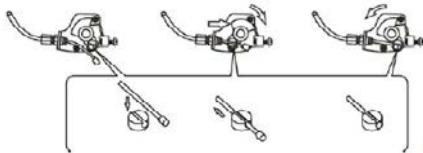


Fig. 3



Fig. 4

### Lead wire

Connect 2 lead wires from the throttle trigger to the corresponding 2 wires from the engine. Fig. 5

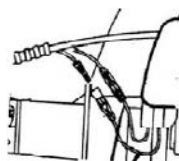


Fig. 5

### Wearing shoulder harness



#### CAUTION

The shoulder harness has a quick release mechanism, so that you can release the harness instantly in an emergency.

1. Pull the harness grip upward to separate the hook from the harness so that the harness is separated from the trimmer. Fig. 6
2. Pass your arms through the straps as if putting on a coat. Buckle the harness at the front of your body. Set the shoulder pads properly.



3. When re-connect the harness to the hedge trimmer attachment, it's necessary to attach the hook ring to bracket first and insert the grip into hole in bracket Fig. 8

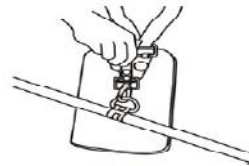


Fig. 6

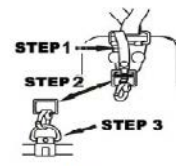


Fig. 7

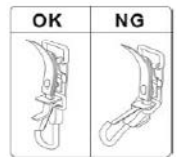
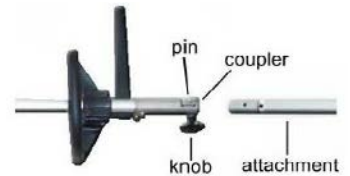


Fig. 8

### Assembling the attachments

1. Loosen knob first.
2. Pull up pin.
3. Insert attachment shaft into coupler until pin get into hole of attachment
4. Fasten Knob

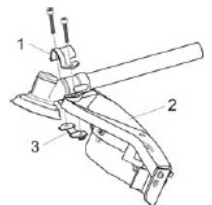


## Cutting Attachment - Line Trimmer



### Cutting attachment guard mounting

1. Insert screws into the taped holes on the additional guard and tighten the nuts with washers from guard.
2. Set the holder guard, cover bracket in this order as shown
3. Insert screws from over the cover bracket into the hole through spring washers and then tighten the screws.



### Mounting for Nylon cutting attachment

1. Match the hole in the side of the cutting attachment guard with the hole in the side of the gear housing.
2. Screw the nylon line cutting attachment securely. Fig. 9
3. Mount the shaft nut on the nylon cutting attachment head.
4. Remove the nylon line cutting attachment tightening nut and cup washer from gear housing.
5. Insert the upper clamp and lower clamp into the gear housing.
6. Then insert an Allen wrench 4 mm in the holes to stop moving the clamp. Fig. 10
7. Tighten the nylon cutting head counterclockwise with hand into the gear housing.
8. Remove the Allen wrench 4 mm.



Fig. 9



Fig. 10

### Mounting for Metal Blade cutting attachment

1. Match the hole in the side of the cutting attachment guard with the hole in the side of the gear housing.
2. Screw the blade cutting attachment securely. Fig. 10
3. Mount the shaft nut on the blade cutting attachment head.
4. Remove the blade cutting attachment tightening nut and cup washer from gear housing.
5. Insert the upper clamp and lower clamp into the gear housing.
6. Then insert an Allen wrench 4 mm in the holes to stop moving the clamp. Fig. 11
7. Tighten the blade cutting head counterclockwise with hand into the gear housing.
8. Remove the Allen wrench 4 mm.
9. Blade when stop using, please to store well with blade protect cover. Fig. 12



Fig. 10



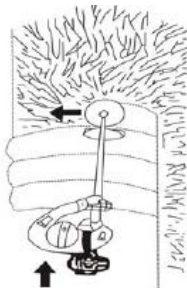
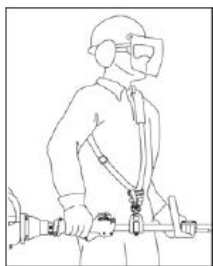
Fig. 11



Fig. 12

### Trimming

1. Wear the harness and hold line trimmer handle to start operating.
2. Move the line trimmer attachment from left to right. If you cut grass with the left side of the head, the head might throw some subject at you, posing in hazard status. Never use the left side of a nylon cutting head to cut grass!
3. Slant the nylon cutting attachment or blade cutting attachment downward and toward the cutting side.
4. Take care not to drag the head on the ground.



## Replacing the Line



### CAUTION

Stop the engine and make sure that the head is stopped before you do any service on the head.

1. Line up the ▼ mark on the case cover with eyelet. This operation is accomplished easily when the case cover is rotated in the ① direction and returned in ② the direction. (Fig. 15)
2. Cut the nylon line to 1.5 to 3 meters. Insert the line into the eyelet under ▼ mark (Fig. 18).
3. Adjust the nylon line of both sides to the same length (Fig. 17).
4. Turn the cover a half-rotation and pull both lines to lock them in place. Repeat 2-3 times (Fig. 18).
5. Wind the top cover until the lines are fully wound into the head with only 10-15cm of line protruding from each eyelet.



Do not over-wind or the line will pull inside the eyelet. (Fig. 19 & Fig. 20).

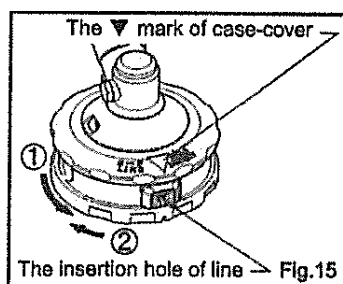


Fig. 15

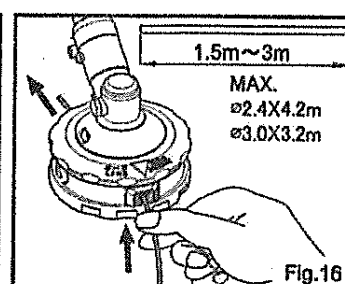


Fig. 16

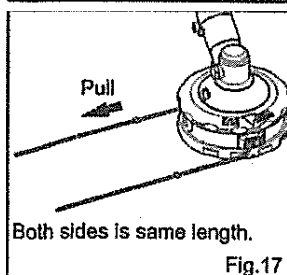


Fig. 17

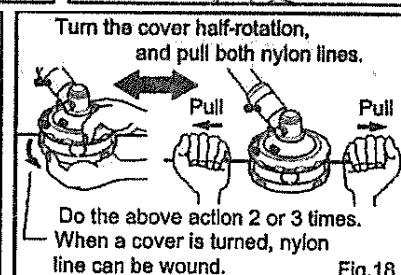


Fig. 18

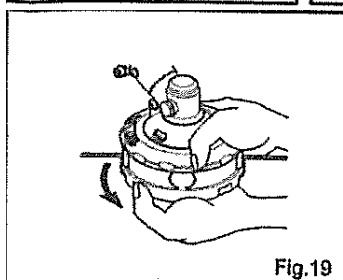


Fig. 19

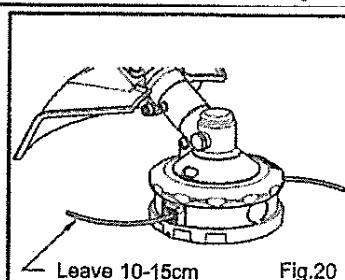


Fig. 20

## Cutting Attachment - Hedge Trimmer



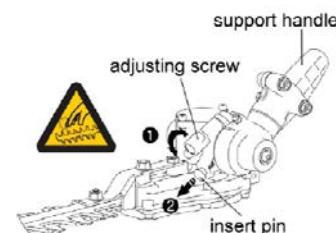
Adjustment of blade angle



### WARNING

Always stop engine before making adjustments.  
Never touch the blade when adjusting blade angle & hold the support instead.

1. Stop the engine.
2. Loosen ① adjusting screw
3. Pull up the ② insert pin & adjust the blade angle to desired position by holding the support handle.
4. Release insert pin and fasten adjusting screw firmly.



### Blade adjustments

Use the pole hedge trimmer will gradually wear down the blade. Readjust the blades if cutting performance deteriorates noticeable. For adjustment of the blades, follow the instructions below.

1. Release nut ①.
2. Tighten screw ② lightly until resistance is felt. Then turn the screw in the opposite direction for a quarter or half turn.
3. Hold screw ② in place with a screwdriver and tighten nut ①.
4. After adjustment lubricate the blades with a thin film of light oil.
5. Start the engine and pull the throttle lever several times to set the blades in motion. Continue for approx. one minute.
6. Stop the engine and wait until the blades come to a standstill. Cautiously touch the blades with your bare hand.
7. Adjustment is correct if the blades are warm, but not too hot to



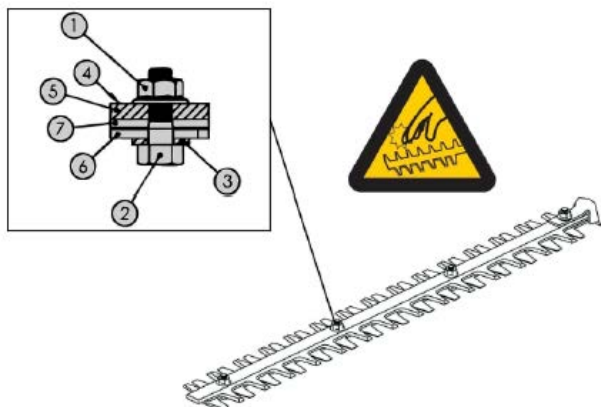
- touch. If the blades are too hot to be touched,  
9. release screw ② for another quarter to half a turn and repeat steps 5~6 to confirm proper adjustment.

**NOTE :**

Always stop the engine and remove the spark plug cap before adjust the blades !

The blades have grooves around the truss screws ②.

Always keep these grooves clean, so that they can be inspected for possible damage.



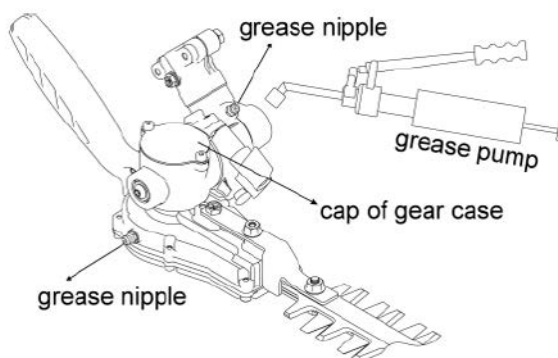
**Adding grease and lubricant**

The gearbox of the pole hedge trimmer should be greased every 20 working hours.

Attach grease pump to grease nipple ( x 2 ) and pump grease into grease nipple.

**Note :**

Observe greasing intervals and the amount of grease to be supplied via cap of gear case. Mechanical parts of the pole hedge trimmer may be damaged if grease is not supplied at the prescribed intervals or if an insufficient amount of grease is added.



**Hedging**

1. When working with the pole hedge trimmer, firmly grasp the handles with both hands.
2. Do not touch the cutter blade portion of the pole hedge trimmer during operation or when the engine is running.
3. Take extra care not to inhale exhaust gases when working with the pole hedge trimmer. Never operate the pole hedge trimmer in an enclosed room or an area with insufficient ventilation.
4. Always wear adequate protective wear before starting to work with the pole hedge trimmer.
5. Stop the engine immediately if the muffler is not functioning properly.
6. Only use the pole hedge trimmer in good light and visibility conditions.
7. Do not operate the pole hedge trimmer in darkness or fog.

Beware of slippery and wet areas during the cold season and always ensure secure footing.

8. Never use the pole hedge trimmer while standing on an unstable surface or a steep slope.
9. Never use the pole hedge trimmer while standing on a ladder.
10. Never climb a tree to use the pole hedge trimmer from the tree.
11. Continuously check the working area for wires, cord, glass or other foreign objects what could get caught in the cutter blades.
12. Confirm that the cutter blades are in rapid motion before starting to cut.
13. Always grip the pole hedge trimmer with both hands and maintain a firm grip when working with the machine.
14. To assure optimal control over the pole hedge trimmer, always completely wrap your hands around the handles.
15. Note that the cutter blades will remain in motion for up to two seconds after the throttle lever has been released.
16. Do not cut with the pole hedge trimmer at low engine speed.
17. The speed of the cutter blades can not be adjusted properly with the throttle lever when the engine is running at low speed.
18. To trim the top surface of a hedge, first align the cutting tool at an angle of 15~30 degree in the cutting direction and keep the pole hedge trimmer in a horizontal position. Then start trimming the hedge using a swinging movement, much like drawing circle segments with the hedge trimmer shaft.
19. To trim the sides of a hedge, align the blades parallel to the surface to be cut and start trimming with semi-circular upward movements.
20. Pay attention when trimming a hedge that has grown along a fence. Be especially careful not to allow the cutter blades from coming into contact with solid matter such as a metal fence. Cutting into solid matter such as metal, stone, concrete or thick wood may damage the blades and/or overall break-down of the machine.
21. Do not use the pole hedge trimmer over an extended period of time, as a general rule, for every 50 minutes of operation, take a 10~20 minutes rest.
22. If the cutter blades come into contact with stones or other solid objects, stop the engine immediately and check the blades for damage. Replace the blades if damaged.
23. If the pole hedge cutter develops a problem during operation, immediately stop the engine. Do not use the machine again until the problem has been recognized and solved.
24. Always do your utmost to keep pollution and noise emissions as low as possible when operation the pole hedge trimmer. Pay special attention to correct carburetor adjustment and accurate gasoline/oil mixture.
25. If thick branches get jammed in the cutter blades, immediately stop the engine, lay the equipment on the ground and remove the obstruction. Check the blades for damage before using the machine again.

## Cutting Attachment - Pole Saw



**WARNING - DANGER**

1. Never try to start engine without side case securely fastened.
2. Saw chain is sharp! Always wear gloves when handling cutting attachment, otherwise, serious personal injury may result.

**Installation of bar and chain – for chain saw**

1. Remove chain bar hex nut (2) Fig. 14
2. Remove the side case (1). Fig. 14
3. Attach the chain bar (1) onto the bolt (2), then push it toward the sprocket (3) as far as its will go. Slightly move the chain bar back and forth and make sure the chain tension boss (4) fits into the hole (5) in the chain bar properly. Fig. 15

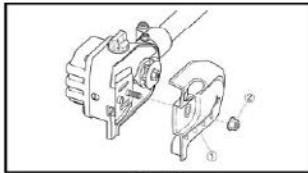


Fig. 14

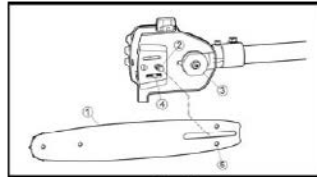


Fig. 15

### The adjustment of the saw chain tension



#### WARNING - DANGER

Proper tension is extremely important ! (Fig. 16, 17 & 18)

1. Confirm the direction of saw chain (1) is correct as in the figure and align the chain on the sprocket. Fig. 16
2. Guide the chain links onto the bar groove all around the bar.
3. Install the side case (2) onto the guide bar clamp bolt and fix the clamp nut (3) temporarily. Fig. 17
4. Raise the bar end, and tighten the chain (1) by turning the tension adjustment screw (2) clockwise. To check proper tension, lightly lift up the center of chain and there should be about 0.5~1.0mm gap between bar and edge of drive link (3). Fig. 17 & 18.

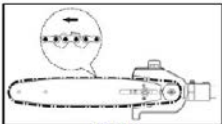


Fig. 16

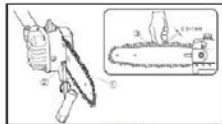


Fig. 17

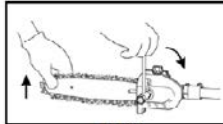


Fig. 18

5. Raise the bar end and securely tighten the chain bar clamp nut with the box wrench. Fig. 18
6. Install the side case (2) onto the guide bar clamp bolt firmly.
7. A new chain will stretch, so adjust the chain after a few cuts and watch chain tension carefully for the first half hour of cutting.

#### NOTE!

Check the chain tension frequently for optimum performance and durability.



#### CAUTION

When the chain is excessively tightened the bar and chain will be damaged rapidly. Conversely, when the chain is excessively loosened, it may get out of the groove in the bar.

### Lubricating the Guide Bar and Saw Chain Automatic Oiling System

#### Chain Oil

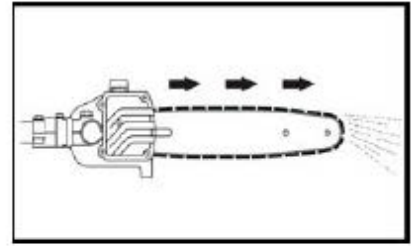
Remove oil fill cap and fill reservoir with a quality, low viscosity guide bar and saw chain oil. When the engine is running, the chain oil is automatically discharged.

#### NOTE :

Add chain oil when its level lowers to one centimeter from bottom.

Never operate your pruner without chain lubrication. If the Chain is run dry, the whole cutting attachment will be irretrievably damaged within a very short time.

Use motor oil SAE #10W-30 all year round or SAE #30 ~ #40 in summer and SAE #20 in winter.

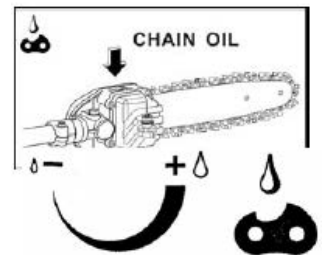


#### IMPORTANT

To prevent plastic deterioration, do not use synthetic or silicone based oil.

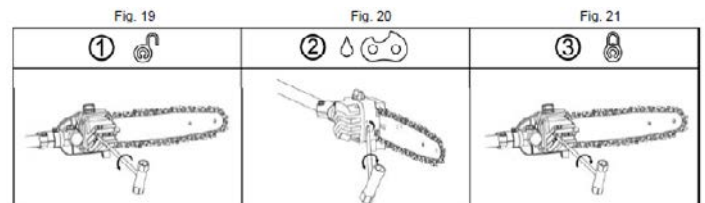
#### Adjustment of Chain Oil Supply

The chain oil quantity discharges through the lubrication system is factory-adjusted to medium. Adjust the flow in accordance with the operating condition.



1. Loosen the fixing screw one turn. Fig. 19
2. Turn the adjusting screw clockwise to decrease the quantity and counterclockwise to increase the flow. Fig. 20
3. After adjustments have been made, tighten fixing screw. Fig. 21

Remarks : Do not try to turn the screw clockwise beyond 1 turn from it's most counterclockwise position or the maximum quantity discharged position.



#### NOTE!

When you host the proper position of the screw, start with the most counterclockwise position.

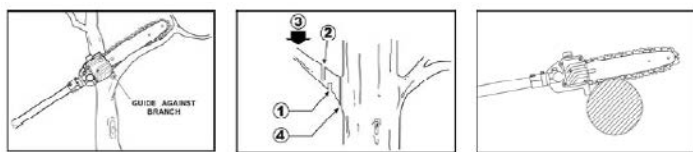
### Pruning

The Pole saw is designed for light to medium trimming of limbs and branches up to 203mm (8in.) in diameter.

Follow these tips for successful operation.

1. Check direction of branch will fall.
2. Plan retreat path from falling branch as cut branches might bounce when striking ground.
3. Long branches should be removed in several pieces.
4. Do not stand directly beneath branch being cut.
5. When ready to cut : Hold "cutting shoe" against branch. This will prevent whipping of the branch. DO NOT use back and forth sawing action.
6. Look out for branch immediately behind the branch being cut. If saw chain hits rear branch damage to saw chain and guide bar may occur.

8. Accelerate to full throttle
9. Apply cutting pressure.
10. Ease cutting pressure when nearing end of cut to maintain control.
11. When pruning a limb in 102mm (4 in.) diameter or larger cut as follows:
12. ① Under cut 1/4 limb diameter near tree trunk.
13. ② Finish top cut slightly farther out on limb.
14. ③ Flush cut stub at trunk.



## Fuel Mixing

Use unleaded gasoline containing 4%, 2 cycle engine oil (50:1), reference table.

### For 2 stroke engines:

Unleaded Gasoline	2 cycle mineral oil 25:1	2 cycle semi-synthetic oil 40:1	2 cycle synthetic oil 50:1
1L	40mL	25mL	20mL
4L	160mL	100mL	80mL
5L	200mL	125mL	100mL
10L	400mL	250mL	200mL

### For 4 stroke engines:

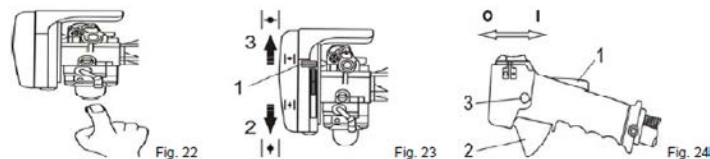
Fuel and oil are not to be mixed, the fill separate tanks. Use unleaded gasoline for fuel and automotive 4 cycle oil for the oil tank.

## Start, Operate & Stop the Engine

### Before starting the engine

Check for loose screws and nuts and fill with proper mixed fuel. For safety, please place the engine on stable ground with engine stand (fuel tank) and the guard down.

### To start a cold engine



1. Push the priming pump 5 times, Fig. 22
2. Fully close the choke lever. Fig. 23
3. Hold the handle and depress the throttle trigger to the end. Release the throttle trigger while pushing the throttle lock bottom on the handle.

4. Set the switch to ON position. In the direction opposite to the arrow mark with OFF Fig. 24
5. While holding the trimmer firmly by hand at the shaft assembly near the engine, pull the starter strongly Fig. 25
6. When ignition is heard, reset the choke and pull the starter.
7. Warm up the engine for about 3 minutes.
8. When the engine has start at the initial ignition open the choke lever gradually.

### When the engine has been warmed up

1. Fully open the choke lever.
2. Follow steps 9-2 starting a cool engine.
3. If the engine does not start, repeat step 2, procedure for starting a cool engine

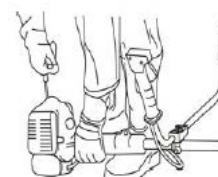


Fig. 25



### IMPORTANT

1. After starting the engine, accelerate and decelerate the engine several times by opening and closing the throttle trigger to remove air from the carburetor.
2. Air in the carburetor cause poor acceleration or engine stoppage.
3. Re-fuel before the fuel is used up, Starting the engine after using up the fuel is very difficult.

### Operation

After starting the engine, warm it up about 3 minutes and gradually increase the speed.

### Stopping

Do not suddenly stop the engine when operating the Double-Handle handles at high speeds. Fig. 26

Or when operating the D-Loop Handle at higher speeds. Fig. 27



Fig. 26

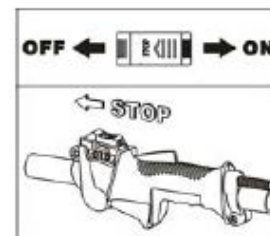


Fig. 27

Gradually return the throttle trigger and idle the engine before setting the switch to STOP



### IMPORTANT

Do not operate the engine at high speeds with no load on the cutting attachment, Especially when the engine is new. When operated at high speeds with no load, the speed will accelerate to an excessively high that might harm the engine

### When the engine does not start

If the engine does not start or flames flow back through the muffler even though you have pulled the starter many times, remove and check the spark plugs.

1. If the spark plugs are dry, no fuel has been fed into the cylinder. Check the fuel pipe and carburetor.
2. Clean or replace the spark plugs if they are wet or dirty.
3. If fuel has overflowed into the crank case, remove the spark

plugs, open throttle and pull the starter 2 or 3 times to remove excess fuel from the crank case.

## Maintenance

### Cleaning air cleaner

An air cleaner had cogitation the fuel will be thicker, lowing out and causing the engine to stop. Wash the air cleaner as required.

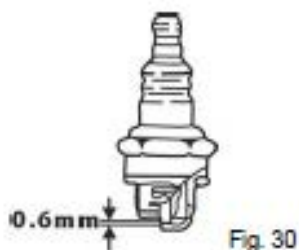
Replace the cleaner when it becomes dirty.

1. Detach the cleaner mounting screws and remove the cleaner cover.
2. Remove the elements
3. Follow the same procedure as in step.



### Lubricating the gear housing with grease

The gear housing has a greasing port. Remove the greasing ports screw and feed grease into port. **Grease the port after 20 hours of operation** after the greasing operation. Then grease after every 100 hours of operation. Fig. 29



### Checking gear housing mounting screws

Loose gear housing fixing screws are very dangerous even though they have covers to prevent them from coming off. Be sure to check them before operating the trimmer. Tighten the screws securely with the Allen wrench provided with the trimmer.

### Spark plug

The spark plugs have a standard electrode-to-electrode distance of 0.6 to 0.7mm Fig. 30

The spark plug electrodes are dry and drown under optimum operating conditions. Clean as necessary. Use spark plugs designated for the engine.

### Fuel strainer cleaning

The fuel hose has a felt strainer at its end(in the fuel tank) to prevent foreign matter such as sand from entering the carburetor. Clean the strainer as required because the pump cannot suck up fuel if the strainer is clogged, which would cause the engine to stop. Replace the felt strainer if it is clogged or damaged.

### Adjusting throttle cable

Adjust the throttle cable length with the adjusting nut. If the Nylon cutting head rotates even after you have released your hand from the throttle trigger to idle the engine, adjust the throttle cable length. Loosen the lock nut and turn the adjusting nut to adjust the cable length. Turn the adjusting nut clockwise to lengthen the throttle and counterclockwise To shorten it.

Tighten the lock nut after adjustment.

### Adjusting half throttle

The trimmer has a built-in throttle-locking mechanism to keep the throttle at half Throttle for easy engine start up. adjust the half-throttle by changing the throttle length with the adjusting nut.

### Carburetor



#### CAUTION

The engine has been adjusted before shipment. In the case of engine trouble, Contact you're nearby distributor because the engine trouble is not caused by a faulty carburetor only. An engine that is not adjust properly will damage not only the carburetor but also the engine it's self.

### Cleaning muffler

Cleaning muffler carbon after 50 hours of operation as follows:

1. Remove the muffler guard and muffler.
2. To prevent carbon from enter the cylinder, pull the starter to turn the crankshaft, blocking the exhaust opening with the piston.
3. Scream carbon from the cylinder exhaust opening with wood, taking care not to damage the surface.
4. Screw the muffler and muffler guard together securely.
5. Be sure to ask your dealer for cleaning the muffler periodically.

### Sharpen, clean & lubricate the blades

If the cutting blades have become blunt and cutting performance is poor, have the blades sharpened by an authorized service agent.

Always clean the blades with dry cloth after usage..

Also lubricate the blades with oil before & after usage.

### Storing

When shutting sown your trimmer for a long time, store it properly as shown below, so that it will operate normally when you need it. The Trimmer may not start smoothly if stored improperly.









