

USER'S MANUAL

SPS260



WARNING!

Read this manual and familiarize yourself with its contents.

This machine is designed for cutting branches.

Do not use this machine for other purposes.

Minimize the risk of injury to yourself and others.

Do not operate or service this machine unless you clearly understand this manual.

Keep this manual at a particular place so that you can reread it whenever you have a question about its use.

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Attention Statements

Throughout this manual are special attention statements.



DANGER!

A statement preceded by the triangular attention symbol and the word "DANGER" contains information that should be acted upon to prevent serious injury or death.



WARNING!

A statement preceded by the triangular attention symbol and the word "WARNING" contains information that should be acted upon to prevent serious bodily injury.

CAUTION!

A statement preceded by the word "CAUTION" contains information that should be acted upon to avoid damage to the machine.

IMPORTANT

A statement preceded by the word "IMPORTANT" is one that possesses special significance.

NOTE

A statement preceded by the word "NOTE" contains information that is handy to know and may make your job easier.




Introduction

The Pole Pruner's Pole Pruner is designed and built to deliver superior performance and reliability without compromise to quality, comfort, safety or durability.

The Pole Pruner's high-performance engines represent the leading edge of 2-cycle engine technology, delivering exceptionally high power with remarkably low displacement and weight. As an owner/operator, you'll soon discover for yourself why it is simply in a class by itself! The procedures described in this manual are intended to help you get the most from your machine as well as to protect you and others from harm. These procedures are guidelines for safe operation under most conditions, and are not intended to replace any safety rules and/or laws that may be in force in your area.

If you have questions regarding your power tool, or if you do not understand something in this manual, your dealer will be glad to assist you.

Safety Precautions

**DANGER!**

THE PRUNER IS NOT INSULATED AGAINST ELECTRICAL SHOCK!
Approaching or contacting electrical line with the pruner could cause death or serious injury. Keep the pruner at least 10 meters (33 feet) away from electrical lines or branches that contact electrical lines.

A pole pruner runs at very high speeds and has the potential to do serious damage if misused, abused or mishandled. To reduce the risk of injury, you must maintain control at all times, and observe all safety precautions during operation. **Never permit a person without training or instruction to operate this pruner!**



Read and follow this manual, make sure anyone using the pruner does likewise. Failure to do so could result in serious personal injury or machine failure. Keep this manual for future reference.



Always wear a hard hat to reduce the risk of head injuries during operation of this machine. In addition, always wear eye and hearing protection. recommends wearing a face shield as additional face and eye protection.



Wear nonslip heavy-duty work gloves to improve your grip on the pole pruner handle. Wear sturdy footwear with nonslip soles to provide good footing. Steel-toes safety boots are recommended. Wear snug-fitting clothes that also permits freedom of movement.



Never touch the saw chain when starting the engine and while operating this machine.



Chain oil fill/oil pump



Sound Power Level (measured in accordance with 2000/14/EC)



Never operate this tool or any other power equipment if you are tired, ill, or under the influence of alcohol, drugs, or any substance that could affect your ability or judgement.



Keep bystanders at least 15 meters (50 feet) away from the operating pruner to reduce the risk of being struck by falling objects or thrown debris.

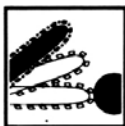


Never cut off branches over your head. The cut-off branches may hit you and cause serious injury.

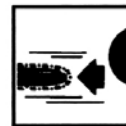


Never operate the pruner at an angle greater than 60° in order to reduce the risk of being struck by falling objects during operation.

For chainsaws only



Beware of kickback! Kickback can occur whenever the tip of the guide bar touches an object while the saw is operating. Kickback may force the bar up and back toward the operator with lightning-like speed!



Beware of pinching. Pinching the saw along the tip of the guide bar may force the bar back rapidly toward the operator. Pinching can occur whenever wood closes in around the moving chain.

Kickback and Pinching Safety Precautions



WARNING!

Both kickback and pinching may cause you to lose control of the pole pruner which could result in serious personal injury. **Do not rely exclusively on the safety device built into the pruner!** You must take several steps to keep your jobs free from accident or injury:

1. Understand kickback and pinching! You can reduce or eliminate the element of surprise. Sudden surprises contributes to accidents.
2. Keep firm grip on the pole pruner with both hands whenever the engine is running. A firm grip will help you reduce the affects of kickback and pinching as well as maintain control of the machine.
3. Make sure 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 obstructions which could be hit while you operation the pole pruner.
4. Cut at high engine speeds.
5. Follow the manufacturer's instructions for sharpening and maintaining the chain.
6. Use only the replacement bar and chain or equivalent as specified by the manufacturer.

Operating Precautions



WARNING!

- Make sure the chain and sprocket are correctly adjusted before operating the pruner. **Never attempt chain adjustment with the engine running!**
- Always make sure the cutting attachment is properly installed and firmly tightened before operation.
- Never use a cracked or warped guide bar: replace it with a serviceable one and make sure it fits properly.
- Never smoke or light fires near the pruner. Keep the pruner away from excessive heat. Engine fuel is very flammable and fire could lead to serious personal injury or property damage.
- If a saw blade should bind fast in a cut, shut off the engine immediately. Push the branch or tree to ease the bind and free the blade.
- Make sure there are no missing or loose fasteners, and that the stop switch and throttle controls are working properly.
- Always move the unit to a place well away from a fuel storage area or other readily flammable materials before starting the engine. Use caution when handling fuel. Move the pole pruner at least 3 meters (10 feet) from the fueling point before starting the engine.
- Make sure there is always good ventilation when operating the pruner. Fumes from engine exhaust can cause serious injury or death. **Never run the engine indoors!**
- Before starting the engine, make sure the saw chain is not contacting anything.
- Do not operate the pole pruner with the muffler removed.
- When cutting a limb that is under tension, be alert for springback so that you will not be struck by the moving limb.
- Always stop the engine immediately and check for damage if you strike a foreign object or if the machine becomes tangled. Do not operate with broken or damaged equipment.
- Stop the machine immediately if it suddenly begins to vibrate or shake. Inspect for broken, missing or improperly installed parts or attachments.
- Never transport the pruner nor set it down with the engine running. An engine that's running could be accidentally accelerated causing the chain to rotate.
- Make sure the chain cover is in place when transporting and storing the pruner.
- When carrying by hand, the chain should be pointing backward. See Figure 1.

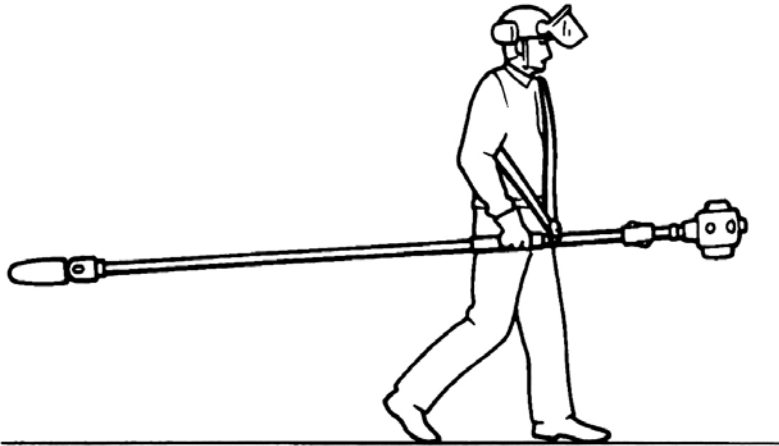


Figure 1

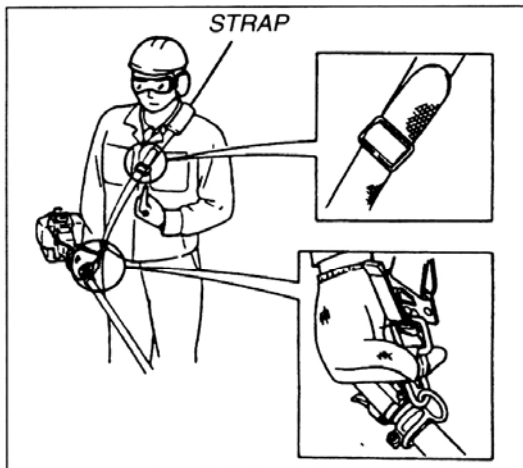
CAUTION!

- Always maintain this pole pruner according to the this owner's manual and follow the recommended scheduled maintenance.
- Never modify or disable any of the pole pruner's safety devices.
- Always use genuine Our parts and accessories when repairing or maintaining this machine.
- Do not make unauthorized modifications or substitutions to the guide bar or chain.
- Never allow the engine to run at high RPM without a load. Doing so could damage the engine.
- When transporting the pruner in a vehicle, tie it down securely to prevent damage and fuel spillage.
- Always stop the engine and allow it to cool before refueling. Avoid overfilling and wipe off any fuel that may have spilled.
- Never place flammable material close to the engine muffler and never run the engine without the spark arrestor screen in place.
- Always clear your work area of trash or hidden debris to help ensure good footing.
- Keep the saw chain sharp and properly adjusted.
- Keep the pruner as clean as possible. Keep it free of loose vegetation, mud, etc.

Operating the Pruner

To Wear the Strap

- 1 Hook the strap hook to the hanger on the outer pipe.
- 2 Wear the strap so that the hook stays at your right hand side.
- 3 Adjust the length of the strap so that you can hold and operate the machine comfortably.



Always wear eye and hearing protection. We recommends wearing a face shield as additional face and eye protection.

Always wear a hard hat to reduce the risk of head injuries during operation of this machine.

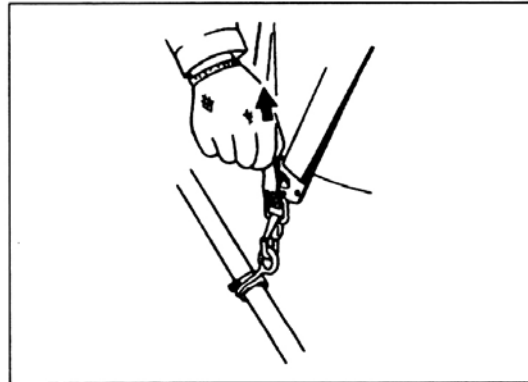
Wear nonslip heavy-duty work gloves to improve your grip on the pole pruner handle. Wear snug-fitting clothes that also permits freedom of movement. NEVER wear shorts!

Wear sturdy footwear with nonslip soles to provide good footing. Steel-toes safety boots are recommended.

Keep bystanders at least 15 meters (50 feet) away from the operating pruner to reduce the risk of being struck by falling objects or thrown debris.

Emergency Release

In case of emergency, strongly pull the white tab at the hook. The machine will be released from the strap.



Never operate the pruner at an angle greater than 60° in order to reduce the risk of being struck by falling objects during operation.

Always operate with both hands firmly gripping the machine.

Keep a proper footing and do not overreach—maintain your balance at all times during operation.

Figure 2

Specifications

Dry Weight
(Without Bar/Chain)5.6 kg

Length w/10" bar
assembly2,800 mm

Engine Type2-cycle, air-cooled,
vertical-cylinder

Bore × Stroke32 × 28 mm

Displacement22.5 cm³

Engine speed at Idle2,750 min⁻¹

Maximum Engine speed10,000 min⁻¹

Maximum Output0.8 kW
@ 7,500 min⁻¹

Fuel/Oil Ratio25:1 with 2-cycle
Engine Oil

Fuel Tank Capacity550 cm³

Carburetor TypeWalbro WYL

IgnitionOne-piece, electronic,
transistor-controlled

Spark plugNGK BMR6A

Air FilterSemi-wet,
quick-remove/install

Starting MethodRecoil

Cooling SystemForced air

Stopping MethodSlide switch

Transmission TypeAutomatic,
centrifugal clutch with bevel gear

Oil Tank Capacity110 cm³

Sprockets3/8"-inch, fixed spur

Gearcase Ratio1.06:1

Chain Speed23.5 m/sec.
@ 10,000 min⁻¹

Chain Lubrication Automatic adjustable
oiler

Chain Lubricant Premium
Bar and Chain Oil

Standard Equipmenttool kit
containing a spark plug wrench,
4mm allen wrench and 8mm ×
10mm spanner, strap, chain cover

Optional Equipment

Bar	chain
8 inch	90SG-33E
10 inch	90SG-39E
12 inch	90SG-44E

Chain Guide Bar3/8" pitch,
.043" gauge, Micro Lite™

Chain Type 3/8" pitch Micro Lite™, .043"
gauge

Sound Pressure Level*		91 dB (A)
Sound Power Level*		106 dB (A)
Vibration Level*	Idling [Front/Rear]	2.32/2.78 m/s ²
	Racing [Front/Rear]	3.64/3.89 m/s ²

*Sound Pressure Level: in accordance with ISO 11680-1 (Annex B)

*Sound Power Level: in accordance with ISO 11680-1 (Annex B)

*Vibration Level: in accordance with ISO 11680-1 (Annex C)

Product Description

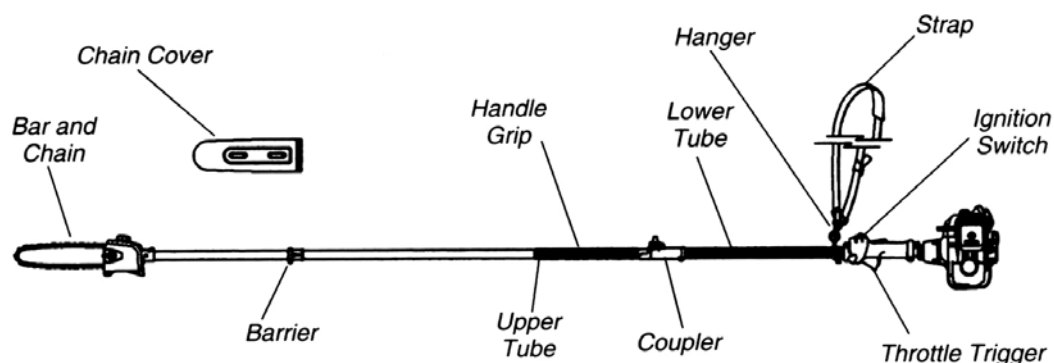


Figure 3

Prior To Assembly

Using Figure 3 as a guide, familiarize yourself with the pole pruner and its various components. Understanding your machine helps ensure top performance, longer service life, and safer operation.

Before assembling, make sure you have all the components required for a complete unit:

- Powerhead assembly
- Lower tube assembly
- Upper tube/saw assembly, chain and guide bar
- Kit with this manual and tool kit for routine maintenance.
- Chain cover.

Installing the Powerhead

1. Place the powerhead on a clean, flat surface, spark plug facing up.

CAUTION!

Do not remove the D-shaped shim washer! The shim washer prevents damage from overtightening the tube clamp screw.

Carefully inspect all components for damage.

IMPORTANT

The terms “left”, “left-hand”, and “LH”; “right”, “right-hand”, and “RH”; “front” and “rear” refer to directions as viewed by the operator during normal operation.



WARNING!

Do not make unauthorized modifications or alterations to your pruner or its components.

CAUTION!

Do not force the lower tube into the powerhead! Excessive force can damage the components.

2. Position the lower tube so the stop switch faces up.
3. Tighten the clamp screw firmly.

Connecting the Throttle Cable

Remove The Cylinder Cover

1. Remove the spark plug cap, then loosen the cylinder cover knob (about a dozen turns needed) See Figure 4



Figure 4

2. Lift the corner of the cylinder cover just below the muffler as shown in Figure 5, and lift off the cylinder cover.

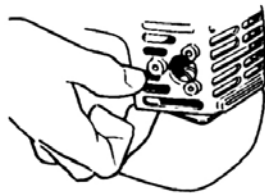


Figure 5

Connect The Throttle Cable.

1. Loop the ribbed cable assembly to the top left side of the engine. Notice that the black ground wire (with a ring fitting on the end) is located between the two cable adjuster nuts as shown in Figure 6.

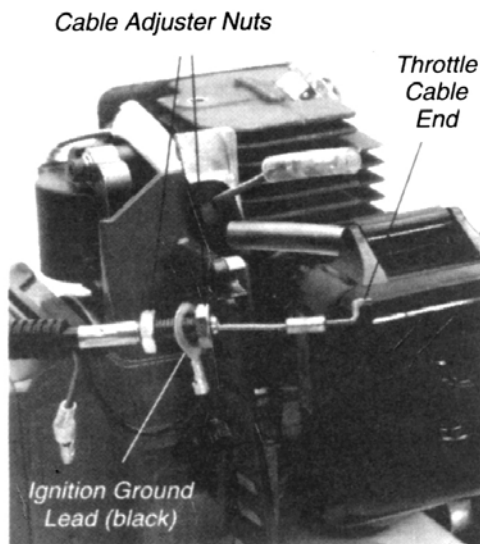


Figure 6

2. Connect the S-shaped end of the throttle cable to the throttle lever on top of the carburetor as shown in Figure 7.

Throttle Cable End

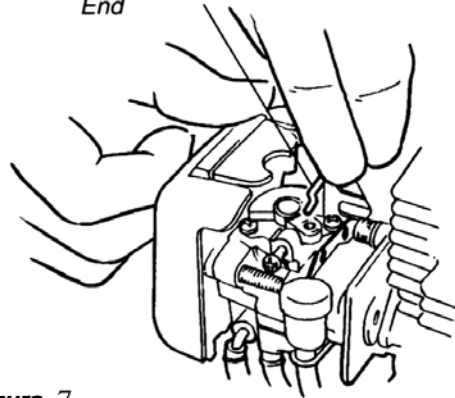


Figure 7

3. Turn the cable adjuster nuts sufficiently for the throttle cable to fit in the notch on the fan cover. Make sure the ignition ground lead is located on the rearward side of the notch. Then, connect the male fitting of the red ignition wire into the female fitting of the red wire attached to the engine. See Figure 8

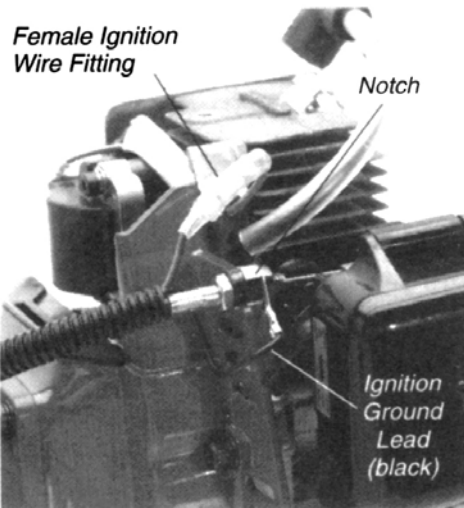


Figure 8

Adjusting the Throttle Cable

1. Loosen the two 10mm throttle cable nuts at the fan cover as shown in Figure 9

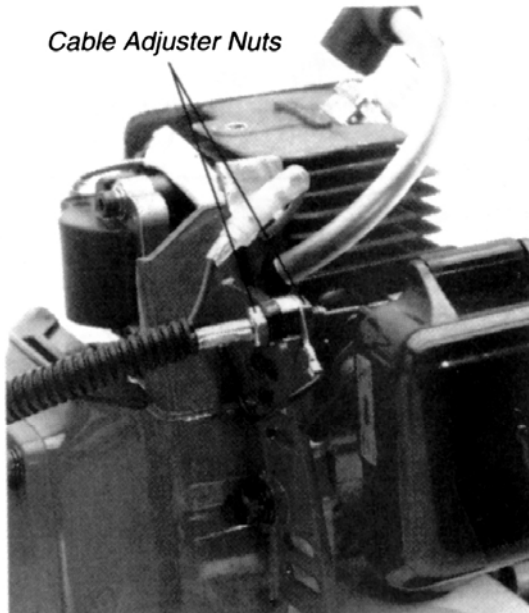


Figure 9

2. Adjust the throttle cable adjuster nuts until you achieve a free play on the throttle trigger of about 6mm.

3. When 6mm free play is achieved, tighten the two 10mm throttle cable nuts. When the throttle cable is correctly adjusted, and the throttle trigger is fully depressed (full throttle), the throttle will contact the stop on the throttle body. See Figure 10

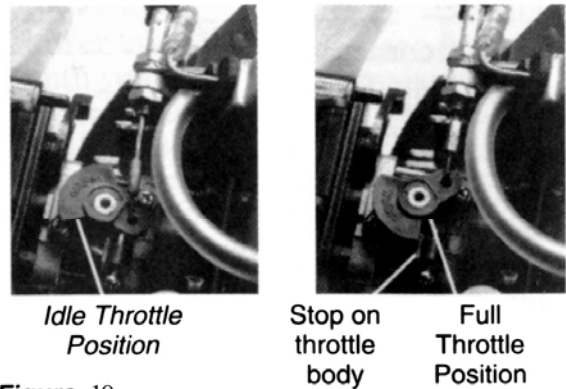


Figure 10

NOTE

A dab of Never-Seez™ or equivalent eases removal.

4. Replace the cylinder cover.
5. Replace the spark plug cap.

Assembling the Tube Sections

1. Place the powerhead/lower tube assembly and the upper tube assembly on a clean, flat surface so that both assemblies fit end to end. The powerhead/lower tube assembly should be facing up, and the lower tube assembly should be positioned with the locking hole in the tube end facing up.

CAUTION!

Keep the open ends of the tubes clean and free of impurities!

2. Slip off the protective covers from the ends of both tubes, and loosen the coupler screw knob.
3. Insert the upper tube assembly into the coupler, arrow on the upper tube decal facing up, until the line of the decal is flush with the end of the coupler. Rock the upper tube back and forth until you are sure it snaps in place by the coupler lock. See
4. When the two tube halves are locked together, press down on the spring-loaded latch protector and tighten the coupler screw.

Disassembling The Pole Sections

1. With the pole pruner on a clean, flat surface, loosen the coupler screw. The spring-loaded coupler protector should pop up.
2. Press down on the latch with your finger or thumb.
3. Pull the upper tube assembly out of the coupler.

Installing and Adjusting the Bar and Chain

Installing The Chain



WARNING!

Never attempt to install, replace, or adjust the chain with the engine running.



WARNING!

The saw chain is very sharp. Wear gloves to protect your hands when handling.

NOTE

For longest chain life, let new or replacement chain loops sock in oil overnight before installation.

1. Using the small end of the plug wrench, remove the sprocket cover nut (turn counterclockwise to remove) and remove the sprocket cover.

CAUTION!

Failure to align the guide bar and chain tensioning pin can cause serious damage to the sprocket cover, guide bar, chain tensioning pin and cutting head assembly.

2. Place the guide bar over the guide bar adjustment stud on the cutting head assembly. Align the chain tensioning pin with the hole in the guide bar.
3. Install the chain loop over the drive links within the guide bar groove, and then align the chain over the drive sprocket. Make sure the cutter are properly oriented as shown in Figure 11. If chain installation is difficult or if the chain appears too tight, refer to the section "Adjusting the Chain" on the next page.

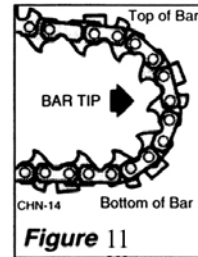


Figure 11



WARNING!

Never operate the pole pruner without the sprocket cover installed.

4. Install the sprocket cover over the bar stud. Using finger-pressure only, install the sprocket cover nut.
5. Refer to the next page for chain adjusting procedures.

Adjusting the Chain



WARNING!

Never attempt to install, replace, or adjust the chain with the engine running.



WARNING!

The saw chain is very sharp. Wear gloves to protect your hands when handling.

CAUTION!

A loose chain can jump off the guide bar causing damage to the chain and associated equipment. Always make sure the chain is properly adjusted; check more often when you are breaking in a new chain.

IMPORTANT

Proper chain adjustment is essential for maximum performance, long chain life, and operator safety. Always inspect chain tension before operating the pole pruner.

1. Place the pole pruner on a clean, flat surface. (For readjustment during operation, shut down the engine, then allow the guide bar and chain to cool before proceeding with the adjustment procedure.)
2. Loosen the sprocket cover nut with a plug wrench.

3. Lift the nose of the guide bar while turning the chain tensioning screw.

- Clockwise to tighten the chain
- Counterclockwise to loosen the chain.

4. Pull the chain by hand along the top of the guide bar several times from the engine to the bar's tip. The chain should feel snug but still pull freely. See Figure 12.

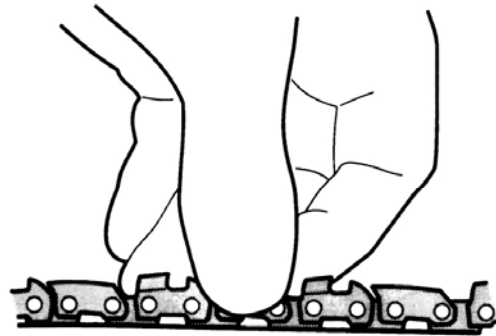


Figure 12

5. Tighten the sprocket cover nut securely while lifting the tip of the guide bar.
6. Inspect the chain for correct adjustment (more frequently with a new chain). The chain should feel snug but still pull freely.

Chain Oiler



WARNING!

Never fill the oil reservoir nor adjust the oiler with the engine running.

IMPORTANT

The service life of the chain and guide bar is affected by the quality of the lubricant. Using superior lubricant Bar and Chain Oil will help ensure a long service life. For cold weather operation, mix bar and chain oil with an equal part of kerosene.

Filling The Oil Reservoir

NOTE

The oil reservoir has a capacity sufficient to provide about 40 minutes of cutting time (when set to deliver the minimum flow rate, or about as long as you'll get from a tank of fuel).

1. Place the pole pruner on a clean, flat surface with the oil filler cap facing up. Wipe off any debris from the oil cap and from around the oil filler neck.
2. Remove the oil filler cap and fill the reservoir with bar and chain oil, then replace the cap.
3. Wipe up spilled oil from the unit before restarting the pole pruner.

Adjusting Oil Flow Rate

CAUTION!

An increase in bar oil flow rate will speed oil consumption, requiring more frequent checks on the oil reservoir. To ensure sufficient lubrication, it may be necessary to check the oil level more frequently than at fuel tank refills.

The guide bar and chain are lubricated automatically by a pump that operates whenever the chain rotates. The pump is set at the factory to deliver a minimum flow rate, but it can be adjusted in the field. A temporary increase in oil flow is often desirable when cutting things like hardwood or wood with a lot of pitch.

Adjust the pump as follows:

1. Stop the engine and make sure the stop switch is in the STOP position.
2. Place the unit on its side with the oil reservoir up.

CAUTION!

The oil flow adjusting screw must be pressed in slightly in order to turn. Failure to do so could damage the pump and screw.

3. With a screwdriver, push in on the oil flow rate adjusting screw and turn in the desired direction (there are three incremental settings):
 - Clockwise—decrease lubrication.
 - Counterclockwise—increase lubrication.

Mixing Fuel

CAUTION!

This engine is to be operated on a 25:1 mixture consisting of unleaded gasoline and 2-cycle mixing oil only.

Some gasolines contain alcohol as an oxygenate! Oxygenated fuels may cause increased operating temperatures. Under certain conditions, alcohol-based fuels may also reduce the lubricating qualities of some mixing oils. Never use any fuel containing more than 10% alcohol by volume! When an oxygenated fuel must be used, fuel containing an oxygenate such as MTBE is preferred over an alcohol based fuel.

Generic oils and some outboard motor oils may not be intended for use in high-performance air cooled 2-cycle engines, and should never be used in the engine!

- Use only fresh, clean unleaded gasoline with an octane rating of 87 or above.
- Mix all fuel with 2-cycle Engine Oil at a gasoline/oil ratio of 25:1.

IMPORTANT

Mix only enough fuel for your immediate needs! If fuel must be stored longer than 30 days, it should first be treated with a stabilizer such as StaBil™.

Filling the Fuel Tank



WARNING!

Always minimize the risk of fire when handling fuel!

- Always allow the pruner to cool before refueling!
- Wipe all spilled fuel and move the pruner at least 3 meters (10 feet) from the fueling point before restarting!
- Never smoke or light any fires near the pruner or fuels!
- Never place any flammable material near the engine muffler!
- Never operate the engine without the muffler and spark arrestor in place and properly functioning!
- Never operate this machine if fuel system components are damaged or are leaking.

1. Place the pruner on a flat, level surface.
2. Clear any dirt or other debris from around the fuel filler cap.
3. Remove the fuel cap, and fill the fuel tank with clean, fresh fuel mixture.
4. Install and firmly tighten the fuel cap.
5. Wipe up any spilled fuel from the powerhead before restarting.

Starting A Cold Engine – Restarting After Refueling

Control Positions (cold engine)

1. Set the throttle trigger to “fast idle” as follows
 - Depress and hold the throttle lockout lever.
 - Squeeze and hold the throttle trigger.
 - Depress the throttle lock button.
 - While holding down the throttle lock button, release the throttle trigger and throttle lockout lever.
 - Release the throttle lock button.

4. Choke the engine by moving the choke lever up to the “closed” position.

Control Positions (warm engine)

1. Set the throttle trigger to “fast idle” (see Step 1 above).
2. Slide the ignition switch to the “I” (START) position.
3. Moving the choke lever down to the “open” position.

IMPORTANT

Engine ignition is controlled by a two-position START-STOP switch mounted on the throttle body, typically labelled “I” for START and “O” for STOP.

2. Slide the ignition switch to the “I” (start) position.
3. Prime the engine by depressing the carburetor primer bulb four or five times. See Figure 13. You should be able to see fuel inside the bulb.

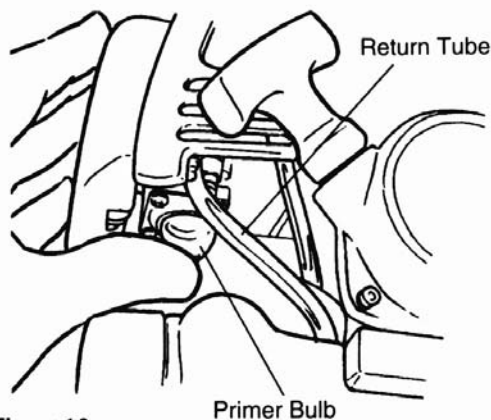


Figure 13

Cranking The Engine



WARNING!

When starting the engine, make sure the cutting attachment is well clear of bystanders, pets or objects. The attachment may rotate during start-up.

CAUTION!

Never operate the pole pruner unless a cutting attachment is installed.

1. Place the unit firmly on the ground, making sure it is stable and that the cutting attachment is free and clear of any bystanders or objects. Hold onto the hand grip on the outer tube with your left hand and grasp the starter rope handle with your right hand. See Figure 14



Figure 14

CAUTION!

The recoil starter can be damaged by abuse.

- Always engage the starter before attempting to crank the engine.
- Never pull the starter cord to its full length.
- Always rewind the starter cord slowly.

2. Pull the starter handle slowly until you feel the starter engage.
3. Pull the starter handle quickly to start the engine.

When The Engine Starts Or Fires

Open the choke by moving the choke lever down.



WARNING!

The cutting attachment will engage and rotate as the engine starts and accelerates.

If the engine did not continue to run, repeat the appropriate cranking procedure (warm or cold engine).

When the engine starts, clear excess fuel from the combustion chamber by revving the engine several times with the throttle trigger (operating the trigger will automatically disengage the “fast idle” setting).

If The Engine Fails To Start

Repeat the appropriate cranking procedure (warm or cold engine). If the engine fails to start after repeated attempts, the engine is likely flooded. Proceed to the following procedure.

Starting A Flooded Engine

1. Disconnect the spark plug lead, and then use the spark plug wrench to remove the spark plug (turn counterclockwise to remove). See Figure 15.

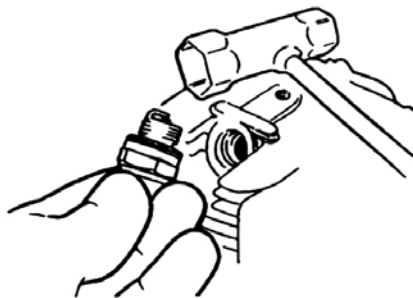


Figure 15

If the spark plug is fouled or soaked with fuel, clean the lug as necessary.

2. Open the choke (Figure 31) and fully depress the throttle trigger with your left hand, then pull the starter handle rapidly with your right hand to clear excess fuel from the combustion chamber.

CAUTION!

Incorrect spark plug installation can result in serious engine damage.

3. Reinstall the spark plug and tighten it firmly. If a torque wrench is available, torque the spark plug to 16.7—18.6 N.m.
4. Repeat the starting procedure for a warm engine.
5. If the engine still fails to start, refer to the troubleshooting section near the end of this manual.

Stopping The Engine



WARNING!

The cutting attachment can continue rotating after the engine is switched off!

1. Cool the engine by allowing it to idle for two or three minutes.
2. Slide the ignition switch to the “0” or STOP position. See Figure 17.

Adjusting The Carburetor



WARNING!

The cutting attachment must never rotate at engine idle speed.

The engine must return to idle speed whenever the throttle trigger is released. Idle speed is adjustable and must be set low enough to permit the engine clutch to disengage the chain saw when throttle trigger is released.

Check and Adjust Idle Speed

1. Start the engine and allow it to idle two or three minutes, or until it warms up.
2. If the cutting attachment rotates at engine idle, reduce idle speed by turning the idle adjusting screw counter clockwise as necessary. See Figure 16

IMPORTANT

Use a tachometer, if one is available, to set engine idle. Standard idle speed is:

2750, $\text{min}^{-1} \pm 250 \text{ min}^{-1}$

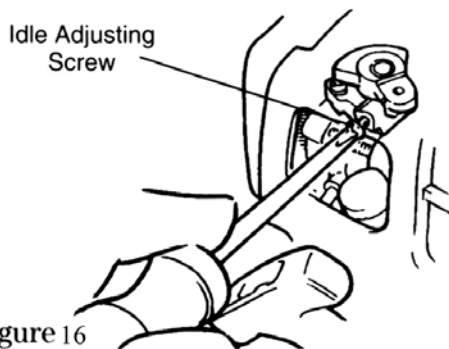


Figure 16

3. If the engine is stalling and won't idle, increase idle speed by turning the idle adjustment screw clockwise.

NOTE

The mixture of the carburetor on this unit cannot be adjusted.

Safety Operation

This machine is designed especially for cutting branches.

Never use this machine for any other purposes. Never try to cut stones, metals, plastics or any other hard objects.

Using for other purposes than cutting branches may damage the machine or cause serious injury.

Preparations

- Wear suitable protective clothing and equipment - see section "Safety Precautions".
- Choose the best work position for safety against the falling object (Branch etc)
- Start the engine.
- Put on the strap.

Never stand directly underneath the branch you are cutting - be wary of falling branches. Note that a branch may spring back at you after it hits the ground.

Cutting sequence:

To allow branches a free fall, always cut the lower branches first. Prune heavy branches (large diameter) in several controllable pieces.

Working position:

Hold the control handle with your right hand, and the shaft with your left hand. Your left arm should be extended to the most comfortable position.

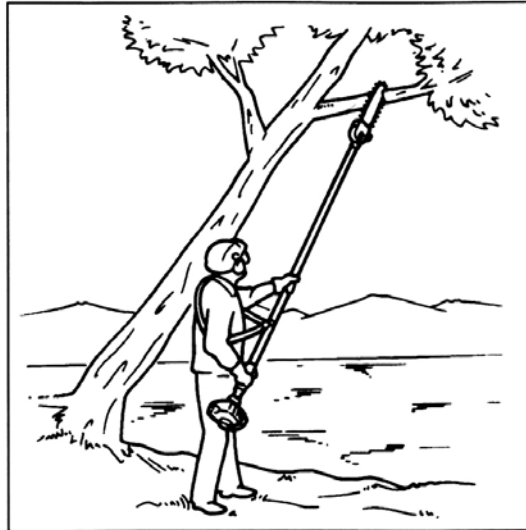
The shaft should always be held at an angle of 60° or less.



Typical applications

Standard cut:

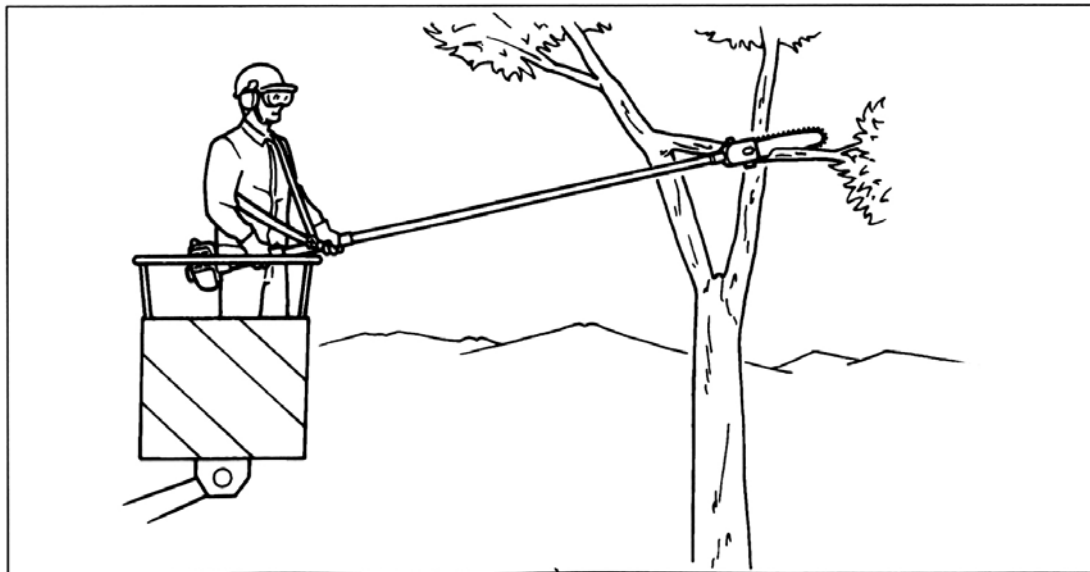
The most convenient working position is a tool angle of 60°, but any other angle may be used to suit the situation concerned.



Cutting above obstacles:

Thanks to the unit's long reach it is possible to prune branches that are overhanging obstacles, such as rivers or lakes.

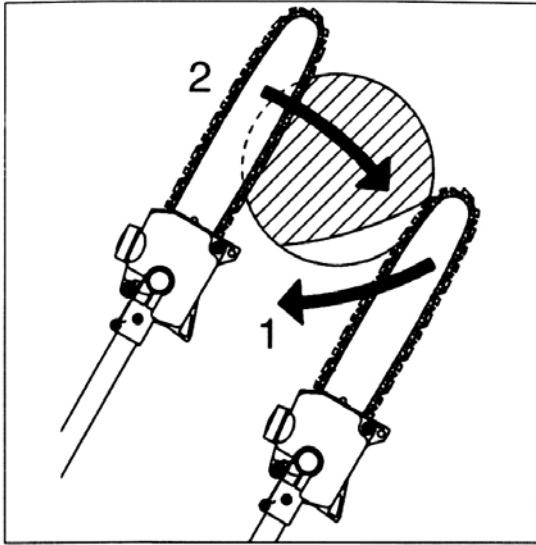
The tool angle in this case depends on the position of the branch.



Cutting on a work platform:

The unit's long reach enables cutting to be performed next to the trunk without the risk of the work platform damaging other branches.

The tool angle in this case depends on the position of the branch.

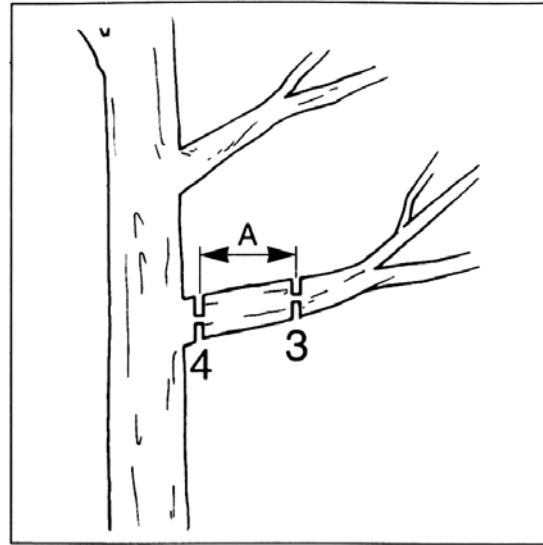


Working techniques

Relieving cut:

To avoid tearing the bark, kickback or pinching the bar when pruning thick branches, always start by performing a relieving cut (1) on the underside of the branch.

To do this, apply the cutting attachment and pull it across the bottom of the branch as far as the bar nose. Perform the cross-cut (2).



Flush-cutting thick branches:

If branch diameter is more than 10 cm (4"), first perform undercut (3) and cross-cut at a distance (A) of about 25cm (10") from the final cut. Then carry out the flush-cut (4), starting with a relieving cut and finishing with a cross-cut.

General Maintenance



WARNING!

Before performing any maintenance, repair, or cleaning work on the machine, make sure the engine and cutting attachment are completely stopped. Disconnect the spark plug wire before performing service or maintenance work.



WARNING!

Non-standard parts may not operate properly with your unit and may cause damage and lead to personal injury.

Muffler



WARNING!

Operating the engine without a muffler or with a muffler that is damaged or improperly installed can increase engine noise sufficiently to lead to hearing loss.

This machine must never be operated with a faulty or missing spark arrestor or muffler. Make sure the muffler is well secured and in good condition. A worn or damaged muffler is a fire hazard and may also cause hearing loss.

Spark Plug

Keep the spark plug and wire connections tight and clean.

Daily Maintenance

Prior to each work day, perform the following:

- Remove all dirt and debris from the engine, check the cooling fins and air cleaner for clogging, and clean as necessary. See Figure 17.

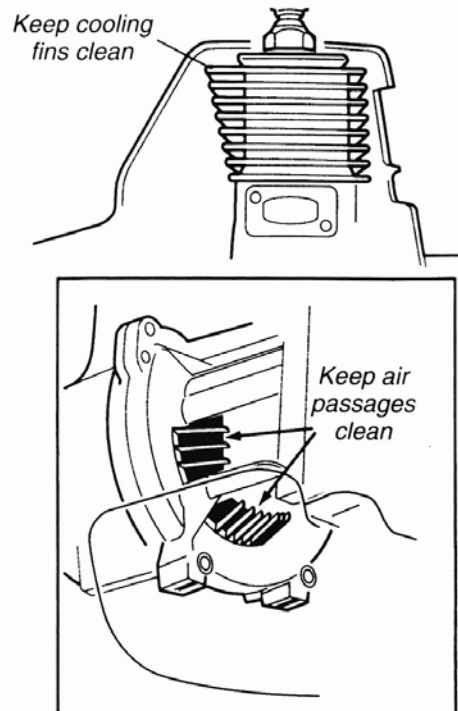


Figure 17

- Carefully remove any accumulating dirt or debris from the muffler and fuel tank. Dirt build-up in these areas can lead to engine overheating, fire, or premature wear.
- Check for loose or missing screws or components. Make sure the cutting attachment is free of debris and securely fastened.
- Check the entire machine for leaking fuel or grease.
- Make sure nuts, bolts, and screws (except carburetor adjusting screws) are tight.

10-Hour Maintenance

CAUTION!

Do not operate the machine if the air cleaner or element is damaged, or if the element is wet or water-soaked.

Every 10 hours of operation, (more frequently in dusty or dirty conditions):
Remove the air cleaner element from the air cleaner housing and clean it thoroughly with soap and water. Rinse and dry thoroughly. Add a few drops of oil and work it in, then reassemble the element.

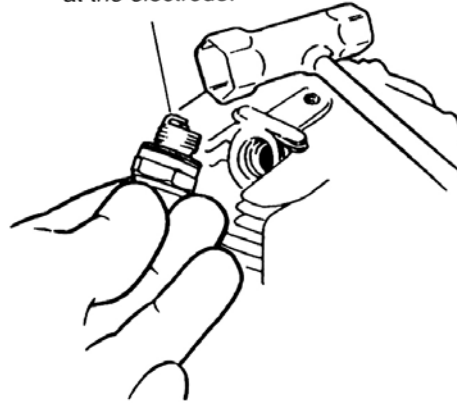
10/15-Hour Maintenance

CAUTION!

Before removing the spark plug, clean the area around the plug to prevent dirt and dust from getting into the engine's internal parts.

Every 10 to 15 hours of operation:
Remove and clean the spark plug. See Figure 18. Adjust the spark plug electrode gap to 0.6~0.7mm .
If the plug must be replaced, use only:

Clean the spark plug and check the gap at the electrode.



0.6~0.7mm

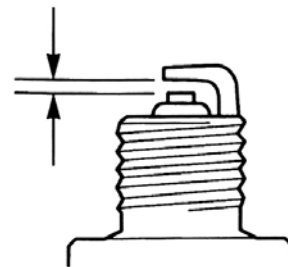


Figure 18

50-hour Maintenance

Every 50 hours of operation
(more frequently in dusty or dirty conditions):

- Remove and clean the cylinder cover and clean dirt and debris from the cylinder cooling fins.
- Remove the sprocket cover and inspect the sprocket for excessive dirt, debris, or wear. Remove the guide bar and clean out the guide bar groove. If the sprocket is excessively worn, replace it with a new one. See
- **Lubricate the gearcase.** To perform this operation, first remove the gearcase from the upper outer tube as follows

CAUTION!

Do not remove the D-shaped shim washer from the gearcase clamp! The shim washer prevents damage from overtightening the tube clamp screw.

- loosen the gearcase clamp bolt.
- remove the index bolt from the gearcase.
- slide the gearcase out of the tube.

Using a lever-type grease gun, pump lithium-base grease (about 10 grams) into the grease fitting until you see

old grease being purged from the gearcase, which can be seen in the outer tube cavity. Clean up excess grease, then reassemble the gearcase onto the outer tube.

CAUTION!

Make sure you do not pierce the fuel line with the end of the hooked wire. The line is delicate and can be damaged easily.

- Use a wire hook to extract the fuel filter from inside the fuel tank (Figure 19). Inspect the fuel filter element for signs of contamination. Replace it with a new one if required. Before reinstalling the filter, inspect the fuel line. If you find damage or deterioration, remove the unit from service until it can be inspected by trained service technician.

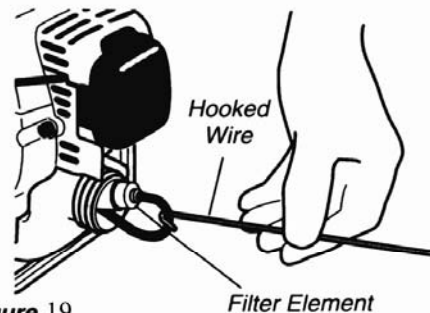


Figure 19

Long Term Storage

Whenever the machine will not be use for 30 days or longer, use the following procedures to prepare it for storage:

- Clean external parts thoroughly and apply a light coating of oil to all metal surfaces.

CAUTION!

Gasoline stored in the carburetor for extended periods can cause hard starting, and could also lead to increased service and maintenance coasts.

- Drain all the flue from the carburetor and the fuel tank.
- Remove the spark plug and pour about 3cm³ of oil into the cylinder through the spark lug hole. Slowly pull the recoiled starter 2 or 3 times so oil will evenly coat the interior of the engine. Reinstall the spark plug.
- Before storing the machine, repair or replace any worn or damaged parts.
- Remove the air cleaner element from the carburetor and clean it thoroughly with soap and water. Rinse and dry thoroughly, then add a few drops of oil and wok it in. Reassemble.
- Store the machine in a clean, dust-free area.

Sharpening the Chain

When the cutting edges of the blade become dull, they can be re-sharpened with a few strokes of a file.

In order to keep the blade in balance, all cutting edges must be sharpened equally.

In addition, inspect the chain for correct adjustment (more frequently with a new chain). The chain should feel snug but still pull freely. See Figure 42.

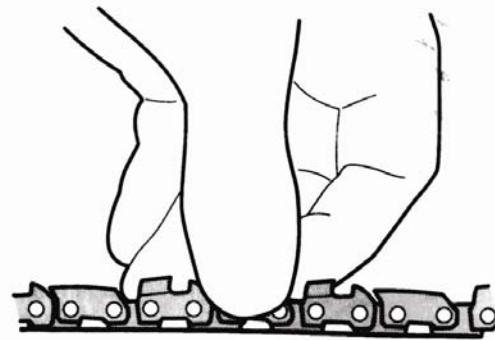


Figure 20

Sharpening Instructions (Fig. 43)

IMPORTANT

File all cutters to the same angle and depth! Unequal filing may cause the saw to vibrate or cut erratically!

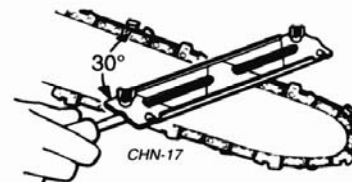
1. Using a 4.5 mm round file, sharpen all cutters to a 30° angle. Make sure that one fifth (20%) of the file's diameter is always held above the cutter's top plate.

NOTE

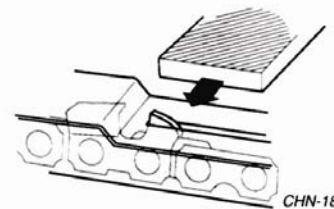
For consistent filing angles, use a filing guide such as Oregon® p/n 31692 or equivalent.

2. After all cutters are sharpened, use a depth gauge joiner (Oregon® p/n 106738 or equivalent) to measure the height of each depth gauge.
3. As required, lower the depth gauges to a height of 0.5mm. Use a flat file; Oregon p/n 12211 or equivalent.
4. After all depth gauges have been adjusted, use a flat file to round each depth gauge leading edge to its original curvature and angle.

Using a fill gauge



Using a depth gauge joiner



Using a flat file to round the front corner on a depth gauge

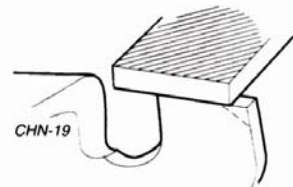
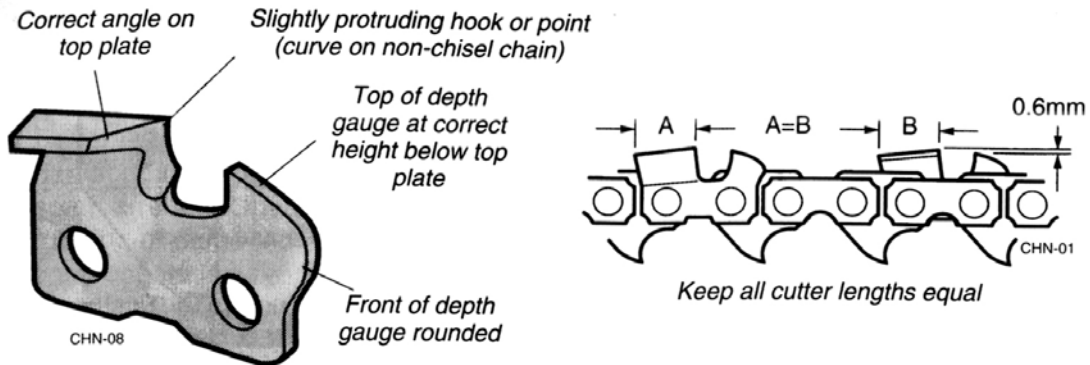


Figure 20

Correct Filing Technique



Filing Problems

Top plate angle less than recommended

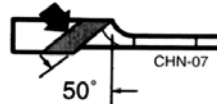


Cause
File held at less than recommended angle.

Result
Slow cutting. Requires extra effort to cut.

Remedy
File cutters to recommended angle.

Top plate angle more than recommended

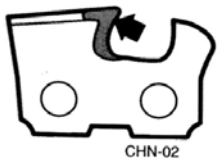


Cause
File held at more than recommended angle.

Result
Cutting angle is very sharp but will dull fast. Cutting action rough and erratic.

Remedy
File cutters to recommended angle.

Hook in side plate cutting edge

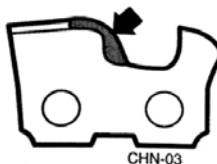


Cause
File held too low or the file was too small.

Result
Rough cutting. Chain grabs. Cutters dull quickly or won't hold a cutting edge.

Remedy
File cutters at recommended angle. Check file size.

Backslope on side plate cutting edge



Cause
File held too high or the file was too large.

Result
Cutters won't feed into wood. Slow cutting. Must force chain to cut. Causes excessive bottom wear.

Remedy
File cutters at recommended angle. Check file size.

High depth gauge

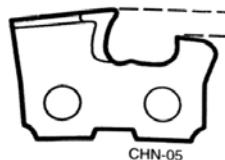


Cause
Depth gauge never filed.

Result
Slow cutting. Must force chain to cut. Will cause excessive wear on the cutter heel.

Remedy
Lower gauges to recommended setting

Low depth gauge



Cause
Wrong gauge setting or no gauge used

Result
Rough cutting. Chain grabs. Saw won't pull chain through wood. Excessive wear on the cutter heel.

Remedy
If depth gauges are too low, the chain is no longer serviceable.

Troubleshooting Guide

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 unit to the dealer.
Good compression? YES ↓	NO → Loose spark plug. Excess wear on cylinder, piston, rings.	Tighten and re-test. Return unit to the dealer.
Does the tank contain fresh fuel of the proper grade? YES ↓	NO → Fuel incorrect, stale, or contaminated. Fuel mixture incorrect	Refill with fresh fuel of the correct mixture (gasoline and 2-cycle Engine Oil, 25:1 ratio)
Is fuel visible and moving in the return line when priming? YES ↓	NO → Check for clogged fuel filter and/or vent.	Clean as required; restart.
Is there spark at the spark plug wire terminal? YES ↓	NO → The ignition switch is in "0" (Stop) position. Faulty ignition ground. Faulty transistor unit.	Move switch to "I" (Start) position and restart. Return unit to the dealer.
Check the spark plug	NO → If the plug is wet, excess fuel may be in the cylinder. The plug is fouled or improperly gapped. The plug is damaged internally or of the wrong size.	Crank the engine with the plug removed, replace the plug, and restart. Clean and re-gap the plug to 0.6–0.7mm. Restart. Replace the plug—NGK BMR6A Restart.

Troubleshooting Guide (continued)

LOW POWER OUTPUT

What to check	Possible cause	Remedy
Is the engine overheating?	Operator is overworking the machine.	Operate the pruner at a slower rate.
	Carburetor mixture is too lean.	Return unit to dealer.
	Improper fuel ratio.	Re-fill with fresh fuel of the correct mixture (gasoline and 2-cycle Engine Oil, 25:1 ratio)
	Fan, fan cover, cylinder fins dirty or damaged.	Clean, repair or replace as necessary.
	Carbon deposits on the piston or in the muffler.	Decarbonize.
Engine is rough at all speeds. May also have black smoke and/or unburned fuel at the exhaust.	Clogged air cleaner element.	Service the air cleaner element.
	Loose or damaged spark plug.	Tighten or replace.
	Air leakage or clogged fuel line.	Repair or replace filter and/or fuel line.
	Water in the fuel.	Replace the fuel.
	Piston seizure.	Return unit to dealer.
	Faulty carburetor and/or diaphragm.	Return unit to dealer.
Engine is knocking.	Overheating condition.	See above.
	Improper fuel.	Check fuel octane rating; check for presence of alcohol in the fuel. Refuel as necessary.
	Carbon deposits in the combustion chamber.	Decarbonize.

Troubleshooting Guide (continued)

ADDITIONAL PROBLEMS

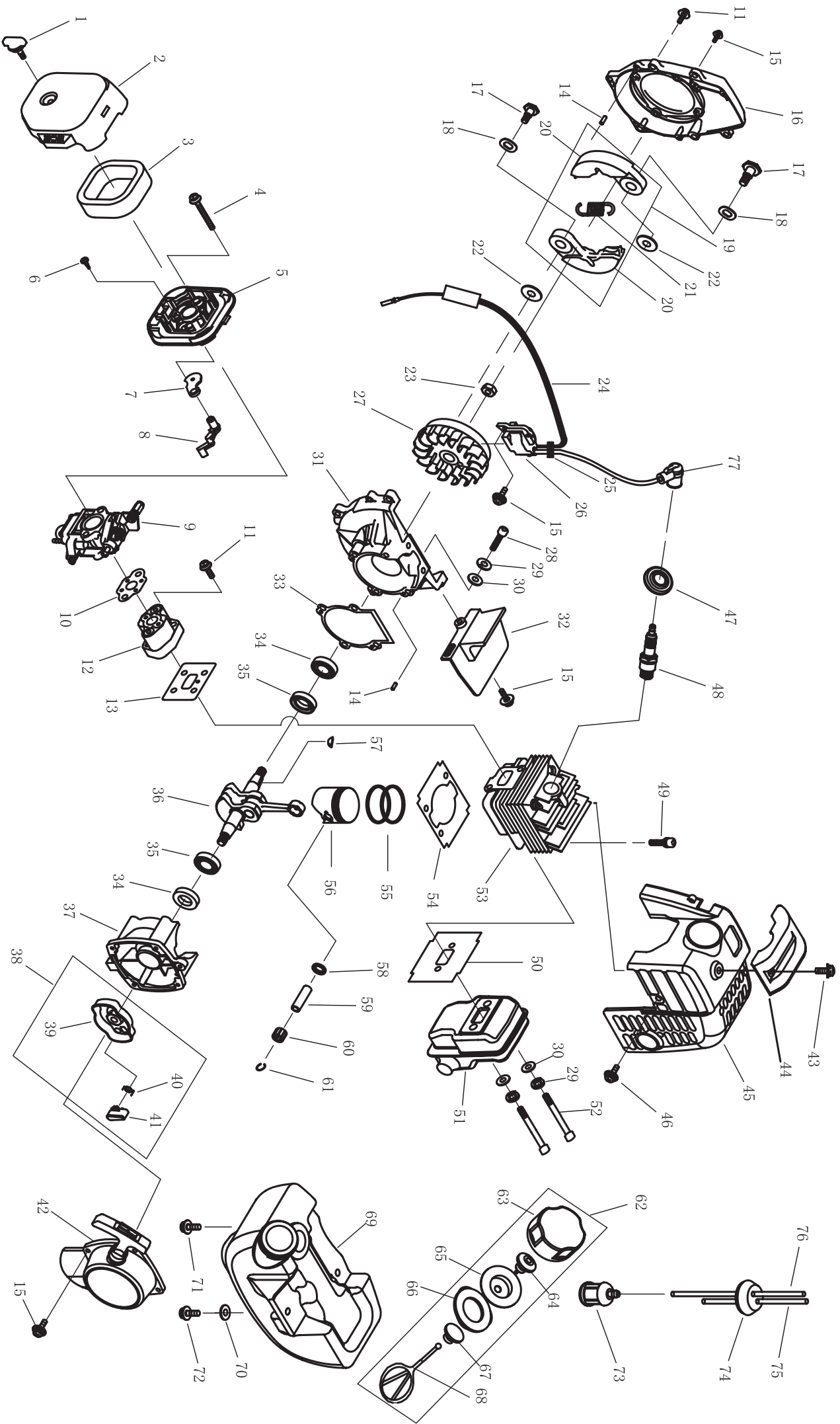
Symptom	Possible cause	Remedy
<div style="border: 1px solid black; padding: 5px; display: inline-block;">Poor acceleration.</div>	Clogged air cleaner element.	Clean the air cleaner element.
	Clogged fuel filter.	Replace the fuel filter.
	Carburetor mixture too lean.	Return the unit to the dealer.
	Idle speed set too low.	Adjust 2750 min ⁻¹ (±250)
<div style="border: 1px solid black; padding: 5px; display: inline-block;">Engine stops abruptly.</div>	Switch turned off.	Reset the switch and re-start.
	Fuel tank empty.	Refuel.
	Clogged fuel strainer.	Replace strainer.
	Water in the fuel.	Drain; replace with clean fuel.
	Shorted spark plug or loose terminal.	Clean and replace spark plug, tighten the terminal.
	Ignition failure.	Replace the ignition unit.
	Piston seizure.	Return unit to the dealer.
<div style="border: 1px solid black; padding: 5px; display: inline-block;">Engine difficult to shut off.</div>	Ground (stop) wire is disconnected, or switch is defective.	Test and replace as required.
	Overheating due to incorrect spark plug.	Clean and regap to 0.6~0.7mm. Correct plug: NGK BMR6A.
	Overheated engine.	Idle engine until cool.
<div style="border: 1px solid black; padding: 5px; display: inline-block;">Cutting attachment rotates at engine idle.</div>	Engine idle too high.	Set idle: 2750 min ⁻¹ (±250)
	Broken clutch spring or worn clutch spring boss.	Replace spring/shoes as required, check idle speed.
	Loose attachment holder.	Inspect and re-tighten holders securely.

Troubleshooting Guide (continued)

ADDITIONAL PROBLEMS

Symptom	Possible cause	Remedy
Excessive vibration	Warped or damaged attachment.	Inspect and replace attachment as required.
	Loose gearcase.	Tighten gearcase securely.
	Bent main shaft/worn or damaged bushings.	Inspect and replace as necessary.
Attachment will not rotate	Shaft not installed in powerhead or gearcase.	Inspect and reinstall as required.
	Broken shaft.	Return unit to the dealer.
	Damaged gearcase.	Return unit to the dealer.

1E34F GASLINE ENGINE

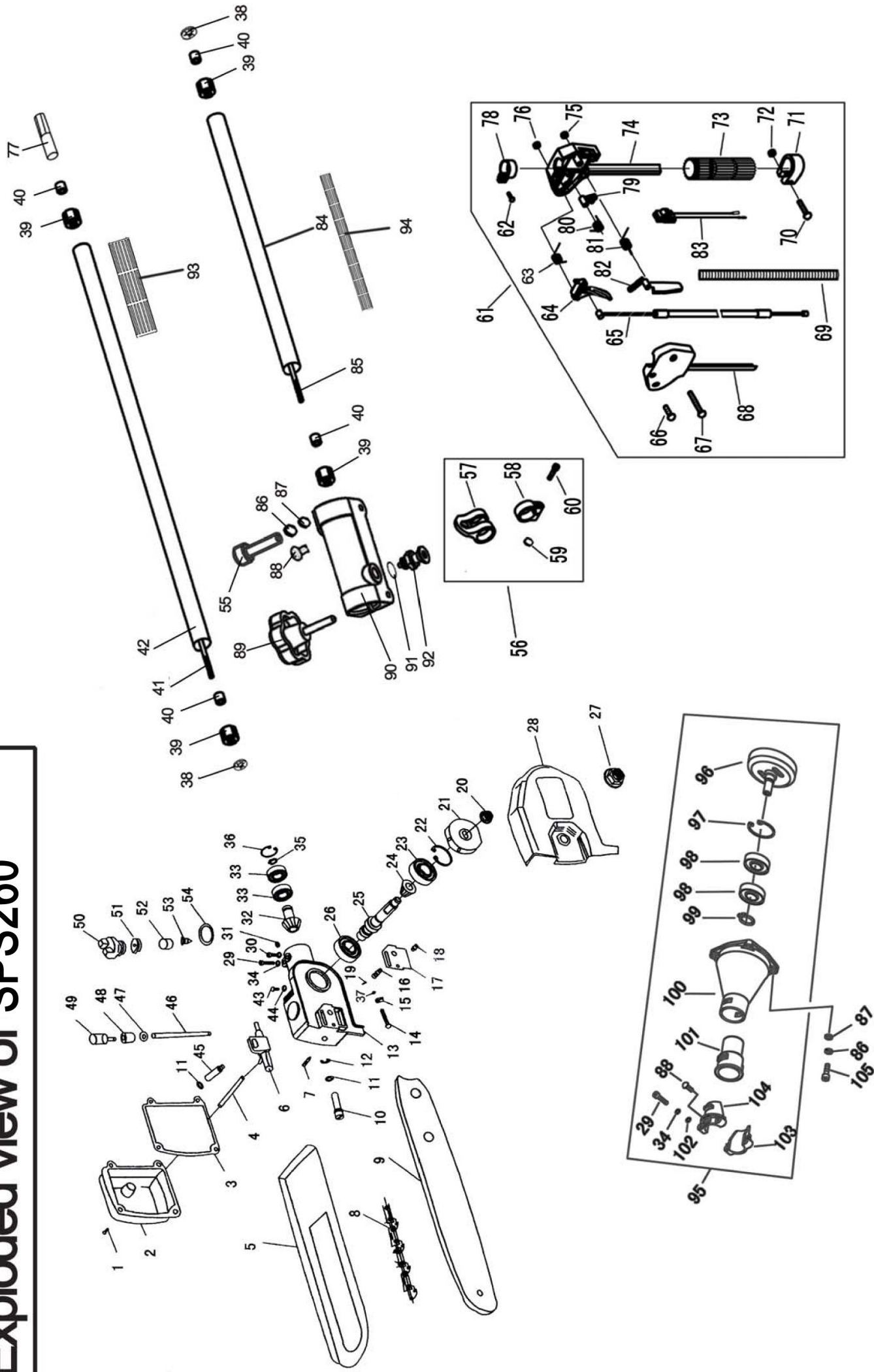


1E34F汽油机明细表 (1E34F GASOLINE ENGINE)

序号 Ser. NO.	ERP编码 Erp NO.	名称 Part Name	数量 Qty	序号 Ser. NO.	ERP编码 Erp NO.	名称 Part Name	数量 Qty
1-1	1338	大头螺钉 SCREW	1	1-31	0492	前半曲轴箱 FRONT HALF CRANKCASE	1
1-2	1337	空滤器外罩 CLEANER OUTSIDE COVER	1	1-32	0448	导风板 GUIDE PLATE	1
1-3	0745	空滤器滤芯 FILTER	1	1-33	0505	曲轴箱密封垫 GASKET, crankcase	1
1-4	4431	螺钉组合 M5X55 SCREW ASSY M5X55	2	1-34	0047	油封 12X22X7 OIL SEAL 12X22X7	2
1-5	1340	空滤器内罩 CLEANER OUTSIDE COVER	1	1-35	0473	轴承 6001/P5 BALL-BEARING 6001/P5	2
1-6	4313	自攻螺钉 ST4X10 SCREW ST4X10	2	1-36	0499	曲轴连杆组 CRANKSHAFT COMP.	1
1-7	1339	阻风门 CHOKE	1	1-37	0493	后半曲轴箱 REAR HALF CRANKCASE	1
1-8	1341	阻风门手柄 CHOKE HANDLE	1	1-38	0514	起动拨盘组合 STARTER PULLEY ASSY	1
1-9	7840	化油器总成 CARBURETOR	1	1-39	—	起动拨盘焊合 STARTER PULLEY	1
1-10	0518	化油器侧密封垫 GASKET, carburetor side	1	1-40	5774	起动扭簧 STARTER PAWL SPRING	1
1-11	1848	螺钉组合 M5X20 SCREW ASSY M5X20	6	1-41	2770	起动爪 STARTER PAWL	1
1-12	0741	进气管 INLET MANIFOLD	1	1-42	0515	起动器总成 STARTER	1
1-13	0503	缸体侧密封垫 WASHER, cylinder side	1	1-43	0556	螺钉组合 M5X14 SCREW ASSY M5X14	1
1-14	4567	销 B3X10 PIN B3X10	4	1-44	0447	火花塞护罩 COVER	1
1-15	4360	螺钉组合 M4X16 SCREW ASSY M4X16	9	1-45	0449	连体护罩 COVER	1
1-16	2944	风扇罩 FAN COVER	1	1-46	4265	螺钉组合 M4X12 SCREW ASSY M4X12	1
1-17	0510	螺钉轴 CLUTCH STEP SCREW	2	1-47	2112	火花塞罩壳 COVER, plug	1
1-18	4548	波形垫片 WASHER	2	1-48	3643	火花塞 PLUG	1
1-19	0504	涨紧块总成 CLUTCH ASSY	1	1-49	5711	螺钉 M5X20 SCREW M5X20	4
1-20	—	涨紧块 CLUTCH	2	1-50	0502	消音器密封垫 GASKET, muffler	1
1-21	4559	拉簧 SPRING, clutch	1	1-51	0506	消音器 MUFFLER	1
1-22	4500	钢平垫 6X15X1 WASHER 6X15X1	2	1-52	4432	螺钉 M5X55 SCREW M5X55	2
1-23	4287	螺母 M8X1 NUT M8X1	1	1-53	8431	缸体 CYLINDER	1
1-24	3594	停车线 STOP CORD COMP.	1	1-54	0501	缸体密封垫 GASKET, cylinder	1
1-25	2113	橡胶塞 PRIMARY CORD GROMMET	1	1-55	0508	活塞环 RING, piston	2
1-26	1727	磁电机定子 MAGNETO STATOR	1	1-56	0500	活塞 PISTON	1
1-27	1957	磁电机转子 MAGNETO ROTOR	1	1-57	4562	半圆键 KEY	1
1-28	1164	螺钉 M5X25 SCREW M5X25	4	1-58	0512	止推垫圈 STOP RING	2
1-29	4251	弹垫 5 WASHER 5	6	1-59	0512	活塞销 PIN, piston	1
1-30	4260	垫片 5 WASHER 5	6	1-60	0498	滚针轴承 NEEDLE, bearing	1

SPS260 机具爆炸图

Exploded view of SPS260



SPS260 高枝锯零部件明细表
(THE SPARE PARTS LIST OF SPS260)

序号 Ser.NO.	ERP编码 Erp NO.	名称 Part Name	数量 Qty	序号 Ser.NO.	ERP编码 Erp NO.	名称 Part Name	数量 Qty
1	4265	螺钉组合 (M4X12) screw assy (M4X12)	4	31	7807	加紧垫片 washer	1
2	7700	箱体盖 case cover	1	32	7755	齿轮 gear	1
3	7744	箱体密封垫 washer	1	33	7795	轴承609z ball-bearing 609z	2
4		油管 pipe	1	34	7813	弹垫 $\phi 5$ washer $\phi 5$	4
5	7704	锯链护套 sawing cover	1	35	7392	挡圈 $\phi 9$ retaining ring $\phi 9$	1
6	7750	机油泵组合 oil pump	1	36	6704	挡圈 $\phi 26$ retaining ring $\phi 26$	1
7	7760	铜接管 pipe	1	37	6536	平垫 washer	1
8	7758	锯链总成 chain	1	38	8348	间隔套	2
9	7767	链板总成 chain bar	1	39	0751	传动轴橡胶套 rubber cover	9
10	6692	调节螺钉 boit	1	40	0778	含油轴承 (8×14×14) oil-bearing(8×14×14)	9
11	8325	O型圈 O-ring	2	41	5863	硬轴 8X1495 shaft 8X1495	1
12	7391	挡圈 $\phi 6$ E-ring $\phi 6$	1	42	4183	铝管 $\phi 26 \times 1500$ pipe $\phi 26 \times 1500$	1
13	3936	齿轮箱 ($\phi 26$) gear case ($\phi 26$)	1	43	2645	螺钉 M6X10 screw M6×10	1
14	1208	螺钉 (M5X40) screw (M5X40)	1	44	3232	弹垫 $\phi 6$ washer $\phi 6$	1
15	6690	异型螺母 M5 nut M5	1	45	6694	限位销 boit	1
16	2833	双头螺栓 bolt	1	46		油管 pipe	1
17	7759	链板垫片 washer	1	47	4259	加大平垫 washer	1
18	6691	压紧螺钉 (M6X8) sarew (M6X8)	1	48	7746	滤网 sieve	1
19	7808	开口销 pin	1	49	7745	过滤器 sieve	1
20	2324	防松螺母 M6 nut M6	1	50	7701	机油盖 oil-cover	1
21	7757	链轮组合 wheel	1	51	7702	机油内盖 oil-cover	1
22	4538	挡圈 $\phi 28$ retaining ring $\phi 28$	1	52	7747	滤芯 sleve	1
23	3654	轴承 ball-bearing	1	53	7764	单向阀 valve	1
24	7754	齿轮 gear	1	54	7762	O型圈 O-ring	1
25	7756	输出轴 shaft	1	55	1169	内六角螺钉 M6X35 screw M6X35	1
26	7802	轴承 ball-bearing	1	56		提环组合 holder ass'y	1
27	4286	防松螺母 M8 nut M8	1	57	1634	提环 harness clamp	1
28	7730	齿轮箱罩 gear case cover	1	58	1635	手把定位环 clamp	1
29	1164	螺钉 M5X25 screw M5X25	3	59	4319	防松螺母 (M5) nut (M5)	1
30	1174	螺钉 M5X10 screw M5X10	1	60	3310	螺钉 (M5×20) screw (M5×20)	1

SPS260高枝锯零部件明细表
(THE SPARE PARTS LIST OF SPS260)

序号 Ser. NO.	ERP编码 Erp NO.	名称 Part Name	数量 Qty	序号 Ser. NO.	ERP编码 Erp NO.	名称 Part Name	数量 Qty
61	8014	操纵盒组合 Lever ass'y	1	91	4267	平垫 φ10 washer φ10	1
62	1174	内六角螺钉 (M5X10) Screw M5X10	1	92	5075	插销组合 pin	1
63	5786	短扭簧 spring	1	93	6501	橡胶管2 pipe 2	1
64	5701	操纵手柄 throttle lever	1	94	5373	橡胶管1 pipe 1	1
65	7019	油门绳 cable comp	1	95		离合器组合 CLUTCH COMP.	1
66	1168	内六角螺钉M5X20 Screw M5X20	1	96	1606	被动盘焊合 CLUTCH DRUM COMP.	1
67	1163	内六角螺钉M5X30 Screw M5X30	1	97	4541	挡圈 35 Stop Ring 35	1
68	1323	左操纵盒 Box, left	1	98	0758	轴承6202-2RS/P5 Bering 6202-2RS/P5	2
69	2413	护套管 tube	1	99	4534	挡圈 15 Stop Ring 15	1
70	4415	内六角螺钉M5X25 Screw M5X25	1	100	2951	连接盘 Clutch Case	1
71	2376	固定套 clamp	1	101	1607	橡胶保护套 Rubber Cover	1
72	4319	防松螺母 (M5) nut (M5)	1	102	4260	平垫 5 Washer 5	2
73	2045	手把护套 rubber cover	1	103	2959	下固定块 Clamp B	1
74	1324	右操纵盒 box, right	1	104	2958	上固定块 Clamp A	1
75	4319	防松螺母 (M5) nut (M5)	1	105	1168	螺钉 M6×20 Screw M6×20	4
76	4319	防松螺母 (M5) nut (M5)	1	106			
77	8236	联轴节 B joint B	1	107			
78	2044	固定夹焊合 clamp	1	108			
79	1287	拨叉 tine	1	109			
80	5789	拨叉扭簧 spring	1	110			
81	5787	自锁扭簧 spring	1	111			
82	5702	自锁手柄 spring	1	112			
83	5704	停车开关组合 stop switch	1	113			
84	4182	短铝管 φ26X800 pipe φ26x800	1	114			
85	4636	短硬轴 φ8X839 shaft φ8X839	1	115			
86	4252	弹垫 φ6 washer φ6	1	116			
87	3232	平垫 φ6 washer φ6	1	117			
88	2323	螺钉组合 M5X12 screw M5X3012	1	118			
89	6460	加紧螺钉 screw	1	119			
90	6106	铝管接头 pipe join	1	120			

高枝剪头爆炸图

LONG REACH TRIMMER EXPLOSIVE PICTURE

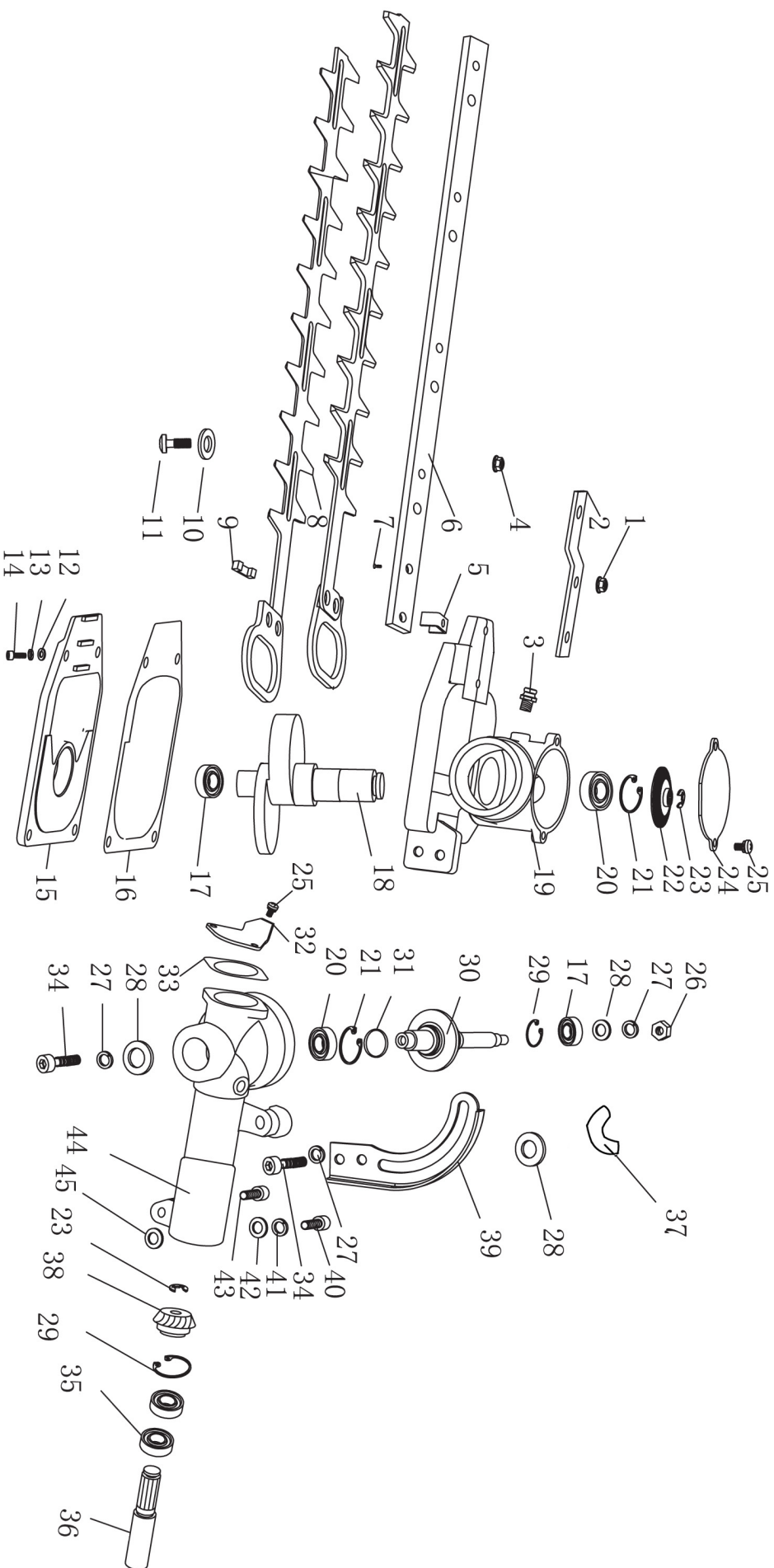


FIG. 3 SPARE PARTS LIST OF LONG REACH TRIMMER

高枝剪明细表

序号 Ser. NO.	ERP编码 Erp NO.	名称 Part Name	数量 Qty	序号 Ser. NO.	ERP编码 Erp NO.	名称 Part Name	数量 Qty
1-1	4476	防松螺母 M5 NUT M5	2	1-31	3892	O型圈 41*3.5 SEALING WASHER	1
1-2	7134	导轨支架 FRAME	1	1-32	7121	单耳密封盖 GEAR CASE COVER	1
1-3	3697	黄油嘴 BUTTER NIB	3	1-33	7122	密封垫 WASHER	1
1-4	4471	防松螺母 M6 NUT M6	4	1-34	7958	螺钉 M6X14 SCREW M6*14	3
1-5	7132	导轨卡槽 CLIP	1	1-35	7117	轴承6900-2Z/P5 BALL-BEARING 6900-2Z	2
1-6	7135	刀片导轨 BLADER BACKSTOP	1	1-36	7116	小花键轴 SHAFT	1
1-7	4513	沉头螺钉 M5*14 SCREW M5*14	2	1-37	1985	蝶形螺母 NUT	1
1-8	7131	刀片片组合 BLADE ASSY	1	1-38	7119	小圆弧锥齿轮 GEAR	1
1-9	7133	毛毡垫 FELT	1	1-39	7124	旋转导轨 COURSE	1
1-10	7326	大平垫 WASHER 6	4	1-40	1164	螺钉 M5*25 SCREW M5*25	1
1-11	7325	大头螺钉 BOLT	4	1-41	7813	弹垫 5 WASHER	1
1-12	4329	平垫 4 WASHER 4	4	1-42	6536	平垫 5 WASHER	1
1-13	4250	弹垫 4 WASHER 4	4	1-43	1174	螺钉 M5*10 SCREW M5*10	1
1-14	6689	螺钉 M4*12 SCREW M4*12	4	1-44	7334	前箱 GEAR CASE	1
1-15	7336	后箱盖 GEAR CASE COVER	1	1-45	7115	夹紧垫片 5 WASHER 5	1
1-16	7130	后箱盖密封垫 GEAR CASE WASHER	1				
1-17	2179	轴承 608-2RS/P5 BALL-BEARING 608-2RS	2				
1-18	7129	偏心轮 ECCENTER	1				
1-19	7335	后箱 GEAR CASE	1				
1-20	0762	轴承 6000-2RS/P5 BALL-BEARING 6000-2RS	2				
1-21	4536	挡圈 26 RETAINING RING 26	2				
1-22	7128	大圆弧锥齿轮 GEAR	1				
1-23	7391	挡圈 6 RETAINING RING 6	2				
1-24	7127	圆形密封盖 ROUND COVER	1				
1-25	4331	螺钉组合 M4*10 SCREW ASSY M4*10	4				
1-26	1209	螺母 M6 NUT M6	1				
1-27	5081	弹垫 6 WASHER	3				
1-28	7120	平垫 6 WASHER	3				
1-29	7118	挡圈 22 RETAINING RING 22	2				
1-30	7123	大齿轮轴组合 GEAR SHAFT ASSY	1				