



hikoki CS 30Y Chainsaw Instruction Manual

[Home](#) » [HiKOKI](#) » hikoki CS 30Y Chainsaw Instruction Manual 

Contents

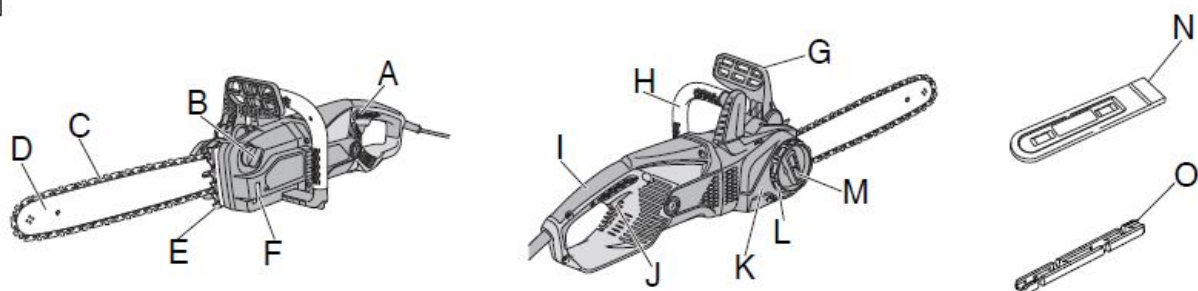
- 1 hikoki CS 30Y Chainsaw
- 2 (Original instructions)
 - 2.1 GENERAL POWER TOOL SAFETY WARNINGS
 - 2.2 CHAIN SAW SAFETY WARNINGS
 - 2.3 ADDITIONAL SAFETY WARNINGS
- 3 SPECIFICATIONS
 - 3.1 SAW CHAIN AND GUIDE BAR ASSEMBLY
 - 3.2 ADJUSTING THE CHAIN TENSION
 - 3.3 ATTACHING THE PLUG CLIP
 - 3.4 SWITCH OPERATIONS
 - 3.5 CHECKING FOR CHAIN OIL EJECTION
 - 3.6 PROTECTION CIRCUIT
 - 3.7 SHARPENING OF THE CHAIN BLADE
 - 3.8 MAINTENANCE AND INSPECTION
 - 3.9 SELECTING ACCESSORIES
- 4 Documents / Resources
 - 4.1 References
- 5 Related Posts

HiKOKI

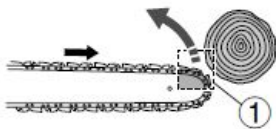
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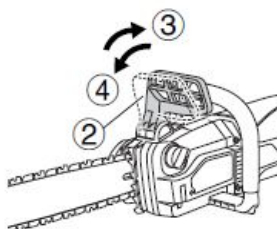
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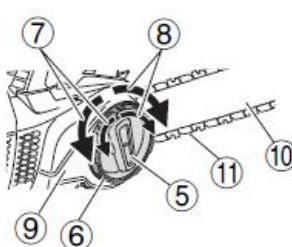
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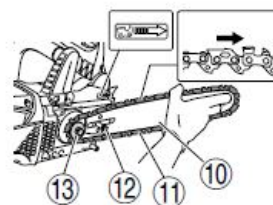
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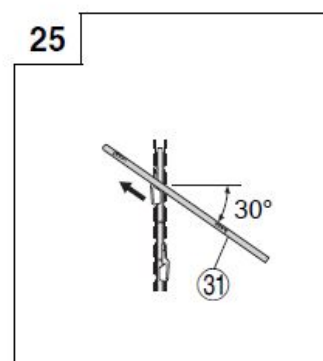
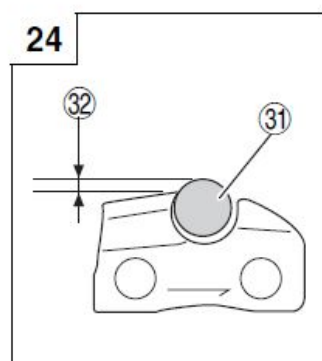
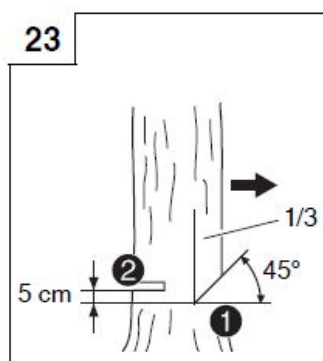
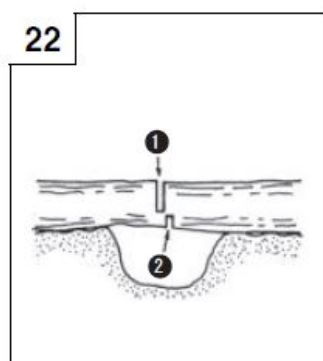
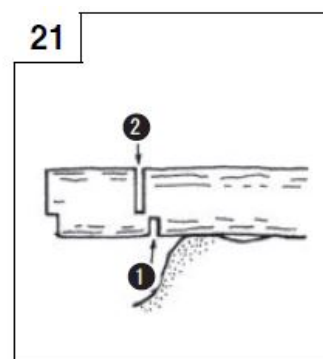
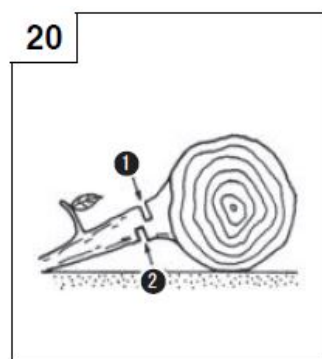
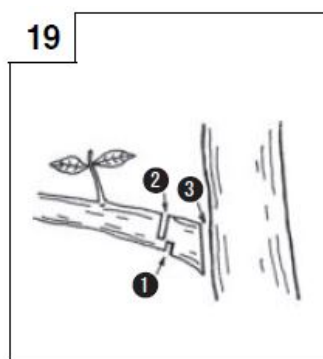
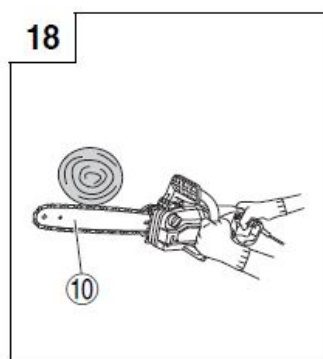
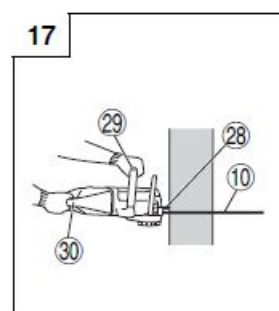
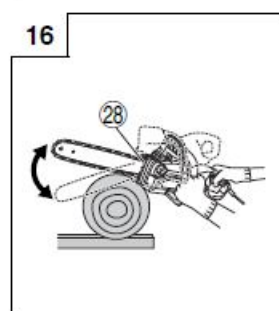
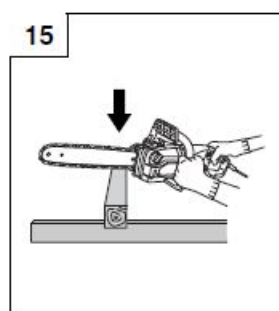
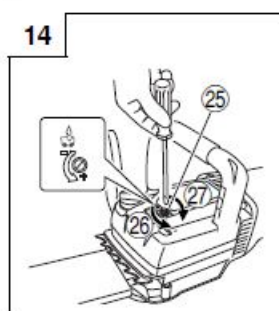
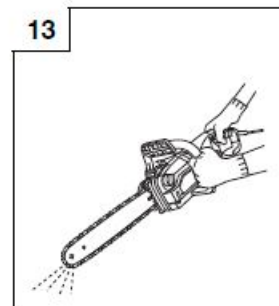
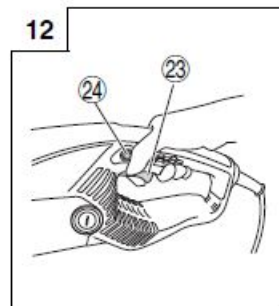
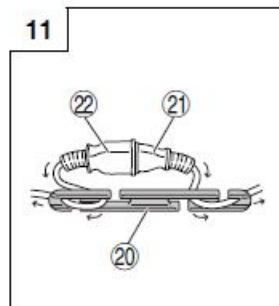
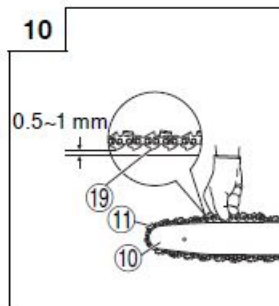
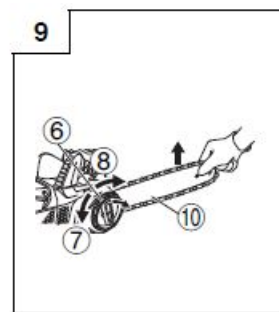
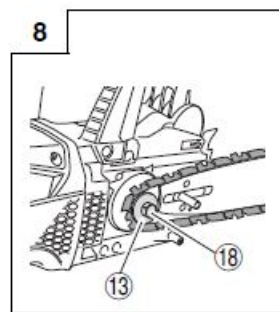
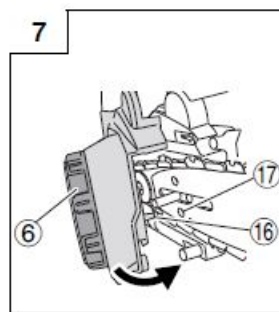
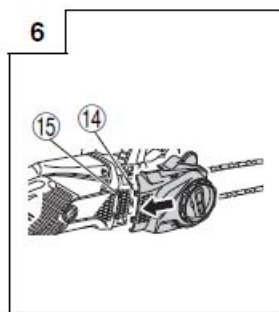


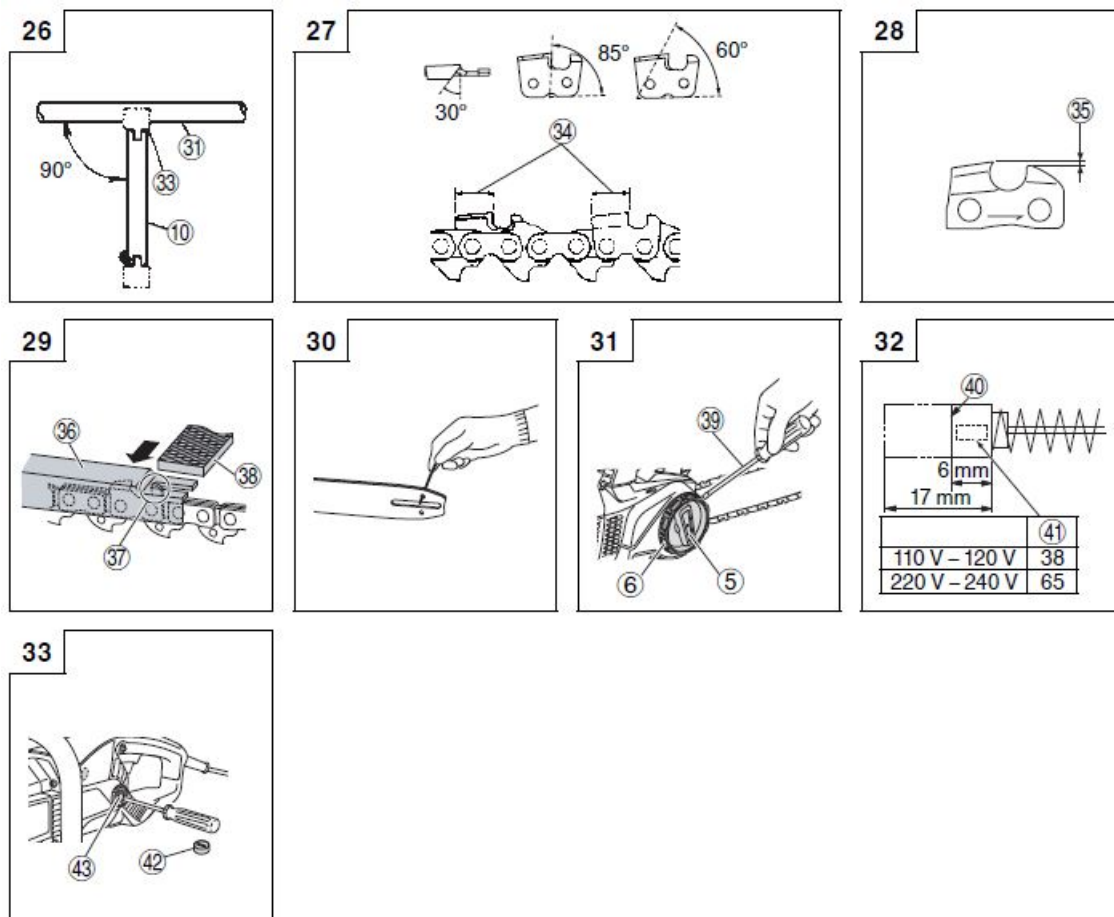
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(Original instructions)

SYMBOLS

WARNING The following show symbols used for the machine. Be sure that you understand their meaning before use.

	<p>CS30Y / CS35Y / CS40Y / CS45Y:</p> <p>Chain Saw</p>
	<p>To reduce the risk of injury, user must read instruction manual.</p>
	<p>Do not use a power tool in the rain and moisture or leave it outdoors when it is raining.</p>
	<p>Only for EU countries</p> <p>Do not dispose of electric tools together with household waste material! In observance of European Directive 2002/96/ EC on waste electrical and electronic equipment and its implementation in accordance with national law, electric tools that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.</p>

	Read, understand and follow all warnings and instructions in this manual and on the unit.
	Always wear eye protectors when using this unit.
	Always wear ear protectors when using this unit.
	Pull out the power supply plug if the cable is damaged.
	Oil pump adjustment
	Guaranteed Sound power level
	Chain oil fill

WHAT IS WHAT? (Fig. 1)

- A: Lock-off button: Button that prevents the accidental operation of the trigger.
- B: Oil tank cap: Cap for closing the oil tank.
- C: Saw chain: Chain, serving as a cutting tool.
- D: Guide bar: The part that supports and guides the saw chain.
- E: Spiked bumper: Device for acting as a pivot when in contact with a tree or log.
- F: Oil sight glass: Window to check chain oil amount.
- G: Chain brake: Device for stopping or locking the saw chain.
- H: Front handle: Support handle located at or towards the front of the main body.

- I: Rear handle: Support handle located on the top of the main body.
- J: Switch: Device activated by the finger.
- K: Side cover: Protective cover to the guide bar saw chain, clutch and sprocket when the chain saw is in use.
- L: Tension dial: Device for adjusting tension of saw chain
- M: Knob: Knob for securing tension dial and side cover
- N: Chain case: Case for covering the guide bar and saw chain when the unit is not being used.
- O: Plug clip: A tool to prevent the power plug from slipping free of an extension cord's socket.

GENERAL POWER TOOL SAFETY WARNINGS

WARNING

Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference. The term “power tool” in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

1. Work area safety

- Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes. c)
- Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

2. Electrical safety

- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
- If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply. Use of an RCD reduces the risk of electric shock.

3. Personal safety

- Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.
- Use personal protective equipment. Always wear eye protection.
Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- Prevent unintentional starting. Ensure the switch is in the off position before connecting to power source

and/or battery pack, picking up or carrying the tool.

Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.

- Remove any adjusting key or wrench before turning the power tool on.

A wrench or a key left attached to a rotating part of the power tool may result in personal injury.

- Do not overreach. Keep proper footing and balance at all times.

This enables better control of the power tool in unexpected situations.

- Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.

Loose clothes, jewelry or long hair can be caught in moving parts.

- If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.

Use of dust collection can reduce dust-related hazards. A moment of inattention while operating power tools may result in serious personal injury.

4. Power tool use and care

- Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- Do not use the power tool if the switch does not turn it on and off . Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.

Such preventive safety measures reduce the risk of starting the power tool accidentally.

- Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation.

If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.

- Keep cutting tools sharp and clean.

Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

- Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.

Use of the power tool for operations different from those intended could result in a hazardous situation.

5. Service

- Have your power tool serviced by a qualified repair person using only identical replacement parts.

This will ensure that the safety of the power tool is maintained.

PRECAUTION

Keep children and inform persons away.

When not in use, tools should be stored out of reach of children and infirm persons.

CHAIN SAW SAFETY WARNINGS

1. Keep all parts of the body away from the saw chain when the chain saw is operating. Before you start the chain saw, make sure the saw chain is not contacting anything. A moment of inattention while operating chain saws may cause entanglement of your clothing or body with the saw chain.
2. Always hold the chain saw with your right hand on the rear handle and your left hand on the front handle. Holding the chain saw with a reversed hand configuration increases the risk of personal injury and should never be done.
3. Hold the power tool by insulated gripping surfaces only, because the saw chain may contact hidden wiring or its own cord. Saw chains contacting a “live” wire may make exposed metal parts of the power tool “live” and could give the operator an electric shock.
4. Wear safety glasses and hearing protection. Further protective equipment for head, hands, legs and feet is recommended. Adequate protective clothing will reduce personal injury by flying debris or accidental contact with the saw chain.
5. Do not operate a chain saw in a tree. Operation of a chain saw while up in a tree may result in personal injury.
6. Always keep proper footing and operate the chain saw only when standing on fixed, secure and level surface. Slippery or unstable surfaces such as ladders may cause a loss of balance or control of the chain saw.
7. When cutting a limb that is under tension be alert for spring back. When the tension in the wood fibers is released the spring loaded limb may strike the operator and/or throw the chain saw out of control.
8. Use extreme caution when cutting brush and saplings. The slender material may catch the saw chain and be whipped toward you or pull you off balance.
9. Carry the chain saw by the front handle with the chain saw switched off and away from your body. When transporting or storing the chain saw always fit the guide bar cover. Proper handling of the chain saw will reduce the likelihood of accidental contact with the moving saw chain.
10. Follow instructions for lubricating, chain tensioning and changing accessories. Improperly tensioned or lubricated chain may either break or increase the chance for kickback.
11. Keep handles dry, clean, and free from oil and grease. Greasy, oily handles are slippery causing loss of control.
12. Cut wood only. Do not use chain saw for purposes not intended. For example: do not use chain saw for cutting plastic, masonry or non-wood building materials. Use of the chain saw for operations different than intended could result in a hazardous situation.

Causes and operator prevention of kickback: (Fig. 2)

Kickback may occur when the nose or tip of the guide bar touches an object, or when the wood closes in and pinches the saw chain in the cut. Tip contact in some cases may cause a sudden reverse reaction, kicking the guide bar up and back towards the operator.

Pinching the saw chain along the top of the guide bar may push the guide bar rapidly back towards the operator. Either of these reactions may cause you to lose control of the saw which could result in serious personal injury. Do not rely exclusively upon the safety devices built into your saw. As a chain saw user, you should take several steps to keep your cutting jobs free from accident or injury.

Kickback is the result of tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below:

- Maintain a firm grip, with thumbs and fingers encircling the chain saw handles, with both hands on the saw and position your body and arm to allow you to resist kickback forces.
- Kickback forces can be controlled by the operator, if proper precautions are taken. Do not let go of the chain saw.

- Do not overreach and do not cut above shoulder height. This helps prevent unintended tip contact and enables better control of the chain saw in unexpected situations.
- Only use replacement bars and chains specified by the manufacturer. Incorrect replacement bars and chains may cause chain breakage and/or kickback.
- Follow the manufacturer's sharpening and maintenance instructions for the saw chain. Decreasing the depth gauge height can lead to increased kickback.

Chain brake operation:

If a chain saw hits a solid object at a high speed it reacts violently and kicks back. This is difficult to control and could be dangerous, especially with lightweight tools that tend to be used in all kind of positions. The chain brake immediately stops the chain from rotating if there is an unexpected kickback. The chain brake can be activated by pressing your hand against the handguard or automatically by the kickback itself.

The chain brake can only be reset after the motor has stopped completely. Reset the handle to the rear position (Fig. 3). Check the function of the chain brake every day.

ADDITIONAL SAFETY WARNINGS

Based on a comprehensive evaluation of the state of the tree to be felled (e.g., trunk bend, tension of

1. Use the electrical voltage listed on the name plate for the power source. The use of a voltage that exceeds this may result in injury.
2. Work without pressure. In addition, always keep your body warm.
3. Before commencing work, reflect fully on the work procedures involved and work to avoid accidents, otherwise injury may occur.
4. Do not use in the event of bad weather, such as strong wind, rain, snow, fog, or in areas prone to rockfall or avalanches. In bad weather, judgment may be impaired and the vibration may result in disaster.
5. When visibility is poor, such as during bad weather or night, do not use the unit. In addition, do not use it in rain or in a location exposed to rain. Unstable foothold or loss of balance may result in an accident.
6. Check the guide bar and saw chain before starting the unit.
 - If the guide bar or saw chain is cracked, or the product is scratched or bent, do not use the unit.
 - Check if the guide bar and saw chain are securely installed. If the guide bar or saw chain is broken or dislodged, this may result in an accident.
7. Before starting work, check to ensure the switch does not engage unless the lock-off button is pressed. If the unit does not working properly, immediately stop using and request repair from your HIKOKI Authorized Service Center.
8. Install the saw chain properly, in accordance with the instruction manual.
If installed incorrectly, the saw chain will come off the guide bar and injury may occur.
9. Never remove any of the safety devices equipped on the chain saw (brake lever, lock-off button, chain catcher etc.).
In addition, do not alter or immobilize them.
Injury may occur.
10. In the following cases, switch the unit off and ensure the saw chain is no longer moving:
 - When not in use or being repaired.
 - When shifting to a new work location.

- When inspecting, adjusting or replacing the saw chain, guide bar, chain case and any other part.
- When refilling the chain oil.
- When removing dust etc. from the body.
- When removing obstacles, trash or sawdust generated from work from the work area.
- When you take off the unit, or when you get away from the unit.
- Otherwise, if you sense danger or anticipate risk.

If the saw chain is still moving, an accident may occur.

11. Work should generally be performed individually. When multiple individuals are involved, ensure sufficient spacing between them.

In particular, when felling standing trees or working on a slope, if you anticipate trees falling, rolling or sliding, ensure there is no danger to other workers.

12. Remain more than 15 m away from other people.

In addition, when working with multiple persons, remain 15 m or more apart.

- There is a risk of impact with scatters and other accidents.
- Prepare a whistle alert etc. and determine appropriate contact method for other workers beforehand.

13. Before felling standing trees, ensure the following:

- Determine a safe evacuation location prior to felling.
- Remove obstacles (e.g., branches, shrubs) in advance.
- Based on a comprehensive evaluation of the state of the tree to be felled (e.g., trunk bend, tension of branches) and the surrounding situation (e.g., state of adjacent trees, presence of obstacles, terrain, wind), decide on the direction in which the standing tree will fall and then plan the felling procedure.

Careless felling may result in injury.

14. When felling standing trees, ensure the following: During work, be very careful of the direction in which trees fall. When working on a slope, ensuring the tree will not roll, always work from the uphill side of the terrain. When the tree starts falling, switch the unit off, alert the surroundings, and immediately retreat to a safe location. During work, if the saw chain or guide bar become entangled in the tree, switch off and use a wedge.
15. During use, if the unit performance deteriorates, or you notice any abnormal sound or vibration, immediately switch off and discontinue use, and return to your HiKOKI Authorized Service Center for inspection or repair. If you continue using, injury may occur.
16. If the unit is accidentally dropped or exposed to impact, inspect carefully for damage or cracks and ensure there is no deformation. If the unit is damaged, cracked or deformed, injury may occur.
17. When transporting the unit by car, secure the unit to prevent it moving. There is a risk of accident.
18. Do not switch the unit on while the chain case is attached. Injury may occur.
19. Ensure there are no nails and other foreign objects in the material. If the saw chain impact on the nail etc., injury may occur.
20. To avoid the guide bar becoming entangled with the material when chopping on a verge or when subject to the weight of material while cutting, install a supporting platform close to the cutting position. If the guide bar becomes entangled, injury may occur.
21. If the unit is to be transported or stored after use, either remove the saw chain, or attach the chain cover. If the saw chain comes into contact with your body, injury may occur.
22. Adequately care for the unit. To ensure work can be performed safely and efficiently, care for the saw chain to ensure it provides optimal cutting performance. When replacing the saw chain or guide bar, maintaining the body, filling oil etc., follow the instruction manual.

23. Ask the shop to repair the unit. Do not modify this product, since it already complies with the applicable safety standards. All repairs have to be done by your HiKOKI Authorized Service Center. Attempting to repair the unit yourself may result in an accident or injury.
24. When not using the unit, ensure it is properly stored. Drain off the chain oil, and keep in a dry place out of reach of children or a locked location.
25. If the warning label is no longer visible, peels off or is otherwise unclear, apply a new warning label. For the warning label, refer to your HiKOKI Authorized Service Center.
26. When working, if local rules or regulations apply, comply with the same.
27. The use of a residual current device (RCD) with a tripping current of 30 mA or less is recommended.
28. During cutting, be sure to position the cord so that it will not be caught on branches and the like.

DESCRIPTION OF NUMBERED ITEMS (Fig. 2 – Fig. 33)

1	Kickback zone	@	Bolt	e	Switch	f	Keep all cutters the same length
2	Chain brake	#	Sprocket	r	Locking button	g	Depth gauge
3	Free	\$	Hook portion	t	Oil pump adjuster	h	Depth gauge jointer
4	Lock	%	Housing	y	Increase	j	File away this portion
5	Knob	^	Pin	u	Lower	k	File
6	Tension dial	&	Hole	i	Spiked bumper	l	Slotted screwdriver
7	Loosen	*	Special nut	o	Front handle	;	Wear limit
8	Tighten	(Drive link	p	Rear handle	z	No. of carbon brush
9	Side cover)	Plug clip	a	Round file	x	Brush cap
0	Guide bar	q	Plug	s	1/5 of diameter of file	c	Carbon brush
!	Saw chain	w	Extension cord	d	Saw chain		

SPECIFICATIONS

- **Depth Gauge Jointer**

Round File and Depth Gauge Jointer are to be used for sharpening of chain blades. As to its application, please refer to the item titled "Sharpening of the Chain Blade".

- **Chain Case**

Always keep the chain cover on the chain while carrying the chain saw or while storing it.

Optional accessories are subject to change without notice.

APPLICATIONS

General wood cutting.

PRIOR TO OPERATION

1. Power source Ensure that the power source to be utilized conforms to the power requirements specified on the product nameplate.
2. Power switch Ensure that the power switch is in the OFF position. If the plug is connected to a receptacle while the power switch is in the ON position, the power tool will start operating immediately, which could cause a serious accident.
3. Extension cord When the work area is remote from the power source, use an extension cord of sufficient thickness and rated capacity. The extension cord should be kept as short as practicable.
4. Confirm the chain tension Improper chain tension may result in damage to the chain and the guide bar, and could cause a serious accident. Always confirm that there is proper tension on the chain prior to operation.
5. Fill the oil tank with oil This unit is shipped without oil in the oil tank. Prior to operation, remove the oil cap and fill the tank with accessory oil. This unit is shipped without oil in the oil tank. Prior to operation, remove the oil cap and fill the tank with chain saw oil (sold separately), or SAE 20 or 30 motor oil. Do not use stained or degraded motor oil. Check oil reservoir periodically and keep it filled while running saw.
6. It is recommended to use an earth-leakage circuit breaker or a residual current device.

SAW CHAIN AND GUIDE BAR ASSEMBLY

WARNING

- Don't use the saw chain or the guide bar other than those specified in "SPECIFICATIONS".
- Make sure the switch is turned off and the plug disconnected from the socket.
- Always wear gloves when handling the saw chain.
- The tightening tension for the special nut has been adjusted to the optimal level. Do not loosen it or tighten it under any circumstances.

1. Removing the Saw Chain

1. Check to make sure the chain brake has been released before removing the side cover. (Fig. 3)
2. Loosen the knob slightly and then loosen the tension dial to release the tension on the saw chain. (Fig. 4)
3. Completely loosen the knob and gently remove the side cover.
4. Gently remove the guide bar and saw chain.

2. Attaching the Saw Chain

1. Set the guide bar on the attachment bolt.

2. Loop the saw chain over the sprocket while taking care over the direction it is facing, and then set the saw chain in the guide bar groove. (Fig. 5)

3. Set the clip on the side cover in the housing, put on the side cover, rotate the tension dial, align the chain's tension pin with the hole on the guide bar and attach it to the side cover. (Figs. 6 and 7)

CAUTION If the knob is tightened before the tension dial is rotated, the tension dial will be locked and it will not rotate.

3. Gently press the top of the knob to insert it into the screw hole, tighten it and then follow the instructions in "Adjusting the Chain Tension".

CAUTION When looping the saw chain over the sprocket, hold the special nut in place to prevent the sprocket from rotating. (Fig. 8) If the special nut is accidentally loosened or tightened, cease use immediately and request repairs. Using the chain saw as it is may prevent the chain brake from operating normally and result in dangerous situations.

ADJUSTING THE CHAIN TENSION

WARNING

- Make sure switch is turned off and the plug disconnected from the socket.
- Always wear gloves when handling the saw chain.
- The tightening tension for the special nut has been adjusted to the optimal level. Do not loosen it or tighten it under any circumstances.
 - Raise the end of the guide bar and rotate the tension dial to adjust the saw chain's tension. (Fig. 9)
 - Adjust the saw chain tension so that the gap between the edge of the chain's drive links and the guide bar is between 0.5 mm and 1 mm when the chain is lightly raised from the center of the guide bar. (Fig. 10)
 - Once adjustment has been completed, raise the end of the guide bar and firmly tighten the knob. (Fig. 9)
 - Rotate the saw chain approximately one half of a rotation while wearing gloves to reconfirm that the tension on the chain is correct.

CAUTION If it is not possible to rotate the saw chain, check to make sure that the chain brake has not been applied.

ATTACHING THE PLUG CLIP

The cord leading from the power plug is prevented from being pulled out by the plug clip. (Fig. 11)

SWITCH OPERATIONS

WARNING: Do not secure the switch lock off button while it is pressed. Accidentally pulling the switch may result in the chain saw unexpectedly starting up, which could lead to injuries.

1. Make sure that the chain saw is not switched on, and then insert the power plug into a power socket.
2. The chain saw is switched on when the lock off button is pulled, and switched off when it is released. (Fig. 12)

CHECKING FOR CHAIN OIL EJECTION

- The saw chain and guide bar are automatically lubricated with chain oil when the chain saw is switched on. Check to make sure that chain oil is being applied from the end of the guide bar normally. (Fig. 13)
- If the oil is not ejected after rotating the chain for two or three minutes, check to make sure that sawdust has not collected around the oil outlet.
- The amount of chain oil ejected can be adjusted with the oil adjustment screw. (Fig. 14) Cutting thick pieces of wood places a heavy load on the saw chain, so make sure the amount of oil ejected is increased at these times.

CAUTION A soft-start function is activated when the chain saw is switched on and the saw chain rotations start off slowly. Wait until the rotations have built up before starting work.

PROTECTION CIRCUIT

The chain saw is equipped with a protection circuit to prevent it from being damaged. The motor will automatically stop if excessive load is placed on the chain saw, such as when forcing it to cut through hard wood, etc. In this event, switch the chain saw off, isolate the reason for the motor stopping, and then switch it on again and resume work once the cause of the problem has been completely eradicated. Wait for at least two seconds after switching the chain saw off following an automatic halt before switching it on again.

CUTTING PROCEDURES

1. General cutting procedures

1. Switch ON the power while keeping the saw slightly away from the wood to be cut. Start sawing only after the unit has reached full speed.
2. When sawing a slender piece of wood, press the base section of the guide bar against the wood and saw downward as shown in Fig. 15.
3. When sawing a thick piece of wood, press the spike on the front section of the unit against the wood and cut it with a lever action while using the spike as a fulcrum as shown in Fig. 16.
4. When cutting wood horizontally, turn the unit body to the right so that the guide bar is below and hold the upper side of the side handle with your left hand. Hold the guide bar horizontally and place the spike that is on the front of the unit body on the lumbar. Using the spike as a fulcrum, cut into the wood by turning the handle to the right. (Fig. 17)
5. When cutting into wood from the bottom, touch the upper part of the guide bar to the wood lightly. (Fig. 18)
6. As well as carefully studying the handling instructions, ensure practical instruction in the operation of the chain saw prior to use, or at least practice working with the chain saw by cutting lengths of round timber on a sawing trestle.
7. When cutting logs or timbers which are not supported, support them properly by immobilizing them during cutting using a sawing trestle or other proper method.

CAUTION

- When cutting wood from the bottom, there is a danger that the unit body may be pushed back toward the user if the chain strongly impacts with the wood.
- Do not cut all the way thorough the wood by starting from the bottom since there is the danger of the guide bar flying up out of control when the cut is finished.

- Always prevent the operating chain saw from touching the ground or wire fences.

2. Branch cutting

- Cutting branches from a standing tree: A thick branch should initially be cut off at a point away from the trunk of the tree. First cut in about one third of the way from below, and then cut off the branch from above. Finally, cut off the remaining portion of the branch even with the trunk of the tree. (Fig. 19)
CAUTION Always be careful to avoid falling branches. Always be alert for chain saw recoil.
- Cutting branches from fallen trees: First cut off branches that do not touch the ground, then cut off those which touch the ground. When cutting thick branches that touch the ground, first cut in about half of the way from above, then cut the branch off from below. (Fig. 20) CAUTION When cutting off branches which touch the ground, be careful that the guide bar does not become bound by pressure. During the final cutting stage, beware of the log suddenly rolling.

3. Log cutting

When cutting a log positioned as shown in Fig. 21, first cut in about one third of the way from below, then cut down all the way from above. When cutting a log that straddles a hollow as shown in Fig. 22, first cut in about two thirds of the way from above, then cut upward from below.

CAUTION

- Ensure the guide bar does not become bound in the log by pressure.
- When working on inclined ground, be sure to stand on the uphill side of the log. If you stand on the downhill side, the cut-off log may roll toward you.

4. Felling trees

- Undercut (1 as shown in Fig. 23): Make undercut facing the direction in which you want the tree to fall. The depth of the undercut should be $\frac{1}{3}$ of the tree's diameter. Never fell trees without proper undercut.
- Back cut (2 as shown in Fig. 23): Make a backcut about 5 cm above and parallel to the horizontal undercut.

If the chain becomes entangled during cutting, stop the saw and use wedges to free it. Do not cut thorough the tree.

CAUTION

- Trees should not be felled in a manner that would endanger any person, strike any utility line or cause any property damage.
- Be sure to stand on the uphill side of the terrain as the tree is likely to roll or slide downhill after it is felled.

SHARPENING OF THE CHAIN BLADE

CAUTION

Ensure the power source has been disconnected from the tool before performing the steps below. Wear gloves to protect your hands. Dull and worn chain blades will decrease the efficiency of the tool and place unnecessary overload on the motor and various parts of the machine. In order to maintain optimum efficiency, it is necessary to check the chain blades often and keep them properly sharpened and adjusted. Blade sharpening and depth gauge adjustment should be accomplished at the center of the guide bar, with the chain properly mounted to the machine.

1. Blade sharpening

The accessory round file should be held against the chain blade so that one-fifth of its diameter extends above

the top of the blade, as shown in Fig. 24. Sharpen the blades by keeping the round file at a 30° angle in relation to the guide bar, as shown in Fig. 25, ensuring that the round file is held straight, as shown in Fig. 26. Ensure that all saw blades are filed at the same angle, or the cutting efficiency of the tool will be impaired. Appropriate angles for sharpening the blades correctly are shown in Fig. 27. Keep all cutters the same length.

2. Adjustment of depth gauge

To perform this work, please use the optional accessory depth gauge jointer and a standard flat file obtainable in local markets. The dimension shown in Fig. 28 is called the depth gauge. The depth gauge dictates the amount of incision (cut-in), and must be accurately maintained. The optimum depth gauge for this tool is 0.635 mm. After repeated blade sharpening, the depth gauge will be decreased. Accordingly, after every 3-4 sharpening's, place the depth gauge jointer as shown in Fig. 29, and file away that portion that protrudes above the upper plane of the depth gauge jointer.

MAINTENANCE AND INSPECTION

1. Inspecting the Chain

1. Be sure to occasionally inspect the chain tension. If the chain has become slack, adjust the tension as directed in the section entitled "Adjusting the Chain Tension".
2. When the chain blades become dull, sharpen them as directed in the section entitled "Sharpening of the Chain Blade".
3. When sawing work has been completed, thoroughly oil chain and guide bar by depressing the oil button three or four times while the chain is rotating. This will prevent rusting.

2. Cleaning the Guide Bar

When the guide bar groove or the oil hole becomes clogged with sawdust, oil circulation becomes impaired, which could result in damage to the tool. Occasionally remove the chain cover and clean the groove and oil hole with a length of wire, as shown in Fig. 30.

3. Cleaning the inside of side cover

Tension dial and knob operations will become sluggish if sawdust or other foreign matter builds up inside the side cover, and there are cases in which they will cease to move completely. After using the chain saw and after replacing the saw chain, etc., insert a flat-headed screwdriver into the gap beneath the tension dial as shown in Fig. 31, lift up the knob and tension dial and slowly remove the screwdriver to clean the inside of the side cover and remove all sawdust.

4. Inspecting the carbon brushes (Fig. 32)

The motor employs carbon brushes which are consumable parts. Since an excessively worn carbon brush can result in motor trouble, replace the carbon brushes with new ones having the same carbon brush No. shown in the figure when it becomes worn to or near the "wear limit". In addition, always keep carbon brushes clean and ensure that they slide freely within the brush holders. The number of the carbon brush will differ in accordance with the voltage being used.

5. Replacing the carbon brushes

Disassemble the brush caps with a slotted-head screwdriver. The carbon brushes can then be easily removed. (Fig. 33)

CAUTION Be careful not to deform the brush holder during this operation.

6. Inspecting the mounting screws

Regularly inspect all mounting screws and ensure that they are properly tightened. Should any of the screws be loose, retighten them immediately. Failure to do so could result in serious hazard.

7. Maintenance of the motor

The motor unit winding is the very “heart” of the power tool. Exercise due care to ensure the winding does not become damaged and/or wet with oil or water.

8. If the replacement of the supply cord is necessary, this has to be done by HiKOKI Authorized Service Center in order to avoid a safety hazard.

CAUTION

In the operation and maintenance of power tools, the safety regulations and standards prescribed in each country must be observed.

SELECTING ACCESSORIES

The accessories of this machine are listed on page 211.

GUARANTEE We guarantee HiKOKI Power Tools in accordance with statutory/country specific regulation. This guarantee does not cover defects or damage due to misuse, abuse, or normal wear and tear. In case of complaint, please send the Power Tool, dismantled, with the GUARANTEE CERTIFICATE found at the end of this Handling instruction, to a HiKOKI Authorized Service Center.

IMPORTANT

Correct connection of the plug

The wires of the main lead are coloured in accordance with the following code:

- Blue: — Neutral
- Brown: — Live

As the colours of the wires in the main lead of this tool may not correspond with the coloured markings identifying the terminals in your plug proceed as follows: The wire coloured blue must be connected to the terminal marked with the letter N or coloured black. The wire coloured brown must be connected to the terminal marked with the letter L or coloured red. Neither core must be connected to the earth terminal.

NOTE

This requirement is provided according to BRITISH STANDARD 2769: 1984. Therefore, the letter code and colour code may not be applicable to other markets except The United Kingdom.

Information concerning airborne noise and vibration

The measured values were determined according to EN60745 and declared in accordance with ISO 4871.

Measured A-weighted sound power level: 103 dB (A) Measured A-weighted sound pressure level: 90 dB (A)
Uncertainty K: 2 dB (A).

Wear hearing protection.

Vibration total values (triax vector sum) determined according to EN60745.

$a_h = 4.0 \text{ m/s}^2$

Uncertainty K = 1.5 m/s²


The declared vibration total value has been measured in accordance with a standard test method and may be used for comparing one tool with another. It may also be used in a preliminary assessment of exposure.

WARNING

- The vibration emission during actual use of the power tool can differ from the declared total value depending on the ways in which the tool is used.
- Identify safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).

NOTE Due to HiKOKI's continuing program of research and development, the specifications herein are subject to change without prior notice.

Documents / Resources

	<p>hikoki CS 30Y Chainsaw [pdf] Instruction Manual Chainsaw, CS 30Y, CS 45Y, CS 40Y, CS 35Y</p>
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References

- [Hikoki Powertools](#)