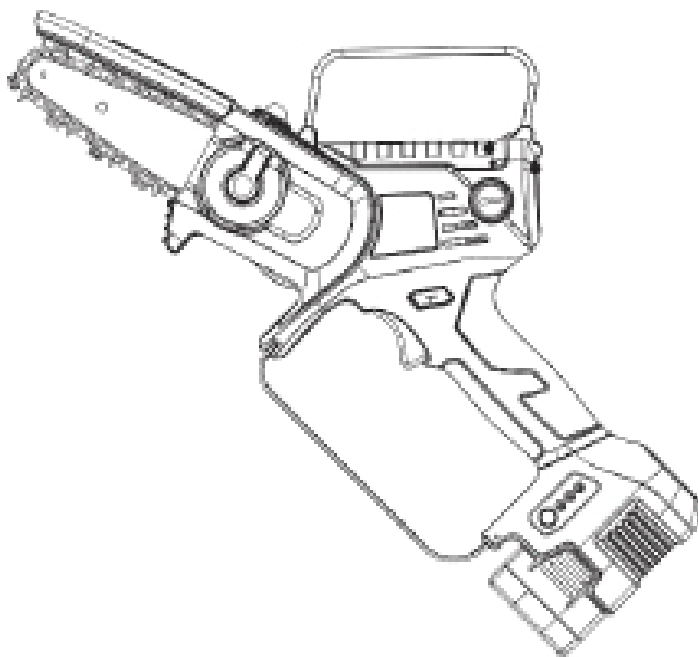




**BLUEBIRD
INDUSTRIES**

Battery-powered pruner

CS 22-06



Product user manual

-translation of the original instructions-

Index

Warning.....	1
Symbols.....	1
Specifications.....	2
List of parts.....	3
Safety regulations.....	4
Precautions before use.....	4
Operator requirements.....	4
Clothing and protection requirements.....	4
Work environment requirements.....	5
Surrounding safety requirements.....	5
Machine safety requirements.....	5
Safety instructions for the guide plate.....	6
Chain safety notice.....	7
Precautions for use.....	7
Precautions for cutting.....	7
Use, maintenance and precautions for the charger and battery.....	8
Warnings.....	10
Use and maintenance of the battery.....	10
Notes on pruning.....	12
Note on tree cutting.....	12
Warning about kickback.....	13
Warning instructions for tensioning.....	14
Warning instructions for pushing force.....	14
Cleaning, maintenance and repair.....	15
Inspection of parts before use.....	15
Chainsaw assembly.....	16
Installation of the chain and guide plate.....	16
Removal of the chain and guide plate.....	17
Tensioning chain.....	17
Adding lubricant to the chain.....	17
Chainsaw inspection.....	18
Sprocket check.....	18
Guide plate test.....	18
Start of inspection.....	19
Key functions, power display.....	19
Alarm meaning diagram.....	20
Chainsaw operation.....	20
Wood operations.....	20
Branch pruning.....	21
Tree cutting.....	22
Chainsaw cleaning.....	22
Maintenance.....	22
General safety specifications for power tools.....	25
Personal safety.....	25
Safety warnings for the rechargeable pruner.....	26
After-sales service.....	27
Declaration.....	27

Dear users,
Thank you for choosing BLUE BIRD. We develop and manufacture high-quality products according to the needs of our customers. Our products demonstrate excellent reliability even in extreme operating conditions. BLUE BIRD also stands for quality service. Our professional dealers are at your disposal to answer any questions about the products. Thank you very much for the trust you have placed in BLUE BIRD. Good luck!

Warning



Carefully read all warnings and safety instructions. Failure to follow warnings and instructions may result in electric shock, fire, or other serious injuries.
Keep all warnings and instructions for future reference.

Technical specifications

Model	CS 22-04
Rated voltage	10,8 V
Maximum voltage	12,6 V
Rated power	300 W
Speed control mode	Constant speed
Chain speed	6 m/s
Cutting capacity	100 mm
Guide bar specifications	4"(100 mm)
Chainsaw chain specifications	1.4 (6,35)
Number of drive links	29
Sprocket size	7
Lubricating oil	Manual lubrication

- The manufacturer reserves the right to change specifications without notice.
- Specifications and batteries may vary from country to country.

Symbols

Below are the symbols used in this tool.
Before use, understand its meaning.



Keep the tool away from rain



Read the instruction manual



If the power cable is damaged
or cut, unplug it in time.



Warning / danger



Wear safety glasses



Wear protective clothing



Wear ear protectors



Wear non-slip boots



Chain operation



Oil tank logo



Do not throw away



Cutting prohibited



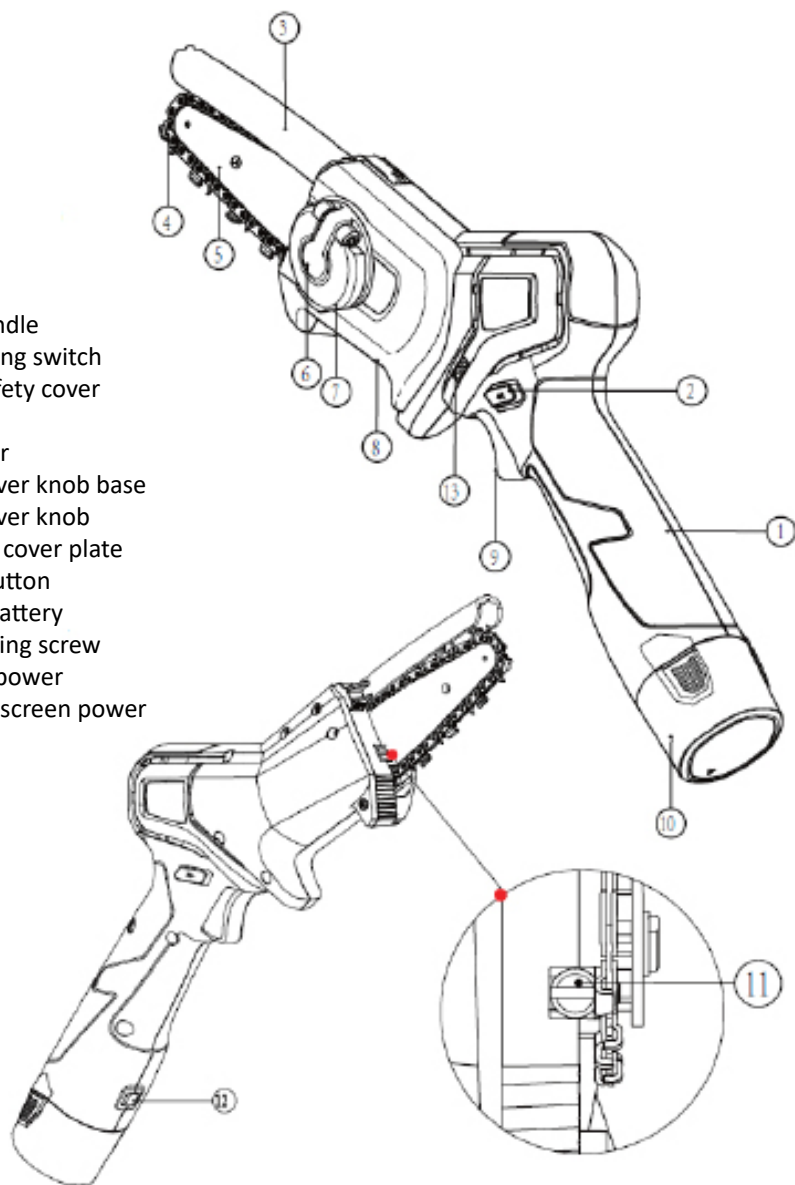
Keep away from fire



Keep away from moist
environments

Description of parts

1. Main handle
2. Self-locking switch
3. Chain safety cover
4. Chain
5. Guide bar
6. Chain cover knob base
7. Chain cover knob
8. Sprocket cover plate
9. Power button
10. 10.8V battery
11. Tensioning screw
12. Switch power
13. Display screen power



Safety regulations

Applications: sawing, pruning branches, and cutting small-diameter trees. Suitable for gardens and orchards. Any other use is considered improper.

- **Precautions before use**

- (1) The use of batteries and chargers that are unmarked and not approved with garland could cause fires or explosions with possible serious or fatal injuries and damage to property.
- (2) The use of chainsaws, batteries, and chargers beyond the design specifications could cause serious or fatal injuries and damage to property.

Battery instruction manual:

refer to the battery and charger instructions included in the battery pack.

Charger instructions:

refer to the battery and battery pack instructions.

- **Operator requirements**



Warning!

It is forbidden to use and operate the chainsaw, battery, and charger without first reading and understanding the contents of this manual. Otherwise, serious injury or death may occur to users or others. Read the instruction manual, make sure you understand it, and keep it for future reference.

Read the instructions, make sure you fully understand them, and keep them for future reference.

The user must meet the following requirements:

- (1) When the user uses the battery and charger, they must ensure that their physical and mental conditions are normal and suitable for using the tool. Otherwise, please use it under the guidance of a supervisor or a responsible person.
- (2) The user must be an adult.
- (3) When using the tool for the first time, users must ensure they receive instructions from BLUE BIRD dealers or professional BLUE BIRD user instructions.
- (4) Users must not operate the tool if they have consumed alcohol, drugs, or narcotic substances.

Users operating chainsaws for the first time must first perform the necessary cutting exercises on the frame or saw support.

- **Clothing and protection requirements**

Warning!

- (1) Dress appropriately. Do not wear loose clothing or accessories. Wear gloves and keep hair away from moving parts. Loose clothing accessories or long hair may get caught in moving parts.

- (2) During operation, debris or sawdust may be ejected from the chain, possibly causing physical injuries.
- Wear protective glasses during operation.
 - It is recommended to wear protective masks.
 - Wear long clothing.
- (3) Falling objects may cause head injuries.
- (4) During operation, dust and sawdust will be raised. Dust and sawdust will lead to poor air circulation or an allergic reaction.
- (5) Improper clothing could get caught on tree branches, hindering and obstructing the use of chainsaws. Improper clothing may cause serious injuries to users.
- Wear tight-fitting clothing.
 - Remove scarves and jewelry.
- (6) When using the data connection, the user may come close to the chain gears with possible serious damage
- Wear trousers with a degree of cut protection, which is defined by the chain speed.
- (7) When cutting timber, users may get injured. Especially during cleaning of the tool and the chain, your hand may touch the sharp edge of the chain.
- Wear protective gloves when working.
- (8) Improper footwear may lead to slips or falls. Contact with the saw chain after a fall will cause injuries to the user
- Wear protective boots with respect to the chain. The level of protection of protective boots is defined according to the chain speed.

Work environment requirements

- **Safety requirements for surrounding environments**

- (1) Passersby, children, and other animals are not aware that sawdust or other debris expelled by the chain may pose a threat. Passersby, children, and animals may be seriously injured.
- Keep passersby, children, and animals away from the work area.
- (2) The chain is not waterproof and may cause electric shocks if used in the rain or in damp environments. The user will be injured and the chainsaw will be damaged.
- Do not use the chainsaw in the rain or in damp environments.
- (3) The chain motor may produce sparks, with possible fires and explosions in environments with combustible or explosive materials. All this could cause serious personal injury or death and damage to property.
- Do not work in an environment with combustible and explosive materials.

- **Tool safety requirements**

The chainsaw is safe if it meets the following conditions:

- (1) The chain is not damaged.
- (2) The chain is clean and dry.
- (3) The chainsaw handle is intact.
- (4) The chain switch works normally.

- (5) The control program works normally and has not been modified.
- (6) The chain lubricating oil supply system is normal.
- (7) The depth of the groove of the sprocket tooth and the chain must not exceed 0.5 mm.
- (8) The assembly of the guide bar and the chain complies with the instructions in this manual
- (9) The guide bar and the chain are well assembled.
- (10) The chain is properly tensioned.
- (11) Only original BLUE BIRD manufacturer accessories are used.
- (12) The accessories are assembled properly.
- (13) The oil tank is locked.



If the product no longer meets safety requirements, the parts cannot perform their function and the safety devices cannot operate normally, with serious consequences, injury, or death.

Warning!

- (1) Only a chainsaw in good condition may be used. If the chain hook is dirty or wet, clean and dry it.
- (2) Do not reassemble the chain covers, e.g. guides and chains.
- (3) If the control system does not work properly, do not use the connection.
- (4) Only accessories supplied by BLUE BIRD must be used.
- (5) Install the guide bar and the chain according to the instructions.
- (6) For accessory installation, refer to the manual.
- (7) Do not insert anything into the chainsaw

- **Safety instructions for the guide plate**

The use of the guide is safe if it meets the following conditions:

- (1) All functions of the guide bar are in good condition.
- (2) The guide bar is not deformed or incomplete.
- (3) The depth of the guide bar groove does not show any obvious changes.
- (4) The rail of the guide bar is smooth without burrs.
- (5) There are no narrowings or cracks in the groove of the guide bar.



If the guide bar is not in a safe condition, it will not fit the chain properly. The chain could come off the guide bar causing serious or fatal injuries

Warning!

- (1) Use only undamaged guides.
- (2) If the guide bar is below the minimum depth, replace it with a new one.
- (3) After operating the chainsaw, remove any residue from the guide bar.
- (4) In case of questions, contact the BLUE BIRD dealer in time.

- **Chain safety notice**

The use of the chain will be safe if the guide bar meets the following conditions:

- (1) The chain is not broken.
- (2) The cutting edge of the cutter head is sharp.
- (3) The cutting depth of the edge of the cutter head matches the description of the original product.

- (4) The length of the cutting edge of the cutter head meets the sharpening standard.



Warning!

If the spare parts do not meet safety standards, they will not be able to perform their intended functions and the safety devices will not be effective, with possible serious personal injury and even death.

- (1) Do not use damaged chains.
- (2) Sharpen the cutter head according to the specifications.
- (3) In case of questions, contact the distributor in time.

Precautions for use

- **Precautions for cutting**



Warning!

- (1) In some specific cases, the operator may not focus on the job and risk tripping and falling, with possible serious injuries
 - a. Stay calm and work in a planned manner.
 - b. Do not use the chain gears in environments with poor visibility and dark.
 - c. Use the provided instructions.
 - d. Do not operate the chain above shoulder height.
 - e. Be careful of obstacles
 - f. When operating the chainsaw, get into a safe position and maintain balance. If you need to work at height, use a lift or safe scaffolding.
- (2) The user could be injured by the chainsaw chain in operation.
 - a. Do not touch the chainsaw chain while it is operating.
- (3) The length and tension of the chain affect its operating efficiency and the consequent risk of breakage. Adjust them properly to avoid the risk of serious injury and damage to property.
 - a. Make sure the chain is properly lubricated
 - b. During operation, check if the chain tension is adequate. If the gears are loose, adjust them in time.
- (4) If the chainsaw starts abnormally and continues to operate abnormally, the chain hook may work unsafely, with possible serious personal injury or property damage.
 - a. Stop working and contact BLUE BIRD dealers.
- (5) When the chainsaw is operating.
 - a. Wear gloves.
 - b. Take a break.
 - c. If you are in poor health, consult a doctor.
- (6) If the chainsaw chain touches a hard object, sparks are generated. Sparks can cause fires in environments with fuels, with possible serious injuries and damage to property.
 - a. Do not use the chain in environments with fuels
- (7) When the trigger is released, the chain continues to run for a certain time, which could cause serious injuries.
 - a. Wait for the chain to stop completely



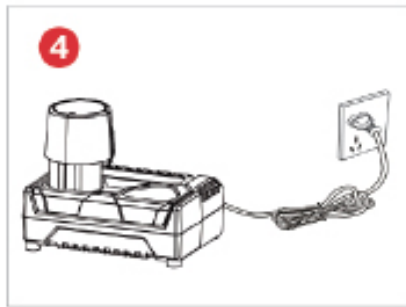
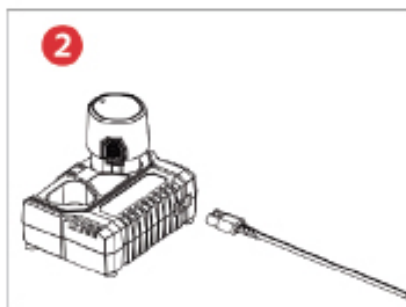
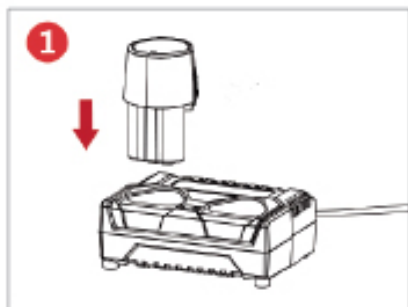
Use, Maintenance and Precautions

At the time of purchase, the battery is not fully charged. Place the battery on the table, insert the battery into the charger as shown in fig.1, and then plug the cable into the power outlet.

When the light indicator turns on, charging has started.

When the charger indicator is red, it means the battery is charging; when it is green, the battery is charged and can be used.

Charging steps:



1. Place the charger on the table and insert the battery into the appropriate slot, as shown in fig.1

2. Insert the power cable into the appropriate socket of the charger and finally connect the cable to the wall socket.

3. The two slots of the charger charge separately. When the battery needs to be charged, insert it into the appropriate slot; if the corresponding LED is red, it means the battery is charging, while if the LED light is green, the battery is fully charged (When only one battery is charging, the LED of the opposite slot will be green).

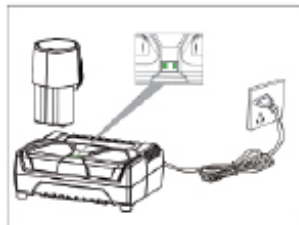


Note: each light indicator represents the charging status of different batteries

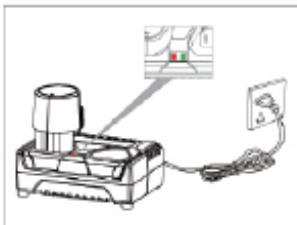
Each charging slot has its corresponding LED indicator (whether the charger is charging separately or charging two batteries at the same time, make sure to locate the correct LED to determine if the battery is fully charged or still charging).

Note: The light indicator is green if the battery is charged or if it has not been inserted into the slot as shown in the figures below.

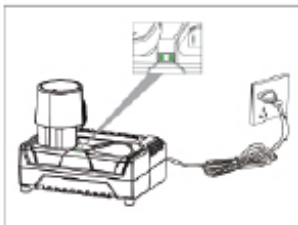
Charging with a single battery



1. Not charging

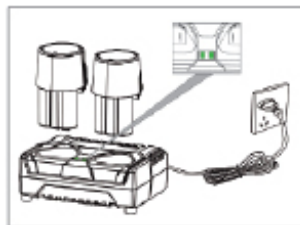


2. Charging

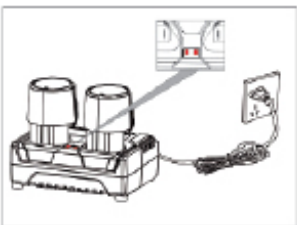


3. Charging completed

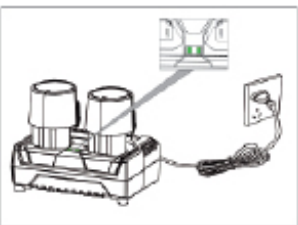
Charge with double battery



1. Not charging



2. Charging



3. Charging completed

Warnings

1. If the battery is not used for a long period of time, it is recommended to charge it every 3 months, so as not to compromise its lifespan due to infrequent use.
2. A new battery or one not used for a long period requires about 5 charging-discharging cycles before reaching its maximum capacity.
3. Do not recharge a fully charged battery after only a few minutes of use, to avoid reducing its lifespan and efficiency.
4. Do not use a damaged battery nor disassemble the charger or the battery.
5. Never place the battery near heat sources or in particularly hot environments, to prevent the battery from exploding and causing a fire.
6. Do not charge the battery outdoors or in humid environments.
7. Do not use the device while charging. Disconnect the battery.
8. Do not store the battery in a humid environment.

Battery use and maintenance

1. Do not charge the battery at an ambient temperature below 0°C (32°F) or above 45°C (113°F).
2. Use only the charger supplied with the device: using a charger with different charging specifications may cause a fire.
3. Keep paper clips, coins, keys, nails, screws or other conductive objects away from the battery when not in use.
4. Do not disassemble the battery.
5. Do not short-circuit the battery.
6. Do not use the battery near a heat source.
7. Keep the battery away from fire or water.
8. Do not charge the battery near fire or under direct sunlight.
9. Do not insert nails, hammer, step on, throw, or cause any other kind of impact to the battery.
10. Do not use the battery if it is damaged or deformed.
11. Do not perform soldering on the battery.
12. Do not reverse the direction of the battery during charging, reverse the polarity of the connections, or excessively discharge the battery.
13. Do not connect the battery to charging sockets or car cigarette lighters.
14. Do not use the battery for devices other than the battery-powered pruner.
15. Do not come into direct contact with the lithium cells of the battery.
16. Do not put the battery in the microwave, nor in high-temperature or high-pressure.

17. Do not use the battery in case of leaks.
18. Keep the battery out of reach of CHILDREN.
19. Do not use or place the battery under direct sunlight (or in a vehicle under direct sunlight) to avoid overheating or possible burns that could shorten its lifespan.
20. Do not use the battery in an electrostatic environment (above 64V).
21. Do not use the battery in the presence of corrosion, unpleasant odor, or unusual appearance.
22. If skin or clothing comes into direct contact with battery liquid, rinse immediately with clean water.
23. Keep the battery fully charged when the battery-powered pruner is not used for a long period.



Product maintenance

Instructions before use:

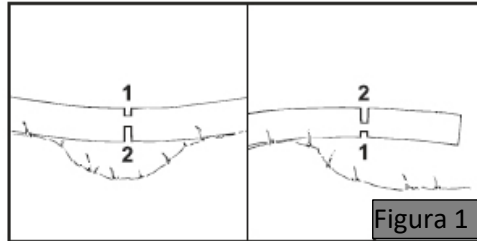
1. Check the battery level before use.
2. When not using the pruner, make sure the battery is connected.



If the tree is under tension, the guide may be blocked. Users could lose control of the chainsaw, resulting in serious injuries. (Figure 1)

Warning!

(1) First cut a raised groove from the tensioned side (1), and then cut on the side opposite to the loosened one (2).



- **Notes on pruning**

(1) If the branches under the tree are pruned first, the trunk will not be supported by the branches themselves. Trees may roll, causing serious or fatal injuries.

- a. Shake the main pole and cut the branches.
- b. Do not stand on the trunk while cutting.

- **Notes on tree cutting**

(1) To avoid serious personal injury or property damage, inexperienced personnel are prohibited from approaching dangerous logging sites.

- a. Do not cut trees alone.

(2) Branches or other objects from falling trees may fall on bystanders. This could cause serious or fatal personal injuries or property damage.

- a. Assess the direction of the tree's fall, so that the tree falls without obstacles.
- b. Passersby, children, and animals are not allowed to remain within a distance of 2.5 times the length of the tree.
- c. Look at the crown and canopy of the tree near the cut to make sure that there are no branch interferences when the crown falls.

(3) When a tree falls, the trunk may break or bounce toward the operator, causing serious or fatal injuries.

- a. Plan your escape route.
- b. Assess the direction of the tree's fall and escape toward the escape route provided.
- c. Do not go uphill.

(4) Obstacles at the work site or on the escape route may hinder escape. Fleeing personnel may fall with serious or fatal injuries.

- a. Clear the work area and obstacles from the escape route.

(5) If there are fixed hinges or stable ropes on the trunk, the trees may be out of control and fall prematurely, causing serious or fatal injuries and property damage.

a. Do not use hinges.

b. Finally, use a stable rope.

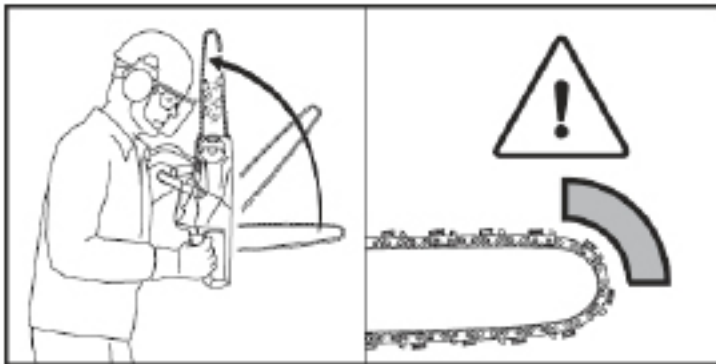
c. If the trees fall prematurely: stop cutting and evacuate along the escape route.

(6) During cutting, if the tip of the guide bar touches the object or the wood clamps and pinches the chain, it may cause a kickback. Sometimes, when the tip of the guide bar touches the object, a sudden reaction force is created, causing the guide bar to snap toward the operator, resulting in injury to the operator.

(7) If a tree falls in an uncontrollable direction or falls onto the top of another tree. The operator cannot complete the cutting operations in a controlled manner.

a. Stop cutting operations and use suitable ropes and vehicles to fell the trees

- **Kickback warning**



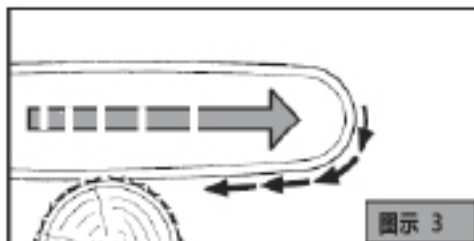
The following situations may lead to kickbacks:

(1) The chain running along the guide bar touches a hard object or the emergency brake.

(2) The tip of the chain guide is touched.

- **Tensioning warning instructions**

When cutting from top to bottom with the guide bar, the direction of the chainsaw's pulling force is opposite to the direction of the cutter.

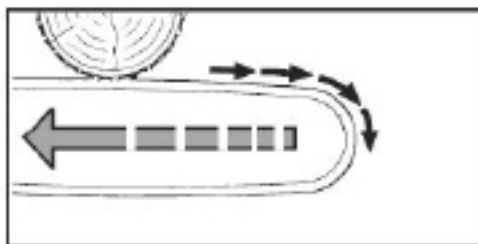


If the moving chainsaw comes into contact with a hard object and gets stuck, the electric chain suddenly detaches from the operator. The operator may lose control of the chainsaw, with possible serious or fatal injuries.

- Grip the chainsaw handle.
- Operate the chain as described in the manual.
- Keep the guide facing downward.
- Cut at full speed

- **Push force warning instructions**

When the guide bar is used for cutting from bottom to top, the direction of the chainsaw's push is toward the operator.



If the moving chainsaw comes into contact with a hard object and gets stuck, the electric chainsaw suddenly leaves the operator and the latter loses control of the chainsaw, causing serious or fatal injuries.

- Grip the chainsaw handle with both hands.
- Operate the chainsaw as described in the user instructions.
- Keep the guide facing downward.
- Cut at full speed

Cleaning, maintenance, and repair

- (1) During cleaning, maintenance, and repair, if the battery is not disconnected from the tool, the chainsaw may start unexpectedly. This could lead to serious injuries and property damage.
 - a. Disconnect the power.
 - b. Remove the chain head.
 - c. Remove the guide and the chain.
- (2) Corrosive cleaners, high-pressure cleaning equipment, or sharp cleaning tools may damage the chainsaw, guide bar, chain, battery, and charger. If the chainsaws, guides, chains, batteries, and chargers are not cleaned properly, the related parts may not function as they should, or the safety devices may not perform their function, which could cause serious injuries.
 - a. Clean the chains, guides, batteries, and chargers according to the instructions.
- (3) If the chain, guide plate, battery, and charger are not properly cleaned and maintained, the parts may not function as intended, or the safety device may not perform its function, resulting in serious injury.
 - a. Do not tamper with the chain, battery pack, or charger.
 - b. If the chainsaw, battery, and charger require maintenance and repair, contact the BLUE BIRD dealer in time. In case of questions, contact the BLUE BIRD dealer in time.
 - c. Maintain and repair the guides and chains as described in the instructions.
- (4) During cleaning and maintenance of the gears, the user may be injured by a sharp blade
 - a. Wear cut-resistant gloves

Inspection of parts before use

Before use, check the normality of the following parts:

- (1) Make sure that the following parts are in a safe condition:
 - a. Host connection
 - b. Guide bar
 - c. Chain
 - d. Battery
 - e. Charger
- (2) Check the battery
- (3) The battery must be fully charged.
- (4) Clean the chainsaw
- (5) Install the guide bar and chain
- (6) Tension the chain
- (7) Refill the chain oil
- (8) Check the control system
- (9) Check the lubricating oil pump system
- (10) If you do not understand the above operations, do not use the manual and contact the BLUE BIRD dealer as soon as possible.

Chainsaw assembly

Disconnect the power when performing the following operations!

- **Installation of the chain and guide bar**

(1) Turn off the chainsaw and remove the battery.

(2) Open the chain cover knob ① and turn until the sprocket cover plate ② can be removed.

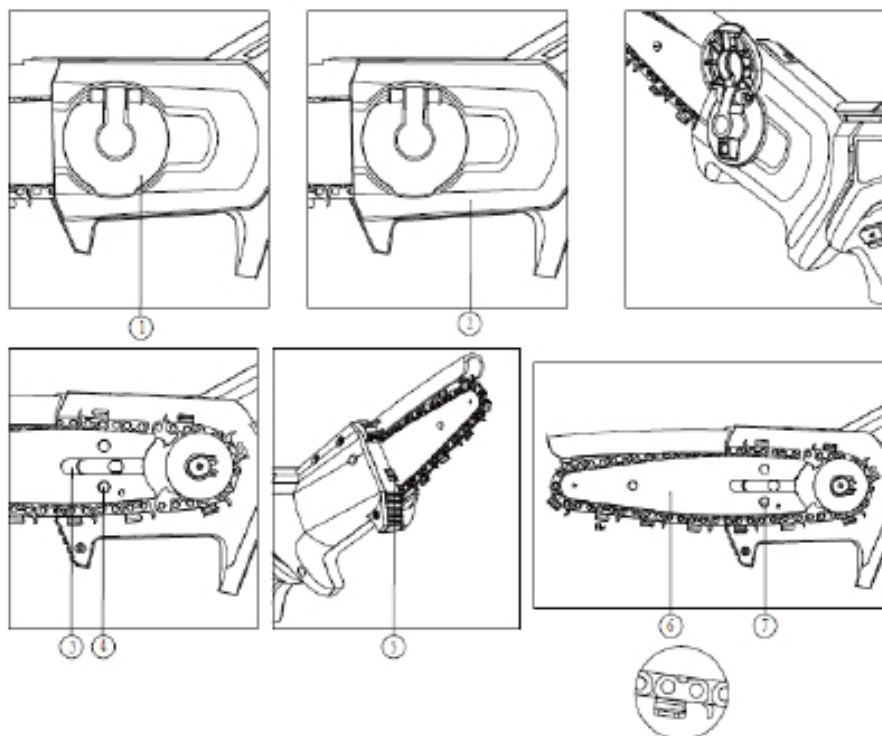
(3) Remove the sprocket cover plate ②.

(4) Adjust the tension screw ⑤, place the guide plate ⑥ on the main body of the chainsaw ③, and insert the tension block ④ into the fixing hole ⑦ on the guide plate.

Note: the guide plate ⑥ can be either positive or negative, and the marked one can be on the front or the back.

(5) Insert the chain into the groove of the guide plate and refer to the arrow mark on the main body of the chainsaw for the cutting direction of the cutter head.

(6) Cover the sprocket cover and tighten the chain cover knob.



- **Removal of the chain and guide plate**

- (1) Open the chain cover knob ① and turn until the sprocket cover plate ② can be removed.
- (2) Remove the fiber cover plate ②.
- (3) Adjust the tensioning screw ⑤.
- (4) Remove the cover plate and the guide plate.

- **Chain tensioning**

When the chainsaw is in operation, the chain may stretch. If necessary, adjust the chain tension according to the operating specifications.

- (1) Turn off the chainsaw and disconnect the power.
- (2) Open the chain cover knob ①.
- (3) Adjust the tensioning screw ⑤.
 - a. The drive teeth of the chain are close to the bottom of the groove of the guide plate.
 - b. The guide plate can be easily pulled along the groove.
- (4) If using the guide plate for engraving: adjust the chain tension and pull the chain by hand, half of the guide teeth are visible outside the guide plate.
- (5) If the chain cannot be pulled by hand: loosen the sprocket cover nut and the knob and adjust the tension bolt until the chain can be easily pulled along the guide plate.
- (6) Tighten the sprocket cover plate

- **Adding lubricant to the chain**

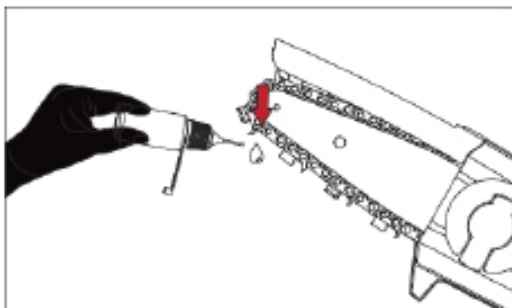
The chain oil lubricates and cools it:

- (1) Turn off the chainsaw and disconnect the power
- (2) Place the chainsaw in a horizontal position
- (3) Take the external oil tank, gently squeeze it and let an adequate amount of lubricating oil drip onto the chain



To avoid hand injuries, do not add oil manually while the chainsaw is operating.

Warning!



Chainsaw inspection



Disconnect the power when performing the following operations

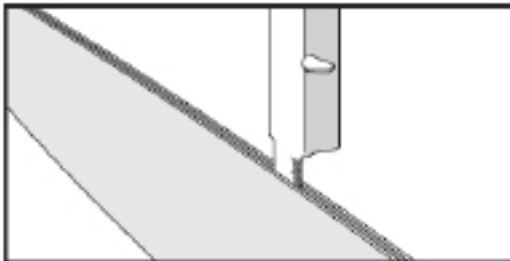
- **Sprocket inspection**

- (1) Turn off the chainsaw and disconnect the power.
- (2) Remove the sprocket guard cover.
- (3) Remove the guide and the chain.
- (4) Measure the depth of the sprocket groove with the depth gauge (see Figure 15)
- (5) If the groove depth is greater than 0.5 mm, do not use the chainsaw anymore, contact the BLUE BIRD dealer and replace the sprocket as soon as possible.



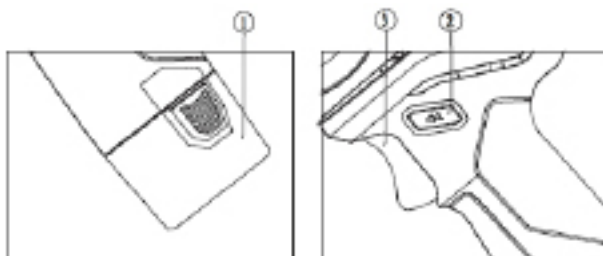
- **Guide plate test**

- (1) Turn off the connection and disconnect the power supply.
- (2) Check the chain and the guide plate.
- (3) Measure the groove depth of the guide plate and refer to the BLUE BIRD standard for groove depth.
- (4) If the following conditions are met, replace the guide plate in time:
 - a. The guide plate is damaged
 - b. The measured depth is less than the minimum allowed depth.
 - c. The chainsaw groove is deformed and damaged
- (5) For any questions, contact the BLUE BIRD dealer in time.



• Start of inspection

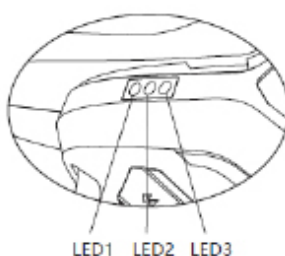
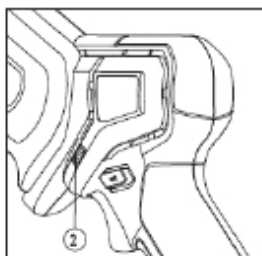
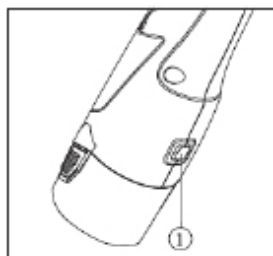
- (1). Make sure there are no children or other personnel within 15 meters of the work area and be careful that there are no animals around.
- (2). Power on: push the battery (1) into the tool housing of the device until the battery locks and clicks.
- (3). Hold the handle with your hand, press the lock button with your thumb, press the trigger (3) and the tool will start normally. (Note: when starting the tool, the chain and the guide plate must not come into contact with any object)



• Button function, power display

- (1). Press and hold (1) to turn on and display the power
- (2). Press the power button to turn off the tool when it is on. If no operation is performed, it will automatically turn off in 3 minutes.

LED1	LED2	LED3	Status description	Explanation	
X			LED1 blinking	blinking + beep	It will automatically turn on after startup and will be lit in case of a fault.
X	X	X	The three indicators are always on	75~100% electricity	It will be displayed automatically when it reaches this usage range.
	X	X	LED1 and LED2	50~75% electricity	It will be displayed automatically when it reaches this range of use.
		X	always on	25~50% electricity	It will be displayed automatically when it reaches this range of use.
		X	LED3 always on	0~25% electricity	It will be displayed automatically when it reaches this range of use.



- If there is a fault, resolve it according to the error code on the display.

LED indicator fault indication:

When using the tool, if the LED indicator flashes as follows, it can be repaired or handled according to the corresponding fault indication.

Diagram of the meaning of alarms			
Alarm content	LED flashing times on the motherboard	The number of warnings buzzer sound alerts of the motherboard	Other instructions
No error	0	0	
Protection against injuries	1	6	
Current sensor error	2	6	
Damaged MOS tube	3	6	
Protection from surges of current/average current	5	5	
Chainsaw jammed	6	3	
Phase loss	7	4	
Under/over voltage	8	1	
MOS/chip over-temperature	9	6	
EEPROM error	11	6	
Phase detection failed	12	4	
Programming error	13	6	
Lack of communication between	17	10	

Note: E14: defined, no protection is performed. E15: defined, only to warn not to perform protection, and the display emits a beep five times per minute;

One-handed chainsaw

The tool is a one-handed chainsaw, suitable for operation with one hand. There is only one joystick. Do not bring any part of your body close during operation.

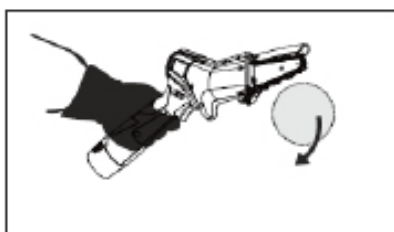
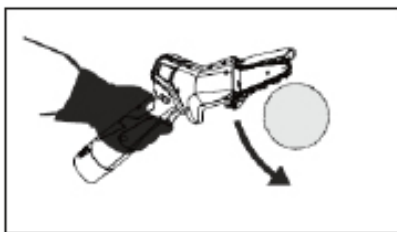
- **Woodworking operations**



Warning!

If there is a kickback, the tool will bounce back toward the operator, causing serious or fatal injuries.

- a. Cut at full speed.
- b. Do not cut with the guide head.
- c. At the start of cutting, keep the chain at full speed and the guide bar in a vertical position.
- d. Depending on the width of the guide bar, the head of the guide bar should face the tree to be cut.
- e. Add the weight of the chain to the guide bar.



- **Branch pruning**

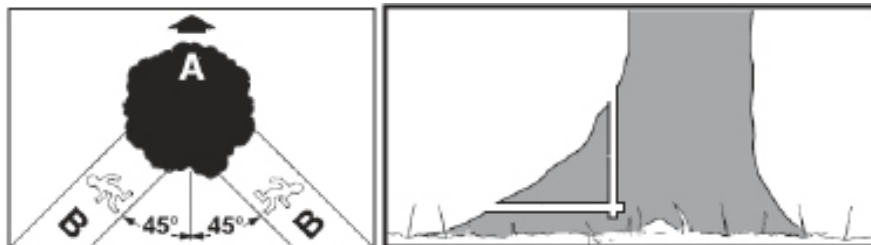
- a. Place the chainsaw guide bar on the branch to be cut.
- b. The chain cuts at maximum speed.
- c. Cut the branches with the top of the guide bar.
- d. Cut the branch by applying some tension: first make a small hole (1) on the loose side, and continue cutting under tension.



- **Tree cutting**

1 Define the escape route

- The escape route (b) is at an included angle of 45° in the opposite direction (a) to the tree's falling direction. (see Figure 23)
- Make sure that route (b) is free of obstacles.
- The top of the tree must be visible.



2. Treatment of the roots of felled trees.

- Remove obstacles under the trees and in the work area.
- Remove the redundant part of the tree roots.
- If the tree is too large, the root has a very thick stump: first cut vertically and then horizontally to remove the excess part of the root. (see figure 24)

3. Cutting the Hawthorn mouth C

The mouth of the Hawthorn determines the direction of the tree's fall. Cut the mouth of the Hawthorn on the falling side of the tree, and cut the mouth of the Hawthorn as close to the ground as possible. First of all, cut from $1/5$ to $1/3$ of the trunk diameter horizontally, do not cut the Hawthorn mouth too deep, and then make the oblique line cut.



- Cut the entire width of the Hawthorn mouth
- The width of the back part of the cut should be about $1/10$ of the base line
- In any case, the entire trunk must not be cut directly, otherwise the direction of the tree's fall cannot be confirmed, and the wedge must be inserted in time into the back cut.
- To keep the back cut in a weakened state, only plastic and aluminum wedges can be used. The use of iron wedges is prohibited.

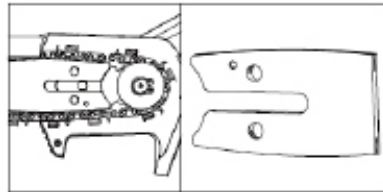
Chainsaw cleaning

(1) Chainsaw cleaning

- Turn off the chainsaw. Disconnect the power.
- Clean the chain frame with a damp cloth.
- Remove the sprocket cover.
- Clean the area around the sprocket and the body part with a damp cloth.
- To clean the charger, use a softer brush.
- Install the sprocket cover plate.

(2) Cleaning the guides and the chainsaw

- Turn off the chainsaw. Disconnect the power.
- Remove the guide and the chain.
- Use a soft brush to clean the oil outlet channel, the oil inlet hole, and the rear groove of the guide plate.
- Clean the chain with a soft brush
- Install guides and chains.



Maintenance

(1) Sprocket maintenance

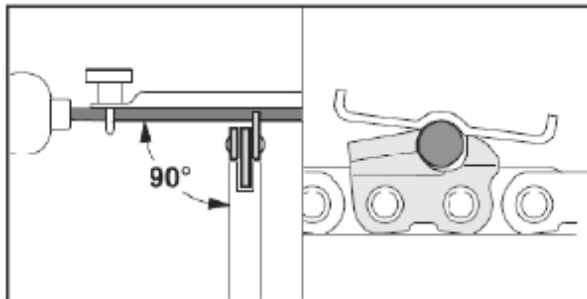
- Users cannot remove the sprocket by themselves
- If the sprocket is damaged or defective, do not use the tool and contact the dealer for replacement.

(2) Guide plate maintenance: if there is burr on the edge of the guide plate, clean it in time.

- If you have any questions, contact BLUE BIRD dealers in time.

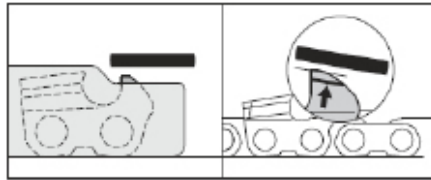
(3) Chain sharpening

- It is not recommended to use a common round file to sharpen the chain.



(4) The file must sharpen the saw blade only forward in one direction, and must not touch the saw blade when pulling it back. First, sharpen the shortest reference blade. The length of the blade is used as the reference size for the other blades in the chain.

- a. The round file must fit the pitch of the chain.
- b. Sharpen from the inside out.
- c. File in one direction according to the angle of the cutter head.
- d. Maintain the blade angle.
- e. Depending on the depth of the groove of the guide plate, touch the small tooth of the cutter head (see figure)
- f. If you have any questions, contact the BLUE BIRD dealer in time



General safety specifications for power tools



Warning!

Read all warnings and instructions. Failure to observe these warnings and instructions may result in electric shock, fire and/or serious injury. Keep all warnings and instructions for easy reference. In the following warnings, the term "power tool" refers to a corded tool operated by a utility or a cordless tool operated by a battery.

(1) Workplace safety

- a. Keep the workplace clean and bright. Chaotic and dark places can cause accidents
- b. Do not operate tools in explosive environments, such as flammable liquids, gases or dust. Sparks generated by power tools can ignite dust or gas.
- c. Operate power tools only in the absence of children and bystanders. Inattention can cause the operator to lose control of the tool.

(2) Electrical safety

- a. The plug of power tools must match the outlet and must not be modified in any way. Power tools that must be grounded must not use any conversion plug. Unmodified plugs and matching outlets reduce the risk of electric shock.
- b. Avoid human contact with grounded surfaces, such as pipe fins and refrigerators. Ground contact will increase the risk of electric shock
- c. Do not expose power tools to rain or moisture. Water entering power tools will increase the risk of electric shock.
- d. Do not handle the wires. Never use cables to carry or pull power tools or to unplug them. Keep wires away from oil, heat sources, sharp edges, or moving parts. Damaged or entangled cables increase the risk of electric shocks.

- e. When using power tools outdoors, it is necessary to use external flexible cables suitable for outdoor use, which reduce the risk of electric shock. Flexible cables will reduce the risk of electric shocks.
- f. If it is unavoidable to use power tools in damp environments, it is necessary to use a residual current device (RCD), which helps reduce the risk of electric shock.

(3) Personal safety

- a. Be careful, pay attention to the operation being performed, and stay alert while operating power tools. Do not operate power tools when you are tired or under the influence of drugs, alcohol, or medication. When using power tools, momentary negligence can cause serious personal injury.
- b. Use personal protective equipment, always wear goggles and safety devices. The use of dust masks, non-slip safety shoes, helmets, hearing protection, and other devices under appropriate conditions can reduce personal injuries.
- c. To avoid accidental start-up, when connecting the power supply or battery box, when lifting or handling the tools, make sure the switch is in the off position; putting your finger on the switch or plugging in when the switch is on can be dangerous.
- d. Before turning on the tool, remove all adjustment keys or wrenches. A key or wrench left on the rotating parts of the power tool can cause personal injury.
- e. Do not overreach, always pay attention to support and body balance, so that you can properly control power tools in case of unforeseen events.
- f. Dress appropriately. Do not wear loose clothing or accessories. Wear gloves and keep hair away from moving parts. Loose glasses or long hair can get caught in moving parts.
- g. If a device is provided for connection with the tool for chip removal and dust collection, make sure they are well connected. And that it is used correctly. The use of these devices can reduce risks caused by dust.

(4) Use and precautions for power tools

- a. Do not play with power tools. Proper selection of power tools, proper design of power tools will make your work more effective and safer.
- b. If the switch does not turn on or off, the power tool cannot be used. Power tools that cannot be controlled by switches are dangerous and must be repaired.
- c. Before any adjustment, accessory replacement, or storage of power tools, the plug must be removed from the power supply and the battery box must be disconnected from the tool. This preventive measure will reduce the risk of accidental start-up of the tool.
- d. Keep unused tools out of the reach of children and do not allow them to be used by people who are not familiar with power tools or who do not understand these instructions. Use by untrained users is dangerous.

Rechargeable chainsaw safety warning

- (1) When the chain is running, keep all parts of the body away from the chain. Before starting the chain, make sure the chain does not come into contact with any object. With the chain running, even a moment of distraction can cause clothing or body parts to become trapped in the chain.
- (2) Make sure to hold the rear handle of the chainsaw with your right hand and the front handle with your left hand. Holding the chainsaw upside down with both hands will increase the risk of personal injury. Therefore, do not hold the rear handle with your left hand and the front handle with your right hand.
- (3) Because the chain could come into contact with hidden wires. During operation of the tool, only the insulated handle should be held. When the chain comes into contact with a live wire, the exposed metal part of the tool could also become electrically charged. And transfer an electric shock to the operator.
- (4) Wear safety glasses and hearing protection devices. It is recommended to wear additional protective equipment for the head, hands, legs, and feet. The full use of protective clothing will reduce personal injuries caused by flying debris or accidental contact with the chain.
- (5) Do not operate the chainsaw on the tree. The use of chain gears on trees could cause personal injury.
- (6) Make sure you are standing firmly. Before using the chainsaw, you must stand on a firm, safe, and level surface. Slippery or unstable surfaces, such as stairs, can cause the body to lose flat impact or lose control of the chainsaw.
- (7) When cutting a branch under tension, be careful of possible kickback. When the tension on the wood fiber is released, the elastic force on the branch could strike the operator or cause loss of control of the chainsaw.
- (8) When cutting shrubs and young trees, be careful of possible jamming in the chain by thin materials, which can hit the operator and cause imbalance.
- (9) Before transporting the chainsaw, you must close the chain handle and hold the front handle tightly to keep a certain distance from your body. During transport or storage of the chainsaw, make sure to cover the guide plate. Proper operation of the chainsaw will reduce the possibility of accidental contact with the moving chain.
- (10) Lubricate, tension the chain, and replace accessories according to the instructions. Improper tensioning or lubrication of the chain can cause the chain to break or increase the possibility of kickback.
- (11) Keep the handle dry, clean, and free of grease. A greasy handle can easily slip, which leads to loss of control of ongoing activities.
- (12) For wood cutting only. Do not use the chainsaw for purposes other than those intended. For example, do not use chainsaws to cut construction materials made of plastic, stone, or non-wood. The use of the chainsaw for operations other than those intended can be dangerous.

Causes of tool kickback and preventive measures for operators

- (1) During cutting, contact of the guide bar tip with an object or wood to block and tighten the chain may cause kickback.
- (2) Sometimes, when the guide bar tip touches the object, a sudden reaction force will be created, causing the guide bar to snap toward the operator.
- (3) Pressure from the chain along the top of the guide could quickly push the guide toward the operator. Each of these reactions could cause loss of control of the chainsaw and result in serious personal injury.
- (4) Do not rely solely on the safety devices installed on the chain.
- (5) As regular users of chainsaws, a series of measures should be taken to prevent accidents or personal injury during cutting operations.
- (6) Incorrect operation of the tool, operating steps, or improper operating conditions will cause kickback. The following precautions can prevent them:
 - a. Hold firmly and grip the chainsaw handle with your thumbs and fingers. Adjust the position of your body and arm to avoid kickback. If the correct precautions are followed, the operator can control the kickback force, so be careful.
 - b. Do not overextend the tool and do not cut above shoulder height. This will help prevent the tip from touching the object and better control the tool in case of unforeseen events.
 - c. Follow the manufacturer's sharpening and maintenance instructions for chain maintenance. Lowering the depth and height causes frequent kickbacks.

After-sales service

If you have any questions during use, please contact us in time (see the next page for contact information). We have professional staff ready to answer questions and solve problems, and maintenance personnel who use the same spare parts, thus maintaining the necessary safety standards.

Declaration

BLUE BIRD reserves the right to improve the products described in this manual. If there are changes, please be patient! In case of discrepancy between the graphic image and the text description in this manual and the actual object, refer to the actual object!

EC DECLARATION OF CONFORMITY - HERSTELLERERKLÄRUNG - DECLARATION 'CE' DE CONFORMITE - DECLARACION DE CONFORMIDAD - DICHIARAZIONE DI CONFORMITA' EUROPEA - GELIJKVORMIGHEIDSVERKLARING - EC DEKLARATION I OVERENSSTEMMELSE - DECLARAÇÃO CE DE CONFORMIDADE - EY ILMOITUS - FORSAKRAN OM OVERENSSTAMMELSE - BEKREFTENDE EU ERKLÆRING - ΔΗΛΩΣΗ ΕΚ ΣΥΜΜΟΡΦΩΣΗΣ - EUROPEJSKA DEKLARACJA ZGODNOSCI

1) MANUFACTURER - HERSTELLER - FABRICANT - FABRICANTE - STRUTTORE - CONSTRUCTEUR - PRODUCENT - FABRICANTE - VALMISTAJA - TILLVERKARE - FABRIKANT - Κατασκευαστής - PRODUCENT: Blue Bird Industries Fabbrica Motori s.r.l. Via Due Camini 19, 36030 Zanè (VI) Italia

2) DESCRIPTION OF THE MACHINERY - BESCHREIBUNG DER MASCHINE - DESCRIPTION DE LA MACHINE - DESCRIPCION DE LA MAQUINARIA - DESCRIZIONE DELLA MACCHINA - BESCHRIJVING VAN DE MACHINE - BESKRIVELSE AF MASKINEN - DESCRIÇÃO DA MAQUINA - KONEEN NIMITYS - MATERIELSLAG - BESKRIVELSE AV MASKINERIT - ΠΕΡΙΓΡΑΦΗ ΤΩΝ ΜΗΧΑΝΩΝ - OPIS MASZYN: POTATORE A BATTERIA - BATTERY PRUNER

a) MAKE - FABRIKAT - MARQUE - MARCA - MARCA - MERK - MÆRKE - MARCA - MERKKI - FABRIKAT - FABRIKANT - MAPKA - MARKA:

BLUE BIRD

b) TYPE / TYP / TYPE / TIPO / TIPO / TYPE / TYPE / TIPO / MALLI / TYPBE / TYPE / ΤΥΠΟΣ / TYP:

CS 22-04

2000/14/EC (2005/88/EC) - Livelli di potenza sonora come da allegato V - Sound Power Levels performed per annex V	
TIPO	Livelli di Potenza Sonora Misurata / Livelli di Potenza Sonora Garantita LWA Sound Power Levels Measured / Sound Power Level Guaranteed LWA (dB)
CS 22-04	90/99

c) Il prodotto è conforme alle direttive - The product complies with the directives - Das Produkt entspricht den Richtlinien - Le produit est conforme aux directives - El producto cumple con las directivas:

- 2006/42/EC - 2014/30/EU - 2000/14/EC (2005/88/EC) - 2011/65/EU

d) Il controllo CE del campione di costruzione secondo la direttiva 2006/42/CE, Art 12.3(b) è stato eseguito presso:

The EC type examination test was carried out pursuant to Directive 2006/42/EC, Art 12.3(b) at:

Die EG-Baumusterprüfung nach Richtlinie 2006/42/EG, Art. 12.3(b) wurde durchgeführt bei:

L'examen CE de type conformément à la directive 2006/42/CE Art. 12.3(b) a été effectué par l'office de contrôle:

La prueba de examen CE de tipo se llevó a cabo de conformidad con la Directiva 2006/42 / CE, Art.12.3 (b) en:

- TÜV SÜD Product Service GmbH at Ridlerstraße 65, 80339 Munich, Germany No.0123 - Certificate No. M6A 105425 0021 Rev. 00

e) REFERENCE TO STANDARDS/HARMONIZED STANDARDS - VERWEIS AUF NORMEN/HARMONISIERTE NORMEN - REFERENCE AUX NORMES/NORMES HARMONISEES - REFERENCIA A ESTANDARES/ESTANDARES ARMONIZADOS - RIFERIMENTO ALLE NORME/NORME ARMONIZZATE - REFERENTIE NAAR STANDAARDEN/GEHARMONISEERDE STANDAARDEN - REFERENCE TIL STANDARDER/HARMONISEREDE STANDARDER - REFERENCIA AS NORMAS/NORMAS HARMONIZADAS - VITTAUS STANDARDEIHIN/YHTEISIIN STANDARDEIHIN - REFERERANDE TILL STANDARDER/HARMONISERADE STANDARDER - HENVISNING TIL STANDARD/FELLES STANDARD - ΑΝΑΦΟΡΑ ΣΤΑ ΠΡΟΤΥΠΑ/ΕΝΑΡΜΟΝΙΣΜΕΝΑ ΠΡΟΤΥΠΑ - ODNIESIENIE DO NORM/NORM ZHARMONIZOWANYCH:

UNI EN ISO 12100:2010

EN 62841-1:2014 + C1:2014

EN ISO 11681-2:2011/A1:2017

e) Il caricabatterie (mod. KH24-1261900-B) è stato fabbricato e distribuito in conformità con le seguenti direttive: 2014/35/EU, 2014/30/EU e 2011/65/EU

The charger (mod. KH24-1261900-B) has been manufactured and put on the market in accordance with the following directives: 2014/35/EU, 2014/30/EU and 2011/65/EU

Das Ladegerät (mod. KH24-1261900-B) wurde gemäß den folgenden Richtlinien hergestellt und vertrieben: 2014/35/EU, 2014/30/EU e 2011/65/EU

Le chargeur (mod. KH24-1261900-B) a été fabriqué et distribué conformément aux directives suivantes: 2014/35/EU, 2014/30/EU e 2011/65/EU

El cargador (mod. KH24-1261900-B) fue fabricado y distribuido de acuerdo con las siguientes directivas: 2014/35/EU, 2014/30/EU e 2011/65/EU

Importato da - Imported by - Eingeführt von - Importé par - Importado por:



BLUE BIRD INDUSTRIES - FABBRICA MOTORI s.r.l.

ZANÈ (VI) - ITALIA

01-12-2020

The chairman - Der vorsitzender - Le président - El presidente - Il presidente - De voorzitter - Daglig leder - O presidente - Toimitusjohtaja - Verkställande direktör - Administrerende direktør - Ο ΠΡΟΕΔΡΟΣ - Prezes

VANDA VITELLA

(GB) Technical documentation maintained by
(F) Documentation technique maintenue par
(I) Documentazione tecnica conservata da
(DK) Teknisk dokumentation tilhåndhalden af
(FI) Teknisten asiakirjojen ylläpitäjä
(NO) Teknisk dokumentasjon vedlikeholdt av

(D) Technische Dokumentation aktualisiert durch
(E) Documentacion tecnica mantenida por
(NL) Technische documentatie onderhouden door
(P) Documentação tecnica mantida por
(SE) Teknisk dokumentation tilhåndhalden av
(GR) τεχνικό φάκελο που τηρείται από

BLUE BIRD INDUSTRIES - FABBRICA MOTORI s.r.l.

VANDA VITELLA



BLUE BIRD INDUSTRIES Fabbrica Motori s.r.l.

Via Due Camini, 19
36010 ZANÉ ITALIA

Tel. 0445 314138

Fax 0445 314225

www.bluebirdind.com