



**BLUEBIRD
INDUSTRIES**

SHL 1500 CHIPPER

Operator's Manual



FOR YOUR SAFETY

READ AND UNDERSTAND THE MANUAL BEFORE USING THE MACHINE

Your new chipper offers quality construction and is easy and safe to use. With proper use and care, it is designed to provide you with many years of reliable service.

Get ready to experience durability to tackle any job with the ease, portability, and practicality of your new chipper!

Maximum performance, maximum value, and maximum support!

- Backed by decades of proven manufacturing experience
- Advanced design features
- Designed for the best experience
- Uses quality metal parts instead of plastic
- Warranty that covers all products
- Affordable price makes it practical

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***Read the entire manual carefully of the operator before using the new unit.
Pay attention to all precautions and warnings.***

This machine is a gasoline-powered chipper. It is designed to cut wood into chips. It offers solid quality steel construction and is easy and safe to use. With proper use and care, it will give you many years of reliable service.

ENGINE MANUAL

The engine manufacturer is responsible for all matters relating to the engine regarding performance, power, specifications, warranty, and service. For further information, refer to the engine manufacturer's owner/operator manual, provided separately with the unit.

EMISSIONS CONTROL SYSTEM

This equipment and/or its engine may include exhaust and evaporative emissions control system components required to meet environmental protection regulations. Tampering with emissions controls and components by unauthorized personnel may result in heavy fines or penalties. Emissions controls and components may only be serviced by the engine manufacturer's authorized service center.

ENVIRONMENTAL



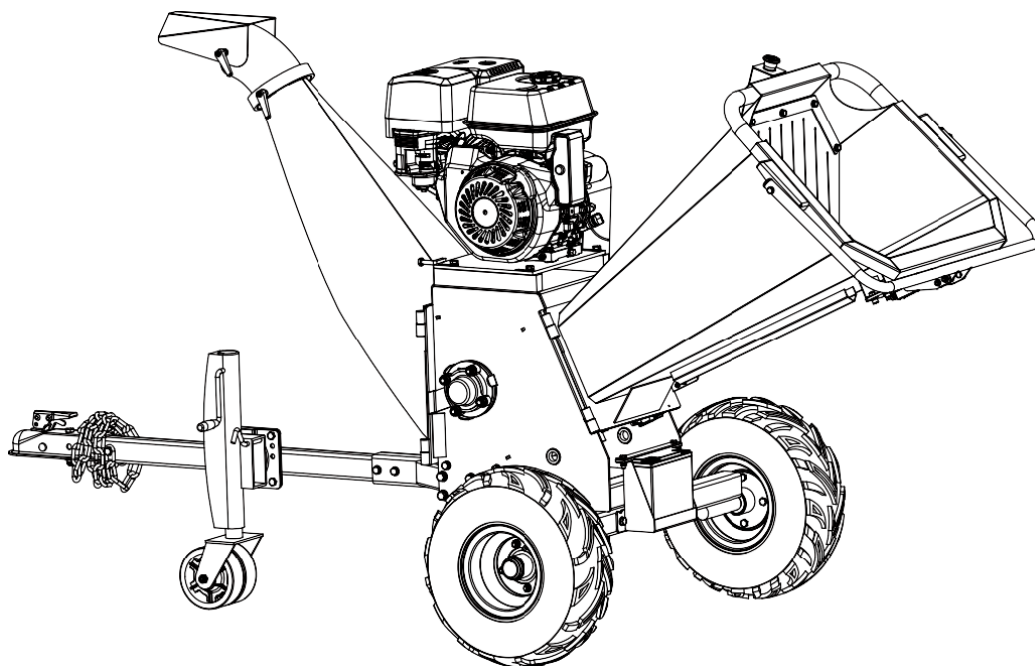
Recycle unwanted materials instead of disposing of them as waste. All tools, hoses, and packaging must be used, taken to the local recycling center, and disposed of in an environmentally safe manner.

MODEL AND SERIAL NUMBERS

Record the model and serial number, as well as the date and place of purchase for future reference. Keep this information handy when ordering parts or optional accessories and when making technical or warranty inquiries.
or warranty.

DECLARATION

The company reserves the right to discontinue, modify, and improve its products at any time without notice or obligation to the purchaser. The descriptions and specifications contained in this manual were in effect at the time of printing. The equipment described in this manual may be optional. Some illustrations may not apply to your machine.



SYMBOLS

The label on the machine may have symbols. These represent important product information or instructions for its use.



Read the operating instructions carefully



Wear protective goggles.
Wear hearing protection



Wear protective gloves



Wear protective boots.



Do not remove or tamper with the
protective and safety devices.



Do not touch parts that are hot from
operation. Severe burns may occur.



No smoking, no sparks, no flames.



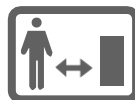
Keep hands and feet away from moving
parts



Flying objects.



Ensure the engine switch is off before
transporting the machine or performing any
maintenance



Keep bystanders away.

TECHNICAL SPECIFICATIONS

Model	SHL 1500
Engine	Loncin G420FD
Displacement	420cc
Power	15hp (9.1kw)
Maximum Chipping Diameter	6" / 150 mm
Weight	255kg
Length	2700mm
Width	1218mm
Height	1424mm
Blade Material	A8
Starting	Electric start; 12V 20Ah battery
Discharge deflector	Adjustable 360 degrees
Trailer	Tow hitch; Dual wheels
Wheel	19x7.00-8 tubeless
Roller diameter	350mm
Transmission	Kevlar belt, Centrifugal clutch
Packaging size	1100*770*1230mm
Gross weight	285kg

SAFETY

GENERAL SAFETY RULES

KNOW YOUR MACHINE

Read this manual and the labels affixed to the machine to understand its limitations and potential hazards.

Be thoroughly familiar with the controls and their proper operation. Know how to stop the machine and quickly disengage the controls.

Be sure to read and understand all instructions and safety precautions as outlined in the engine manufacturer's manual provided separately with the unit. Do not attempt to operate the machine until you fully understand how to properly use and maintain the engine and how to avoid accidental injury and/or property damage.

If the unit is to be used by someone other than the original purchaser, or is loaned, rented, or sold, always provide this manual and any necessary safety training before operation. The user can prevent and is responsible for accidents or injuries that may occur to themselves, others, and property.

Do not force the machine. Use the machine for its intended application. The machine will perform the job more efficiently and safely at the speed for which it was designed.

PERSONAL SAFETY

Do not allow children to use this machine at any time.

Keep children, pets, and other people not using the unit away from the work area. Be alert and turn off the unit if anyone enters the work area. Keep children under the close supervision of a responsible adult.

Do not operate the machine under the influence of drugs, alcohol, or any medication that may affect your ability to use it properly.

Dress appropriately. Wear heavy long pants, boots, and gloves. Do not wear loose clothing, shorts, or any kind of jewelry. Tie back long hair so that it is above shoulder level. Keep hair, clothing, and gloves away from moving parts. Loose clothing, jewelry, or long hair can get caught in moving parts.

Protect your eyes, face, and head from objects that may be thrown by the unit. Always wear safety glasses or safety goggles with side shields while operating.

Wear appropriate hearing protection.

Always keep hands and feet away from all moving parts during operation. Moving parts can cut or crush body parts.

Always keep hands and feet away from all pinch points.

Do not touch parts that may be hot from operation. Allow parts to cool before performing maintenance or adjustments.

Be careful, pay attention to what you are doing, and use common sense when operating the machine.

Do not overdo it. Do not use the machine barefoot or when wearing sandals or similar light footwear. Wear protective footwear that will protect your feet and improve your footing on slippery surfaces. Always maintain your balance. This allows for better control of the machine in unexpected situations.

INSPECT THE MACHINE

Check the machine before starting it. Keep guards in place and functioning. Make sure all nuts, bolts, etc., are securely tightened.

Never use the machine when it needs repairs or is in poor mechanical condition. Replace damaged, missing, or faulty parts before using it. Check for fuel leaks. Keep the machine in safe working condition.

Do not use the machine if the engine switch does not turn it on or off. Any gasoline-powered machine that cannot be controlled with the engine switch is dangerous and must be replaced.

Regularly check that wrenches and adjustment keys are removed from the machine area before starting it. A wrench or key left attached to a rotating part of the machine can cause personal injury.

Avoid accidental starting. Make sure the engine switch is off before transporting the machine or performing any maintenance or service on the unit. Transporting or performing maintenance or service on a machine with its switch on causes accidents.

If the machine begins to vibrate abnormally, stop the engine and check the cause immediately. Vibrations are generally a warning sign of problems.

ENGINE SAFETY

This machine is equipped with an internal combustion engine. Do not use on or near unimproved land, forested areas, or grassy terrain unless the exhaust system is equipped with a spark arrester that complies with applicable local, state, or federal laws.

In the state of California, a spark arrester is required by law. Other states have similar laws. A spark arrester, if used, must be maintained in effective working condition by the operator.

Never start or run the engine inside a closed area. Exhaust gases are hazardous, containing carbon monoxide, an odorless and deadly gas. Use this unit only in a well-ventilated outdoor area.

Do not tamper with the engine to make it run at excessive speeds. The maximum engine speed is preset by the manufacturer and is within safety limits. See engine manual.

Keep a Class B fire extinguisher handy when using this machine in dry areas as a precaution.

FUEL SAFETY

Fuel is highly flammable and its vapors can explode if ignited. Take precautions when using it to reduce the possibility of serious personal injury.

When filling or draining the fuel tank, use an approved fuel storage container while in a clean, well-ventilated outdoor area. Do not smoke or allow sparks, open flames, or other sources of ignition near the area while adding fuel or operating the unit. Never fill the fuel tank indoors.

Keep grounded conductive objects, such as tools, away from exposed and live electrical parts and connections to avoid sparks or arcs. These events could ignite fumes or vapors.

Always stop the engine and let it cool before filling the fuel tank. Never remove the cap from the fuel tank or add fuel while the engine is running or when the engine is hot. Do not operate the machine with known leaks in the fuel system.

Loosen the fuel tank cap slowly to relieve pressure in the tank.

Never overfill the fuel tank. Fill the tank no more than 1.5 cm (1/2") below the bottom of the filler neck to allow space as engine heat may cause fuel expansion.

Replace the fuel tank and container caps and clean up any spilled fuel. Never operate the unit without the fuel cap securely in place.

Avoid creating an ignition source for the fuel spilled. In case of fuel spillage, do not attempt to start the engine, but move the machine away from the area of the spill and avoid creating any ignition source until the fuel vapors have dissipated.

If fuel is spilled on yourself or your clothing, wash your skin and change clothes immediately.

Store fuel in containers specifically designed and approved for this purpose.

Store fuel in a cool, well-ventilated area, safely away from sparks, open flames, or other sources of ignition.

Never store fuel or a machine with fuel in the tank inside a building where fumes could reach a spark, open flame, or any other source of ignition, such as a water heater, furnace, or dryer. Allow the engine to cool before storing it in any enclosure.

SPECIFIC SAFETY RULES

Identify hazards and take preventive measures to avoid accidents and minimize risks. Possible hazards include, but are not limited to, moving parts, thrown objects, weight of the machine and components, and the operating environment.

BEFORE STARTING THE MACHINE

Thoroughly inspect the area where you are working, keeping it clean and free of debris to prevent tripping. Operate on level ground.

Before starting the chipper: make sure the feed hopper and cutting housing are empty and free of debris, check the oil level, ensure all nuts and bolts are tight, and check the air pressure in the tires.

OPERATING SAFETY

Never place any part of your body where it could be in danger if movement occurs during assembly, installation, operation, maintenance, repair, or moving.

Keep all bystanders and pets at least 15 meters away. If someone approaches, immediately stop the unit.

Never place your hands, feet, or any part of your body in the chipper hopper, discharge opening, or near or under any moving part while the machine is operating. Keep the discharge area clear of people, animals, buildings, glass, or anything else that could obstruct discharge, causing injury or damage. Wind can also change the discharge direction, so be aware. If it becomes necessary to push materials into the chipper hopper, use a small-diameter stick, not your hands.

Keep your face and body away from the hopper and the discharge deflector to avoid injury from accidental rebound of material.

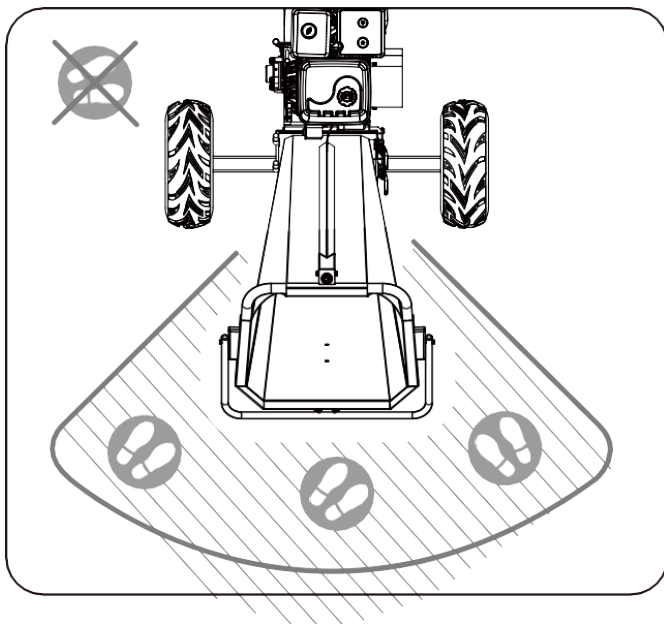
Never reach your hands inside the feed hopper beyond the rubber flap while the machine is operating.

Keep combustible substances away from the engine when it is hot.

Do not tilt the machine while the engine is running

Never use this machine without the feed hopper or the discharge deflector properly secured.

WORK AREA



FEEDING MATERIALS

Only feed clean materials into the machine. Foreign objects such as soil, sand, stones, metal pieces, etc. will damage the sharp edge of the cutting knives. Roots and dead wood also quickly dull the blades.

Avoid feeding pine needles, flax leaves, and cabbage into the machine; these fibrous materials can wrap around the rotor shaft and reach the bearing.

Avoid feeding short, stubby pieces of wood into the machine; they tend to bounce and spin in the hopper. Feed these short pieces together with longer ones. After becoming familiar with the machine, prune to match its capabilities.

This machine is self-feeding; do not force branches into the blades. Allow the machine to feed automatically. Allow the machine time to reach full speed before feeding the next load of branches.

CLEARING BLOCKAGES

Never allow processed material to accumulate in the discharge area. This can prevent proper discharge and cause kickbacks from the chipper hopper.

Never attempt to clear the hopper or discharge deflector while the engine is running. Turn off the engine immediately, allow the cutting disc to come to a complete stop, then remove the clogged material. Inspect for damage and check for any loose parts for repair or replacement.

Whenever you leave the operating position or if it is necessary to remove processed material, leaves, or debris from the machine. Always turn off the engine and ensure that the engine is off to prevent accidental starts and wait for all moving parts to stop completely.

Before opening the cutting disc housing, always ensure that the engine is off, the cutting disc is stopped, and the drive is disengaged.

MOVING

Move the machine at least 3 meters away from the refueling point before starting the engine.

This chipper is only towable by hand. Never attempt to tow the machine on public roads, streets, or highways.

Always stop the engine before moving the machine and watch out for sharp objects that could puncture the tires.

MACHINE USE AND CARE

Position the machine so that it cannot move during maintenance, cleaning, adjustment, assembly of accessories or spare parts, or while in storage.

Do not force the machine. Use the machine for its intended application. The machine will perform better and more safely at the speed for which it was designed.

Do not alter the engine governor settings or run the engine at excessive speed. The governor controls the engine's maximum safe operating speed.

Do not run the engine at high speed when not working.

Do not put hands or feet near rotating parts.

This machine has two rotating cutting knives capable of amputating hands and feet and throwing objects. Keep hands and feet Out of the openings while the machine is operating. Failure to follow these safety instructions could result in serious injury or death.

Avoid contact with hot fuels, oil, exhaust gases, and hot surfaces. Do not touch the engine or the muffler. These parts become extremely hot during operation. They remain hot for a short period after shutting off the unit. Allow the engine to cool before performing maintenance or making adjustments.

If the machine begins to make a noise or a unusual vibration, immediately turn off the engine, disconnect the spark plug wire, and check the cause. Unusual noise or vibration is generally a warning of problems.

Use only accessories approved by the manufacturer. otherwise, personal injury may occur.

Keep the engine and muffler free from grass, leaves, excessive grease, or carbon buildup to reduce the risk of fire.

Never wet or spray the unit with water or other liquids. Keep the handles dry, clean, and free of debris. Clean after each use.

Observe proper disposal laws and regulations for gas, oil, etc. to protect the environment.

Store the machine out of the reach of children and do not allow persons unfamiliar with the machine or these instructions to operate it. This machine can be dangerous if used by an untrained operator.

MACHINE MAINTENANCE

Some parts of this machine are made of plastic or rubber and must be kept away from chemicals.

Never cover the machine while the muffler is still hot. Do not alter or adjust any part of the chipper or its engine that is sealed by the manufacturer or distributor. Only a qualified technician can adjust the parts that increase or decrease the engine speed.

To maintain the machine, check for any misalignment or binding of any moving parts. Broken or worn parts that may affect the operation of the machine. If damage or worn parts are identified, they must be repaired before use. Many accidents are caused by poorly maintained equipment.

BOX DISASSEMBLY

Use scissors or a knife to cut and remove the straps. Remove the wooden plate at the top. At least two people lift the package and move it upward. (see Figure 1)

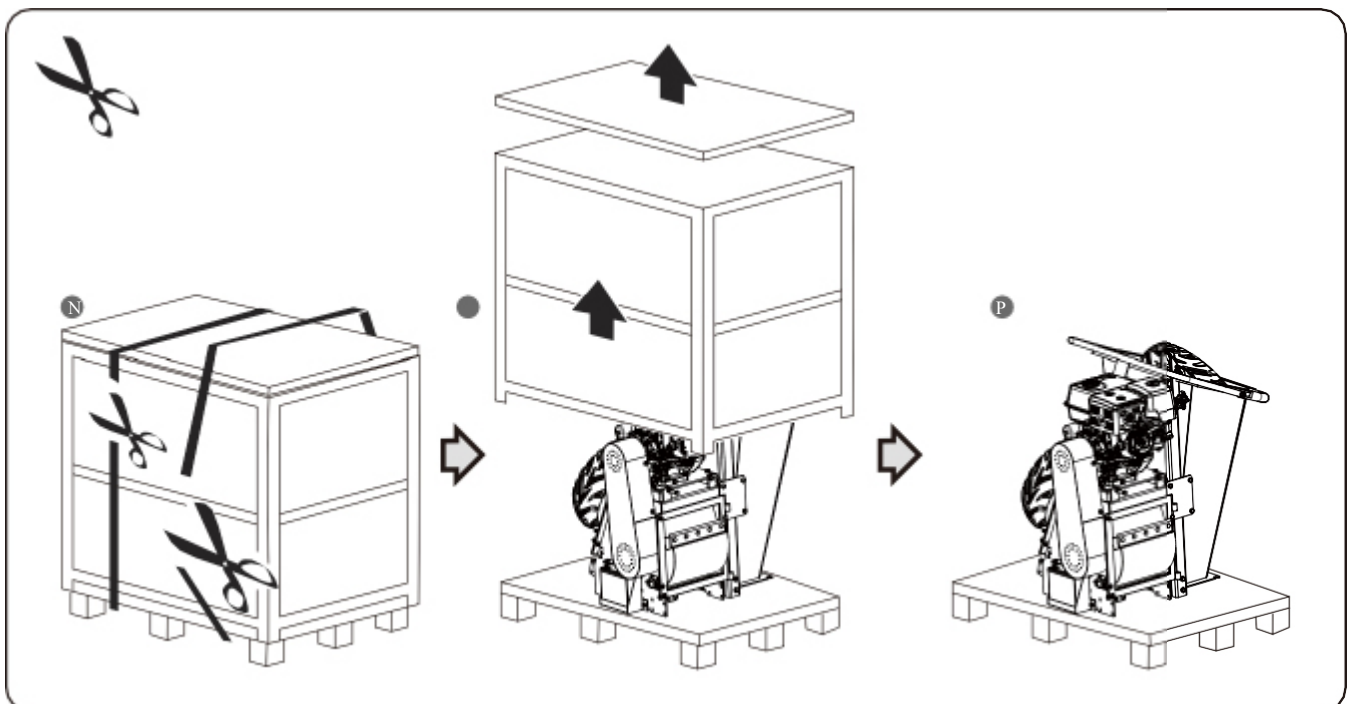
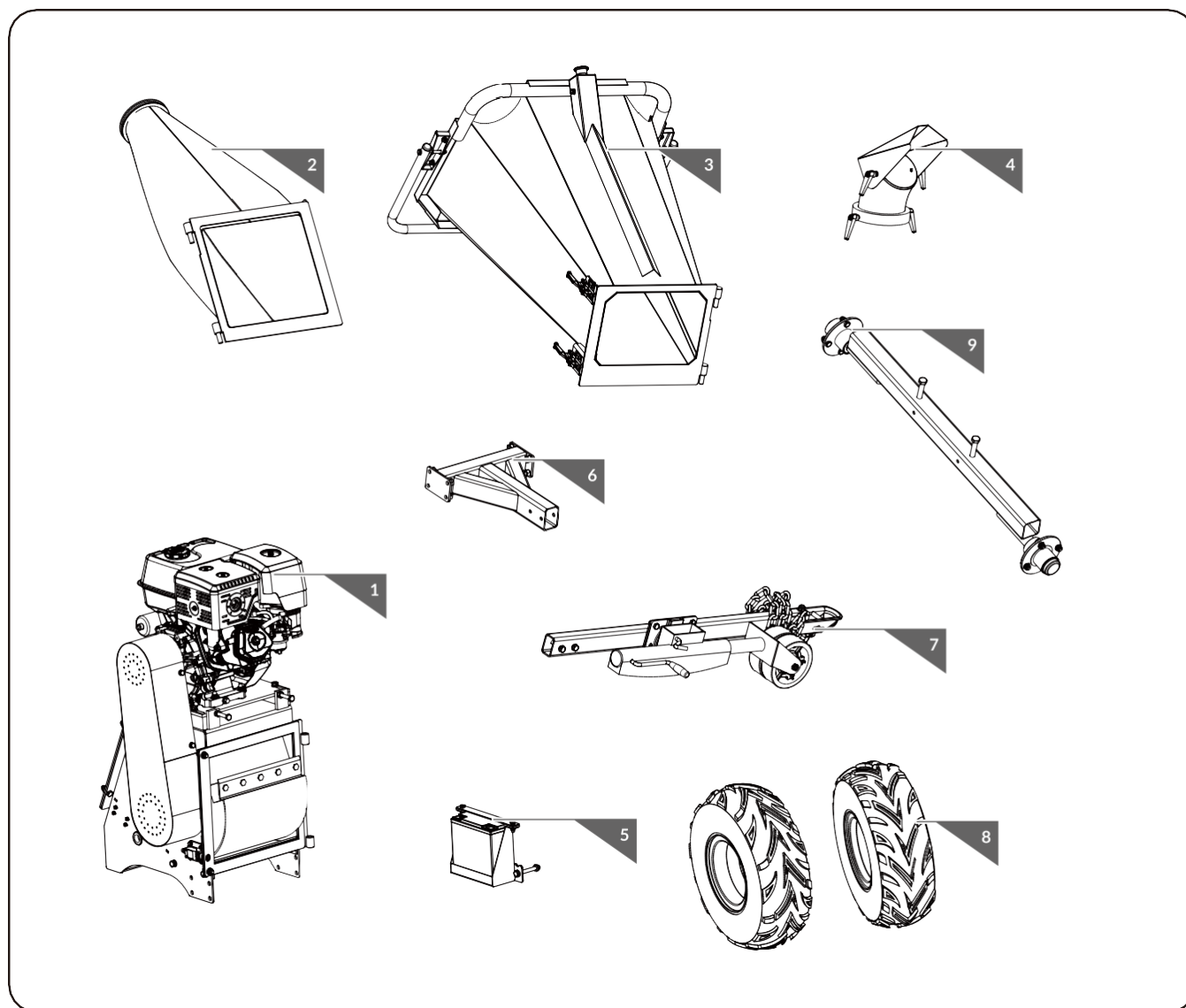


Figura 1

PARTS LIST

Your chipper is supplied partially assembled and contains the following:



1. Engine and drum (Machine body)

2. Lower discharge deflector

3. Loading hopper

4. Upper discharge deflector (360° rotatable)

5. Battery

6. Tow bar support

7. Tow bar and guide wheel

8. Wheels

9. Wheel axle

ASSEMBLY

This chipper is partially assembled; follow the instructions below to assemble it.

Deflector

Loosen the deflector lever counterclockwise to adjust the discharge angle. Tighten it clockwise. (see Figure 2)

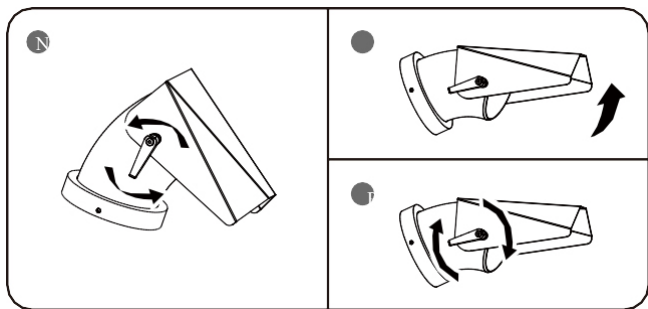


Figura 2

Axle

Attach the wheel axle to the base of the chipper with M14x140 hex bolts, flat washer Ø14, and M14 lock nuts (see Figure 3)

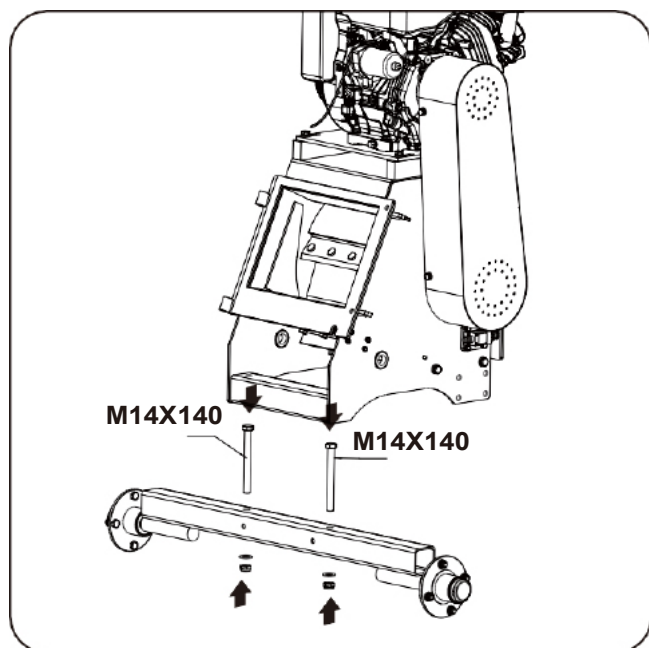


Figura3



M14X140

Wheels

Attach the wheels to the wheel axles with M10x25 hex bolts, M10 lock nuts, and flat washer Ø10 (see Figure 4)

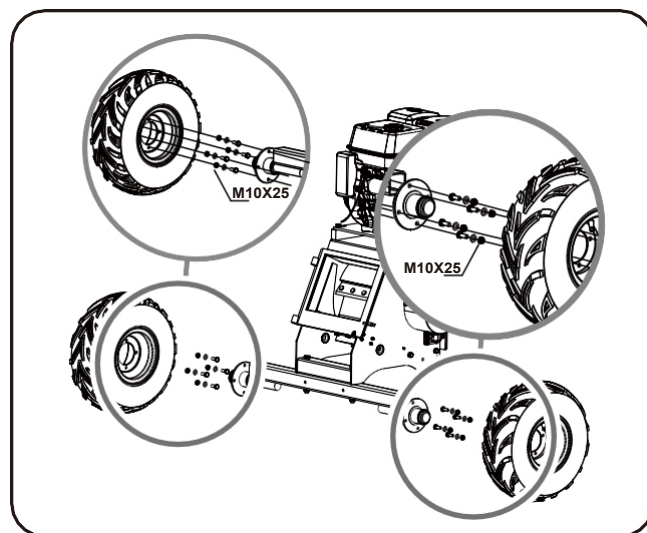


Figura4



M10X25

Tow bar support

Attach the bar support to the frame with M12x35 bolts, spring washer x12, and flat washer x12 (see Figure 5)

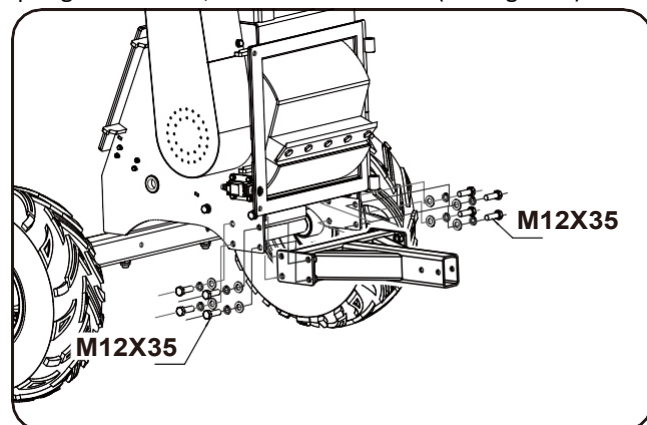


Figura5



M12X35

Tow bar and guide wheel

Attach the tow hook to the tow bar supports with M10x70 hex bolts, M10 lock nuts, and flat washer x10 (see Figure 6)

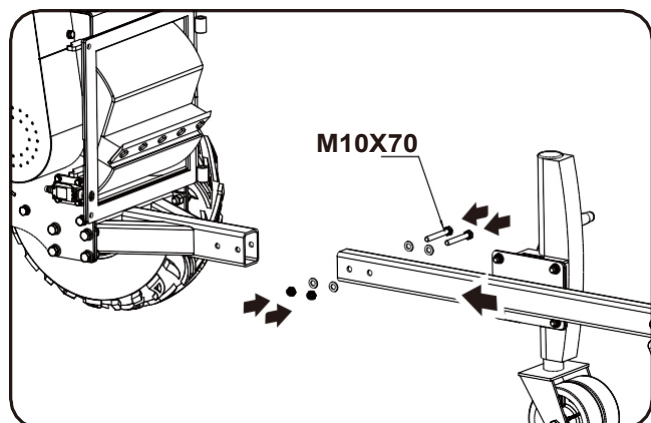


Figura6



M10X70

Lower discharge deflector

Attach the lower discharge deflector to the base of the chipper with two locking latches. (see Figure 7)

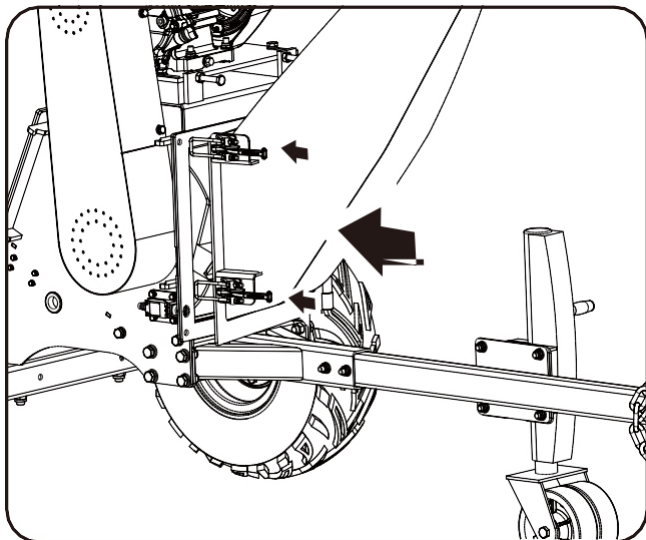


Figura7

Upper discharge deflector

Connect the upper discharge deflector to the lower discharge deflector with the adjustable locking handle. (see Figure 8)

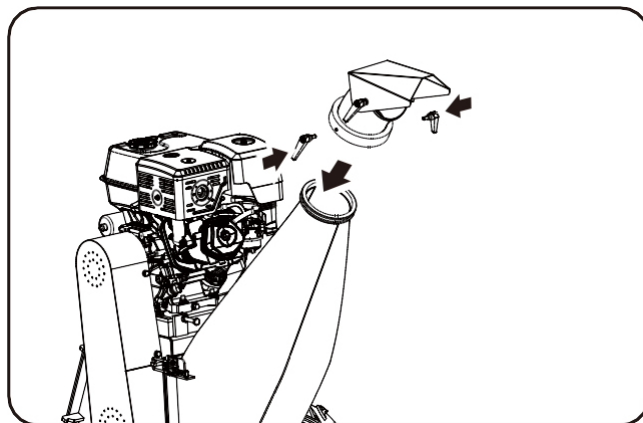


Figura8

Battery

Connect the battery box to the wheel axle with M10x80 hex bolts, M10 lock nuts, and flat washer x10. (see Figure 9)

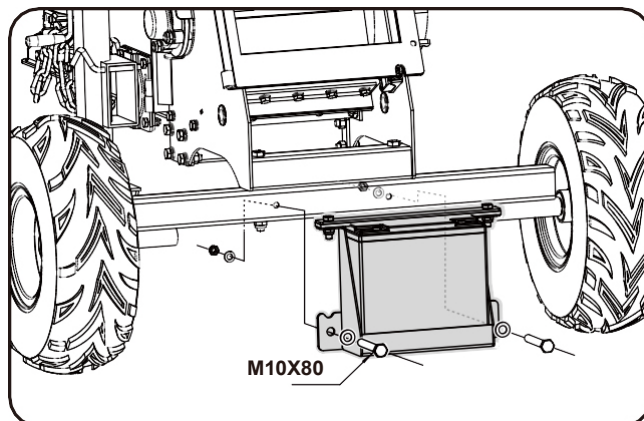


Figura9



M10X80

Loading hopper

Attach the loading hopper to the base with the two locking hooks. (see Figure 10)

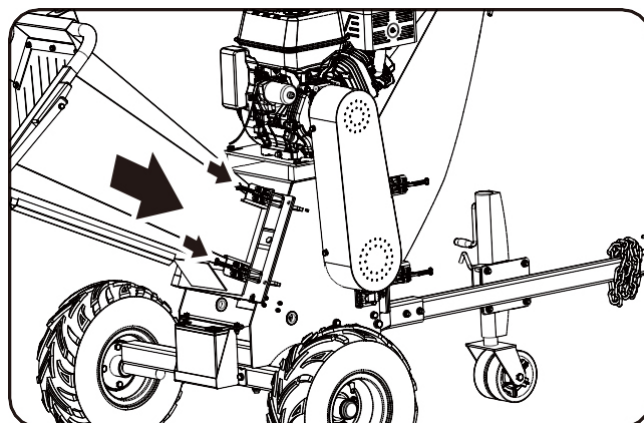
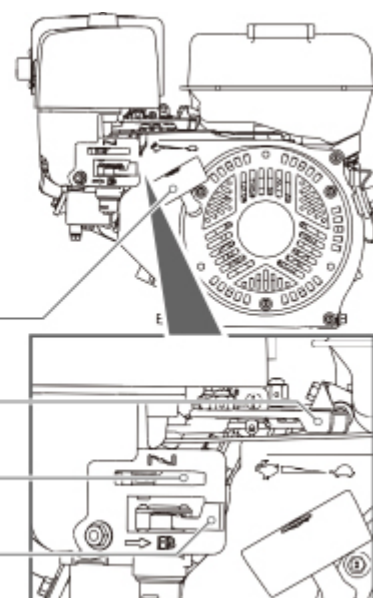
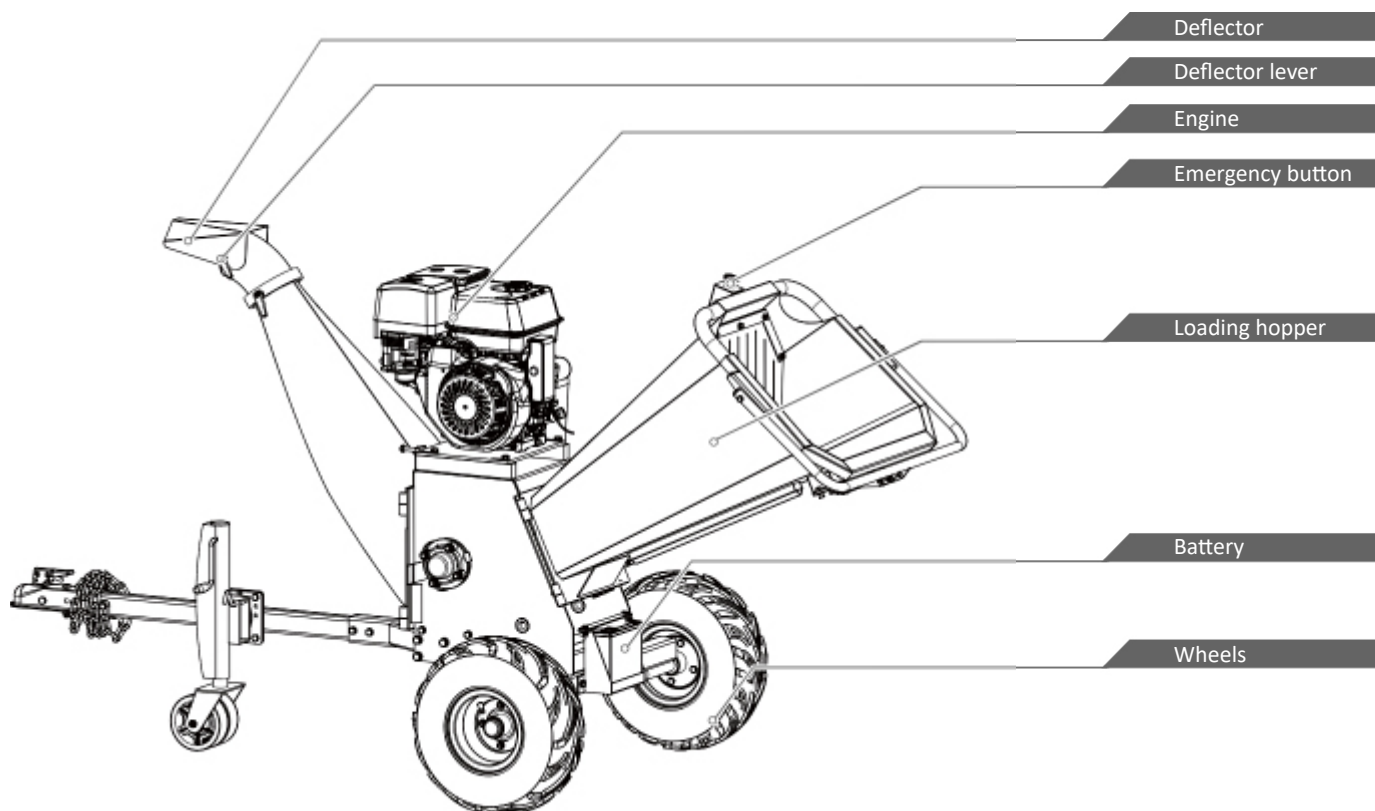


Figura10

KNOW YOUR MACHINE

FEATURES AND CONTROLS



LOADING HOPPER

- The loading hopper is the chute where the materials to be chipped are inserted.

DISCHARGE DEFLECTOR

- The chipped materials are discharged through this opening. The deflector can be connected to the chute.

HANDLES

- The handles are used to move the unit

TRANSPORT WHEELS

- To move the chipper, grasp the handles located at the top of the hopper opening and tilt the machine backward until it is fully resting on the tires

BELT TENSION LEVER

- The belt tension lever is located at the rear. Pull it upward to engage the drive and start the cutting disc. Push it downward to disengage the drive and stop the cutting disc.

DEFLECTOR LEVER

- Loosen the deflector lever counterclockwise to adjust the discharge angle. Turn it clockwise to tighten.

ENGINE ON/OFF BUTTON

- The engine switch has two positions. OFF - the engine is off/turned off. ON - the engine is on/turned on.

STARTER HANDLE

- The handle is used to start the engine.

FUEL SHUT-OFF VALVE

- The fuel valve has two positions.
➤ CLOSED () use this position for servicing, transporting or storing the machine.
➤ OPEN ()- Use this position when operating the machine.

CHOKE LEVER

- The choke lever is used to choke the carburetor and assist in starting the engine. The positions of the choke valve range from LEVER CLOSED  to LEVER OPEN 

THROTTLE CONTROL LEVER

- The throttle control regulates the engine speed and shuts off the engine when moved to the STOP position. The throttle control moves between the FAST , SLOW  and STOP positions.

OPERATIONS



The engine is shipped without oil. Do not start the engine before adding oil.

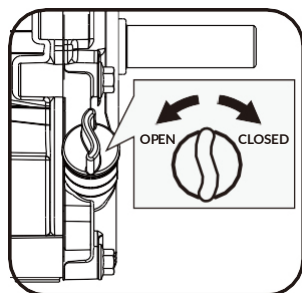


DO NOT OVERFILL. Check the oil level daily and add engine oil if necessary.

ADD OIL TO THE ENGINE

1. Make sure the chipper is on a flat surface.

2. Remove the cap/dipstick to add oil.



3. Using a funnel, add oil up to the FULL mark on the dipstick. (See the engine manual for oil capacity, oil recommendation, and the location of the fill cap.)

ADDING FUEL TO THE ENGINE



Gasoline is highly flammable and explosive. You can be burned or seriously injured while handling fuel. Use extreme caution when handling gasoline.



Fill the fuel tank outdoors, never indoors. Gasoline vapors can ignite if they accumulate inside an enclosure. The explosion can cause.

1. The engine must be turned off and allowed to cool for at least two minutes before adding fuel.

2. Remove the fuel fill cap and fill the tank. (See the engine manual for fuel capacity, fuel recommendation, and the location of the fuel cap.)



IMPORTANT: DO NOT OVERFILL!

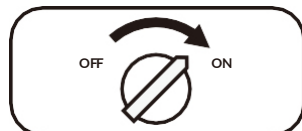
This equipment and/or its engine may include evaporative emission control system components required to meet EPA and/or CARB regulations, which will function properly only when the fuel tank is filled to the recommended level. Overfilling can cause permanent damage to the components of the evaporative emission control system. Filling to the recommended level ensures the necessary vapor space to allow for fuel expansion. Pay close attention when filling the fuel tank to ensure that the fuel level recommended inside the tank is not exceeded. Use a portable gasoline container with a properly sized dispensing spout when filling the tank. Do not use a funnel or any other device that obstructs the view of the tank filling process.

3. Reinstall the fuel cap and tighten. Always clean up spilled fuel

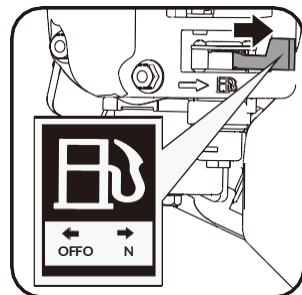
START THE ENGINE

1. Make sure the belt tension lever is disengaged.

2. Turn the switch to the ON position.

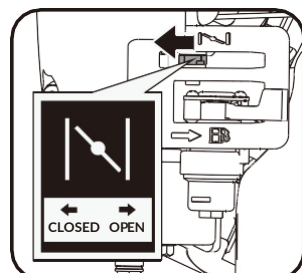


3. Open the fuel shut-off valve.

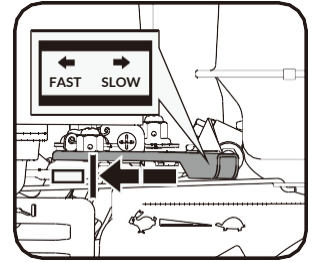


4. Turn the choke lever to the CLOSED position.

If the engine is warm,
closing the choke is
not necessary



5. Move the throttle lever to FAST.



6. Pull the starter until engine compression becomes hard to pull. Allow the recoil to return to the starting position, then pull quickly to start the engine. Repeat the steps as needed. Fully open the choke lever and set the throttle to the FAST position before operating the unit.



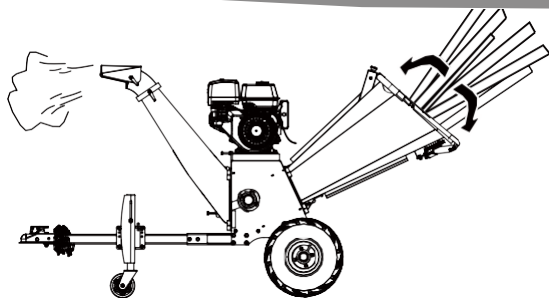
Rapid retraction of the starter cord (kickback) will pull your hand and arm toward the engine faster than you can let go. It may cause broken bones, fractures, bruises, or sprains.

OPERATIONS

After the engine has warmed up, pull the throttle lever to increase the engine speed.

As the engine is slowly increased to maximum speed, gradually and slowly pull the belt tension lever until it engages the transmission. This must be done slowly to allow the cutting disc to gain speed, otherwise the engine will stall due to high inertia.

The chipper can process a wide variety of dry or green organic materials such as branches, stems, vines, leaves, roots, and plant matter. The maximum capacity is branches of 7.5 cm (3") in diameter; this may vary depending on the type and hardness of the wood. Rotating the branch as you feed it into the machine will improve performance.



Insert branches with the cut end first, leaving the bushy head. This helps guide the branch along the loading hopper and reduces rotation and bouncing of small pieces. Some side branches may require pre-cutting so that the branch self-feeds more efficiently.

It is always advisable to process freshly cut materials, as wood branches become very hard and springy once dried and can dull the knives more quickly.

While operating the machine, keep a wooden stick handy, about 2 cm in diameter and 60 cm long. This stick will be useful for pushing in short, brushy, and very leafy materials and for keeping the loading hopper clear.

Do not force material into the machine. If the material is not being shredded properly, the knives may need to be sharpened or replaced, or the gap between the knives and the wear plate may need to be adjusted.

Do not overload the machine by feeding too much material into the feed hopper at once. If you hear the engine speed decrease, immediately stop feeding material into the machine. Do not resume feeding material into the machine until the engine has returned to full speed.

The chipper can become clogged with soft, wet, or fibrous materials. However, if soft materials are fed intermittently with branches, there should be no problems, as the chipper tends to clear any residue left in the machine.

If stringy material wraps around the rotor shaft, remove it before it works its way into the bearing.

If the chipper jams due to overload or clogging, turn off the engine power switch and wait until the cutting disc is completely stopped and the transmission is disengaged. Allow the engine to cool completely and turn off the engine. Open the housing cover to remove all materials from the housing. Lock the housing cover, move the engine to the ON position, and restart the machine to resume operation.

As the discharge material builds up, move the chipper away from the pile. This will prevent material from building up in the discharge deflector. Do not position the deflector vertically, as this would reduce airflow, prevent discharge, and cause blockage.



Make sure the machine is level and stable to avoid unnecessary vibrations.



Do not operate on concrete or other hard surfaces.



Do not open the housing cover unless the engine and the cutting disc are completely stopped and the transmission is disengaged.



The engine is equipped with an oil alert and will not start if the oil level in the sump is too low. It may also stop if used on a steep slope.



To turn off the machine, move the throttle control lever to idle, turn the engine switch to OFF, and it will gradually stop.

IDLE SPEED

Set the throttle control lever to the SLOW position to reduce stress on the engine when chipping is not being performed. Lowering the engine speed will help extend the engine's life, as well as save fuel and reduce noise levels.

ENGINE SHUTDOWN

To stop the engine in an emergency, simply turn the engine switch to the OFF position. Under normal conditions, use the following procedure:

1. Move the throttle lever to the SLOW position (→).
2. Let the engine idle for one or two minutes.
3. Turn the engine switch to the OFF position.
4. Turn the fuel valve to the OFF position (→).



Sudden stopping at high speed under heavy load is not recommended. Engine damage may occur.



Do not move the choke lever to CLOSE to stop the engine. Backfire or engine damage may occur.

Wait until the machine comes to a complete stop. Allow the engine to cool completely. Remove the engine spark plug. Then clean the inside of the machine and its discharge chute.



Do not disengage the drive while the machine is running. This will cause friction and vibration on the belt drive.

TRANSPORT

The chipper is equipped with two large pneumatic wheels for easy manual movement. To move the unit, grasp the handles and slightly tilt the chipper after ensuring that the oil tank cap is tightened.

MAINTENANCE

Proper maintenance of the chipper will ensure a long service life for the machine and its components.

PREVENTIVE MAINTENANCE

1. Turn off the engine. The engine must be cold.
2. Keep the engine throttle lever in the SLOW position and remove the spark plug wire from the spark plug.
3. Inspect the general condition of the chipper. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, and any other condition that may affect its safe operation.
4. Remove all debris from the machine using a soft brush, vacuum, or compressed air. Then use a high-quality light machine oil to lubricate all moving parts.
5. Replace the spark plug wire.



Never use a pressure washer to clean the wood chipper. Water can penetrate into confined areas of the unit and cause damage to spindles, pulleys, bearings, or the engine.



Turn off the engine, wait until all moving parts have come to a complete stop, remove the spark plug wire, then wait five minutes before performing maintenance on the chipper.

REGULAR MAINTENANCE CHECKLIST



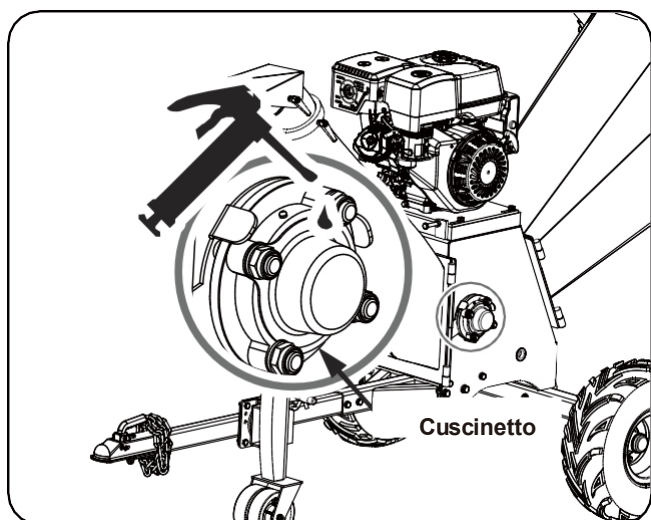
The indicated maintenance intervals are maximums under normal operating conditions. Increase the frequency in extremely dirty or dusty conditions.

Procedure	Before each use	Every 8-10 hours	Every 40 hours
Check the engine oil level	X		
Check the general condition of the equipment	X		
Check that the cutting disc rotates freely (only with a long stick)	X		
Visually inspect the knife for damage	X		
Check the sharpness of the knife and the wear plate		X	
Check the fastening screws of the knife and the wear plate		X	
Check for any loose nuts and bolts		X	
Check the knife for wear at the plate gap		X	
Check the tension and condition of the belt	First time, 1 hour	X	
Check the tire pressure			X
Change the engine oil	First time, 5 hours		X
Inspect or replace the drive belt			X
Inspect or replace the spark plug			X
Inspect or replace the air filter and pre-filter			X

There are two bearings, one external and the other internal to the housing. The bearings are greased when new, but it is recommended to grease them after a couple of hours of use. One or two pumps are sufficient. Be careful not to over-grease. Excessive lubrication can damage the bearings.

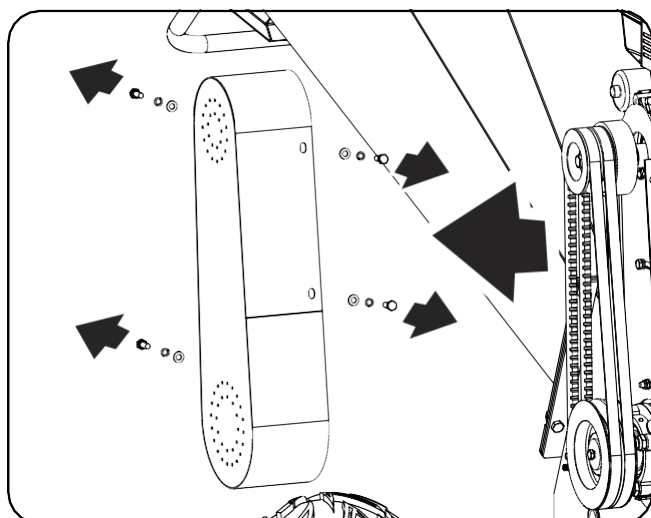
Grease the external bearing

1. Open the oil cap.
2. Grease the external bearing through the filling hole.
3. Close the oil cap

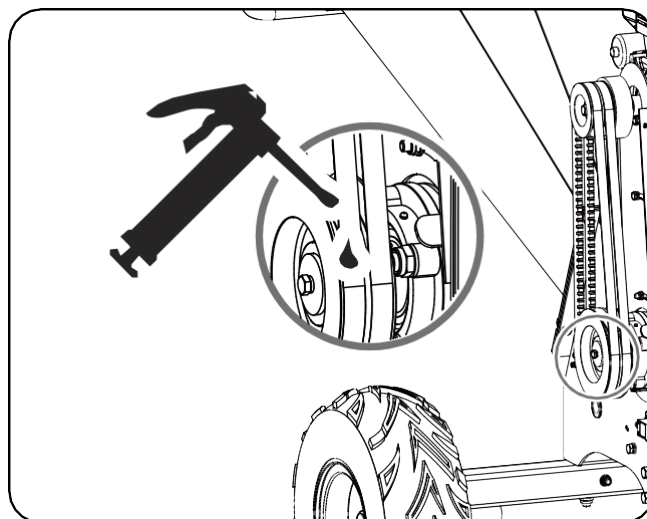


Grease the internal bearing

1. Loosen the lock nut that holds the discharge deflector on the machine.
2. Slide the mounting plate under the lock nut.



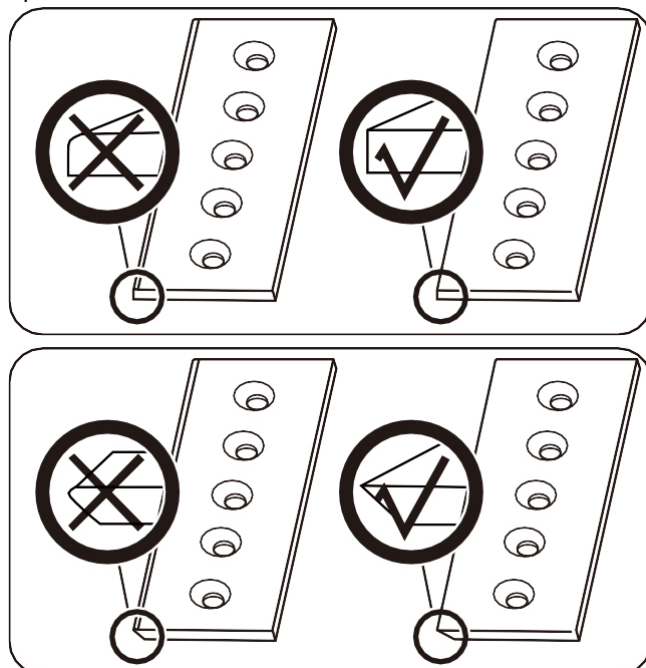
3. Open, then grease the internal bearing



If the machine's cutting disc strikes a foreign object or if the machine starts making an unusual noise or vibrates excessively, immediately turn off the engine. Allow the cutting disc to come to a stop completely. Turn off the engine to prevent any accidental start-up. Then perform the following steps:
Inspect for damage.
Repair or replace damaged parts.
Check for any loose parts and tighten to ensure continuous and safe operation.

INSPECTION OF KNIVES AND WEAR PLATES

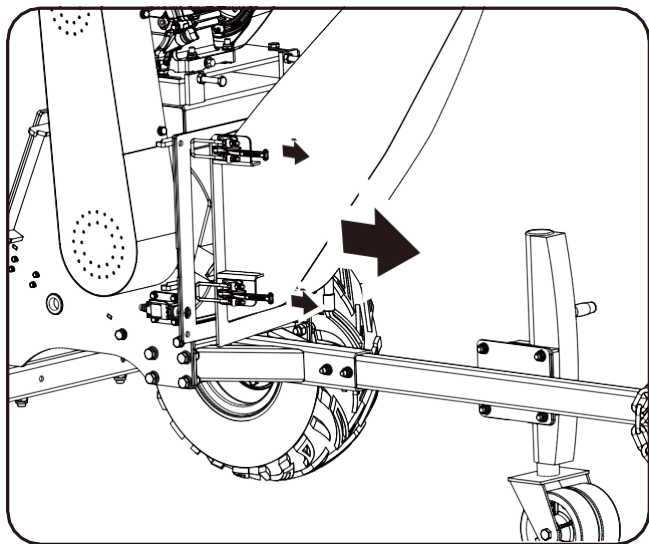
Inspecting the knives for sharpness and the wear plate for a sharp edge will ensure the chipper operates at maximum efficiency. Using dull knives or a rounded wear plate will reduce performance and cause excessive vibrations that will damage the machine and make chipping difficult for the operator.



REMOVAL AND REPLACEMENT OF KNIVES

This chipper is equipped with two knives mounted on the cutting disc. When the knives become dull or show visible scratches, the machine will lose its self-feeding action and the material will have to be pushed in. It often comes out in long strips. Replace the knives by following the steps.

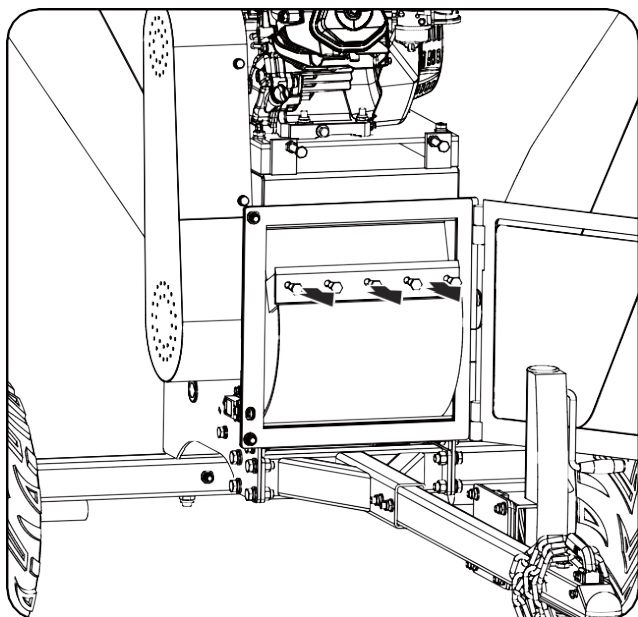
1. Remove the hopper.



2. Open the two locking buckles.

3. Remove the discharge deflector.

4. Rotate the cutting disc until the blade can be seen from the hopper side.



5. Remove the bolts and nuts securing the blade



Be careful and wear gloves when working near the knives.

6. Remove dull or damaged knives and visually inspect the cutting disc slot and the knife mounting area. Ensure they are clean and that the positioning knives can be mounted flush against the cutting disc. Reinstall new or sharpened knives with the knife edges facing upward. the nuts securing the blade



If the surface of the cutting disc is not properly cleaned and the knives are not mounted flush on the cutting disc, the knives may break when tightened.

The gap between the knives and the wear plate should be about 1 mm at the closest point to the rotor shaft and 3 mm at the farthest point from the rotor shaft. They are slightly tapered to allow a small amount of movement in the cutting disc as it bites into the wood. Ensure all nuts are properly tightened. Then rotate the cutting disc with a long wooden stick to ensure it turns freely.

STORAGE

If the chipper will not be used for more than 30 days, follow the procedure below to prepare the unit for storage:

1. Completely drain the fuel tank. Aged fuel has a high gum content and can clog the carburetor and restrict fuel flow.
2. Start the engine and let it run until it stops. This ensures that no fuel remains in the carburetor and helps prevent the formation of deposits inside, which can damage the engine.
3. Drain the oil from the engine while it is still warm. Refill with fresh oil of the grade recommended in the engine manual.
4. Let the engine cool down. Remove the spark plug and pour 60 ml of high-quality SAE-30 engine oil into the cylinder. Slowly pull the starter cord to distribute the oil. Replace the spark plug.



Remove the spark plug and drain all oil from the cylinder before attempting to start the unit after storage.

5. Use clean cloths to wipe the exterior of the chipper and to keep the air intakes free from obstructions.



Do not use strong cleaners or petroleum-based cleaners when cleaning plastic parts. Chemicals can damage plastic.

6. Store the chipper upright in a clean, dry building with good ventilation.



Do not store the chipper with fuel in an unventilated area where fuel vapors could reach flames, sparks, pilot lights, or any ignition source.

Use only approved fuel containers.

TROUBLESHOOTING

Problem	Cause	Remedy
The engine does not start	1. The spark plug wire is disconnected 2. Fuel exhausted or aged fuel 3. The engine and/or fuel valve are not in the ON position 4. The choke lever is not in the CLOSED 5. Fuel line blocked 6. Dirty spark plug 7. Engine flooding 8. The belt tension lever is engaged	1. Firmly connect the spark plug wire to the spark plug 2. Fill with clean, fresh gasoline 3. The engine and fuel valve must be in the ON position 4. The choke lever must be in the CLOSED position for a cold start 5. Clean fuel line 6. Clean, adjust the gap, or replace 7. Wait a few minutes before restarting, but do not press the primer 8. Disengage the belt tension lever

The engine runs irregularly	1. The spark plug wire is disconnected 2. Machine operating with choke lever in CLOSED position 3. Fuel line blocked or aged fuel 4. Clogged vent 5. Water or dirt in the system power 6. Dirty air filter 7. Improper carburetor adjustment	1. Connect and tighten the spark plug wire 2. Move the choke lever to the OPEN position. 3. Clean fuel line. Fill the tank with clean, fresh gasoline 4. Clean the vent 5. Empty the fuel tank. Refill it with fresh fuel 6. Clean or replace the air filter 7. Refer to the engine manual
The engine overheats	1. Low engine oil level 2. Dirty air filter 3. Restricted airflow 4. Carburetor not properly adjusted	1. Fill the crankcase with appropriate oil 2. Clean air filter 3. Remove the housing and clean 4. Refer to the engine manual
Chipping action seems too slow, the cutting disc stalls or no material is discharged when the engine is running	1. Engine idle speed is too low causing belt slippage 2. The drive belt is loose or damaged 3. The knives are dull or damaged 4. The cutting disc is damaged by debris from the hopper or discharge deflector 5. The discharge deflector is clogged	1. Run the engine at full throttle 2. Tighten or replace the drive belt 3. Sharpen or replace the knives 4. Remove any accumulated debris and turn the cutting disc with a wooden stick to ensure that it rotates freely 5. Clean out debris
The belt slips off or rolls onto the pulley	1. The pulley groove may be chipped 2. The drive belts may be stretched 3. The pulleys may be misaligned	1. Check that the drive belts are not worn and do not have hard spots. File down any nicks on the pulley 2. Replace the drive belts 3. Adjust the pulleys
During chipping, the branch seems to vibrate and move excessively with an unusual noise	1. The knives are dull or damaged 2. The knives are not positioned correctly. The cutting disc 3. The gap between the knives and the wear plate is too wide 4. The rotor is overloaded with material	1. Sharpen or replace the knives 2. Loosen the knife mounting screws, reset the knives, and tighten the screws 3. Adjust the clearance 4. Allow the machine to "discharge" the material before adding more
The knives strike the wear plate	The gap between the knives and the wear plate is not properly adjusted	Adjust the gap
The machine wheels move to the left or right during towing	Low tire pressure	Add air to the tires

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1) MANUFACTURER – HERSTELLER – FABRICANT – FABRICANTE – COSTRUTTORE – CONSTRUCTEUR – PRODUCENT – FABRICANTE – VALMISTAJA – TILLVERKARE – FABRIKANT – Κατασκευαστής – PRODUCENT:

Blue Bird Industries Fabbrica Motori SRL
Via Due Camini 19, 36010 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 MASKINERIE – ΠΕΡΙΓΡΑΦΗ ΤΩΝ ΜΗΧΑΝΩΝ – OPIS MASZYN:
CIPPATRICE / WOOD CHIPPER

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

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EN ISO 12100:2010

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)
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