

Keep these instructions for future reference.

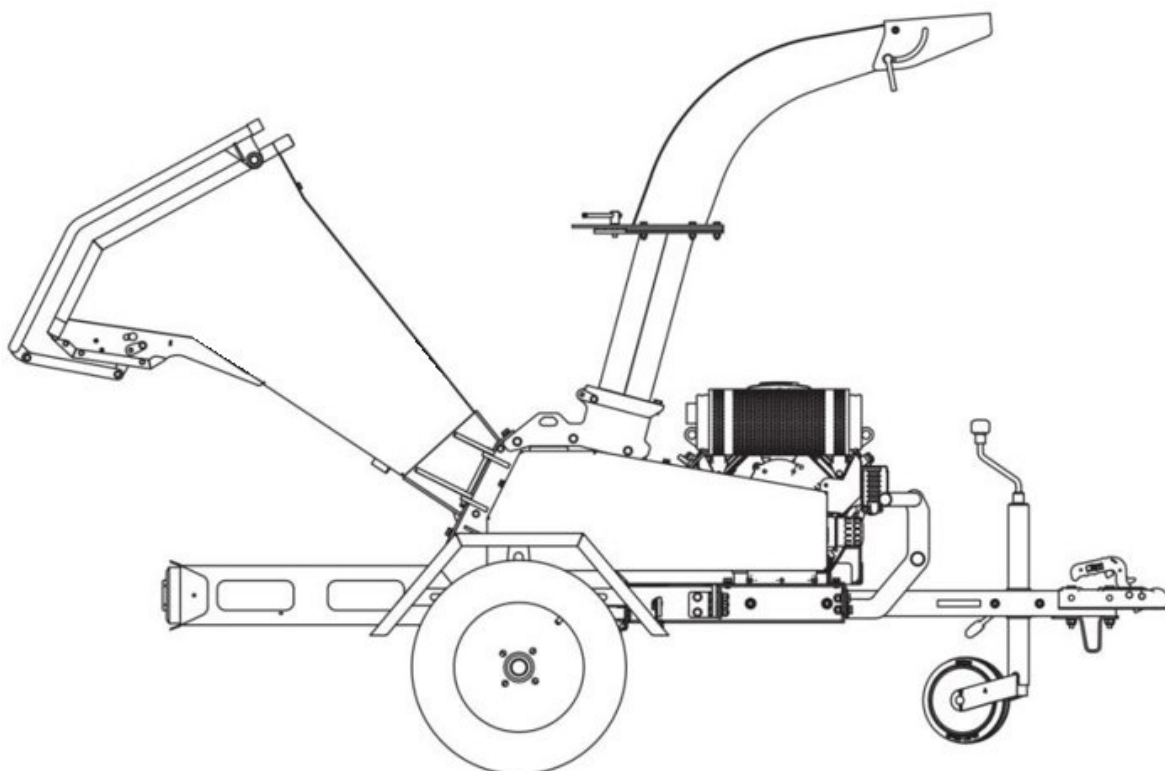
Original user manual



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USER MANUAL



Petrol Shredder

MODEL ☐ CEDRBR13
SERIAL NUMBER

Model number and serial number can be found on a nameplate.
You should write them down and store in a safe place.



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FOREWORD

Thank you for purchasing our device!

This user manual contains the most important information about the device, its construction, functions, and use. Please read the user manual carefully before starting work. Safe and proper use will ensure the best results.

All information contained in this manual is based on the latest product data available at the time of printing. Due to continuous improvement and modification of the equipment, the manual may differ from the actual condition of the equipment.

The manufacturer reserves the right to make changes to the product at any time. Product specifications are subject to change without notice. Copying and reproduction of the user manual and its components without the manufacturer's consent is prohibited.

This user manual should be treated as an integral part of the device and, in the event of transfer of the device to third parties or resale, should be transferred together with the device.

Operating the device in accordance with the user manual and the messages contained therein is essential for maintaining long-term and safe operation of the device and for meeting user expectations. Failure to read, understand, or follow the user manual may result in serious injury and damage to the device.

CEDRUS is not responsible for any errors in the printing of this manual that do not directly affect the use of the device and only concern specific technical or descriptive data. The devices are upgraded during production, so some of the data contained in this manual may differ from the actual data, which also does not affect the use of the device.

The photos and illustrations contained in this manual are for illustrative purposes only, and the physical condition of the device may differ from the actual condition.

TECHNICAL SPECIFICATIONS

Technical

Engine	Gasoline engine
Engine power	14 kW
Start	Electric
Fuel tank	12 L
Branch diameter	13 cm/5"
Drum	Integrated with the rotor
Rotor speed	2200 rpm
Inlet chimney	Gravity feed
Inlet chimney dimensions	36 x 18.7 cm
Blades	2 double-sided blades
Anvil	1 double-sided anvil
Chassis	For towing; with support wheel; axle with tubeless tire
Dimensions	2.74 x 1.25 x 1.75 m
Weight	383 kg

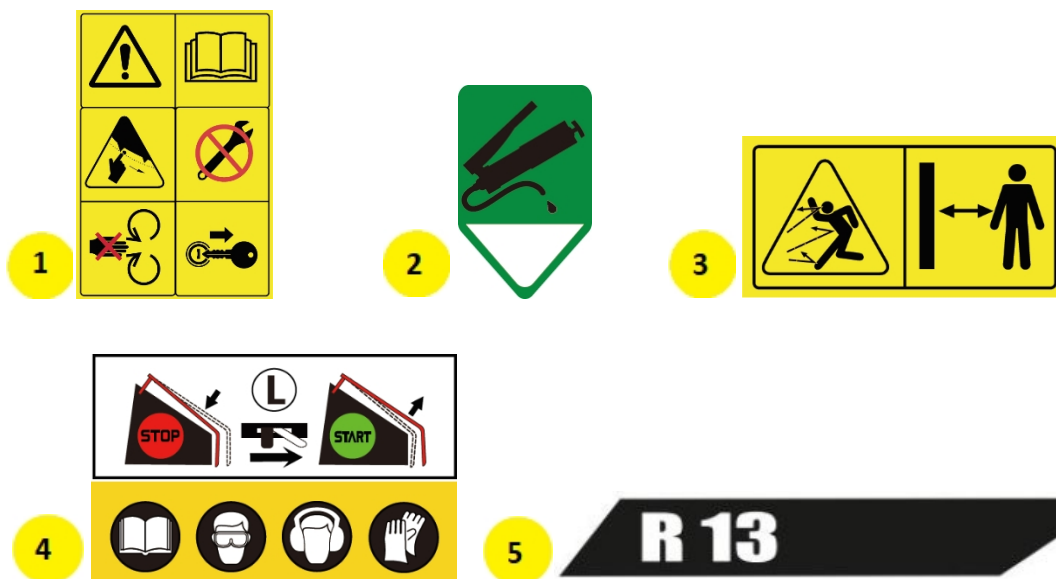
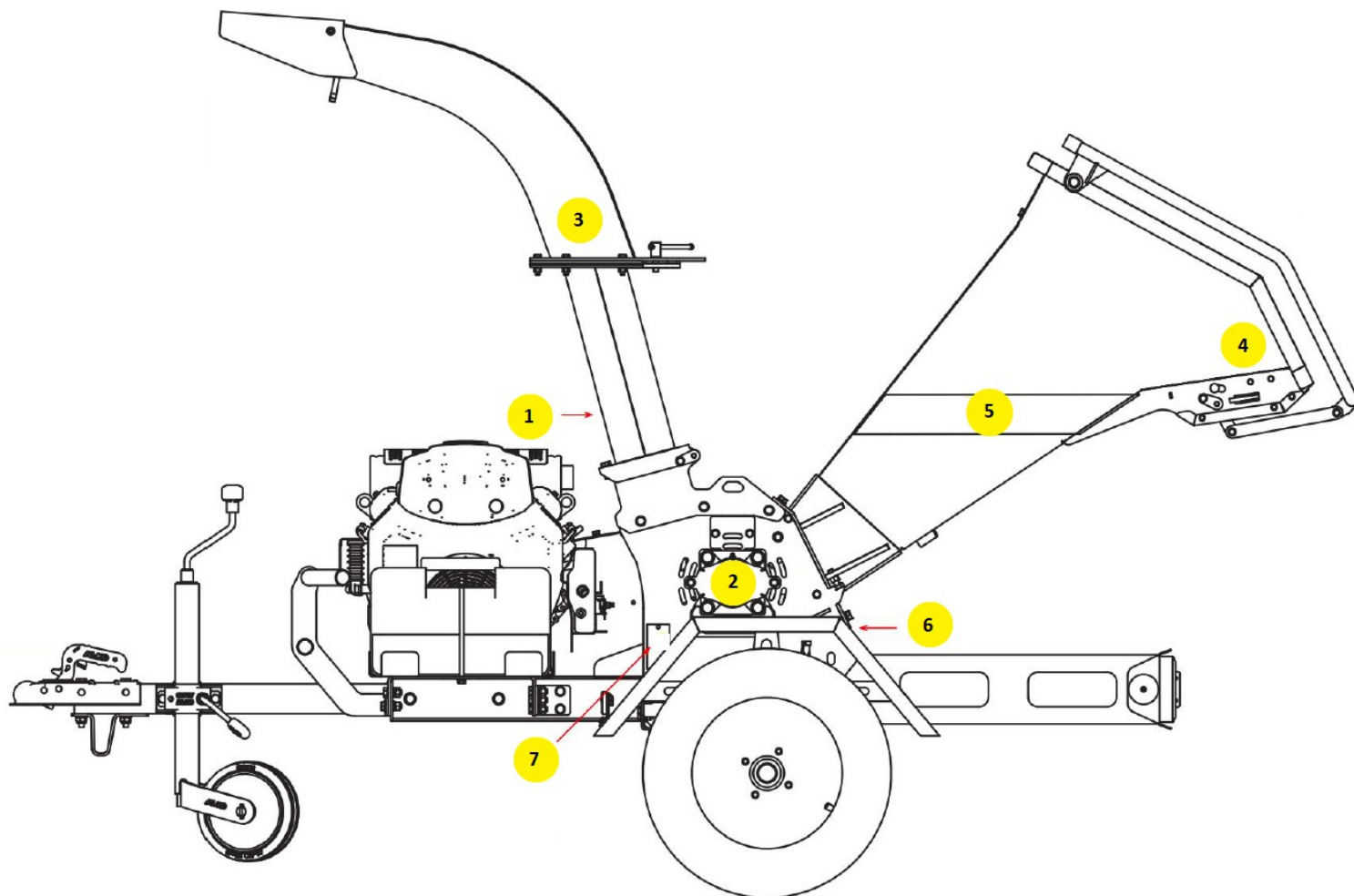
Serial number

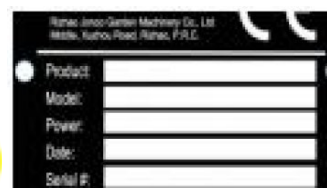
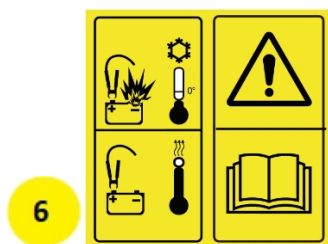
The serial number is used to identify the machine. This number can be found on the nameplate on the machine.

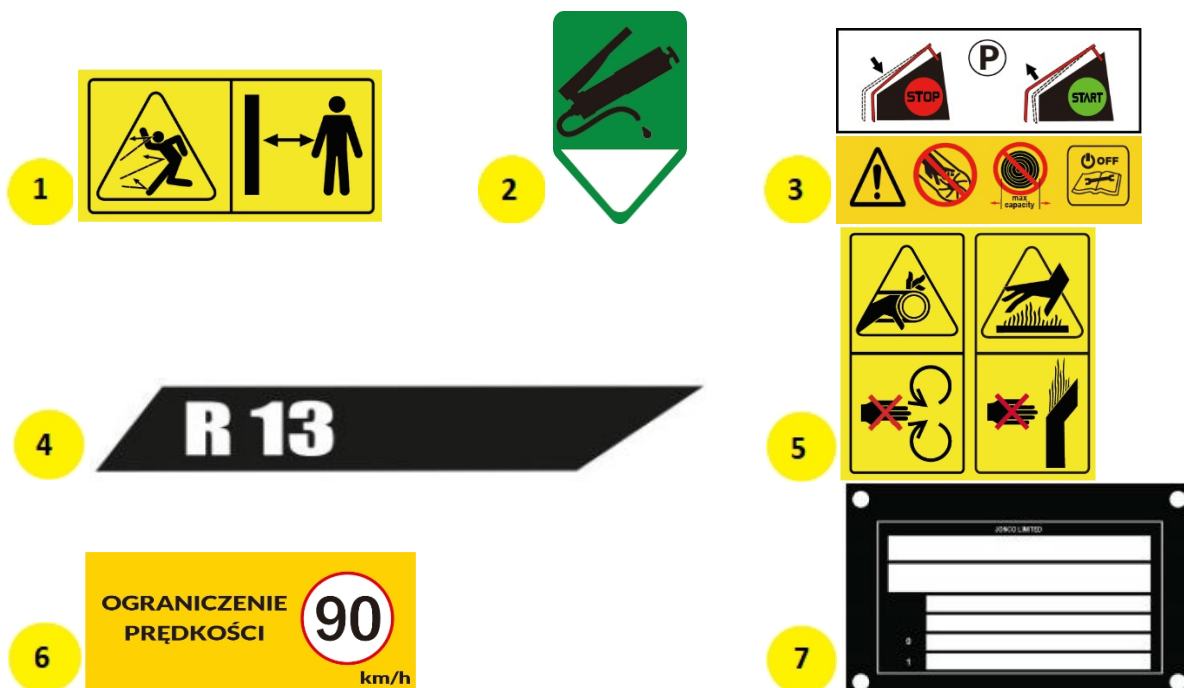
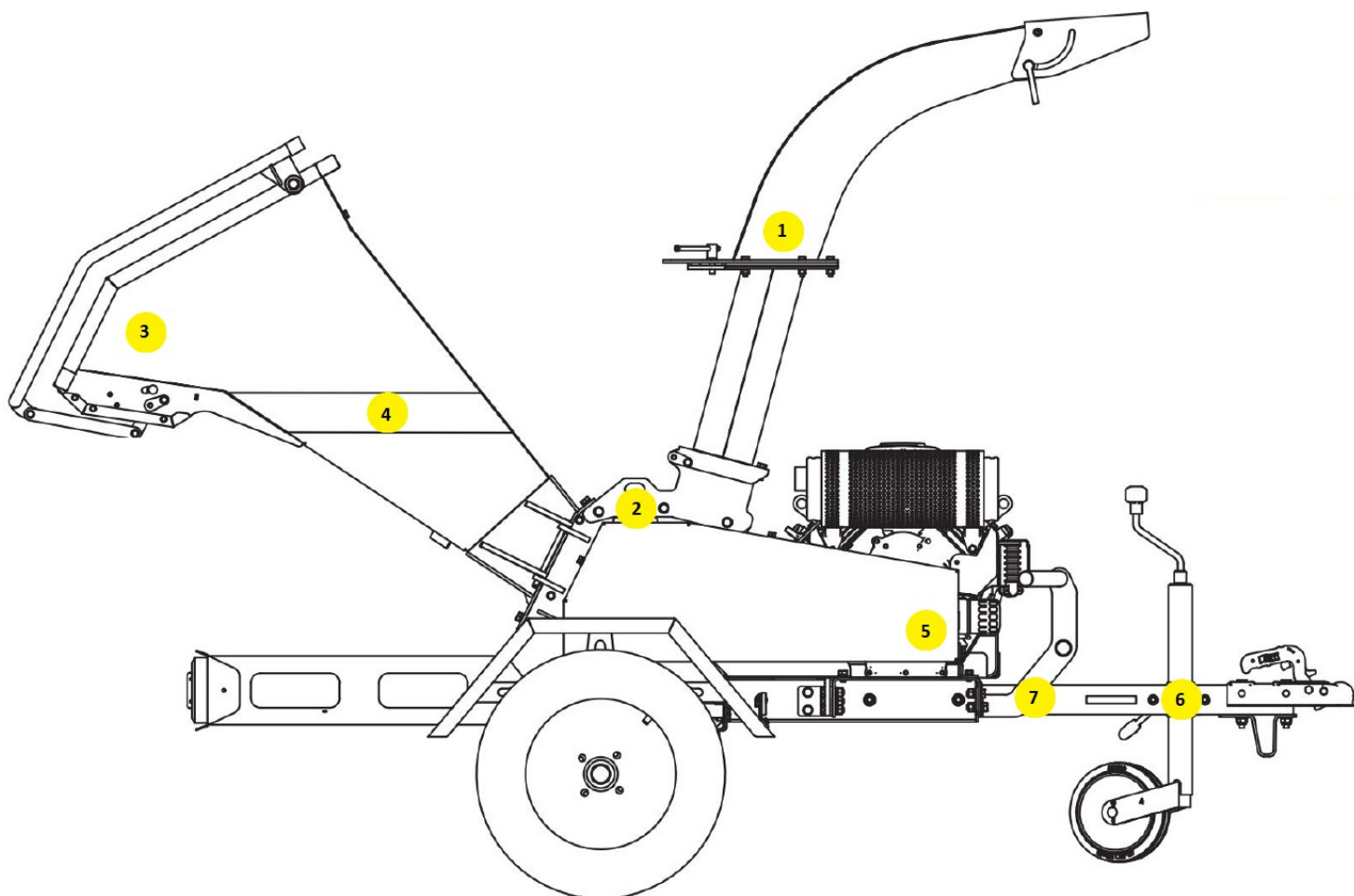
Nameplate








The manufacturer's nameplate is riveted to the right corner of the front of the chassis.


This chipper has clear labels reminding you of its proper and safe use. Below are copies of all safety and operating labels found on the machine. During assembly and before operating the machine, take a moment to familiarize yourself with them and remember their location on the chipper. Any damaged or missing safety and operating labels must be replaced immediately.







1.	Warning!	
		<p><i>Risk of injury from ejected objects. Do not approach the ejector.</i></p> <p><i>The machine may eject chips with sufficient force to cause injury. Do not point the ejector towards people, animals, or buildings.</i></p>
2.	Warning!	
		<p><i>Rotating parts are exposed or covered. Do not reach into rotating parts.</i></p> <p><i>Keep hands, loose clothing, and long hair away.</i></p> <p><i>Serious injury may result.</i></p>
3.	Warning!	
		<p><i>Risk of burns to exposed skin due to contact with hot surfaces. Keep away from the hot exhaust system.</i></p>
4.	Warning!	
		<p><i>Risk of explosion.</i></p> <p><i>Do not start with an external battery/Do not charge a frozen battery.</i></p> <p><i>A frozen battery may explode, causing serious injury. Wait until the battery has thawed before charging.</i></p>
5.	Warning!	
		<p><i>Risk of serious injury.</i></p> <p><i>Keep hands and feet away from inlet and outlet openings while the machine is in operation.</i></p> <p><i>Wait until all moving parts have come to a complete stop before removing any obstructions.</i></p>
6.	Warning!	
		<p><i>Risk of injury or damage to equipment.</i></p> <p><i>Do not feed material larger than 130 mm in diameter into the chipper.</i></p> <p><i>Attempting to shred material with a larger diameter may cause the engine to stall, damage the machine, or cause personal injury.</i></p>
7.	Warning!	
		<p><i>Read the operating instructions.</i></p> <p><i>Familiarize yourself with ALL operating instructions in the manual and ALL safety labels on the machine.</i></p> <p><i>The most important safety feature of this equipment is an informed operator.</i></p>

8.	Warning!	
		<p><i>Risk of serious injury or death if the engine is not turned off during maintenance. Turn off the engine and remove the key from the ignition.</i></p>

SAFETY

Read these safety and operating instructions before using the shredder. To ensure the best possible performance of the machine, please read the recommendations for operation and maintenance. Carefully check the work area and remove any obstacles such as ropes, wires, etc. before starting to shred. If these items are found in the feed hopper of the shredder, they may cause damage to the machine and/or personal injury.

This device is a high-powered machine with moving parts that operate at high speeds and with high energy. When operating the machine, wear appropriate clothing and protective equipment to prevent or minimize the risk of serious injury. The machine can crush, grind, cut, or sever parts of the user's body if they enter the inlet or outlet area.

General safety rules

A shredder is a powerful tool and must be used with extreme caution.

To prevent the risk of death or serious injury and to minimize the risk to a minimum, it is necessary to operate the machine safely. Operation that does not comply with safety rules can cause a number of hazards.

Exercise extreme caution at all times. The machine is designed for shredding wood and should not be used for any other purpose.

ALWAYS OBSERVE THE FOLLOWING PRECAUTIONS WHEN OPERATING THE WOOD CHIPPER:

- Remember that the operator or user is responsible for accidents or hazards to themselves and others or their property.
- Know the procedure for quickly stopping the machine by turning off the engine.
- Only operate the machine on a level and stable surface. Never operate the machine on a slippery, wet, muddy, or icy surface. Be careful to avoid slipping or falling.
- Keep your face and body away from the hopper to avoid contact with accidentally ejected material.
- When feeding material into the hopper, make sure that the material does not contain metal, stones, or other foreign objects. This could cause injury or damage to the machine.
- When leaving the work area or when it is necessary to remove processed material, leaves, or debris from the machine, always turn off the engine, remove the key, wait for all moving parts to come to a complete stop, and then wait another 5 minutes before removing processed material, leaves, or debris from the machine.
- If the cutting mechanism hits a foreign object or if the machine starts to make unusual noises or vibrate, immediately turn off the engine, remove the key, wait until all moving parts have come to a complete stop, and then wait another 5 minutes before checking the machine for blockages or damage. Vibrations usually indicate a malfunction. Clean and repair and/or replace damaged parts.
- Never modify safety devices. Check them regularly to ensure they are working properly.
- Be aware of hidden hazards and traffic. Never carry passengers on the machine.
- Never overload the machine or attempt to shred material beyond the manufacturer's recommendations, as this may result in personal injury or damage to the machine.
- When using the machine, do not rush or take anything for granted. If you have any doubts about the equipment or the environment, stop the machine and take some time to familiarize yourself with the situation.
- Never operate the machine under the influence of alcohol, drugs, strong medications, or other substances that may affect your judgment or psychomotor coordination.
- The machine should only be used in daylight.
- Tighten all screws and nuts and keep the device in good working order.

No list of warnings and cautions is exhaustive. If a situation arises that is not described in this manual, the operator must use common sense and operate the device in a safe manner.

Safety of the operator and others

- This is a high-powered machine with moving parts operating at high speeds and with high energy. It must be operated in accordance with safety rules.
- Unsafe operation can create a number of hazards for the operator as well as for others in the vicinity.

ALWAYS OBSERVE THE FOLLOWING PRECAUTIONS WHEN OPERATING THE MACHINE:

- When shredding, always wear goggles or safety glasses with side shields to protect your eyes from flying debris.
- Avoid wearing loose clothing or jewelry that could get caught in moving parts or material fed into the chipper hopper.
- It is recommended to wear sturdy work gloves during operation. Make sure that the gloves fit properly and do not have loose cuffs or strings.
- Wear non-slip footwear when using the machine. Protective footwear is recommended whenever possible. Do not operate the machine barefoot or in sandals.
- Wear long pants when operating the shredder.
- To protect your hearing, use hearing protection or earplugs with a noise reduction rating of at least 20 dba.
- Under no circumstances allow persons unfamiliar with these instructions to operate the device. The machine may only be operated by responsible persons who have familiarized themselves with these safety rules.
- Never place your hands, feet, or any other part of your body in the hopper, ejector, or near or under any moving parts while the machine is in operation. Keep people, animals, buildings, glass, and other objects that could interfere with ejection, cause injury, or damage away from the ejection area. Wind can change the direction of ejection, so caution should be exercised. If it is necessary to push material into the hopper, use a small diameter stick rather than your hands.
- Bystanders should always remain at least 10 meters away from the work area. Wood chips fly out of the machine at high speed. For safety reasons, do not operate the machine near small children or pets, and never allow children to operate the shredder. If a bystander or animal approaches the machine, stop the engine immediately.
- Never use the machine without ensuring that all guards and covers are in place, including the feed hopper, conveyor, and kickback guard.
- Always operate the machine from the operator's area. Never walk or stand on the discharge side while the engine is running or the rotor is rotating.
- Never transport the machine with the engine running and the rotor rotating.
- Clear the area of objects such as ropes, wires, etc. If these objects get into the feed hopper, they may damage the rotor and/or cause injury.
- Under no circumstances remove, bend, cut, adjust, weld, or otherwise modify standard parts of the device. Modifications to the machine may result in personal injury and property damage and void the warranty.

Safety of children and animals

- If the operator does not pay attention to the presence of children and pets, tragic accidents can occur. Children are often interested in the machine and the shredding process. Never assume that a child will remain where it was last seen.

ALWAYS OBSERVE THE FOLLOWING PRECAUTIONS:

- Children and pets should be kept at least 30 meters away from the work area and under the close supervision of a responsible adult.
- Remain alert and switch off the machine as soon as children or pets enter the working area.
- Never allow children to operate the machine.

Tire safety

- Failure to follow the correct procedures when mounting a tire on a wheel or rim can cause an explosion, which can result in serious injury or even death.
- Do not attempt to mount a tire without the proper equipment and experience.
- Have the required tire maintenance performed by a qualified tire dealer or service workshop.
- When replacing worn tires, make sure that the new tires comply with the specifications of the original tires.

Transport

When towing the machine, the maximum permissible speed is 90 km/h. On very bumpy and uneven road surfaces, reduce speed to protect the machine from excessive vibration.

When driving off-road, avoid objects that could hit the underside of the machine. When driving off-road, avoid steep inclines. Avoid excessively bumpy terrain.

Be careful when reversing the machine, as the short wheelbase responds quickly to steering movements.

Before driving away, clean the machine of chips, make sure the ejector is securely fastened in the inner position, make sure the feed hopper is closed, and make sure the locking latch is fully engaged.

Attaching to the vehicle's tow hook

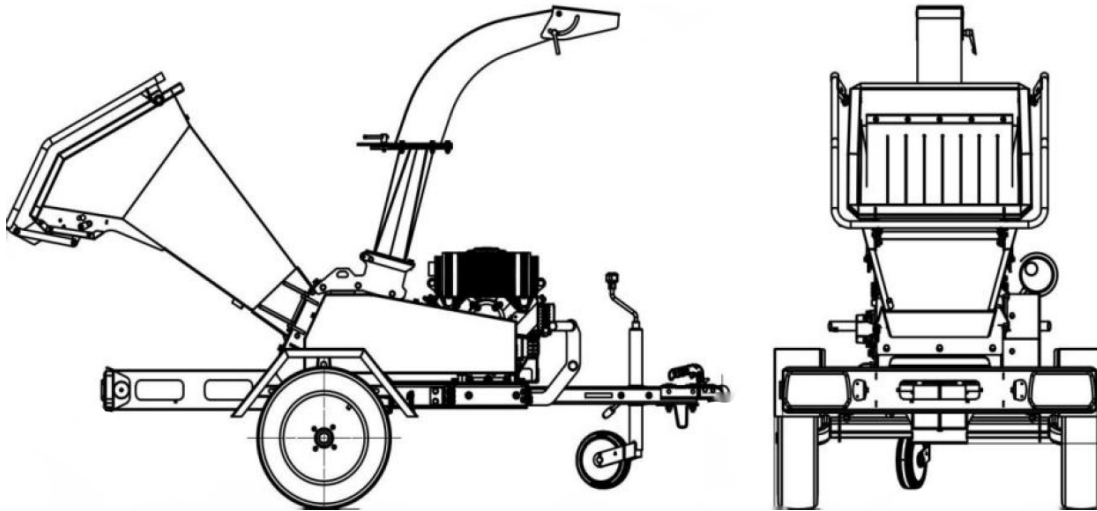
- Check that the vehicle's ball hitch is well lubricated.
- Raise the machine's hitch by turning the support wheel handle to the left until the hitch socket is above the vehicle's tow ball.
- Reverse the vehicle so that the ball is directly under the machine's hitch socket.
- Place the handle on the tow head and pull the hitch back with your thumb.
- Turn the support wheel handle clockwise to lower the hitch socket onto the ball hitch.
- Release the tow head handle and continue turning the support wheel handle clockwise.
- The tow ball should snap into place on the ball hitch. If this does not happen, repeat the previous two steps.
- Rotate the support wheel until the support wheel frame is fully inserted and seated in the notch on the pin. The weight of the machine should be fully supported by the vehicle.
- Release the support wheel clamp and move the support wheel assembly all the way up, then close the clamp.
- Connect the vehicle socket to the machine socket using the cable.
- Check that all lights on the machine and tow vehicle are working properly.
- The machine is now correctly connected to the towing vehicle.

Additional information and potential changes

Cedrus reserves the right to discontinue production and to modify and improve its products at any time without notice or any obligation to the purchaser. The descriptions and specifications contained in this manual are current at the time of printing. The equipment described in this manual may be optional. Some illustrations may not apply to your device.

SETUP

This section describes how to unpack and perform a few simple steps to set up your new device before use. Before performing these procedures, it may be helpful to familiarize yourself with the controls and features of the device, as shown below.



Unpacking

- Wear gloves when removing the top of the box to protect your hands from splinters.
- Before unpacking and assembling the wood chipper, place the box on a clean, flat surface.

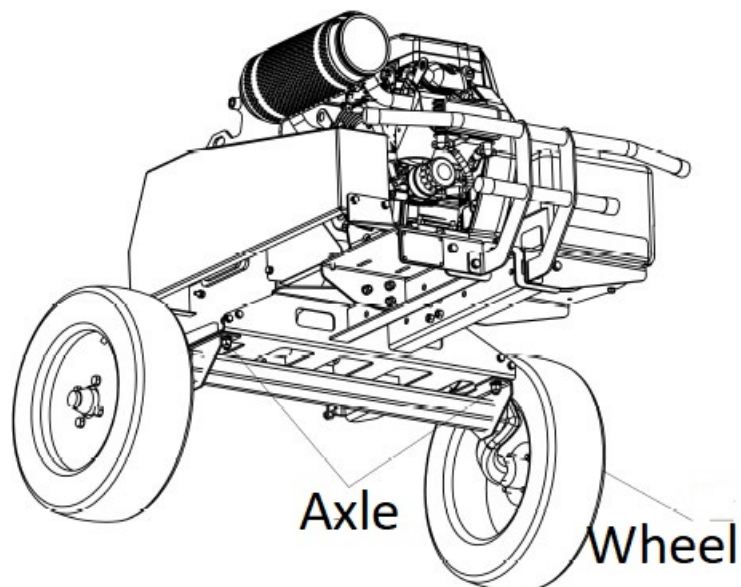
Unpacking the wood chipper is a two-person job. We recommend that you get an extra pair of hands to help you before you start unpacking, as the wood chipper weighs 380 kg.

All packaging materials are recyclable and should not be disposed of as waste.

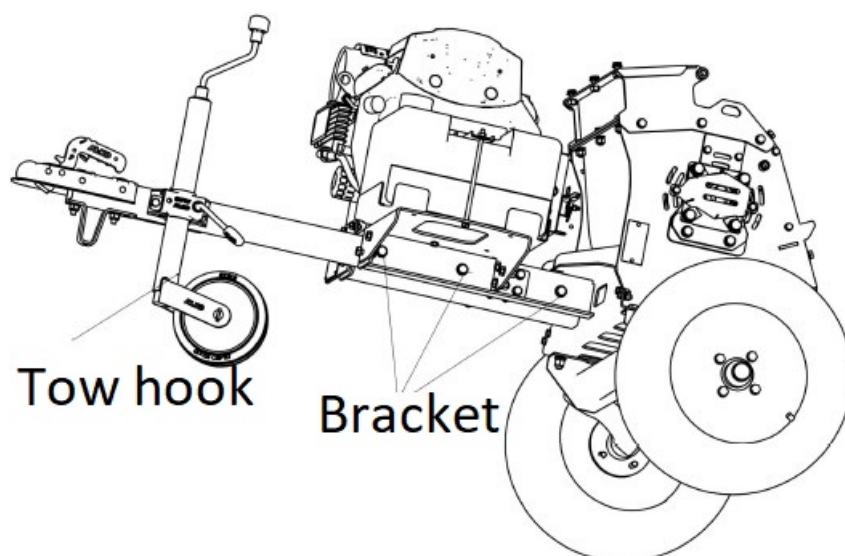
Assembly

The device must be assembled before use. Follow all the steps below carefully:

1. Install the axle and wheels.

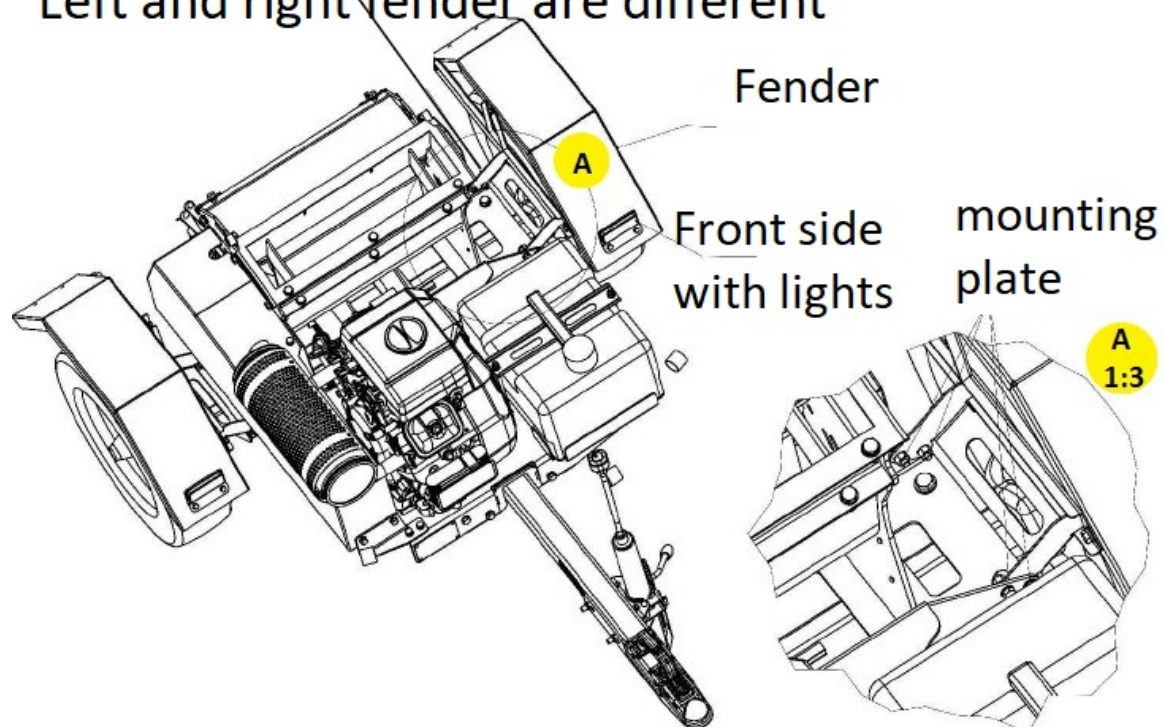


2. Install the tow hook and bracket.

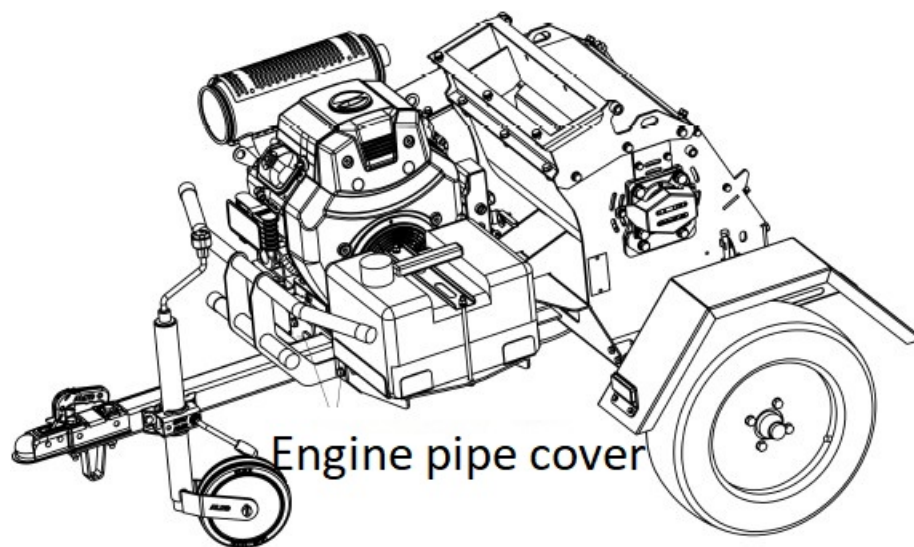


3. Install the mudguards with the mounting plates.

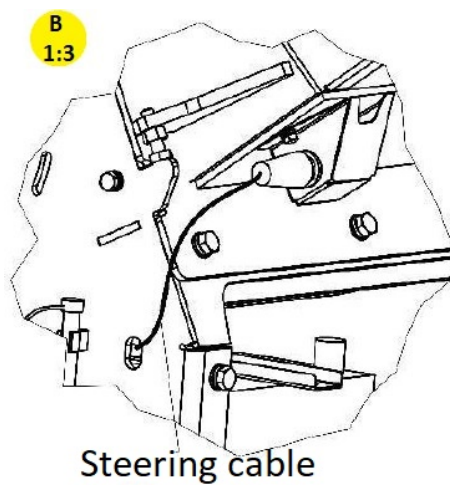
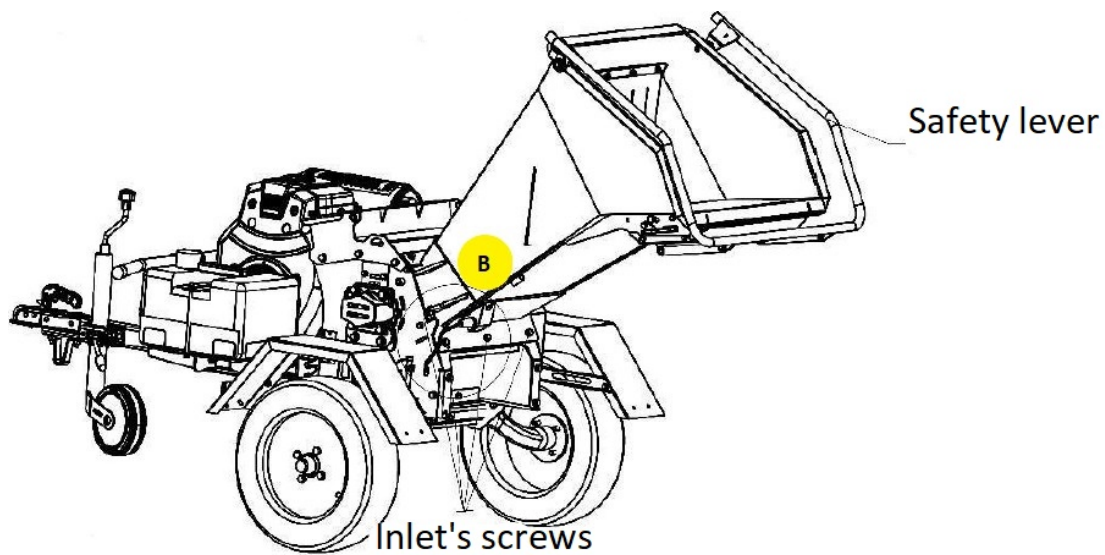
Left and right fender are different



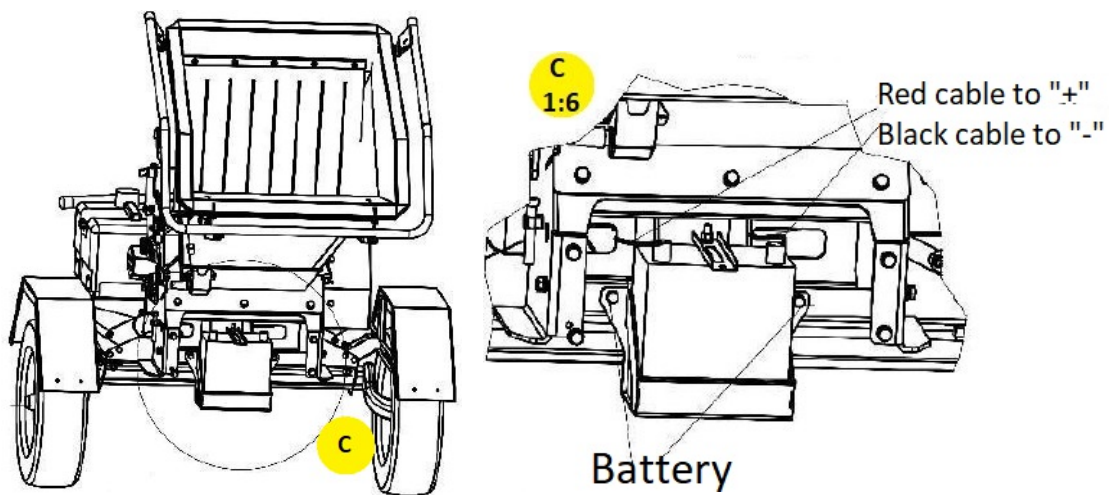
4. Install the engine pipe cover.



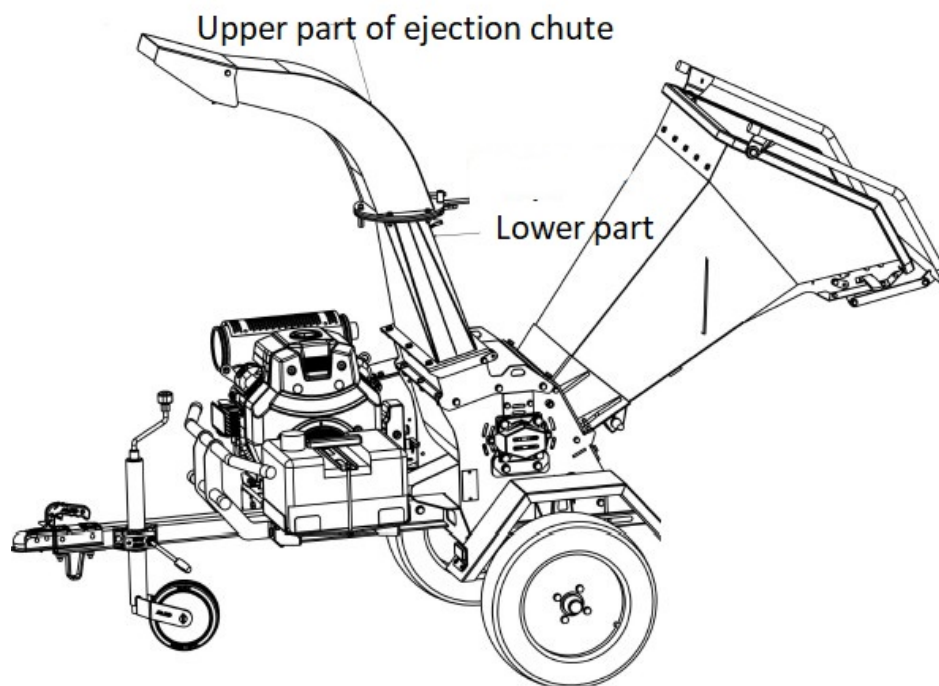
5. Install the intake manifold (throat) and connect the hose.



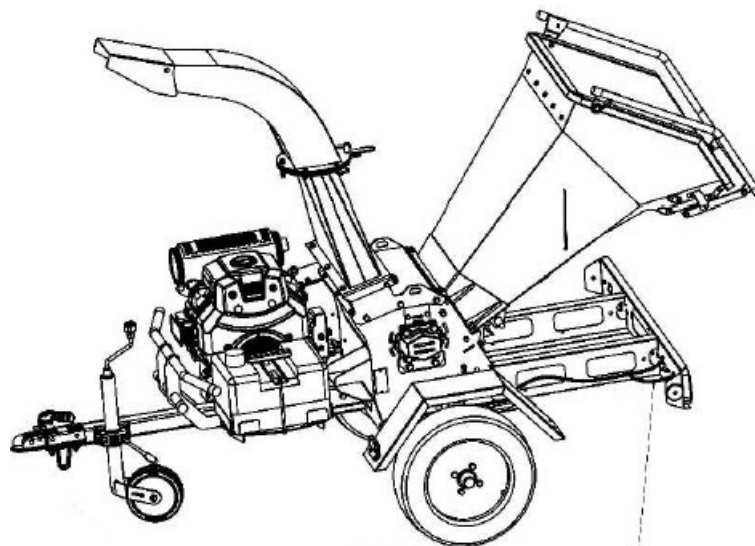
6. Install and connect the battery.



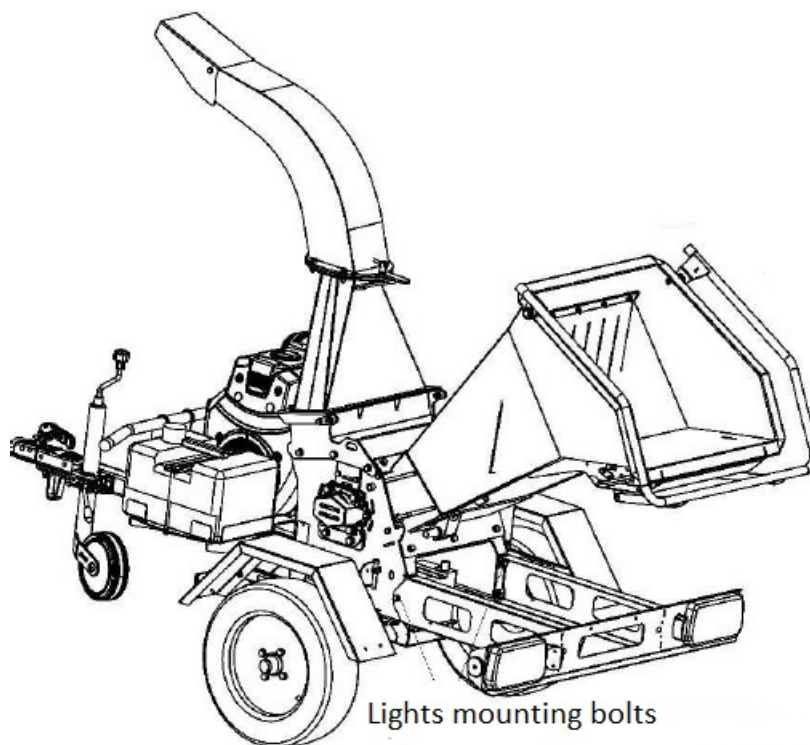
7. Install the exhaust pipe.



8. Install and connect the rear light electrical system.



Rear lights
Yellow cable on this side,
Green cable on other side.



Lights mounting bolts

OPERATION

This section contains procedures for starting and stopping the shredder and discusses basic operating functions.

- Contact with internal rotating parts can cause serious injury. Never place your hands, face, feet, or clothing in the hopper, ejector, or near the ejection area.
- Never operate the machine without the hopper or conveyor properly installed.

Startup

Ensure that the fuel and oil are of the correct specification and that their levels are sufficient. Check the cutting system before each start-up. Only use the machine with sharpened blades.

1. Before use, make sure that the wood chipper is stable on the ground and that all guards are in place and properly secured.
2. Remove any debris from the wood chipper before each use.
3. In the case of a gasoline engine, turn on all electrical switches to start the engine.
4. Before shredding, open the throttle to the RUN position – this position allows you to achieve the correct rotational speed.
5. Before stopping the engine, set the throttle to the IDLE position.
6. Connect the emergency stop cable.

Starting the machine (gasoline engine)

Check all necessary safety-related parts. Make sure that the machine is stable enough to operate.

- Make sure the brake lever is released.
- Make sure the switch is set to the ON position.
- Ensure that the fuel valve is OPEN.
- Make sure the choke is engaged.
- Move the throttle lever to the left, to maximum speed.
- Turn the key to start the engine.
- Disconnect the choke 5-10 seconds after starting the engine.

Stopping the machine (gasoline engine)

Leave the engine running for at least one minute after finishing work to ensure that no debris remains inside the rotor housing.

- Move the throttle to the idle position.
- Turn off the engine.
- The brake lever should only be used in emergency situations.

Operating notes

- If necessary, check the drive belt after an initial running-in period of one hour.
- Before each use of the machine, visually inspect the chipper blade for damage.
- Maintain balance and a stable posture when operating the shredder.
- ALWAYS turn off the machine when leaving the work area or moving the machine.
- Never move the machine while it is running.

Use

1. The device is intended exclusively for shredding wood. The chipper blade mounted on a rotating rotor shreds branches fed into the inlet chute.
 2. The device can process fresh wood with a diameter of up to 13 cm.
 3. The shredder picks up the wood itself when it comes into contact with the edge of the blade, so it is not necessary to push the branches into the feed hopper as long as the blade is sharp enough.
 4. Fresh wood is processed faster and easier than dry wood.
 5. Soft wood is processed more easily than hard wood.
 6. Experience will teach the operator how different types of wood are shredded and how quickly they can be shredded.
 7. Be careful with young trees and branches less than 5 cm in diameter. They should be shredded in bundles to stiffen them. If the material is 5 cm or larger in diameter, feed it into the shredder's inlet chute one piece at a time.
 8. Before turning off the engine, make sure that the chipper has finished processing the material.
 9. Do not force material into the shredder. If the machine does not shred the material well, the blade may need to be sharpened or replaced, or the gap between the blade and the counter blade may need to be adjusted.
 10. Monitor the engine speed during chipping. If it drops, slow down or stop feeding material to allow the engine speed to return to the correct level.
- Use common sense when operating the machine. Learn to recognize sound changes that indicate overload. If the machine jams, immediately turn off the engine to prevent damage to the drive system.
 - Never throw stumps or knots into the inlet chute; this will damage the machine.
 - Very hard knots will not be processed properly. Push all short stumps that did not pass through the machine on their own through with the next branch being shredded.
 - Feeding too many branches into the inlet chute at once will cause the rotor speed to drop. When the operator hears the engine speed drop, they should stop feeding material into the chipper and wait for the engine to return to full speed.

Unblocking the rotor

Disassembly:

1. Remove any material remaining in the feed chute.
2. Remove the two screws and lock nuts that secure the inlet chute to the chipper.
3. Check that the conveyor or ejector is not blocked. If so, clean the components with a branch.
4. Remove the bearing cover holder and turn the rotor shaft clockwise using a suitable wrench.
5. Use a branch to loosen and remove any material remaining in the rotor housing and use a wrench to ensure that the rotor rotates freely.

Assembly:

1. Place the conveyor on the chipper assembly and tighten it with two screws.
2. Start the machine and wait until the material remaining in the rotor housing is ejected.
3. If the chipper chamber does not empty and the rotor is still blocked, repeat the above process.

Before attempting to process more material in the shredder inlet chute, make sure that the rotor rotates freely.

MAINTENANCE

This section covers regular maintenance procedures that ensure maximum performance and long life of the machine.

- Before performing any maintenance or inspection procedure, turn off the engine, remove the key, wait for all moving parts to come to a complete stop, and then wait another 5 minutes.

Maintenance schedule

- The maintenance frequency given is the maximum interval to be observed under normal operating conditions. In very dirty or dusty conditions, increase the frequency.

Procedure	Before each use	Every 8-10 hours	Every 18-20 hours	Every 40 hours
Check the general condition of the device	○			
Check that the rotor rotates freely (using a wrench only)	○			
Check the visual condition of the blade (for damage)	○			
Check the tightness of the blade screws		○		
Check the tightness of the counter blade screws		○		
Check the bearing flange retaining screws rotor		○		
Check distance between the blade and the counterblade		○		
Lubricate the rotor bearings		○		
Check the oil level in the engine	○			
Change the engine oil				○
Check the condition of the air filter, replace if if necessary		○		
Lubricate the steering axle				○
Check the tension and condition of the belt	○			
Check the battery charge level		○		
Check the drive belt, replace if necessary replace				○

Lubrication

- The shredder has been lubricated at the factory. The operator must periodically lubricate the two rotor bearings
 - Excessive lubrication can damage the bearings.
1. Wipe all dirt, etc., from the grease nipples with a clean cloth.
 2. Apply no more than three portions of high-quality general-purpose lithium grease using a hand grease gun to each bearing grease nipple.
 3. Check the tightness of the bearing retaining screws. If they are not tight, remove them, apply special adhesive to the threads, then reinstall and tighten.
 4. Replace the belt cover.

Drive belt

1. Remove the screws from the belt cover using a 10 mm Allen key.
2. Remove the belt cover.
3. The belt can then be removed for replacement.

Checking the belt tension

1. Place the two belts together and check their range of movement up and down.
 2. Check that the range of movement is +/- 8 mm. Make the necessary adjustments according to the tension range until the required tension is achieved.
- Ensure that the belt and pulley are aligned.
 - The belt in the wood chipper is tensioned according to the factory-set position of the motor. As the belt stretches during use, it may be necessary to adjust its tension.
 - After making adjustments, make sure that all nuts and bolts are tightened securely.

Blade and counter blade

- Regular checks of the blade and counter blade ensure full performance. Working with a worn or damaged blade or counter blade causes extreme stress and vibration of the machine and makes chipping difficult.
 - Check the sharpness of the chipper blades regularly. Using dull blades reduces efficiency and causes excessive vibration, which will damage the machine.
 - Regularly check the distance between the blade and the counter blade. Incorrect distance reduces efficiency and causes excessive vibration, which will damage the machine.
 - Before performing any maintenance or inspection, turn off the engine, remove the key, wait for all moving parts to come to a complete stop, and then wait another 5 minutes.
 - If the rotor surface is not properly cleaned and the blade is not installed flush with the rotor, the blade may break when the screws are tightened.
 - Be especially careful when working near the blade and wear gloves. Contact with the blade edge may cause injury.
1. Remove the inlet chimney.
 2. Turn the impeller with a wrench until the blade becomes visible.
 3. Lock the rotor with the latch.
 4. If the blade has visible scratches or damage, sharpen or replace it.
 5. Unscrew the blade screws and remove both blades from the rotor assembly.
 6. Clean the blade holder on the rotor.
 7. Install the new blade with the screws.
 8. The tightening torque for the blade screws is approximately 60-70 Nm.
 9. Tighten the screws evenly from the center to the sides.

Tires

Maintain tire pressure at 44 psi. Tighten the wheel nuts to a torque of 90 Nm to 100 Nm. Never fit tires that are too small.

Size	Rolling radius (mm)	Load capacity	Speed rating	Wheel rim	Pressure (kPa)	Offset (mm)
145/60R13	252	66	N	4.5B	300	30 on the rim

Trailer lighting

If the trailer lighting has stopped working, use these instructions to replace the lights so that

the trailer is roadworthy. Trailer lights include running lights, brake lights, and turn signals, which are controlled by two wires running from the front of the trailer to the rear and connected to the lights. In addition, before performing repairs, check that the lighting plug is not connected to the socket in the towing vehicle. If it is not disconnected, there is a risk of electric shock.

1. Find the wires running from the trailer to the lights.
2. Check all wires on both sides of the trailer and carefully examine the contact points where the wires may rub and become damaged.
3. Use a wrench to unscrew both nuts on the bolts securing the lamp to the bracket.
4. Disconnect the socket and remove the lamp.
5. Replace with a new one and connect the cable.

After completing the repair, make sure that the new tractor lights are connected to the vehicle to ensure they work properly.

STORAGE

- Before performing any maintenance or inspection procedure, turn off the engine, remove the key, wait for all moving parts to come to a complete stop, and then wait another 5 minutes.
- Store the device out of the reach of children when not in use.
- Lubricate the two rotor bearings.
- Check the drive belt for wear. Replace if necessary.
- Check the blade and counter blade for nicks and wear. Sharpen or replace if necessary.
- Check the overall condition of the machine, e.g., nuts, bolts, welds, etc. Replace parts or tighten bolts if necessary.
- Remove any debris from the hopper and conveyor.
- Store in a dry, covered place to protect against moisture.

Most problems are easy to fix. For common problems and their solutions, refer to the troubleshooting table below.

- Before performing any maintenance or inspection procedure, turn off the engine, remove the key, wait for all moving parts to come to a complete stop, and then wait another 5 minutes.

Troubleshooting table

Problem	Possible cause/Solution
<i>The rotor does not rotate</i>	<p>⇒ The rotor may be blocked. Stop the engine immediately. Remove any accumulated debris from the conveyor inlet chute.</p> <p>⇒ Check the drive pulley alignment and adjust if necessary.</p> <p>⇒ Replace the drive belt or, if it has fallen off the pulleys, reinstall it.</p> <p>⇒ Turn the impeller with an impeller wrench to make sure it rotates freely.</p>
<i>The belt is frayed or falling off from the drive pulley</i>	<p>⇒ The pulley groove may be chipped. File down any chips on the pulley.</p> <p>⇒ Check the drive belt for wear and hardening.</p> <p>⇒ The drive belt may be stretched; replace it.</p> <p>⇒ The pulleys may be misaligned.</p>
<i>Shredding seems too slow or the rotor stops.</i>	<p>⇒ The speed is too low, causing the belt to slip.</p> <p>⇒ Check that the drive belt is not too loose or damaged; replace if necessary.</p> <p>⇒ Check whether the blade is blunt or damaged; sharpen or replace the blade.</p>