

13



Road towable wood chipper

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Thank you for choosing chipper of YAAHKIEH. We are sure, this machine will definitely help you with wood chipping and make your work easier and faster in following long period of time. To the owner of this machine, you will also find, it is so simple for



maintenance, accessories and problems solution, with support by a wide and professional team service around you.

Attention!

Please read the manual and warning signs or security points carefully. ignoring to read and understand the manual content, may cause failure to start machine, damage to the machine or serious injure to operator. Before using the machine, make sure you have read the manual and understand all.

1. Specifications

Gasoline engine/ Diesel engine		
13kw/14kw		
Electric		
5"		
2,200 RPM		
2 blade, 1 anvil blade		
Road towable with jockey wheel,		
Axle with tubeless tire		
2900*1100*1800MM		
383KG		

MECHANICAL SPECIFICATIONS

Serial Number

A Serial Number is used to identify your machine. The number is located on the Serial

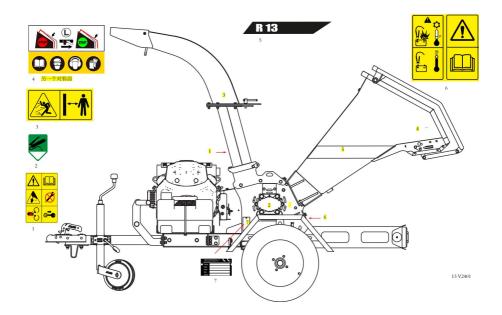
Number Label on your machine.

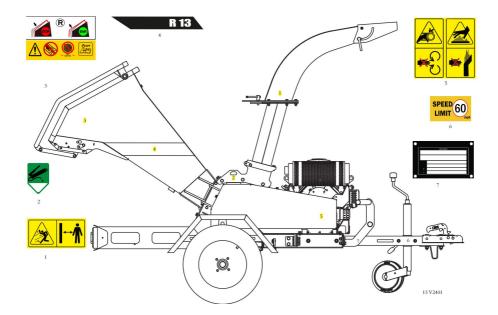
VIN plate

Manufacturer's statutory plate is on the right corner of the front of chassis riveted

2. Labels

Your R 13 CHIPPER carries prominent labels as reminders for its proper and safe use. Shown below are copies of all the safety and operation labels that appear on the equipment. Take a moment to study them and make a note of their location on your chipper as you assemble and before you operate the unit. Replace damaged or missing safety and operation labels immediately.





1.	Caution	
	∛~- 	Risk of injury from flying objects. Stay clear o fmaterial discharge chute. Machine can expel wood chips fast enough to cause injury. Do not point discharge at people,animals,or buildings.
2.	Warning	
		Rotating parts are exposed or under aguard. Do not attempt to reach in while parts are rotating. Keep hands, loose clothing, and long hair away. Serious injurycan result.
3.	Warning	
		Risk of burns to exposed skin from hot surfaces. Stay clear of hot exhaust system.

4.	Warning	
		Risk of explosion. Do not jump start/ charge a frozen battery. Frozen batteries can explode and result in serious injury. Let battery thaw before charging.
5	Warning	
		Risk of serious injury. Keep hands and feet out of inlet and discharge openings while machine is oper ating. Wait for all moving parts to come to a complete stop before clearing obstructions.
6	Caution	
		Risk of personal injury or equipment damage. Do not put material larger than 130mm diameter into the chipper. Attempting to chip anything larger could stall the engine, damage the machine or cause personal injury.
7	Warning	
		Read the operator's manual. Understand ALL operating instructions in the manual and understand ALL safet y signs located on the machine. The most important safety device on this equipment is an informed operator.
8	Warning	
	Ø	Risk of serious injury or death if the engine is not shut off during maintenance p rocedures. Shut off the engine and remove the key.

3 Safety

• Read this safety & operating manual before you use R 13 chipper. Become familiar with the operation and service recommendations to ensure the best performance from your machine.

Thoroughly inspect the area in which you will be working and remove all foreign objects such as rope, wire, etc., and remove these objects before chipping. Inserting these objects into the chipper hopper could damage the machine and/or cause injury.
This is a high-powered machine, with moving parts operating with high energy at high speeds. You must use proper clothing and safety gear when operating this machine to prevent or minimize the risk of severe injury. This machine can crush, grind, cut, and sever parts of your body if they enter the inlet or discharge area of your chipper.

3.1 General Safety

• R 13 chipper is a powerful tool, not a plaything.

• Operating this chipper safely is necessary to prevent or minimize the risk of death or serious injury. Unsafe operation can create a number of hazards for you.

• Exercise extreme caution at all times. The design of this machine is to chip wood. Do not use it for any other purpose.

ALWAYS TAKE THE FOLLOWING PRECAUTIONS WHEN OPERATING THIS CHIPPER:

• Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people, their property, and themselves.

• know how to stop the chipper quickly by stop diesel engine.

• Operate this machine on a level surface only. Never operate your unit on a slippery, wet, muddy, or icy surface. Exercise caution to avoid slipping or falling.

• Keep your face and body back from the chipper hopper to avoid accidental bounce back of any material.

• When feeding material into the chipper hopper, be extremely careful that pieces of

metal, rocks, or other foreign objects are not included. Personal injury or damage to the machine could result.

• Whenever you leave the operating position or if you have to remove processed material, leaves, or debris from the machine, always shut down the engine, remove the key, wait for all moving parts to come to a complete stop, then wait 5 minutes before removing processed material, leaves, or debris from the machine.

• If the cutting mechanism strikes a foreign object or if your machine should start making an unusual noise or vibration, immediately shut down engine, remove the key, wait for all moving parts to come to a complete stop, then wait 5 minutes before inspecting for clogging or damage. Vibration is generally a Warning of trouble. Clean and repair and/or replace damaged parts.

· Never tamper with safety devices. Check their proper operation regularly.

• Stay alert for hidden hazards or traffic. Never carry passengers on your machine.

• Never overload or attempt to chip material beyond the manufacturer's recommendation; see chapter 3.2 personal injury or damage to the machine could result.

• While using R 13 chipper, don't hurry or take things for granted. When in doubt about the equipment or your surroundings, stop the machine and take the time to look things over.

• Never operate the machine when under the influence of alcohol, drugs, or medication.

• Use the machine only in daylight.

• Keep all nuts and bolts tight and keep the equipment in good operating condition.

No list of warnings and cautions can be all-inclusive. If situations occur that are not covered by this manual, the operator must apply common sense and operate this chipper in a safe manner.

3.2 Safety for Yourself and Those Around You

• This is a high-powered machine, with moving parts operating with high energy at high speeds. You must operate the machine safely.

• Unsafe operation can create a number of hazards for you, as well as anyone else in the nearby area.

ALWAYS TAKE THE FOLLOWING PRECAUTIONS WHEN USING THIS MACHINE:

• Always wear protective goggles or safety glasses with side shields while chipping to protect your eyes from possible thrown debris.

• Avoid wearing loose clothing or jewelry, which can catch on moving parts or the material fed into the chipper hopper.

• We recommend wearing gloves while chipping. Be sure your gloves fit properly and do not have loose cuffs or drawstrings.

• Wear shoes with non-slip treads when using your chipper. If you have safety shoes, we recommend wearing them. Do not use the machine while barefoot or wearing open sandals.

• Wear long pants while operating R 13 chipper.

• Use mufflers or ear plugs rated for at least 20 dba to protect your hearing.

• Never allow people who are unfamiliar with these instructions to use the chipper. Allow only responsible individuals who are familiar with these rules of safe operation to use your machine.

• 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 running. Keep area of discharge clear of people, animals, buildings, glass, or anything else that will obstruct clear discharge, cause injury, or damage. Wind can also change discharge direction, so be aware. If it becomes necessary to push material into the chipper hopper, use a small diameter stick, not your hands.

• Keep bystanders 10 meters away from your work area at all times. Wood chips exit the chipper at great speeds. To be safe, do not operate the machine near small children or pets, and never allow children to operate the chipper. Stop the engine when another person or pet approaches.

• Never use the machine without ensuring that all guards and shields are in place, including the chipper hopper, conveyor and blowback shield.

Always operate the machine from the operator zone. Never pass or stand on the discharge side of the machine when the tractor engine is running or the rotor is turning.
Never transport the chipper with engine on and the rotor turning.

• Clear the area of objects such as wire and rope, etc. Inserting these objects into the chipper hopper could damage the rotor and/or cause injury.

• Never, under any conditions, remove, bend, cut, fit, weld, or otherwise alter standard parts on R 13 chipper. Modifications to your machine could cause personal injuries and property damage and will void your warranty.

3.3 Safety for Children and Pets

• Tragic accidents can occur if the operator is not alert to the presence of children and pets. Children are often attracted to the machine and the chipping activity. Never assume that children will remain where you last saw them.

ALWAYS FOLLOW THESE PRECAUTIONS:

• Keep children and pets at least 100 feet from the working area and under the watchful care of a responsible adult.

• be alert and turn the machine off if children or pets enter the work area.

• never allow children to operate R 13 chipper.

3.4 Tire Safety

- Failure to follow proper procedures when mounting a tire on a wheel or rim can produce an explosion which may result in serious injury or death.
- Do not attempt to mount a tire unless you have the proper equipment and experience to do the job.
- Have a qualified tire dealer or repair service perform required tire maintenance.
- When replacing worn tires, make sure they meet the original tire specifications.

3.5 Transportation

When towing the machine the maximum legal speed limit is 60mph. On very rough and uneven road surfaces, reduce speed to protect the machine from undue vibration. When off road, avoid objects that may collide with the machine underside. Avoid steep gradients when off road. Avoid excessively pot holed ground.

Exercise caution when reversing the machine as the short wheel base will react quickly

to steering.

Clear machine of loose woodchip material before departing. Ensure the chute is Securely fixed at the inboard position before departing.

Ensure that the hopper tray is closed in the up position and the locking latch is fully engaged before departing.

Attaching to the vehicle tow hitch

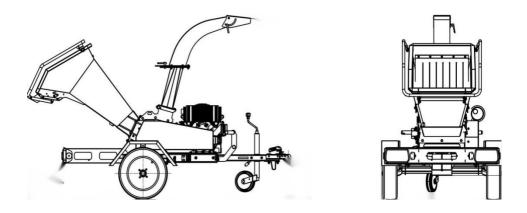
- Check that the vehicle ball hitch is well greased.
- Raise the machine hitch by turning the jockey wheel handle anticlockwise until the hitch socket is above the vehicle hitch ball.
- Reverse the vehicle until the ball is directly below the machine hitch socket.
- Grasp handle on tow head and push back catch with thumb.
- Wind the jockey wheel handle clockwise to lower the hitch socket onto the ball hitch.
- Release tow head handle and continue to wind the jockey wheel handle clockwise.
- The tow head should snap into place on the ball hitch. If it doesn't, repeat previous two steps.
- Wind jockey wheel up until fully retracted and the jockey wheel frame is seated in its notch on the stem. The machine's weight should be fully on the vehicle.
- Release the jockey wheel clamp and slide the jockey wheel assembly fully up then tighten clamp.
- Connect the vehicle trailer socket to the machine socket with the connection lead.
- Check all machine lights and tow vehicle lights are working correctly.
- The machine is now properly attached to the tow vehicle.

Additional Information and Potential Changes

YAAHKIEH reserves the right to discontinue, change, 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 printing. Equipment described within this manual may be optional. Some illustrations may not be applicable to your machine.

4. Setting up

This chapter outlines unpacking and a few simple steps you will need to follow to set up your new machine before you use it. It may be helpful to familiarize yourself with the controls and features of your R 13 CHIPPER as shown in before beginning these procedures.



4.1 Unpacking

• Wear gloves when removing the crate top to protect your hands from debris.

• Stabilize the wood crate on clean flat terrain before attempting to unpack and assemble the chipper.

Unpacking the R 13 CHIPPER is a two-person job. We recommend you have an extra hands available before you begin because the CHIPPER weighs 380KG.

All the package materials are recyclable, please do not throw them away as waste.

4.2 Assembly

Refer to instructions of assembly

5. Operating

This chapter covers the procedures for starting and stopping your new R 13 CHIPPER and discusses basic operation features.

• Contact with internal rotating parts will cause serious personal injury. Never put hands, face, feet, or clothing into chipper hopper or discharge opening or near the discharge area at any time.

• Never operate the machine without the hopper or conveyor properly installed.

5.1 Starting

Make sure you have all fuel and oil of right specification filled up in the right volume

1. Ensure that the Chipper is parked steadily and firmly to the ground and all Guards are in place and properly secured before using.

- 2. Remove any debris built up from the machine before every use of the Chipper.
- 3. For Diesel engine, To start the engine with throttle(fuel control) set at start position. For Gasoline engine, To start engine, with all electric switch on.
- 4. Increase throttle to the RUN RPM's required to obtain speed before chipping.
- 5. Reduce throttle to IDLE before stop the engine.
- 6. Connect the emergency stop cable

To start the machine (Diesel engine)

Make sure you have the wet air cleaner filled with Diesel Oil.

Make sure you have all necessary part regarding to safety checked.

Make sure the machine is steady enough for operating.

- · Pull the fuel control throttle to start and lock it
- Turn the start key to right till the engine is fully started

To stop the machine (Diesel engine)

Keep it running for one more minute, to make sure no debris left inside the rotor housing.

• Release the throttle and pull it to position of 'stop', till the engine fully stopped

To start the machine (Gasoline engine)

Make sure you have all necessary part regarding to safety checked. make sure the machine is steady enough for operating.

- · Make sure stop bar released
- · Make sure the switch is on
- * Make sure the relief valve of fuel tank is OPEN.
- Make sure the fuel supply is open, Air throttle is open.
- Push speed throttle to left for more fuel
- Turn the start key to start engine.
- Close the air throttle after 5-10 second since engine started.

To stop the machine (Gasoline engine)

Keep it running for one more minute, to make sure no debris left inside the rotor housing.

- · Release the throttle to idle speed
- · Switch off engine
- · Stop bat can only be used when there is emergency happens

Operation Notes

- Check the Drive Belt, if necessary, after an initial break-in period of one hour.
- Visually check the Chipper Blade for damage before each use of the machine. .
- Keep proper balance and footing while operating the R 13 CHIPPER.
- ALWAYS stop the R 13 when leaving the Operating Zones or when moving the machine.
- Never move the Chipper while the R 13 is turning.

5.2 Processing

1. The Chipper is designed to accept wood only. The Chipper Blade mounted on a revolving rotor turns branches fed into the Chipper Hopper into "chips".

2. Your R 13 CHIPPER can process green wood up to 5" in diameter.

3. The Chipper will self-feed the wood once it contacts the blade edge so forcing the branches into the Hopper is not necessary if the blade is sharp.

4. Green wood will process quicker and easier than dry wood.

5. Softwood processes easier than hardwood.

6. Your operator experience will teach you how different types of wood will chip and how fast you can process them.

7. Use caution with small diameter green saplings and branches less than 2" in diameter. Chip these grouped or bundled together to provide support for each other. If the material is 2" or larger, feed only one at a time into the Chipper Hopper.

8. Make sure the R 13 CHIPPER finishes processing material in the Hopper before shutting the engine off.

9. Do not force material into the Chipper. If the machine does not chip well, the Chipper Blade may need sharpening or replacement, or the gap between the Blade and the Counter blade needs adjusting.

10. Keep an ear speed of engine while chipping, when the speed going down, slow down or stop feeding to the engine speed goes up to right level

• Use common sense when using the machine. Learn to recognize the change in sounds when overloaded. Turn off the engine immediately if the machine becomes jammed to prevent damage to the drive system.

• Never throw remaining stubs or knots into the chipper hopper; damage will result.

• Extremely hard knots will not process very well. Push any short stubs that have not self-fed through the Chipper, with the next branch to be chipped.

• Overloading the Chipper Hopper will cause the rotor speed to decrease. If you hear the engine RPM decreasing, stop feeding material into the Chipper Hopper until the engine has returned to full speed.

5.3 To Free a Jammed Rotor

Disassemble:

1. Remove any material left in the Chipper Hopper.

2. Remove the two Bolts and Lock nuts that secure the Conveyor to the Chipper

3. Check to see if the Conveyor or Discharge opening is clogged. If it is, clear it with a branch.

4. Take off the bearing cover holder and turn the rotor shaft clockwise with rotor spanner.

5. With a wooden stick, loosen and remove any material left in the rotor housing and make sure the rotor turns freely with the spanner.

Reassembly:

1. Position the Conveyor onto the Chipper Assembly and secure with two Bolts.

2. Start the R 13; allowing the remaining material in the rotor housing to discharge.

3. If the Chipping Chamber doesn't clear and the rotor is still jammed, repeat above process.

Be sure the rotor turns freely before trying to process more material into the Chipper Hopper.

6. Maintenance

This chapter covers regular maintenance procedures that will ensure the best performance and long life of your R 13 CHIPPER.

• Shut down the tractor engine, remove the key, wait for all moving parts to come to a complete stop, then wait 5 minutes before performing any maintenance procedure or inspection on the chipper.

6.1 Regular Maintenance

• Consider that the service intervals shown are the maximum under normal operating conditions. Increase frequencies under extremely dirty or dusty conditions.

Procedure	Before	Every	Every	Every
	Each	8-10	18-20	40
	Use	Hours	Hours	Hours
Check General Equipment Condition	0			
Check that the ROTOR turns freely (with	0			
SPANNER only)				
Visually inspect Blade for damage	0			
Check Blade bolts' tightness		0		
Check counter blade bolts' tightness		0		
Check Rotor Bearing Collar Set Screws		0		
Check Blade to Counter blade Gap		0		
Lubricate Rotor Bearings		0		
Check the oil level of diesel engine	0			
Lubricate R 13 torsion axis				0
Check Belt Tension and Condition	0			
Check battery power volume		0		
Inspect or replace Drive Belt				0

6.2 Grease

• Your R 13 CHIPPER was greased at the Factory. The operator needs to periodically lubricate the two Bearings of the Chipper Assembly.

• Over lubrication can damage the bearings.

1. Wipe all dirt, etc., from the grease fittings with a clean cloth.

2. Apply no more than three pumps of quality general purpose lithium grease with a hand-pumped grease gun to each Bearing Grease Fitting

 Check the Bearing Set Screws for tightness. If they are not tight then remove them, apply Thread Lock to the threads, then reinstall and tighten the Set Screws.
 Replace the Belt Guard.

6.3 Drive Belt

1. Remove Bolts from the Belt cover using 10MM Hex socket.

2. Remove the Belt cover.

3. Then you can take off belt for replacement.

Checking the Belt Tension

1. Push down two belts together, check the measurement of its movement up and down.

2. Check if the distance in between is +/- 8 *MM*. Make necessary adjustment according to tension scope until the required tension is obtained.

• Make sure that the Belt, pulley are in alignment.

• The belt on your R 13 CHIPPER is tensioned by the engine position that is set at the factory. As the Belt stretches from use, the Belt tension may need to be adjusted.

• Make sure all nuts and bolts are tightly fixed after your adjustment.

6.4 Blade and Counter Blade

• Routine inspection of the Chipper Blade and counter blade will ensure that your R 13 Chipper is operating at full efficiency. Operating with a worn or damaged Chipper Blade or Counter blade will cause extreme stress and vibration to the machine and make chipping difficult for the operator.

• Routinely check the chipper blade for sharpness. Using a dull blade will decrease performance and cause excessive vibration that will cause damage to the chipper.

• Routinely check the distance between blade and counter blade. Wrong distance will decrease performance and cause excessive vibration that will cause damage to the R 13 chipper.

• Shut down the engine, remove the key, wait for all moving parts to come to a complete

stop, then wait 5 minutes before performing any maintenance procedure or inspection on the chipper.

• If the rotor surface is not cleaned properly and the chipper blade is not mounted flush on the rotor, the blade could crack when the hardware is tightened.

• Be careful and wear gloves when working near the chipper blade. The blade edge can cut you if you come in contact with it.

- 1. Remove the hopper.
- 2. Rotate the rotor with spanner until the Blade is visible.
- 3. Lock the rotor with rotor latch.
- 4. If the Blade has visible nicks or damage it must be sharpened or replaced
- 5. Remove the blade bolts and remove both blade from the rotor Assembly.
- 6. Clean the blade holder on the rotor.
- 7. Replace the new blade with bolts.
- 8. The torque of Blade bolts is around 60-70NM
- 9. Fix the bolts from centre one to both sides evenly.

6.5 Tire

Keep tyre pressures inflated to 44 psi.

Check wheel nuts are tightened to between 90Nm and 100Nm.

Never install undersized tires.

Size designation(s)	Rolling radii (mm)	Load capacity	Speed category	Wheel rim	Pressure (kPa)	Offset (mm)
145/60R13	252	66	Ν	4.5B	300	30 for rim

7 Storage

• Shut down engine, remove the key, wait for all moving parts to come to a complete stop, then wait 5 minutes before performing any maintenance procedure or inspection on the chipper.

• when not in use, your R 13 chipper should be stored out of the reach of children.

Please refer to the Safety and Operation Manual that came with the R 13 for specific diesel engine

Regular procedures.

- · Lubricate two rotor Bearings.
- · Check the Drive Belt for wear. Replace as needed.
- Check the Chipper Blade and Counter blade for nicks and wear. Sharpen or replace as needed.

• Check the general condition of the machine, e.g.; nuts, bolts, welds, etc. Replace parts or tighten hardware as needed.

- Clean any debris from the Hopper and Conveyor.
- Store in a dry covered area to protect from moisture.

8. Troubleshooting

Most problems are easy to fix. Consult the Troubleshooting Table below for common problems and their solutions.

• Shut down engine, remove the key, wait for all moving parts to come to a complete stop, then wait 5 minutes before performing any maintenance procedure or inspection on the chipper.

Troubleshooting Table

PROBLEM	POSSIBLE CAUSE/FIX
Rotor won't turn	\Rightarrow The Rotor may be jammed. Immediately stop engine. Remove
	any built-up debris from the Chipper Hopper Inlet and Conveyor.
	\Rightarrow Check the Drive Pulley alignment and adjust if necessary.
	\Rightarrow Replace the Drive Belt or reinstall if the Belt has come off the
	pulleys.
	\Rightarrow Turn the Rotor with rotor spanner to be sure it turns freely.,
The Belt frays or rolls over the	\Rightarrow The Drive Pulley groove may have a nick in it. File off any nicks
Drive Pulley.	on the Pulley.
	\Rightarrow Check the Drive Belt for wear and hard spots.
	\Rightarrow The Drive Belt may be stretched; replace it.
	\Rightarrow The Pulleys may be misaligned.
Chipping action seems too slow	\Rightarrow The R 13 speed is too slow causing the belt to slip.
or rotor stalls.	\Rightarrow Check for loose or damaged Drive Belt; replace as needed.
	\Rightarrow Check for a dull or damaged Blade; sharpen or replace the Blade.

