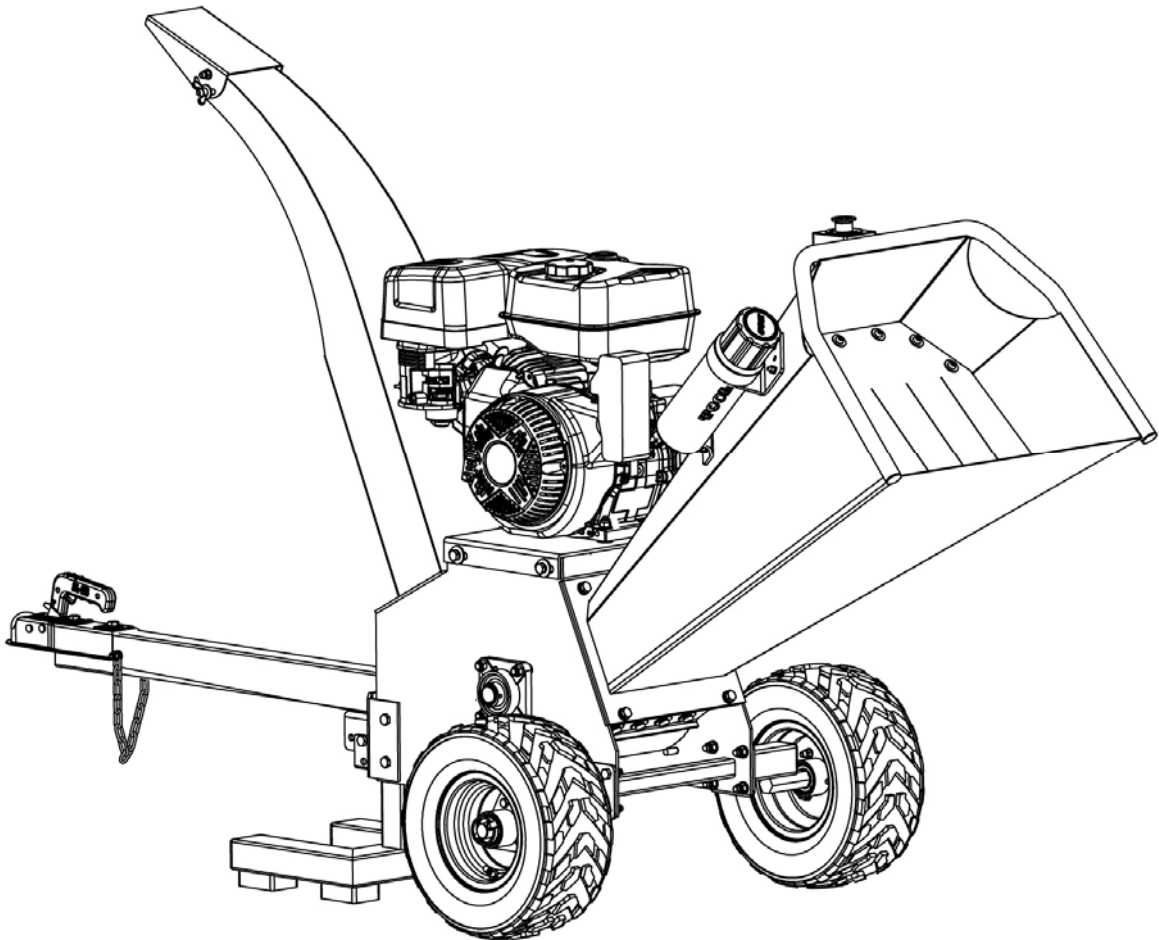

Professional Vertical Chipper Owner's Manual



**This manual contains important safety instructions for
professional vertical chipper
READ SAFETY WARNINGS AND OPERATING INSTRUCTIONS
CAREFULLY BEFORE OPERATING EQUIPMENT
SAVE THESE INSTRUCTIONS.**



This manual contains important safety instructions for vertical chipper
READ SAFETY WARNINGS AND OPERATING INSTRUCTIONS CAREFULLY
SAVE THESE INSTRUCTIONS.

**This owner's manual is considered a permanent part of the vertical chipper/and
should remain with the vertical chipper/ if resold.**

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Additional Information and Potential Changes

We reserve 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.

Warnings



This symbol indicates important safety instructions which, if not followed, could endanger personal safety and/or property. Read and follow all instructions in this manual before attempting to operate this machine. Failure to comply with these instructions may result in personal injury. When you see this symbol—heed its warning.



Keep bystanders, helpers, pets, and children at least 75 feet from the machine while it is in operation. Stop machine if anyone enters the area.



CARBON MONOXIDE

GAS

Exhaust contains poisonous carbon monoxide, a colorless and odorless gas. Breathing exhaust can cause loss of consciousness and may lead to death.

The Engine Exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.



Wear hearing and eye protection while operating this machine or if you are within 75 feet of this machine. Thrown objects which ricochet can cause serious injury to the eyes.



Never wear loose clothes or long jewelry and keep your long hair under a headgear when operating machine. Never operate this machine in bare feet or sandals. Never use machine on a slope or hard smooth floor.



This machine has a rotating cutting blade capable of amputating hands and feet and throwing objects. Keep hands and feet out of openings while machine is running. Failure to observe these safety instructions could result in serious injury or death.



Gasoline is extremely flammable and the vapors are explosive. Serious personal injury can occur when gasoline is spilled on you or your clothing, which can ignite. In the event of a gasoline spill, wash your skin and change clothes immediately.



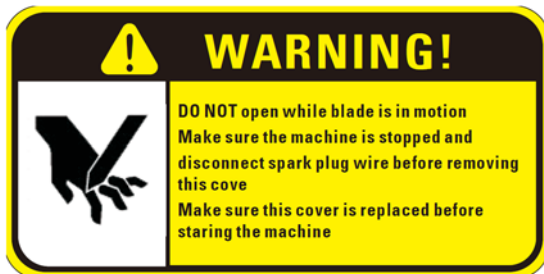
WARNING: Do not operate this machine unless the chute deflector has been installed properly.

WARNING:

DO NOT feed wood diameter more than 120mm. DO NOT force the branches into this machine, allow the machine to automatically feed through.

Warnings

Safety Labels Found On Your Unit



Conventions used in this manual



This indicates a hazardous situation, which, if not avoided, could result in death or serious injury.



This indicates hazardous situation, which if not avoided, could result in minor or moderate injury.

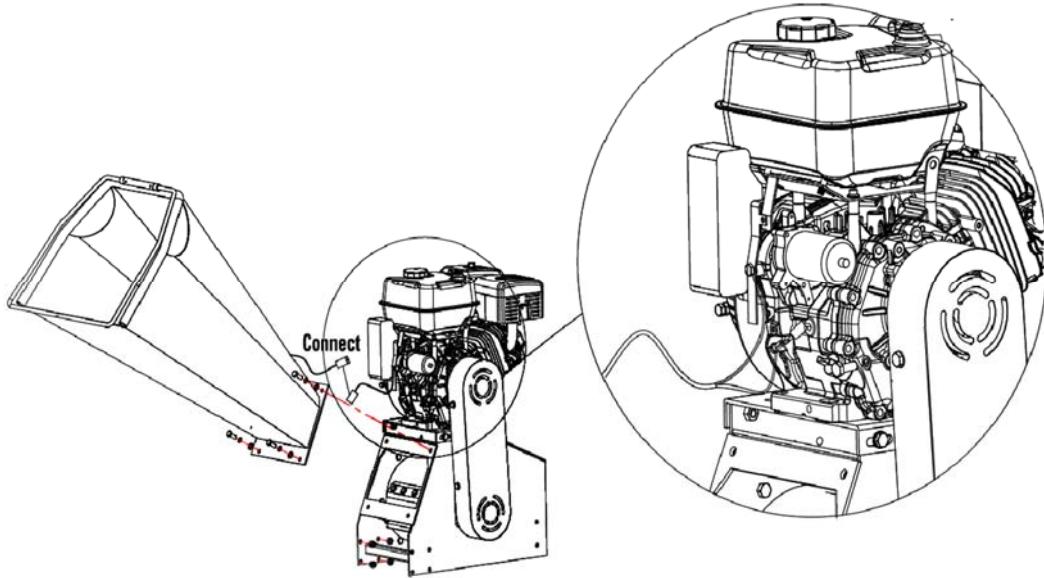


This information is important in proper using of your machine. Failure to follow this instruction could result in damage to your machine or property.

Warnings



EMERGENCY STOP



Should make sure the emergency stop switch is available before every use. Or may result in serious injury even death



Read this Safety & Operating Instructions manual before you use the Wood Chipper. Become familiar with the operation and service recommendations to ensure the best performance of your machine.



This machine is designed solely to chip wood and must not be used for any other purpose. It should only be used by trained operators who are familiar with the content of this manual. It is potentially hazardous to fit or use any parts other than your dealer parts. The company disclaims all liability for the consequences of such use, which in addition voids the machine warranty.

Warnings



Before Using The Wood Chipper

- A. Operators must be fully trained before using this machine.
- B. User Manual is read and understood.
- C. Machine is positioned on level ground, all guards are fitted and in good condition.
- D. Blades are in good condition and secure. All blades are sharpened or replaced in sets.
- E. All fasteners are checked for tightness.
- F. Only WOODEN materials free of nails etc. are fed into the machine.
- G. Emergency stop wires are correctly connected and the switch is functional.
- H. Fire extinguisher is available on site.



When Using The Wood Chipper

- A. Always feed from the side.
- B. It is better to have a second trained operator within easy reach of the machine.
- C. Maintain strict discipline at all times and service machine at specified periods.
- D. Note direction of discharge chute and if necessary note the wind direction to prevent debris from being blown into highway or where it could affect members of the public.
- E. Do NOT put any part of your body into the in-feed chute while the machine is running.
- F. DO NOT operate the machine whilst under the influence of alcohol or drugs.
- G. DO NOT operate inside building or confined space or climb on the in-feed chute



Protecting Yourself And Those Around You

This is a high-powered machine, with moving parts operating with high energy. 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:

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

Warnings

- B. Always wear protective goggles or safety glasses with side shields while using the Wood chipper to protect you eyes from possible thrown debris.
- C. Avoid wearing loose clothing or jewelry ,which can catch on moving parts
- D. We recommend wearing gloves while using the wood Chipper. Be sure you gloves fit properly and do not have loose cuffs or drawstrings
- E. Wear shoes with non-slip treads when using you wood chipper .if you have safety shoes. we recommend wearing them. Do not use the machine while barefoot or wearing open sandals.
- F. Wear long pants while operating the Wood Chipper.
- G. Keep bystanders at least 50feet away from your work area at all times. stop the engine when another person or pet approaches.



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:

- A. Keep children and pets at least 50 feet from the working area and ensure they are under the watchful care of a responsible adult.
- B. Be alert and turn the machine off if children or pets enter the work area.
- C. Never allow children to operate the Wood Chipper.



Safety With Gasoline-Powered Machine

Gasoline is a highly flammable liquid. Gasoline also gives off flammable vapor that can be easily ignited and cause a fire or explosion. Never overlook the hazards of gasoline. Always follow these precautions:

- A. Never run the engine in an enclosed area or without proper ventilation as the exhaust from the engine contains carbon monoxide, which is an odorless, tasteless, and a deadly poisonous gas.
- B. Store all fuel and oil in containers specifically designed and approved for this purpose and keep away from heat and open flame, and out of the reach of children.

Warnings

- C. Replace rubber fuel lines and grommets when worn or damaged and after 5 years of use.
- D. Fill the gasoline tank outdoors with the engine off and allow the engine to cool completely. Don't handle gasoline if you or anyone nearby is smoking, or if you're near anything that could cause it to ignite or explode. Reinstall the fuel tank cap and fuel container cap securely.
- E. If you spill gasoline, do not attempt to start the engine. Move the machine away from the area of the spill and avoid creating any source of ignition until the gas vapors have dissipated. Wipe up any spilled fuel to prevent a fire hazard and properly dispose of the waste.
- F. Allow the engine to cool completely before storing in any enclosure. Never store machine that has gas in the tank, or a fuel container near an open flame or spark such as a water heater, space heater, clothes dryer or furnace.
- G. Never make adjustments or repair with the engine running. Shut down the engine. Disconnect the spark plug wire, keeping it away from the spark plug to prevent accidental starting, wait 5 minutes before making adjustments or repairs.
- H. Never tamper with the engine's governor setting. The governor controls the maximum safe operation speed and protects the engine. Over-speeding the engine is dangerous and will cause damage to the engine and to the other moving parts of the machine. If required, see your authorized dealer for engine governor adjustments.
- I. Keep combustible substances away from the engine when it is hot.
- J. Never cover the machine while the muffler is still hot.
- K. Do not operate the engine with the air cleaner or the carburetor air intake cover removed. Removal of such parts could create a fire hazard. Do not use flammable solutions to clean the air filter.
- L. The muffler and engine become very hot and can cause a severe burn; do not touch.



NOTICE

General Safety

Operating the wood 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. Always take the following precautions when operating:

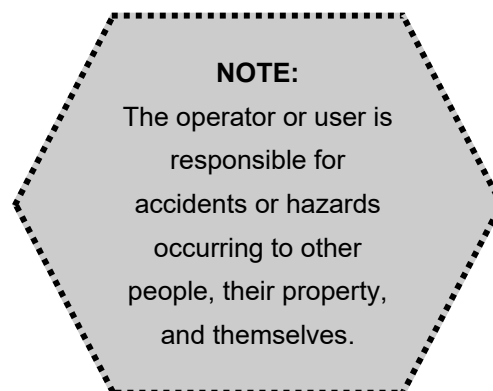
- A. Your Wood Chipper is a powerful tool, not a plaything. Exercise extreme caution at all times. The machine is designed to chip wood. Do not use it for any other purpose.
- B. Know how to stop the Wood Chipper quickly.
- C. Never operate our unit on a slippery, wet, muddy, or ice surface. Exercise caution to avoid slipping or falling.

Warnings

- D. See manufacturer's instructions for proper operation and installation of accessories.
- E. Never use the machine without ensuring that all guards and shields are in place.
- F. Never, under any conditions, remove, bend, cut, fit, weld, or otherwise alter standard parts on the Wood Chipper. This includes all shields and guards. Modifications to your machine could cause personal injuries and property damage and will invalidate your warranty.
- G. If the machine starts to make an unusual noise or vibrate, shut down the engine, disconnect the spark plug wire, keeping it away from the spark plug to prevent accidental starting, wait 5 minutes for engine to cool down, then inspect for damage. Vibration is generally a warning of trouble. Check damaged parts and clean, repair and/or replace as necessary.
- H. Never tamper with safety devices. Check their proper operation regularly.
- I. Before performing any maintenance or inspection procedure, shut down the engine, disconnect the spark plug wire keeping it away from the spark plug to prevent accidental starting, wait 5 minutes for machine to cool down.
- J. Never allow people who are unfamiliar with these instructions to use the Wood Chipper. Allow only responsible individuals who are familiar with these rules of safe operation to use your machine.
- K. Never overload or attempt to chip woods beyond the manufacturer's recommendation. It could result in personal injury or damage to the machine.
- L. While using don't hurry or take things for granted. When in doubt about the equipment or your surroundings stop the machine and take time to look things over.
- M. Never operate the machine when under the influence of alcohol, drugs, or medication.
- N. Use the machine only in daylight.
- O. Stay alert for hidden hazards or traffic.
- P. Keep all nuts and bolts tight and keep the equipment in good operating condition.

A Note to All Users

List of warnings and cautions cannot be all-inclusive. If situations occur that are not covered by this manual, the operator must apply common sense and operate this WOOD CHIPPER in a safe manner. Contact the dealers for assistance in your area.



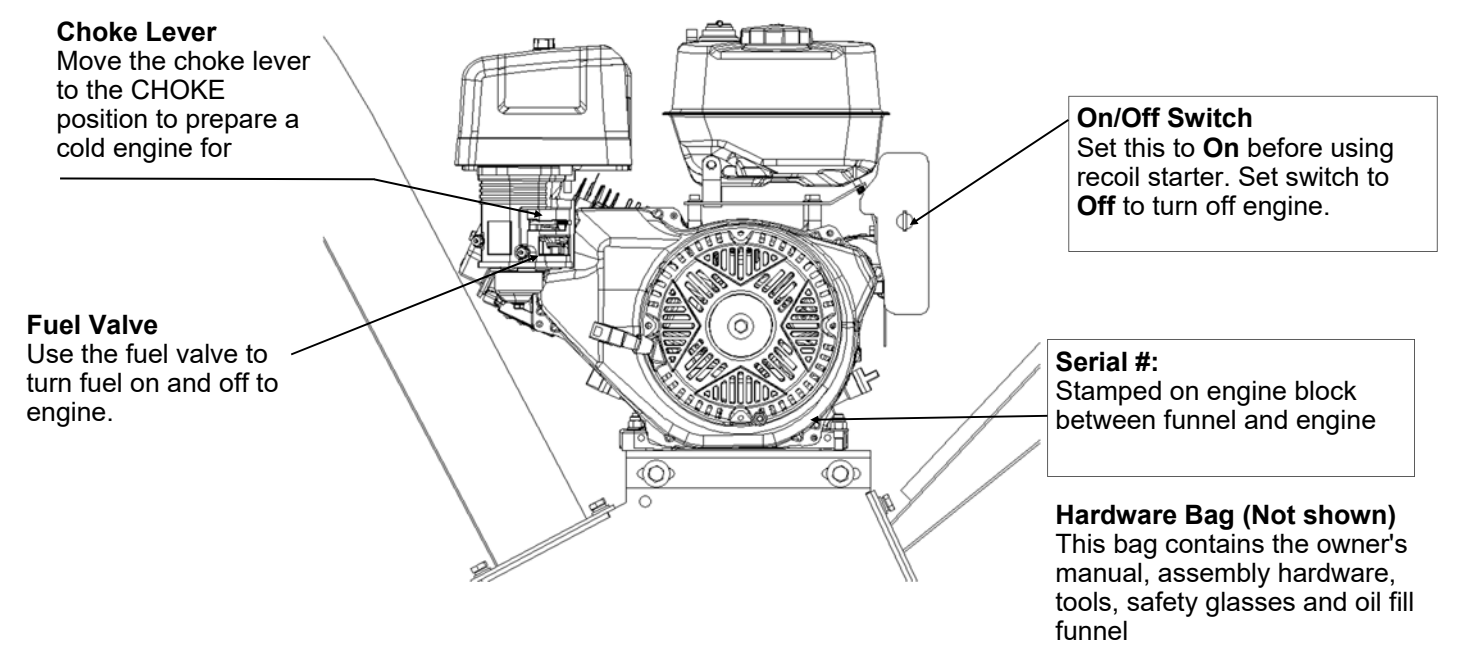
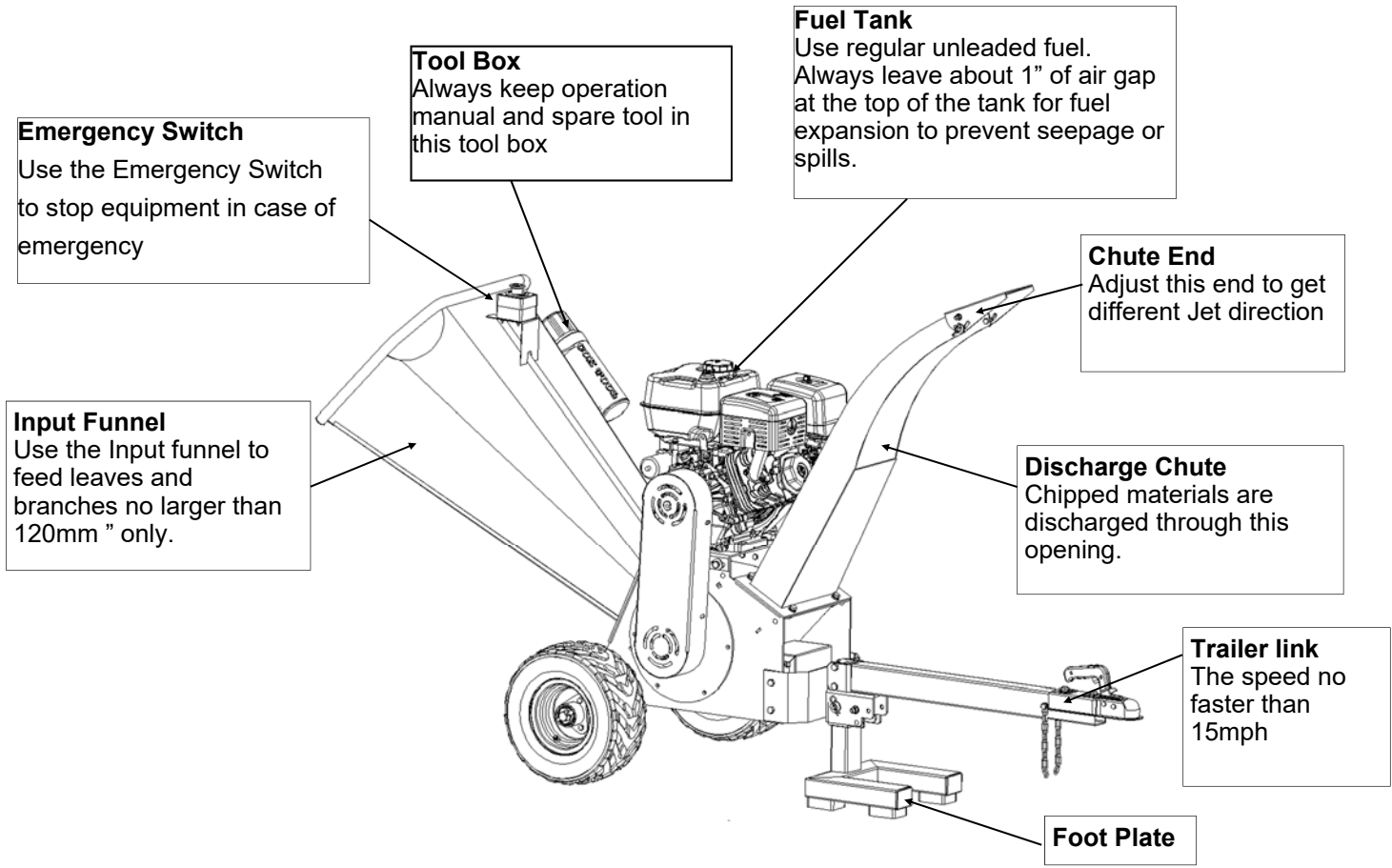
Product Specifications

Wood Chipper Model # Specifications

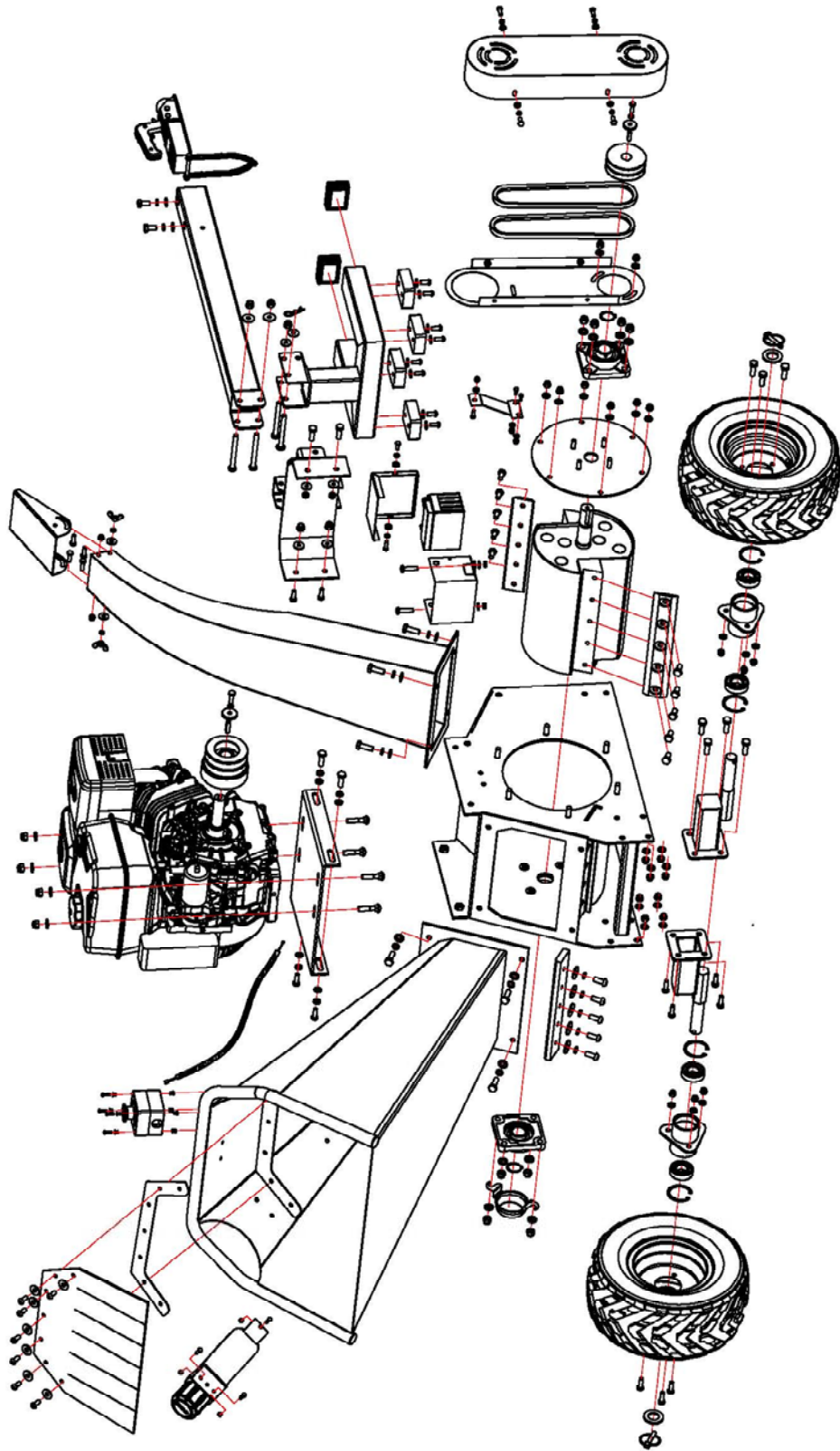
It may be helpful to familiarize yourself with the controls and features of the Wood Chipper. If you have any question, please contact the dealers in your area.

Wood Chipper Product Specifications				
Model#	13.5hp	13.5hp Pro	7.5hp	7.5hp Pro
Engine	13.5HP Four Strokes	13.5HP Four Strokes	6.5HP Four Strokes	6.5HP Four Strokes
Engine start	Recoil Start	Electric Start	Recoil Start	Electric Start
Engine Speed	3600RPM	3600RPM	3600RPM	3600RPM
Engine Displacement (cc)	420cc	420cc	208cc	208cc
Fuel Capacity (L)	6.6	6.6	3.1	3.1
Oil Capacity (L)	1.1	1.1	0.6	0.6
Power	Gasoline/petrol	Gasoline/petrol	Gasoline/petrol	Gasoline/petrol
Chipper Capacity	6CBM/HOUR	6CBM/HOUR	2CBM/HOUR	2CBM/HOUR
Wood Diameter	Diameter 120mm	Diameter 120mm	Diameter 75mm	Diameter 75mm
Permitted wood width	310mm	310mm	310mm	310mm
Chipper Blade	Twin Reversible Blades	Twin Reversible Blades	Twin Reversible Blades	Twin Reversible Blades
Tire	16*8-7	16*8-7	3.5-4	16*8-7
Overall Height	1460mm	1460mm	1030mm	1030mm
Overall Length	2370mm	2370mm	1590mm	1590mm
Width	860mm	860mm	460mm	460mm
Weight	205kg	215kg	100kg	100kg
Roller Max RPM	3000rpm	3000rpm	2800rpm	2800rpm

Component Identification

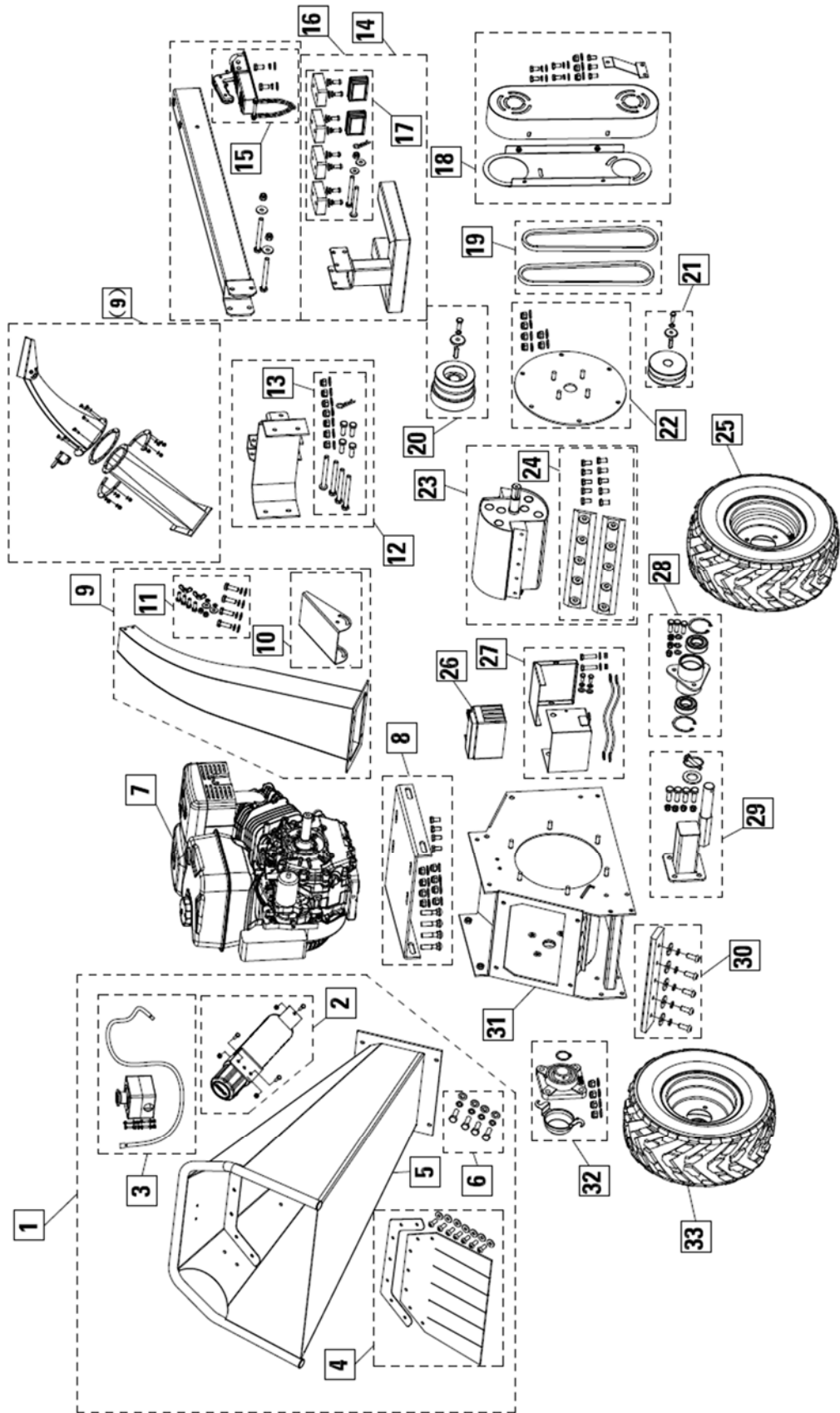


Chipper Assembly Reference



Component Identification

Chipper Spare Parts Kit Diagram



Rev1 2022-4-23

Component Identification

Professional Vertical Chipper Spare Parts Kit (13.5HP)

No	Kit Number	Description
1	SP21-1200-001	Input Funnel Kit
2	SP21-1200-002	Tool Box Kit
3	SP21-1200-003	Emergency Stop Switch Kit
4	SP21-1200-004	Input Funnel Rubber Fender Kit
5	SP21-1200-005	Input Funnel
6	SP21-1200-006	Hardware Of Input Funnel
7	SP21-1200-007	13.5hp Engine with Electric Start
8	SP21-1200-008	Engine Assembly Plate Kit
9	SP21-1200-009	Output Funnel Kit
(9)	SP22-1200Pro-009	Swivel Output Funnel Kit With Cap
10	SP21-1200-010	Output Funnel Cap
11	SP21-1200-011	Hardware Of Output Funnel
12	SP21-1200-012	Tow Bar Connect Kit
13	SP21-1200-013	Hardware Tow Bar Connect
14	SP21-1200-014	Two Bar Kit
15	SP21-1200-015	Trailer Connector Kit
16	SP21-1200-016	Foot Stool Kit
17	SP21-1200-017	Hardware Of Foot Stool Kit
18	SP21-1200-018	Belt Guard Kit
19	SP21-1200-019	Belt B-1016Li
20	SP21-1200-020	Engine Shaft Clutch Pulley Kit
21	SP21-1200-021	Roller Belt Pulley Kit
22	SP21-1200-022	Housing Right Guard kit
23	SP21-1200-023	Roller With Blade kit
24	SP21-1200-024	Blade Kit
25	SP21-1200-025	Right Tire kit
26	SP21-1200-026	Battery 12v 9AH
27	SP21-1200-027	Battery Housing Kit
28	SP21-1200-028	Tire Hub Kit
29	SP21-1200-029	Tire Shaft kit
30	SP21-1200-030	Gap Adjust Plate Kit
31	SP21-1200-031	Housing
32	SP21-1200-032	Bearing Kit
33	SP21-1200-033	Left Tire kit

Safety Information

Your Responsibility

Restrict the use of this chipper/shredder to persons who read, understand and follow the warnings and instructions in this manual and on the machine.

Note: Not all safety labels shown may apply to your wood chipper

Preparation

1. Thoroughly inspect the area where the wood chipper is to be used. Remove all rocks, bottles, cans, or other foreign objects which could be picked up or thrown and cause personal injury or damage to the machine.
2. Avoid discharging chipped material out of the discharge chute against a wall or on asphalt, concrete, or other hard surfaces as material being ejected could ricochet, causing injury to you or bystanders.
3. Always wear safety glasses or safety goggles to protect eyes during operation or while performing an adjustment or repair.
4. Wear sturdy, rough-soled work shoes and closefitting pants and shirts. Loose fitting clothing or jewelry can be caught in movable parts. Wear leather work gloves when feeding material in the chipper chute.
5. Before starting the engine, check bolts and screws for proper tightness to be sure the machine is in safe working condition. Also, visually inspect the chipper shredder at frequent intervals for any damage.
6. Maintain or replace safety and instructions labels, as necessary.
7. To avoid personal injury or property damage use extreme care in handling gasoline.
 - a. Use only an approved gasoline container.
 - b. Extinguish all cigarettes, cigars, pipes, and other sources of ignition.
 - c. Never fuel machine indoors.
 - d. Never remove gas cap or add fuel while the engine is hot or running.
 - e. Allow engine to cool at least two minutes before refueling.
 - f. Never over fill fuel tank. Always leave about 1 inch open below bottom of filler neck to provide space for fuel expansion.
 - g. Tighten gasoline cap securely.
 - h. If gasoline is spilled, wipe it off the engine and equipment. Move machine to another area and wait 5 minutes before starting the engine.
 - i. Never store machine or fuel container inside near an open flame, spark, or pilot light (e.g., furnace, water heater, space heater, clothes dryer, etc.).
 - j. To reduce the fire hazard, keep machine free of grass, leaves, or other debris build-up. Clean up oil or fuel spills and remove any fuel soaked debris.
 - k. Allow machine to cool at least 5 minutes before storing.
8. Never attempt to make any adjustments while the engine (motor) is running (except where specifically recommended by the manufacturer).

Safety Label Locations

These labels warn you of potential hazards that can cause serious injury. Read them carefully. If a label comes off or becomes hard to read, contact your dealer for a replacement.

Safety Information

Products are designed to give safe and dependable service if operated according to instructions. Read and understand this owner's manual before operating your power equipment.

Operator Responsibility

Never allow children under 18 years old to operate this machine. Children 18 years old and over should read and understand the operation instructions and safety rules in this manual and should be trained and supervised by a parent.

Operating Guidelines

COX Professional Vertical Chipper

It may be helpful to better familiarize yourself with the features of your Wood Chipper before beginning the steps outlined in this chapter.



1. Read and understand all instructions, safety precautions, and/or warnings listed in "PART I: General Safety Rules" before operating the wood CHIPPER. If any doubt or question arises about the correct or safe method of performing anything found in this manual, please contact the dealers in your area.
2. When operating the Wood Chipper, make sure you are standing in the safe operating area (OPERATOR ZONE). You must stay in the safe operating area at all times when (whether extending or retracting, never place any part of your body into a position that causes an unsafe operating condition.
3. Before loading and operating the Wood Chipper, always wear protective gear, including safety goggles, earing protection, tight-fitting gloves without draw strings or loose cuffs, and steel-toed shoes.
4. Knowing the correct and incorrect methods of Chipping woods. Never using an incorrect or unsafe method.

READ THESE OPERATING GUIDELINES BEFORE YOU PROCEED ANY FURTHER

1. Do not put hands and feet near rotating parts or in the feeding funnel and discharge opening. Contact with the rotating impeller can amputate fingers, hands, and feet.
2. Before starting the machine, make sure the chipper chute, feed intake, and cutting chamber are empty and free of all debris.
3. Thoroughly inspect all material to be shredded and remove any metal, rocks, bottles, cans, or other foreign objects which could cause personal injury or damage to the machine.
4. If it becomes necessary to push material through the shredder hopper, use a small diameter stick. Do not use your hands or feet.
5. If the impeller strikes a foreign object or if your machine should start making an unusual noise or vibration, immediately shut the engine off. Allow the impeller to come to a complete stop. Disconnect the spark plug wire, ground it against the engine and perform the following steps:
 - a. Inspect for damage.
 - b. Repair or replace any damaged parts.
 - c. Check for any loose parts and tighten to assure continued safe operation.
6. Do not allow an accumulation of processed material to build up in the discharge area. This can prevent proper discharge and result in kickback of material through the feed opening.
7. Do not attempt to shred or chip material larger than specified on the machine or in this manual. Personal injury or machine damage could result.
8. Never attempt to unclog either the feed intake or discharge opening while the engine is running. Shut the engine off, wait until all moving parts have stopped, disconnect the spark plug wire and ground it against the engine before clearing debris.
9. Never operate without the leaf funnel, limb chute, or discharge chute properly attached to the machine. Stop the engine when leaving the operating position.
10. Keep all guards, deflectors and safety devices in place and operating properly.
11. Keep your face and body back and to the side of the chipper chute while feeding material into the machine to avoid accidental kickback injuries.
12. Never operate this machine without good visibility or light.
13. Do not operate on a non-level surface.
14. Do not operate in a confined space.
15. Do not operate this machine while under the influence of alcohol or drugs.
16. Muffler and engine become hot and can cause a burn. Do not touch.
17. Never pick up or carry machine while the engine is running.
18. Do not leave this machine running while unattended

Operating Guidelines

COX Professional Vertical Chipper

Starting

1. Position your Wood Chipper on flat, dry ground, and then stop the front wheel with brake, make sure the machine cannot be moved.
2. Make sure the fuel shut-off valve is in the "ON" position.
3. Move the choke control lever to the "CHOKE" position (should only be needed if the engine is cold).
4. Move the throttle control lever to the "FAST" position.
5. Recoil Start: Turn the ignition Switch to the "On" position. Grasp the recoil starter handle and slowly pull until you feel resistance. Let the cord retract a little bit then pull the cord rapidly to start the engine. One or two pulls usually starts the engine.
6. Electric Start: Turn and hold the key in the start position until Engine starts then let the Key return to run position.
7. Move the choke control lever (if used for cold engine) slowly back to the "RUN" position when the engine is running well.
8. If the Wood Chipper has not been running (cold engine), warm up the engine by running the engine at half throttle for 3 to 4 minutes, then advance the engine throttle control to the maximum speed.

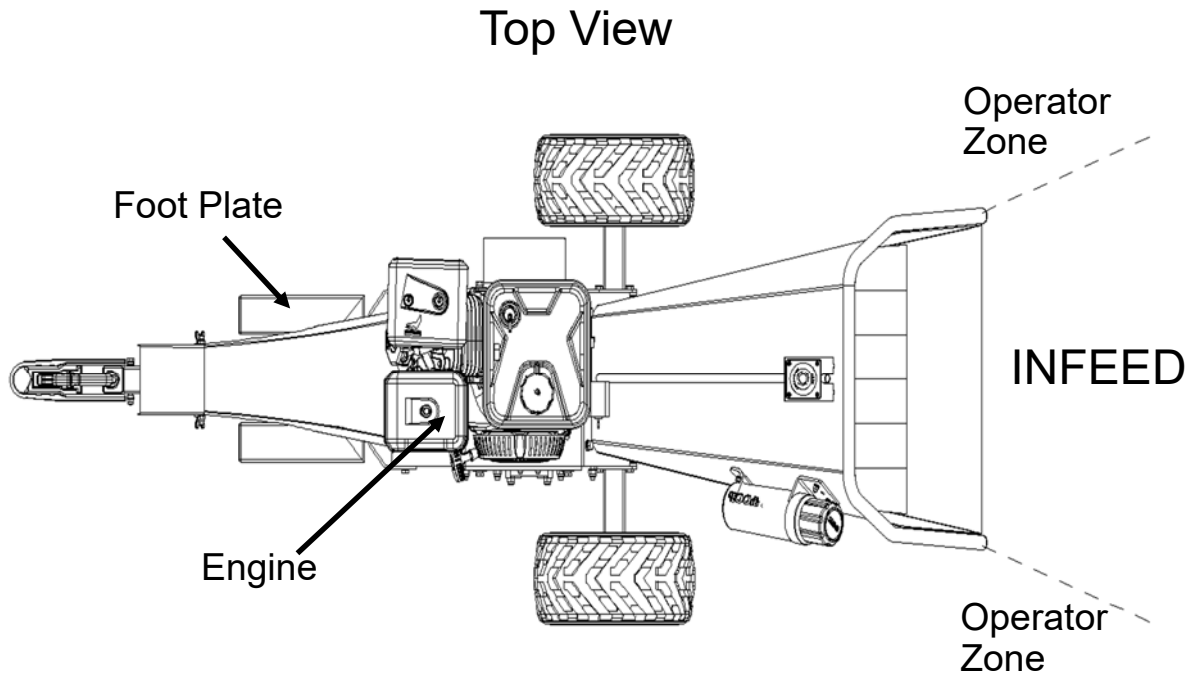
Stopping

1. Move the Throttle Lever to IDLE.
2. Recoil Start: Turn the Ignition Switch to the OFF position.
3. Electric Start: Turn the Key to the OFF position.

Operating Guidelines

COX Professional Vertical Chipper

Operator Zone



Woods' and branches' diameter should be no bigger than 120mm



Do not place your hands into the chute when loading. This is a very UNSAFE method and could result in injury to your hands.

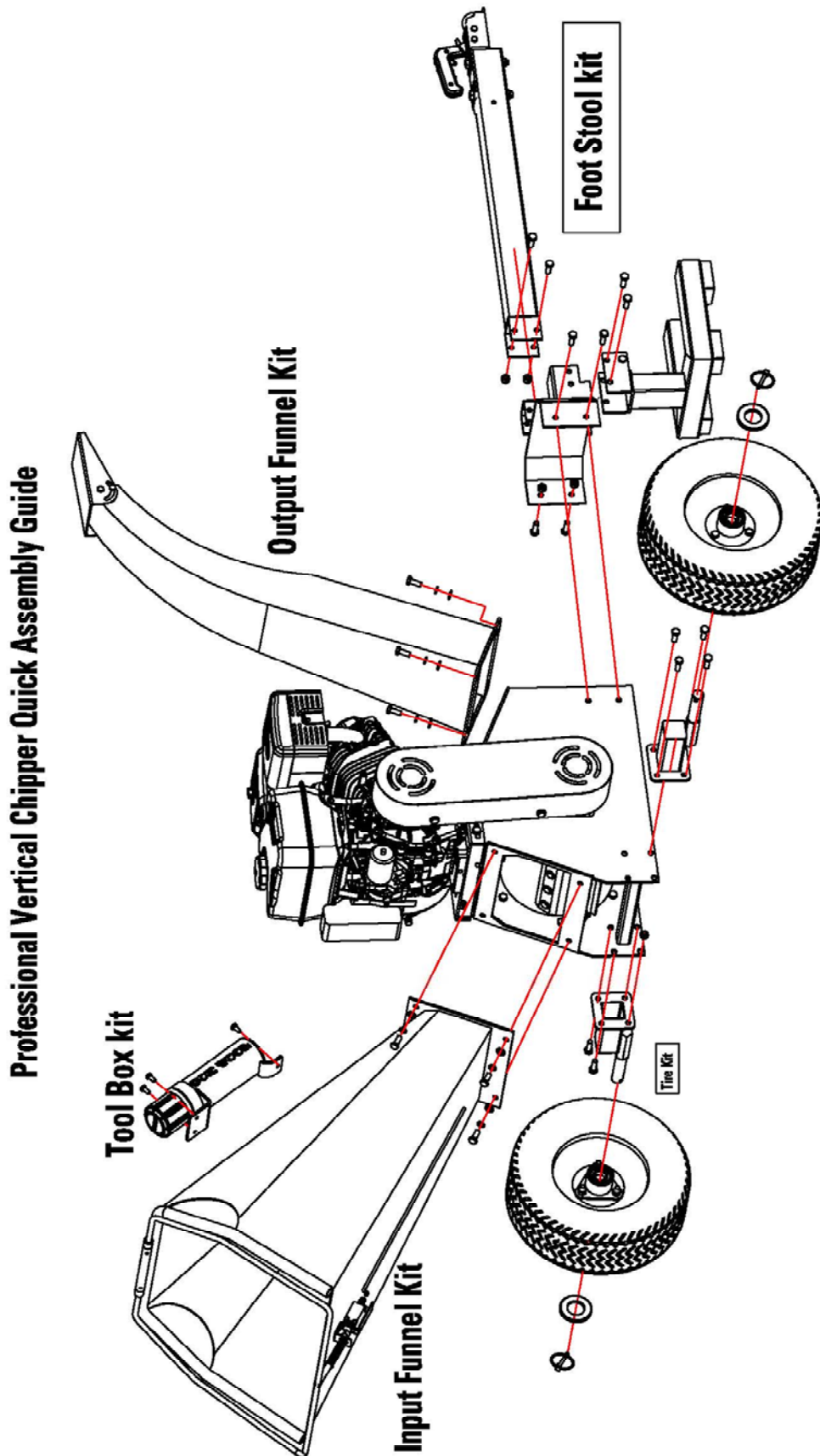
Do not reach or step across the rail while the wood Chipper is running. This is a very UNSAFE method which could cause personal injury, even death.

When Blocked

If the Roller stops while chipping woods or branches, the engine should be stopped, and take out the woods which stuck the roller, and then restart the engine, and chip again.

Quick Assembly Guide

COX Professional Vertical Chipper



Important Engine Information

COX Professional Vertical Chipper

NOTE: The wood chipper operates most efficiently at the factory set engine speed of 3600 RPM. The speed is controlled by the governor, and the throttle setting should not be adjusted. Do not attempt to adjust the speed of the engine.

Emission Control System Information

The U.S. and California Clean Air Acts

EPA and California regulations require all manufacturers to furnish written instructions describing the operation and maintenance of emission control systems. The following instructions and procedures must be followed in order to keep the emissions from your engine within the emission standards.

The emission control systems on your engine were designed, built, and certified to conform with EPA and California emission regulations.

Maintenance, replacement, or repair of the emission control devices and systems may be performed by any engine repair provider, using parts that are "certified" to EPA standards. We recommend the use of genuine parts whenever you have maintenance done. These original-design replacement parts are manufactured to the same standards as the original parts, so you can be confident of their performance.

The use of aftermarket replacement parts, not of the original design and quality, may impair the effectiveness of your emission control system. A manufacturer of an aftermarket part assumes the responsibility that the part will not adversely affect emission control performance and must certify that use of the part will comply with emission regulations.

In the State of California a spark arrestor is required by law. Other states may have similar laws. Federal laws apply on all federal lands. If you equip the muffler with a spark arrestor, it must be maintained in effective working order.



Carbon Monoxide Gas

Exhaust contains poisonous carbon monoxide, a colorless and odorless gas. Breathing exhaust can cause loss of consciousness and may lead to death. To keep exhaust gas from accumulating, DO NOT use this product in a garage, basement, crawlspace, enclosed shed, or any other area without adequate ventilation. DO NOT use this equipment near ventilation ducts or open windows that may allow exhaust gasses to enter your home or business. ONLY operate this product outdoors.

The engine exhaust from this product and other components contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.



Fire and

Burn Hazards

The exhaust system gets hot enough to ignite some materials.

- Keep the power equipment at least 3 feet (1 meter) away from buildings and other equipment during operation.
- Do not enclose this product in any structure.
- Do not smoke when refueling.
- Keep flammable materials away.
- The muffler becomes very hot during operation and remains hot for a while after stopping the engine. Be careful not to touch the muffler while it is hot.
- Let the engine cool before storing.
- Refuel in a well ventilated area with the engine stopped.
- Fuel vapors are extremely flammable and may ignite after the engine has started. Make sure that any spilled fuel has been wiped up before starting the engine.

Maintenance and Storage

COX Professional Vertical Chipper

Maintenance Schedule

Item	Before each use	20 hrs or every 3 months	50 hrs or every 3 months	100 hrs or every 6 months	300 hrs or every 1 year
Check for loose fasteners (check)	X				
Engine Oil (Check)	X				
Engine Oil (Change)		X			
Air Cleaner (Check)	X				
Air Cleaner Wash		X			
Fuel filter Cup (Clean)			X		
Spark Plug (Clean)				X	
Spark Plug (Change)					X
Check Chipper Blade	X				
Fuel Tank and Filter (Clean)		X			
Check Wedge For Sharpness	X				
Check Belt	X				
Check Tire pressure	X				



Always stop engine, disconnect spark plug, and ground against engine before cleaning, lubricating or doing any kind of maintenance on your machine.

Maintenance and Storage

1. Never tamper with safety devices. Check their proper operation regularly.
2. Check bolts and screws for proper tightness at frequent intervals to keep the machine in safe working condition. Also, visually inspect machine for any damage and repair, if needed.
3. Before cleaning, repairing, or inspecting, stop the engine and make certain the impeller and all moving parts have stopped. Disconnect the spark plug wire and ground it against the engine to prevent unintended starting.
4. Do not change the engine governor settings or overspeed the engine. The governor controls the maximum safe operating speed of the engine.
5. Maintain or replace safety and instruction labels, as necessary.
6. Follow this manual for safe loading, unloading, transporting, and storage of this machine.
7. Never store the machine or fuel container inside where there is an open flame, spark or pilot light such as a water heater, furnace, clothes dryer, etc.
8. Always refer to the operator's manual for proper instructions on off-season storage.
9. If the fuel tank has to be drained, do this outdoors.
10. Observe proper disposal laws and regulations for gas, oil, etc. to protect the environment.

If the Chipper Becomes Clogged:

If the discharge area becomes clogged:

- Stop the engine. Disconnect spark plug wire from spark plug and ground against the engine.
- Remove leaf funnel
- Reach in and clear the debris causing the blockage. Reinstall the funnel and the clean out access hatch.
- Connect the spark plug wire and restart.

NOTE: If the blockage is severe, the hammer screen within the discharge chute can be removed as well, providing greater access. To accomplish this, remove the discharge chute and the flail screen out of the discharge chute.

Maintenance and Storage

Optimizing Chipper Performance – Keep the Blade Sharp!

During operation, if you notice any of the following symptoms, your chipper blade probably needs to be sharpened:

1. Chipper does not auto-feed
2. Chipper produces “chunks” or “sawdust” instead of “chips”
3. Chipper engine bogs down or labors
4. Smoke issues from the drive belt
5. Chipper jams or stops altogether

For optimal chipping, you will need to sharpen and/or replace your chipper’s blade frequently. Similar to the teeth of a chainsaw, your chipper blade requires frequent sharpening. We recommend that you check the blade for sharpness before each use and after every 2-3 hours of operation.

Some models contain a spare blade in the hardware bag. If you require additional blades, they can be purchased .

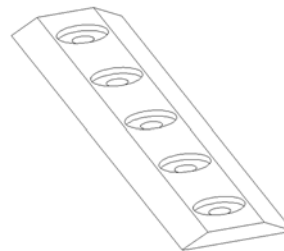
As a rough guide, your chipper blade will require sharpening after 4-8 hours of normal use when chipping harder woods such as maple or oak. When chipping softer woods such as poplar and pine, the blade can last 10-20 hours before sharpening is required. If you hit a foreign object such as a stone or nail or if you are processing limbs that have small amounts of sand or soil on them, you will need to sharpen the blade much more frequently.

Operating the chipper with a sharp blade will extend the life of :

1. **The blade** because if a chipper blade becomes too dull, much of the blade itself will have to be removed during the sharpening process. Frequent sharpening maintenance as needed is best. Occasional, intensive sharpening will greatly diminish the life of the chipper blade.
2. **The belt** because as the blade becomes dull, the forces on the belt increase and belt wear is accelerated.
3. **The chipper structure** because if wood is forced into a chipper with a dull blade, the force can bend the feed chute, bend the blade carousel and/or shear the bearing bolts.

To remove and/or replace the blade, please follow the instructions in the owner’s manual.

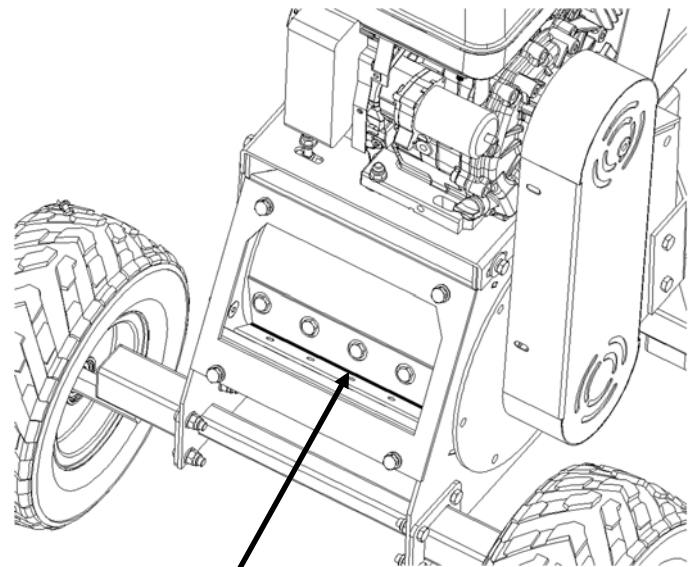
Since the blade is hardened steel, it should be sharpened on a wet wheel, or by hand on a stone. (Avoid sharpening the blade using a grinder the way you would a lawn mower blade. If you do, the localized heat will cause the steel to lose its tempered edge and the blade will dull more quickly in use). While many customers are comfortable sharpening their own blade, most local service centers will sharpen your blade for a small fee.



BLADE Two side can be used



Keep the gap between the blade less than 1mm.



Gap between blade

Troubleshooting

COX Professional Vertical Chipper

Most problems are easy to fix Consult the Troubleshooting Table below for common problems and their solutions. If you continue to experience problems, contact the dealers in your area.



Before performing any maintenance procedure or inspection, stop the engine, wait five minutes to allow all parts to cool. Disconnect the spark plug wire, keeping it away from the spark plug.

Problem	Cause	Remedy
Engine fails to start	<ol style="list-style-type: none"> 1. Spark plug wire disconnected. 2. Fuel tank empty or stale fuel. 3. Throttle control lever not in correct starting position. (If equipped) 4. Choke not in CHOKE position. (If equipped) 5. Engine not primed. 6. Blocked fuel line. 7. Faulty spark plug. 8. Low oil 	<ol style="list-style-type: none"> 1. Connect wire to spark plug. 2. Fill tank with clean, fresh gasoline. 3. Move throttle lever to FAST position. 4. Move choke to CHOKE position. 5. Prime engine. 6. Clean fuel line. 7. Clean, adjust gap, or replace. 8. Fill
Engine runs erratic	<ol style="list-style-type: none"> 1. Spark plug wire loose. 2. Unit running on CHOKE. (If equipped) 3. Blocked fuel line or stale fuel. 4. Water or dirt in fuel system. 5. Dirty air cleaner. 6. Carburetor out of adjustment. 	<ol style="list-style-type: none"> 1. Connect and tighten spark plug wire. 2. Move choke lever to OFF position. 3. Clean fuel line; fill tank with clean, fresh gasoline. 4. Drain fuel tank. Refill with fresh fuel. 5. Clean or replace air cleaner. 6. Call Parts & Service
Too much vibration	<ol style="list-style-type: none"> 1. Loose parts or clogged carousel . 2. Trying to force branches or logs too fast into the side chute 3. Trying to force branches in the funnel or attempting to put branches into funnel while side chute is in use 	<ol style="list-style-type: none"> 1. Call Parts & Service 2. Cut off excess limbs off of large branches and ensure blades are sharp 3. Allow the branches to feed through the side chute first before attempting to use the funnel. Also do not put branches in the funnel.
Engine overheats	<ol style="list-style-type: none"> 1. Engine oil level low. 2. Dirty air cleaner. 3. Carburetor not adjusted properly. 	<ol style="list-style-type: none"> 1. Fill crankcase with proper oil. 2. Clean or replace air cleaner. 3. Call Parts & Service
Machine does not seem to have full chipping power	<ol style="list-style-type: none"> 1. The belt may be too loose and slipping, 	<ol style="list-style-type: none"> 1. Adjust or replace belts as need

Troubleshooting

COX Professional Vertical Chipper

Problem	Cause	Remedy
Unit does not discharge	<ol style="list-style-type: none">1. Discharge chute clogged.2. Foreign object lodged in carousel.3. Low engine RPM.	<ol style="list-style-type: none">1. Stop engine immediately and disconnect spark plug wire. Clean flail screen and inside of discharge opening.2. Stop engine and disconnect spark plug wire. Remove lodged object.3. Always run engine at full throttle.
Rate of discharge slows	<ol style="list-style-type: none">1. Low engine RPM.2. Chipper blades are dull.	<ol style="list-style-type: none">1. Always run engine at full throttle2. Replace chipper blades or see your authorized service dealer.

NOTE: For repairs beyond the minor adjustments listed above, contact getting setup with your nearest authorized service dealer.

Missing Parts Request Form

COX Professional Vertical Chipper

Please indicate the part that you are missing:

Date of purchase _____

Model #:

- 6.5HP
- 6.5HP pro
- 13.5HP
- 13.5HP Pro

Serial #: _____

Comments:

Name

Address

Phone

Email

IMPORTANT: Please include your receipt. Without a receipt, your order will be delayed.

Refer to parts diagram for part numbers. This will expedite the process.