

HWP-100-3P Firewood Processor



Halverson
HWP
Wood Products, Inc.

**205 College Street
Pine River, MN 56474**

218-587-2065

www.HalversonWoodProducts.com



HWP-100TR-3P Firewood Processor

*Turn your equipment
into a firewood
processing monster!*

CONGRATULATIONS on your purchase of the HWP-100-3P Firewood Processor. This processor is designed and constructed to give you many years of hassle-free operation. Please be sure to read and understand this Operation/Safety Manual.

Operational Requirements

The HWP-100-3P Firewood Processor is designed to operate on firm and level ground. The processor's optional Hydraulic Pump Kit (HPK) supplies hydraulic flow up to 21.2 gallons per minute and is capable of overpowering the HWP-100-3P. It is recommended to operate the HPK at an idle.

Motor requirements

A minimum of 30 HP is recommended for the optional Hydraulic Pump Kit.

HWP-100-3P Specifications

Length	81" (205 cm)
Width	64" (162.5 cm)
Height	62" (157.5 cm)
Weight	1027 lbs. (466 kg)
	<u>Hydraulic Requirements</u> 13 gallons Universal Trans Hydraulic oil (fill to 3/4 on sight glass)
Control System.....	Manually operated valves mounted on the processor.
Max Log Diameter	14" (36 cm)
Max Log Length	8' (2.4 m)
Min Log Length	4' (1.22 m)
Firewood Cut Length.....	Up to 16 " (40.64 cm)
Saw Bar.....	Length: 18" (64.2 cm)
Saw Chain.....	Oregon 3/8 pitch; .058; 68 DL
Saw Oiler	Automatic 2 quart oil tank (1.89 l)
Splitter Cylinder	Custom 3" Bore x 18" Stroke
Splitter Force.....	21,195 lbs. @ 2400 psi
Splitting Wedge.....	2-Way – Optional 4-Way
In-feed.....	Sliding table carries log to wedge
Mounting Spec.....	3 point

DIAGRAM OF VALVE BODY

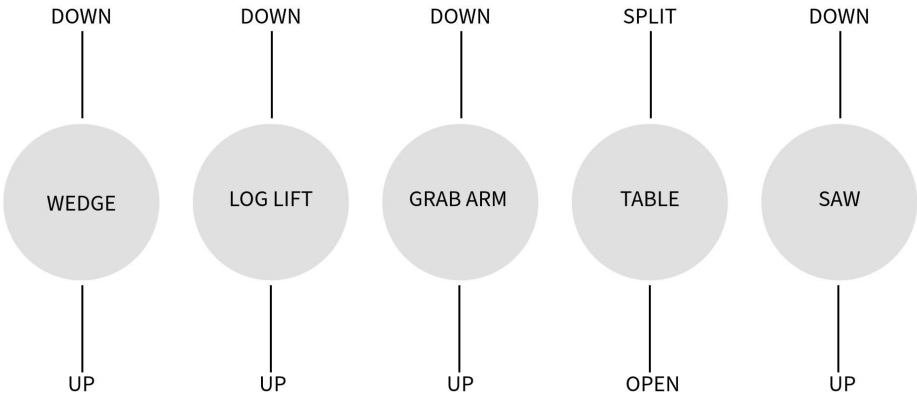
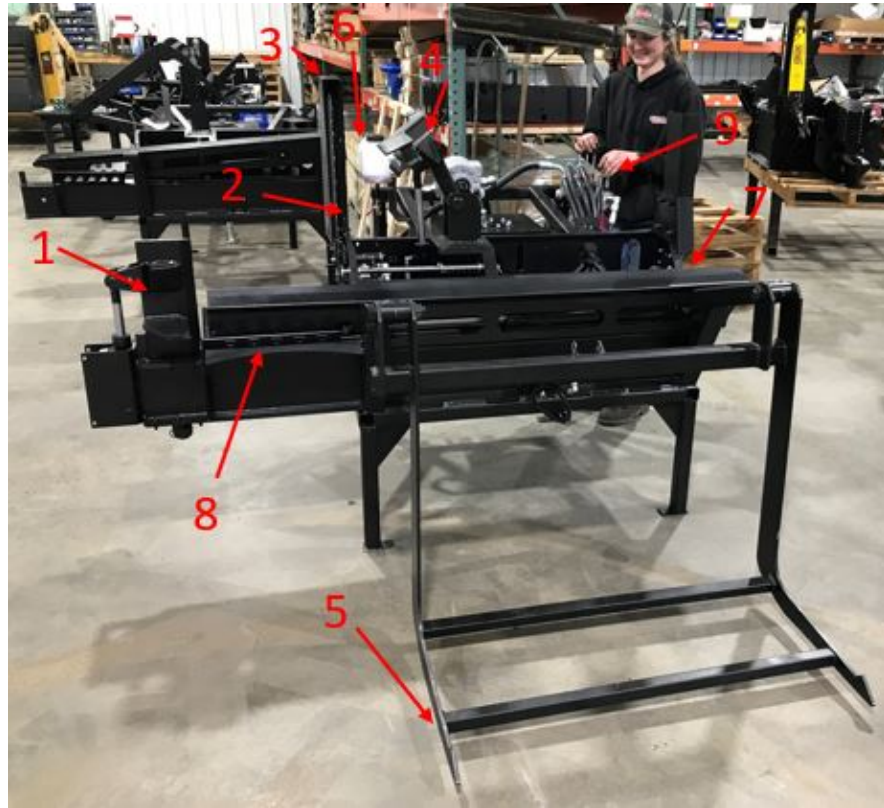


DIAGRAM OF HWP-100-3P MAIN PARTS



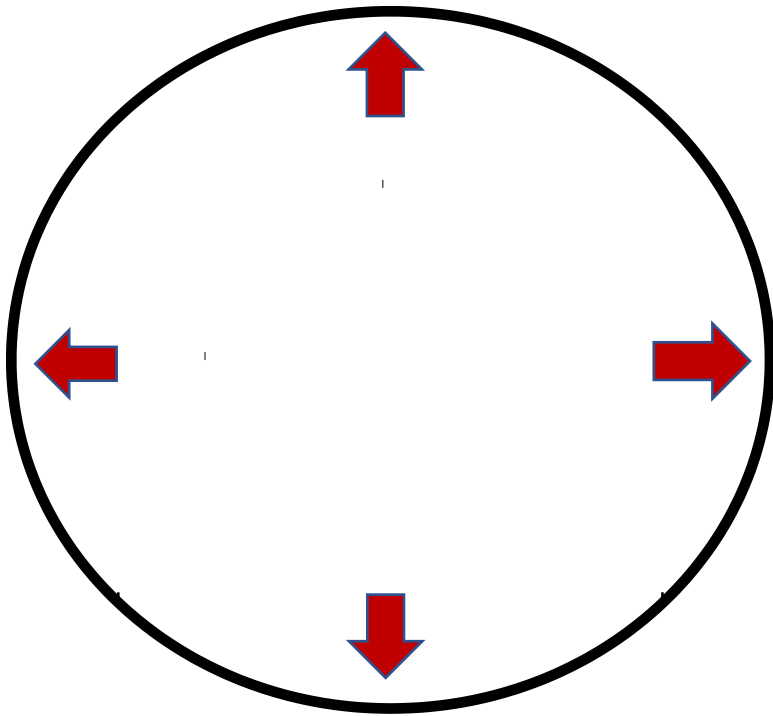
1. SPLITTING WEDGE
2. CHAIN SAW
3. SAW GUARD
4. GRAB ARM
5. LOG LIFT
6. OIL CONTAINER
7. TABLE
8. SPLITTER TROUGH
9. CONTROL LEVERS

GENERAL SAFETY

Labels

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





**Keep everyone at least
50 FEET (15 meters) away
from machine while in
operation.**

Keep everyone at least 50 FEET (15 meters) away from machine while in operation.

Operating this Firewood Processor safely is necessary to prevent or minimize the risk of serious injury or death. Unsafe operation can create a number of hazards for you. Always take the following precautions

GENERAL SAFETY, CONTINUED

Firewood Processor Capabilities and Limits

- Used to process logs, do not use for other purposes.
- Process only wood that is within recommended size limits.
- Process one log at a time.
- Do not modify the processor except as noted in this manual.

Operator Requirements

- Operators must be adults and familiar with the operation of your equipment.
- Never operate while impaired.

General Safe Operating Practices

- Keep all bystanders at least 50 feet (15 meters) away while operating processor. Do not allow bystanders directly in front of or directly behind processor.
- Keep hands and feet away from processor's moving parts. **WARNING!!** Never load wood into or remove wood from the processor or splitter by hand.
- Make sure all equipment safety devices are in working order.
- Before performing any maintenance or inspection, shut down the equipment's engine.

GENERAL SAFETY, CONTINUED

Chain Shot

What is chain shot?

Chain shot is the high velocity separation and ejection of a piece or pieces of cutting chain from the end of a broken chain in mechanized timber harvesting. Chain shot exposes both machine operators and bystanders to a risk of serious injury or death. Chain shot typically occurs near the drive end of the cutting system but can also come from the bar tip area.

Industry research indicates an average of 1 in 50 broken chains had parts missing that may have been the result of a chain shot event.

How does chain shot occur?

A chain shot consists of two breaks in a chain.

First, the loop of chain breaks and forms two ends. One end moves past the drive sprocket or bar nose and is rapidly accelerated due to a whip-like motion of the chain end.

The “whip action” causes the second break releasing small parts at very high velocity.

Chain shot can cause chain parts to be thrown in many directions, especially those along the plane of the saw bar.

What does a typical chain shot piece look like?

The most dangerous chain shot parts consist of one to three parts as shown:



How can operators reduce the risk of chain shot?

- Operators and bystanders must never be in the plane of the bar when the chain is in motion on the bar.
- Chain speed must be 8000 ft/min (35 m/s) or less for 3/8 pitch Oregon® chain.
- A chain shot guard should be installed near the drive sprocket.
- Chains should be inspected frequently. Remove from service all dull and/or worn, damaged and/or cracked chains.
- Always use new Oregon® parts when repairing Oregon® chains.
- Industry groups recommend that chains should be discarded after the second break.
- Always sharpen Oregon® chains to Oregon® factory specifications.
- Maintain proper bar and chain lubrication.
- Maintain proper chain tension.
- Replace the drive sprocket when it has any visible signs of wear.

For additional information see the *Oregon® Mechanical Timber Harvesting Handbook*.

NOT FOR HIGHWAY USE

Fitting the Processor to a Tractor

Some tractors are available with multispeed PTO.

Ensure your tractor's PTO is set to 540 RPM to prevent damage to the HWP-100-3P and/or implement.

1. Slowly back the tractor towards the HWP-100-3P and align the lower lift arm hitch holes with the lug holes on the HWP-100-3P using the tractor's 3-point hydraulic controls.
2. Engage the tractor's parking brake and shut the tractor engine off. Remove the key before dismounting from the tractor.
3. With the lower hitch arms on the tractor aligned and positioned between the lug holes on the HWP, insert the lower 3-point hitch pins through the lug holes on the HWP. Secure with lynch pins.
4. Connect the top center link on the tractor to the top center link mounting holes on the HWP using the top link pin and cotter pin.
5. If necessary for the optional PTO pump to fit on tractor, remove the PTO guard assembly (if equipped) from the tractor.
6. Attach PTO pump to PTO shaft on tractor. Secure with provided chain, using the two (2) bolts removed from the PTO guard assembly. Ensure the support brace is orientated correctly to prevent PTO pump from spinning.
7. Attach hydraulic lines from the HWP100-3P to the tractors quick couplers (if not equipped with optional HPK).
8. Connect the cooler fan connector (if equipped) and plug into a 12v power port using the supplied harness.
9. Enjoy the use of your HWP-100-3P! Note: When running a HWP Firewood Processor, it is not anticipated that you will need to run the tractor at the full 540 rpm.

Hydraulic flow and pressure are preset from the Factory.

Do not attempt to adjust.

NOTE: The processor log lift is not designed to bust frozen wood off the ground. Attempting to break frozen pieces loose may result in damage to the structure of the Firewood Processor.

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NOTE: The firewood processor can be operated while connected to a vehicle or on it's own.

REPLACING THE CHAIN

Oregon Saw Chain Part #73EXL068G (3/8" / 0.58" 1.5 mm)

STEP ONE:

Position the log table in the extended position. This would be all the way to the left.

STEP TWO:

Hold saw lever forward while bar goes down.

STEP THREE:

SHUT MACHINE'S MOTOR OFF.

STEP FOUR:

Loosen saw clamp bolts. See picture to right.

STEP FIVE:

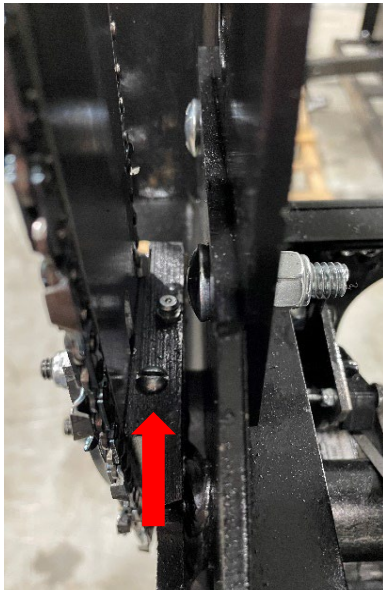
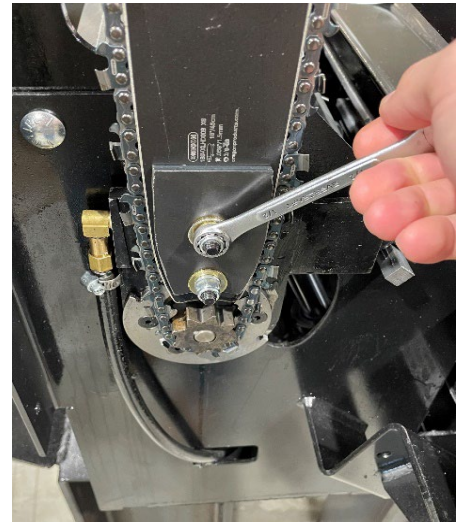
Loosen adjustment behind saw bar. See picture below.

STEP Six:

Remove chain.

MOUNTING NEW CHAIN:

Reverse steps to mount new chain.



NOTE:

Chain requires a 7/32" file to sharpen.

OPERATING SEQUENCE

- 1) Place the processor near the log pile with the log loader facing the pile.
- 2) Push the log lift handle forward to lower the log lift to the ground.
- 3) With a Cant Hook, roll a log onto the log lift.
- 4)** Pull back on the log lift handle to raise log lift until the log rolls onto the table.
- 5) Push the Table handle forward to extend the splitting cylinder and splitter table carrying the log to the splitter head.
- 6) Pull the Table handle back enabling the table to retract to the desired length of cut.
- 7) Push the Grab Arm handle forward to hold the log in position.
- 8) Pull the Table handle Back until the table is all the way Open.
- 9) Push the Saw Down handle to cut a piece from the log. As the cut is completed, the log will fall into the splitter hopper.
- 10) Pull the Saw Down handle to allow the saw to retract to its home position.
- 11) Pull the Grab Arm handle to release the log.
- 12) Push the Table handle forward to extend the splitter table. This action splits the wood while delivering the remaining log to the splitter wedge for the next cut.

This completes one cutting and splitting cycle. Repeat this sequence until the log has been cut and split completely.

WARRANTY

Warranty Duration

Unless otherwise provided in writing by Halverson Wood Products Inc., Halverson Wood Products makes the following warranty to the first retail purchaser of each HWP-100-3P attachment:

6 Months from the date of delivery to the first retail purchaser.

Warranty Coverage

This warranty applies to the HWP-100-3P firewood attachment manufactured by Halverson Wood Products, Inc. All parts and components of the HWP-100-3P processor delivered to the original purchaser, which are found to be defective in materials and/or workmanship, will be repaired or replaced as Halverson Wood Products Inc. elects without charge for parts or repair labor if such defect appears within the warranty period as measured from the date of delivery to the first retail purchaser and if the delivery is reported within 30 days of delivery to:

Halverson Wood Products Inc. 218-587-2065, or
205 College St, Pine River, MN 56474, or
Email: halversonwoodproducts@halversonwp.com

Obtaining Warranty Service

All warranty repair work must be authorized by Halverson Wood Products Inc *prior* to having the work performed. Call 218-587-2065 for authorization. At the time of requesting warranty service, the purchaser must be prepared to present evidence of the date of delivery of the HWP-100-3P.

**** Without Halverson Wood Products Inc's authorization, the warranty is void!***

Warranty Exclusions

Halverson Wood Products' obligations shall not apply to any part or component not manufactured, furnished or installed by Halverson Wood Products, nor failures caused by such items.

Specifically excluded are failures of and damage to any vehicle or other piece of equipment, either rubber tired or tracked, upon which the HWP-100-3P is attached and any damage to the HWP-100-3P caused by failure on a vehicle or other piece of equipment upon which the firewood processor is attached.

Purchaser's Responsibilities

- The cost of normal maintenance and depreciation.
- Consequences of negligence, misuse, or accident involving the HWP-100-3P.
- Consequences of service performed by someone other than a party authorized to perform warranty service, if such service, in Halverson Wood Products' judgment, has adversely affected the performance or reliability of the processor.
- Consequences of any modification or alteration of the machine or the attachment not approved by Halverson Wood Products Inc. These include, but are not limited to, hydraulic pressure settings, contamination of the hydraulic system, changes to the main frame, saw pivot and wedge mounts.
- The effects of hydraulic system neglect as manifested in hydraulic motor pitting, scoring, erosion, valve spool sticking and other internal component caused by cavitations, contamination, high oil temperatures and excessive hydraulic pressure.
- Any premium for overtime labor requested by the purchaser.
- Costs of transporting the processor to and from the location at which the warranty service is performed.

WARRANTY, CONTINUED

Purchaser's Responsibilities, continued

- Cost incurred in gaining access to the machines or attachments. Overcoming physical barriers such as walls, fences, ditches, streams, or similar structures impeding access to the HWP-100-3P or rental of cranes or similar construction of ramps or lifts.
- Incidental travel costs including tolls, meals, lodging and similar expense.
- Service outlet costs incurred in solving or attempting to solve non-warranty problems.
- Services performed by a party other than authorized Halverson Wood Products Inc. personnel.
- Charges by dealers for initial machine set up, installation, start up and inspection deemed unnecessary by Halverson Wood Products Inc. when operation and maintenance instructions supplied with the HWP-100-3P are followed.
- Cost of interpreting or translating services.

No Representation or Implied Warranty

Where permitted by law, neither Halverson Wood Products Inc. nor any company affiliated with it makes any guaranties, warranties, conditions, representations or promises expressed or implied, oral or written, as to the non-occurrence of any defect or the quality of performance of its machines or attachments other than those set forth in the document and DOES NOT MAKE ANY IMPLIED WARRANTY OR CONDITIONS OF MERCHANTABILITY OR FITNESS otherwise provided in the Uniform Commercial Code or required by any Sale of Goods Act or any other statute. This exclusion includes fundamental terms. In no event will a Halverson Wood Products Inc. authorized dealer or a Halverson Wood Products Inc. authorized service facility, or Halverson Wood Products Inc. or any company affiliated with Halverson Wood Products Inc., be liable for incidental or consequential damages or injuries including, but not limited to, loss of profits, loss of firewood contracts, rental of substitute equipment or other commercial loss or damage suffered by the purchaser as a result of any fundamental breach of contract or breach of fundamental terms unless such damages are caused by the gross negligence or intentional acts of the foregoing parties.

Remedy Limitations

The remedies set forth in this warranty are the purchaser's exclusive remedies in connection with the performance of or any breach of guaranty, condition, or warranty in respect of the Halverson Wood Products Inc. firewood processors. In the event that the above warranty fails to correct purchaser's performance problems caused by defects in workmanship and or materials, purchaser's exclusive remedy shall be limited to payment by Halverson Wood Products Inc. of actual damages in an amount not to exceed the cost of the HWP-100-3P Firewood Processor.

No Sellers Warranty

No person or entity other than Halverson Wood Products Inc. who sells the HWP-100-3P firewood processor makes any guaranty or warranty of its own on any processor warranted by Halverson Wood Products Inc. unless it delivers to the purchaser a separate written guaranty certificate specifically guaranteeing the processor, in which case, Halverson Wood Products Inc. will have no obligation to the purchaser. Neither equipment distributors, equipment dealers, nor any other person or entity, has the authority to make a representation or promise on the behalf of Halverson Wood Products Inc. or to modify its terms in any way.

Replacement Parts Warranty

New Halverson Wood Products Inc. parts installed during firewood processor warranty service are warranted for 90 days (certain major parts may be warranted for longer periods) or the remaining warranty period of the processor, whichever is longer. A new processor replacing a failed processor is warranted for the remaining period of the original processor.

WARRANTY, CONTINUED

Warranty Transfer

The remainder of the original warranty may be transferred to the subsequent owner of the HWP-100TR only by express written consent. Please report the transfer of ownership to Halverson Wood Products Inc. by phone at 218-587-2065 or by email.

E-mail: halversonwoodproducts@halversonwp.com

TROUBLE SHOOTING

Problem	Possible Cause	Solution
SAW STALLS WHEN LOWERED:		
	RPM too low	Increase Engine RPMs
	Bar is not getting oil	Adjust CB valve
	Too much downward force	
OILER WILL NOT OIL:		
	Low oil	Fill Oil
	Hose to saw bar is kinked or cut	Straighten or replace
	Oiler is plugged	Inspect oil port in saw bar
OIL RESERVOIR DRAINS OUT OVERNIGHT:		
	Oil shut off valve open	Close shut off valve
SAW COMES DOWN AND CHAIN IS SPINNING BUT DOES NOT CUT:		
	Chain dull	Sharpen or replace
	Bar is rough on edges	Replace bar

Manual Release Form

By signing below, the Customer (Purchaser) acknowledges the following:

I have received the HWP-100-3P Operations/Safety Manual.

I have read and understand the HWP-100-3P Operations/Safety Manual.

Halverson Wood Products Inc accepts no responsibility for misuse of the HWP-100-3P Firewood Processor.

Any modifications to the HWP-100-3P Firewood Processor not performed by authorized service technicians will void warranty.

Signature

Date

Warranty Registration

Model # HWP-100-3P Firewood Processor

Date Purchased:

Serial Number:

Purchased By:

Company (if applicable):

Address:

City, State, Zip:

Phone:

Email:

Return to:

**Halverson Wood Products Inc
205 College St
Pine River, MN 56474**