OPERATOR'S MANUALL

TW-HV1, TW-HV2 Log Splitters





www.timberwolfequip.com



TW-HV1, TW-HV2 Log Splitter Operation Manual

Fill out and submit registration form to ensure warranty coverage and receive product updates.

Register online at www.timberwolfequip.com/warranty.html

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Record your log splitter ID numbers here:

Model #	Serial #	
Engine #	VIN#	

Timberwolf Firewood Processing Equipment

2235 Clarks Corners Road Marathon, NY 13803

Toll Free: 800-340-4386

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The information in this document reflects current or planned product features, functions, and characteristics as of the publication date. Because of on-going product improvements and feature additions, information in this document is subject to change without notice.

Revised February 15, 2018

Every effort has been made to ensure the accuracy of this document.

About This Manual

Thank you for buying a Timberwolf log splitter. This machine is made with high quality components and will provide years of service under normal working conditions.

Please study this manual before operating the unit as it contains important information relating to safety, operation and maintenance. Timberwolf Firewood Processing Equipment strongly suggests you keep it safely stored.

If you have questions regarding anything outlined in this manual, please call Timberwolf at 1-800-340-4386.

Read Entire Manual Before Operating the Log Splitter

Safety Note



Please take time to read this manual and learn how to operate and maintain the log splitter safely. If you have any questions regarding assembly, use, safety, or maintenance, please call Timberwolf at 1-800-340-4386. The log splitter is a powerful piece of equipment that can generate more than 50,000 pounds of force. **Incorrect use of the log splitter can cause serious injury or death.**

Caution! Residual Hydraulic Energy!



Residual energy must be released from the pressurized hydraulic fluid before any maintenance or repair work is done on the log splitter. Hydraulic fluid can remain highly pressurized even while the splitter's motor is off. Escaping pressurized hydraulic fluid can penetrate skin and cause serious injury.

To release residual hydraulic energy:

- 1. Shut off engine
- 2. Move control valve back and forth, from one limit of travel to the other, at least four times
- 3. Hold valve for three seconds at each limit of travel

Table Of Contents

Safety	
General Safety Instructions	1-8
Decal Locations	9
Features	
General	10
TW-HV1 Components	11
TW-HV2 Components	11
General Description	12
H-beam Log Carriage	13
Two-stage Hydraulic Pump	13
Single Handle Valve	13
Wedges	14
Features	14
Before You Start	
Check Fluids	15
Location & Setup	15
Vertical Setup	15-16
Operating Instructions	
Start Up	17
Splitting Safety	17
Vertical Operation Safety	18

Operating the Log Splitter	18
Transporting the Log Splitter	
Preparation	19
Towing Safety	20
Maintenance	
Engine Oil	21
Hydraulic Oil	21
Hydraulic Oil Filter	21
Wedge Assembly	22
Daily Maintenance	
General	23
Grease	23
Hydraulic Hoses	23
Annual Maintenance	
Grease	24
Hydraulics	24
Specifications	25
Limited Warranty	26-27
Maintenance Log	28-29



Read this entire manual before starting or operating this log splitter! Failure to do so could result in serious injury or death!



Attention Rental Companies

It is extremely important that you familiarize operators with the following safety instructions and that you keep a manual with the machine at all times. Require all users to read the manual before operation and be aware of all warnings and hazards.



High Pressure Warning!

Escaping hydraulic fluid can penetrate skin and cause serious injury!

Caution! Residual High Pressure Hydraulic Energy

Your log splitter has been tested at the factory and is delivered to you ready to run. That means that there may be residual pressure in the hydraulic system. If for some reason you need to perform any maintenance or repair to the machine, you *must* release that pressure before any work can begin. Please refer to page 7 for instructions.



General Use:



This machine was designed to split logs into firewood only. Timberwolf strongly recommends that this machine not be modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, do not use the machine until you have first contacted Timberwolf or an authorized Timberwolf dealer to determine if modifications can or should be performed on the product.



Only qualified personnel, 18 years and older, may operate the log splitter and ONLY after reading this manual.
 Operators who are improperly trained or unfamiliar with this log splitter risk serious injury to themselves and the equipment



- Before operating this log splitter, the user must become familiar with proper emergency shut down procedures
- Do not stand on any part of the machine while it is running, for any reason; pinching or crushing injury is possible
- Never operate the log splitter while under the influence of alcohol or drugs
- Never touch parts of the engine as burns can result



Never operate the machine indoors or without adequate ventilation. Ensure that plenty of fresh air is available. Failure to do so could result in carbon monoxide poisoning



You should always wear eye protection, hearing protection, snug fitting work gloves (loose gloves and clothing
increase risk of snagging) and steel toed boots when you operate or work near this machine



Drawing In/Trapping Hazard

Drawing in/trapping points exist where objects are pulled into equipment, e.g., when a log drops onto the log cradle from the log lift. Machines are stronger and faster than people; always stop the equipment before attempting to remove an item that is stuck. Remember, guards cannot be provided for all situations and equipment must be able to function in the capacity for which it was designed.



Impact Hazard

Impact hazards can be broken down into two categories: forceful collision and contact. The first type of impact hazard, forceful collision, is the result of machinery or processes where any movement of tools, machine elements or particles could impact an operator. The second type of impact hazard, contact, refers to the movement of personnel that could result in collision with stationary or moving objects. For example, an operator could collide with a part of the log splitter while handling wood in preparation to splitting. Guarding may not be feasible for these types of hazards. **Be aware of your surroundings, never place yourself in a situation where you are in the path of a moving piece of equipment.**



Burn Hazard

The potential for burns exist in and around the engine. Be careful not to touch any of these surfaces, which are covered in the manufacturer's safety warnings. Read the engine manufacturer's warnings and follow their instructions carefully.



Fire Hazard - Flammable

- Since this machine uses a gasoline powered engine, there is a risk of fire. Read and follow all safety precautions outlined by the engine manufacturer or fire and serious injury may result
- · Store fuel and oils in an approved flammable liquid storage container
- Dispose of waste liquids, spill-cleaning material and oil-soaked rags in an appropriate covered fireproof container(s) located at least 25 feet from the log splitter
- · Only use dry powder, foam, or CO2 type fire extinguishers on or near the log splitter
- · Never use water to extinguish any gasoline or oil fire



Moving the Log Splitter

- · Only use suitable rated transport devices to move your log splitter
- The log splitter is heavy and requires the proper equipment to lift or move. Observe proper procedures for lifting and/or moving the log splitter
- · Wear steel-toed boots when moving or operating the log splitter



Residual Risk

Residual Risk is defined as the portion of risk that remains after all safety measures have been taken. Although we have taken extensive measures to protect the operator and/or maintenance personnel from injury, all hazards cannot be removed. This manual provides graphical illustrations to aid in identifying potentially hazardous areas associated with your Timberwolf log splitter.



Crushing Hazard

Crush points are created when two moving objects move towards each other or when one object moves towards a stationary object. For example, the push block moving towards the splitting wedge.

To prevent being crushed or pinned, learn to recognize and avoid potentially dangerous situations.



Shear Hazard

Shear points are hazardous because of their cutting force and they often move so rapidly that they may not be visible, so it is easy to forget they are there. For example, shear points are created when the edges of two moving objects move close or across one another with enough speed or force to cut a soft material. Because some shear points cannot be guarded, it is important to be aware of their potential hazard and stay alert during operation.



Entanglement Hazard

Rotating shafts are the most common source of entanglement accidents, although any exposed machine part that rotates can be a potential entanglement hazard. A cuff, sleeve, pant leg, long hair, or just a thread can catch a rotating shaft and result in serious injury or death. Entanglement with a wrap point can pull you into the machine, or clothing may become so tightly wrapped that you are crushed or suffocated. In other cases, you could be thrown off balance and fall into other machine parts. Even a perfectly round shaft can be hazardous if there is enough pressure to hold clothing against the shaft. Hazards increase with shafts that are not round. Ends of the shafts that protrude beyond bearings are also dangerous. Check all equipment for potential entanglement points and be alert to their potential danger.

General Warnings for Safe Splitter Operation

Always do the following:

- Read this manual before using the log splitter
- · Locate the log splitter only on firm level ground
- Site must provide solid footing for operator (not slippery underfoot)
- Site must be free of tripping hazards (stumps, roots, stones, debris, etc.)
- Wear goggles or face shield and always use appropriate hearing and foot protection
- · Keep away from the splitting area and push block while operating
- Stand ONLY in the operator area when operating the splitter

Log Handling



- ALWAYS grasp logs in the middle and NOT by the ends
- NEVER put anything into a partially split log as it may close suddenly and eject or pinch the item
- NEVER put anything between the log and cradle
- NEVER climb over or straddle the splitter



General Cautions

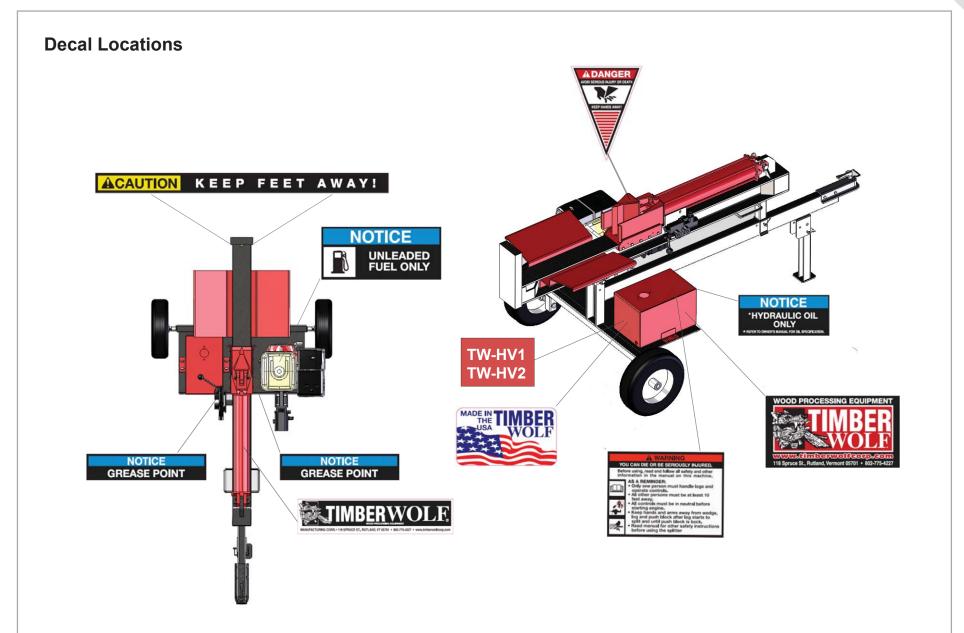
- NEVER split anything other than wood logs
- DO NOT move or reposition the log splitter when the engine is running
- DO NOT alter or modify the log splitter in any way
- DO NOT operate the log splitter with another person one person operation only
- ONLY ONE person must position the logs and operate the controls
- KEEP ALL bystanders at least 20 feet away from the log splitter
- · NEVER operate the log splitter if you are under the influence of drugs, alcohol or medication or when you are tired
- DO NOT allow an untrained person to operate the log splitter
- DO NOT allow anyone under the age of 18 to operate the log splitter
- DO NOT leave the machine unattended with the engine running

What You SHOULD Do

- Inspect hydraulic hoses every day check for worn, frayed, kinked, and cracked areas
- Replace any damaged or worn hoses
- Use sheet of cardboard or piece of wood to check for hydraulic leaks while system is running
- Depressurize system to release residual hydraulic energy before starting any repairs
 - 1. Shut off splitter engine
 - 2. Move control valve handle back and forth, from one limit of travel to the other, at least four times
 - 3. Hold valve for three seconds at each limit of travel
- Contact Timberwolf or an authorized Timberwolf dealer to replace worn components

What You SHOULD NOT Do

- · Never split anything other than logs
- Don't handle logs by their ends when you position them
- Never place your hands at pinch points where they can get caught between a log and the wedge, push block, or log cradle
- Don't put any part of yourself, your clothing, or your personal protective equipment into a crack in a log that's being split. It might close suddenly and with great force
- Don't put anything between the log cradle and the side of a log. Logs spread as they're forced against the wedge
- Do not straddle or climb over the log splitter at any time
- Do not move or reposition the log splitter with the engine running
- Do not modify or alter the machine in any way, at any time
- Never team up with another person to operate the log splitter it's a one-person job
- Never operate log splitter under the influence of alcohol, drugs, or medication
- Never allow an untrained operator to use the log splitter
- Never allow anyone under age eighteen to operate the log splitter
- Never leave log splitter unattended with its engine running
- Never remove cap from hydraulic tank while engine is running or while tank is still warm after engine is shut off. Hot pressurized oil can cause serious injury, so wait for hydraulic tank to cool, then release residual energy before removing cap (see page 7)
- · Never use any connectors, valves, or fittings that are different from the ones originally installed on the log splitter



Features: TW-HV1, TW-HV2 Log Splitters

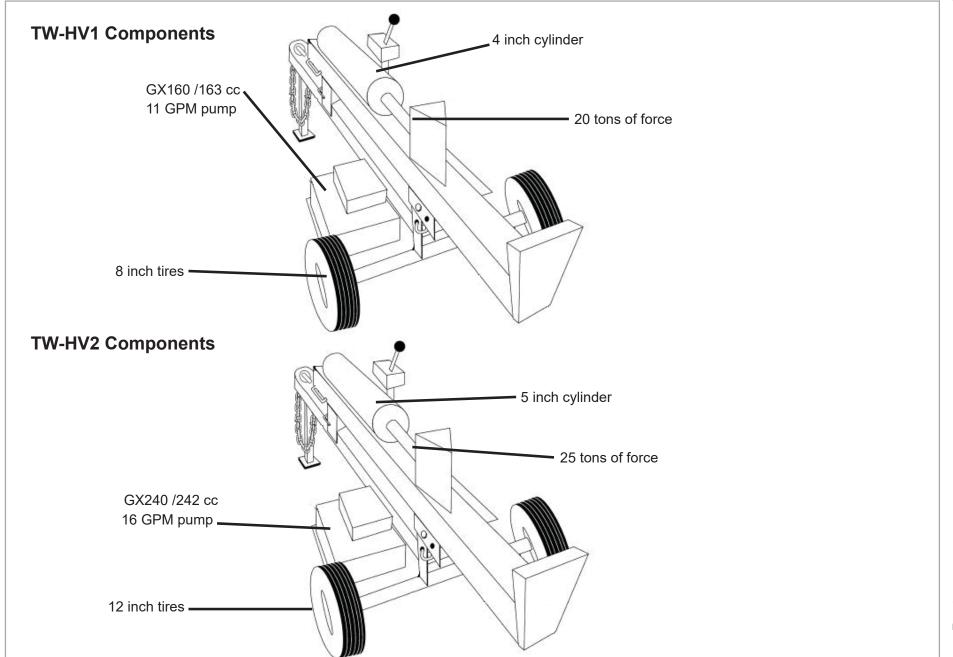
General

This manual covers Timberwolf Firewood Processing Equipment's family of convenient and versatile, horizontal/vertical log

- TW-HV1
- TW-HV2

These log splitters feature a hinged log carriage that can be swiveled and locked into a vertical position. Vertical splitting eliminates the need to wrestle large pieces up and onto the carriage. The splitters also lock in horizontal position for splitting and transport.



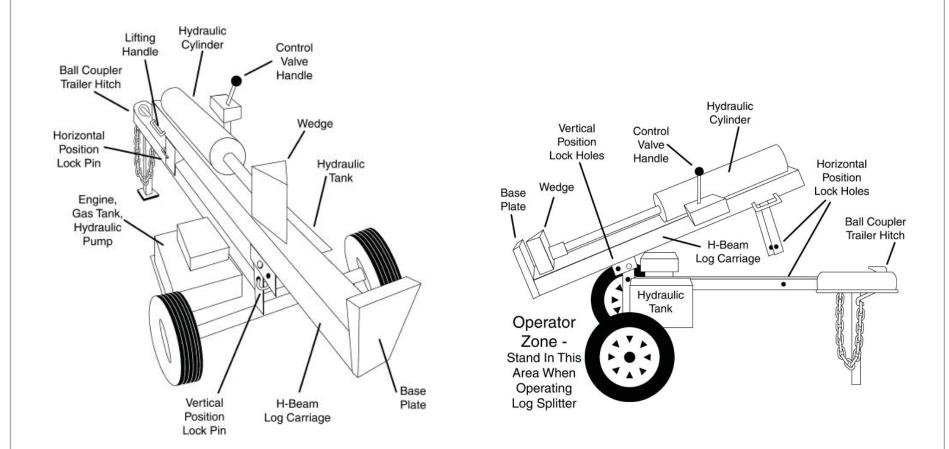


The next two drawings identify the log splitters' parts by the names this manual uses.



CAUTION

Operator zone is the area forward of the wheel, on hydraulic tank side of the machine. Stand in that area while operating the log splitter. Do not reach across to the controls from anywhere else.



H-beam Log Carriage

- The hydraulic cylinder/wedge assembly is mounted on a 5" X 5" H-beam log carriage
- Carriage hinged for operation in either horizontal or vertical position
- · H-beam configuration is stronger and more rigid than equivalent-size I-beam



CAUTION

- A. Always insert locking pin to secure carriage in the selected position
- B. Never move the log splitter with carriage in the vertical position

Two-stage Hydraulic Pump

Timberwolf log splitters use a two-stage hydraulic pump that:

- · Normally moves the wedge at high speed with low force
- Shifts automatically to low speed and high force when the log splitter encounters more resistance
- · May shift two or three times splitting some logs

If the two-stage hydraulic pump stays in one stage all the time, contact your local dealer or another authorized Timberwolf service facility.

Single Handle Valve

Standard-equipment hydraulic control is a single handle valve.

- Wedge travels forward only while valve handle is held in position
- Cylinder automatically completes return stroke when valve handle is pushed back to détente position and released



Single Handle Valve

eatures

Wedges

- Timberwolf HV log splitters employ a hydraulically powered, single-blade wedge
- Wedge splits logs into two pieces on each stroke

Features

	Features	
Models	TW-HV1	TW-HV2
4-way Wedge	N/A	N/A
6-way Wedge	N/A	N/A
Wedge Lift	N/A	N/A
Log Lift	N/A	N/A
Table Grate	N/A	N/A
Wheels	8"	12"
Hitch	2"	2"

Before You Start

Check Fluids

- · Engine oil should be to the level of the fill pipe
- Hydraulic oil:
 - Timberwolf recommends use of ISO 46
 - Level should be two inches below the top of the tank

Location & Setup

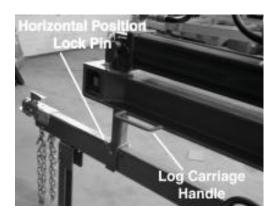
- Place log splitter on level ground, in a well lit, well ventilated spot
- · Check around log splitter for hazards. Make sure there are no slippery surfaces or objects to trip over in the area
- Make sure there won't be people or animals in the area around the log splitter
- Take out cotter pin holding the hitch support leg in the raised position, swing leg down, and insert cotter pin in the hole for the down position

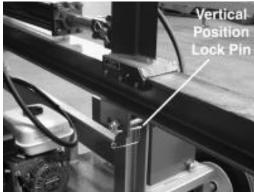
Vertical Setup

- Raising and lowering the log carriage to and from vertical position requires two people, one on each side of the machine
- · Firmly block wheels so that log splitter cannot roll in either direction
- · For best weight distribution, wedge should be fully extended when raising and lowering log carriage
- Unclip and remove both the horizontal and vertical position lock pins

efore You Start

Vertical Setup (Continued)





• Firmly grasping the log carriage handles, raise the log carriage into the vertical position



WARNING

When raising or lowering the log carriage, never reach across to the handle on the far side.

- Continue supporting the log carriage until the lock pin is inserted in the vertical locking position and clipped
- Re-insert and clip the horizontal position lock pin to keep it from getting lost

Operating Instructions

Start Up

· Start engine

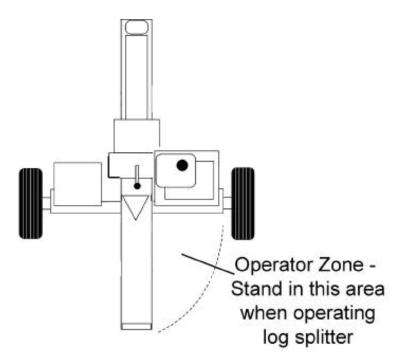
NOTE:

See engine manufacturer's manual for engine starting and maintenance instructions.

• Run engine at idle for 10–15 minutes to let hydraulic oil warm up

Splitting Safety

- Always stand inside the operator zone to run the log splitter.
 Never operate the log splitter from anyplace else, including the area in front of the valve handle
- · Handle logs only from the sides; never by the ends
- For best splitting results, place log with butt end on the base plate
- Be very careful to keep arms and fingers away from the wedge and base plate
- Keep hands and fingers clear at all times.
- Don't put any part of your body within the splitting area. Use a stick if you need to remove debris from the splitting area



Vertical Operation Safety

- Pieces to be split with the machine in vertical position should be cut as near to a 90° angle as possible
- Stand piece unsupported or leaned back against the log carriage beam if possible
- If you must support a piece, place your hand midway down the outside surface away from the beam and remove your hand as soon as the piece is firmly held between the wedge and the base plate

Operating the Log Splitter

- · For best splitting results, place logs with the butt (wider) end on the base plate
- For horizontal splitting:
 - Put one hand on top of log in the middle to keep it steady until it's held firmly between wedge and base plate—then remove your hand promptly
- For vertical splitting:
 - Stand piece unsupported or leaned back against the log carriage beam if possible
 - If you must support a piece, place your hand midway down the outside surface away from the beam and take it away as soon as the piece is firmly held between the wedge and the base plate
- · Activate control valve push handle forward and hold
- Keep holding valve handle down until split pieces fall away or wedge reaches full extension, one or two inches from base plate
- · Before starting return stroke, let hydraulic system recover by moving valve handle to neutral position for a moment
- · Make sure nothing will interfere with wedge while it retracts
- · Press valve handle backward into detente position and let go. Wedge returns by itself
- Valve handle stays in detente position until wedge is fully retracted
- To stop wedge:
 - During forward stroke, release control handle
 - During return stroke, pull control handle forward to release it from the detente position

NOTE:

Operate hydraulic control valve smoothly. Allow a short pause when reversing directions, then press lever firmly in direction you need to go. Slamming valve lever in either direction makes the system wear out faster.

• Clear split pieces from the operator zone frequently. Allowing pieces to accumulate underfoot can be both inconvenient and unsafe

Transporting the Log Splitter

Preparation

- Never move the log splitter with the log carriage in the vertical position
- Never move the log splitter with the motor running
- Make sure fuel valve on log splitter motor is in the "OFF" position



WARNING

If fuel valve isn't shut off, fuel will be forced into the cylinder and crankcase during travel. If that happens, the engine motor oil and spark plug have to be replaced.

- · Make sure there are no loose parts or debris on the log splitter to fall off while it's being towed
- · Never tow the log splitter with a log on it
- · Make sure the front leg is retracted and pinned up before transporting
- Make sure log splitter's ball coupler is firmly attached to ball on tow vehicle hitch:
 - · Raise hitch latch to unlocked position



- · Place hitch onto ball of tow vehicle's trailer hitch
- Lower hitch latch into locked position and secure with locking bolt
- · Make sure that safety chains are securely attached, with sufficient slack to allow for turning

Towing Safety

- · Never allow anyone to ride on the log splitter
- Never transport anything on the log splitter
- · Obey local, state, and federal regulations when you tow the log splitter on public roads and highways

NOTE:

Some states may require the log splitter to be registered with the State Department of Motor Vehicles.

- Fenders and light kits, required in some states, are available from Timberwolf Firewood Processing Equipment as optional equipment
- Do not exceed 30 MPH while towing the log splitter
- Do not tow splitter for more than 50 miles
- Towing log splitter can affect handling:
 - Log splitter might "off track" tow vehicle
 - · Log splitter can turn tighter than tow vehicle does
 - Never back up tow vehicle with log splitter attached. Log splitter can jack knife, causing damage to itself and/or tow vehicle.
 - Long distance towing is not recommended. The log splitter does not have springs to absorb road shock. Extended towing can cause unnecessary wear

Maintenance



WARNING

Make sure motor is shut off and hydraulic system is depressurized before you perform any maintenance. Make sure hydraulic oil has cooled. Read "Safety" section of this manual before performing any repairs.

Engine Oil

- · First change after first 5 hours of operation
- · Regular changes after every 20 hours of operation

Hydraulic Oil

Regular changes after every 200 hours of operation

NOTE:

If hydraulic oil becomes contaminated it should be changed immediately.

Hydraulic Oil Filter

- · The log splitter is equipped with an in-tank, ultra-fine steel mesh hydraulic oil filter
- Under normal operating conditions change the filter after every 1000 hours of operation
- There is also a green/yellow/red filter condition gauge mounted on the hydraulic oil tank filler cap
- · Change the filter if gauge approaches the red zone



Filter Gauge

Maintenance

Wedge Assembly

- Grease assembly daily to reduce wear on beam and sides
- Use any high-grade tube grease
- Replace wear plates if wedge can be moved side to side more than one quarter inch
- Replace gibbs is wedge can be raised more than one quarter inch off the beam
- Sharpen wedge regularly with file or grinder

Daily Maintenance

General

- · Check all nuts, bolts, and welds to be sure that the frame and components are secure
- Make sure that the wear plates attached to the wedge assembly are firmly bolted in place

Grease

- · Make sure wedge assembly and top of beam are well lubricated with grease
- · Grease push block at grease fittings
- Smear grease across top of beam

Hydraulic Hoses

- Inspect hydraulic hoses for frayed, worn, kinked, or abraded areas
- · Replace any damaged or worn hydraulic hoses immediately



WARNING

Make sure system is depressurized before you do any hydraulic system repairs. See Hydraulic Safety in the Safety section.

Annual Maintenance

Annual Maintenance

Grease

- · Grease wheel bearings annually
- Grease wheel bearings after any trip longer than 5 miles

Hydraulics

- · Change hydraulic oil annually
- Change hydraulic oil filter after 1000 hours of operation or when filter condition gauge approaches red zone



CAUTION

Make sure system is depressurized before you do any hydraulic system repairs. See Hydraulic Safety in the Safety section.

Specifications

Models	TW-HV1	TW-HV2
Weight	675 lb.	775 lb.
Splitting Force	20 tons	25 tons
Engine	GX160/163 cc	GX240/242 cc
Pump	11 GPM	16 GPM
Hydraulic Tank	7.5 gallons	7.5 gallons
Cylinder Size	24 X 4 X 2	24 X 5 X 2
Cycle Time	13 seconds	18 seconds
Frame	5"	5"
4-Way Wedge	N/A	N/A
6-Way Wedge	N/A	N/A
Log Lift	N/A	N/A
Table Grate	N/A	N/A
Wedge Lift	N/A	N/A

Limited Warranty

Product Covered	This warranty is for Timberwolf Firewood Processing Equipment log splitters.
Date Warranty Begins	The warranty begins on the date of sale and is warranted by Timberwolf Firewood Processing Equipment to the original purchaser only.
What We Will Do for You:	We or your authorized dealer will, at our option, repair or replace any part found to be defective in material or workmanship, without charge for parts or labor, to the original purchaser for a period of time of one year.
What Is Not Covered By	This warranty does not apply to parts that have been damaged by accident, alteration, misuse, abuse or improper lubrication.
This Warranty	Charges for pickup, delivery, and service calls are not covered by this warranty.
	The engine is warranted separately by the engine manufacturer.
Limited Rental Use Warranty	If used for rental purposes (to produce an income by renting this equipment), the warranty on this product is limited in duration to 90 days from date of purchase. This warranty does not apply to parts that have been damaged by accident, alteration, misuse, abuse or improper lubrication. The engine for rental use is warranted separately by the engine manufacturer.
How To Get Service	To obtain service, contact our nearest dealer, or Timberwolf Firewood Processing Equipment at 2235 Clarks Corners Road, Marathon, NY 13803, or call us at 1-800-340-4386. For engines, contact us or our dealers, or consult your Yellow Pages for the name of the service dealer that is authorized by the manufacturer.
Disclaimer of Consequential Damages	TTimberwolf Firewood Processing Equipment shall not be liable under any circumstances for any incidental or consequential damages or expenses of any kind, including – but not limited to – the cost of equipment rental, loss of profits, or cost of hiring services to perform tasks normally performed by the equipment.

(continued on next page)

Limited Warranty (Continued)

Limitation of Implied Warranties	Any implied warranties, including without limitation any implied warranty of merchantability or fitness for a particular purpose, shall be limited in duration to a period of one year (90 days if product is purchased for rental use) from the date of sale.
	Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitation on how long an implied warranty lasts.
Your Rights Under State Law	This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

Please return your warranty card or you can register your splitter online @ www.timberwolfequip.com/warranty.html

Maintenance Log	

Maintenance Log

OPERATOR'S MALL

