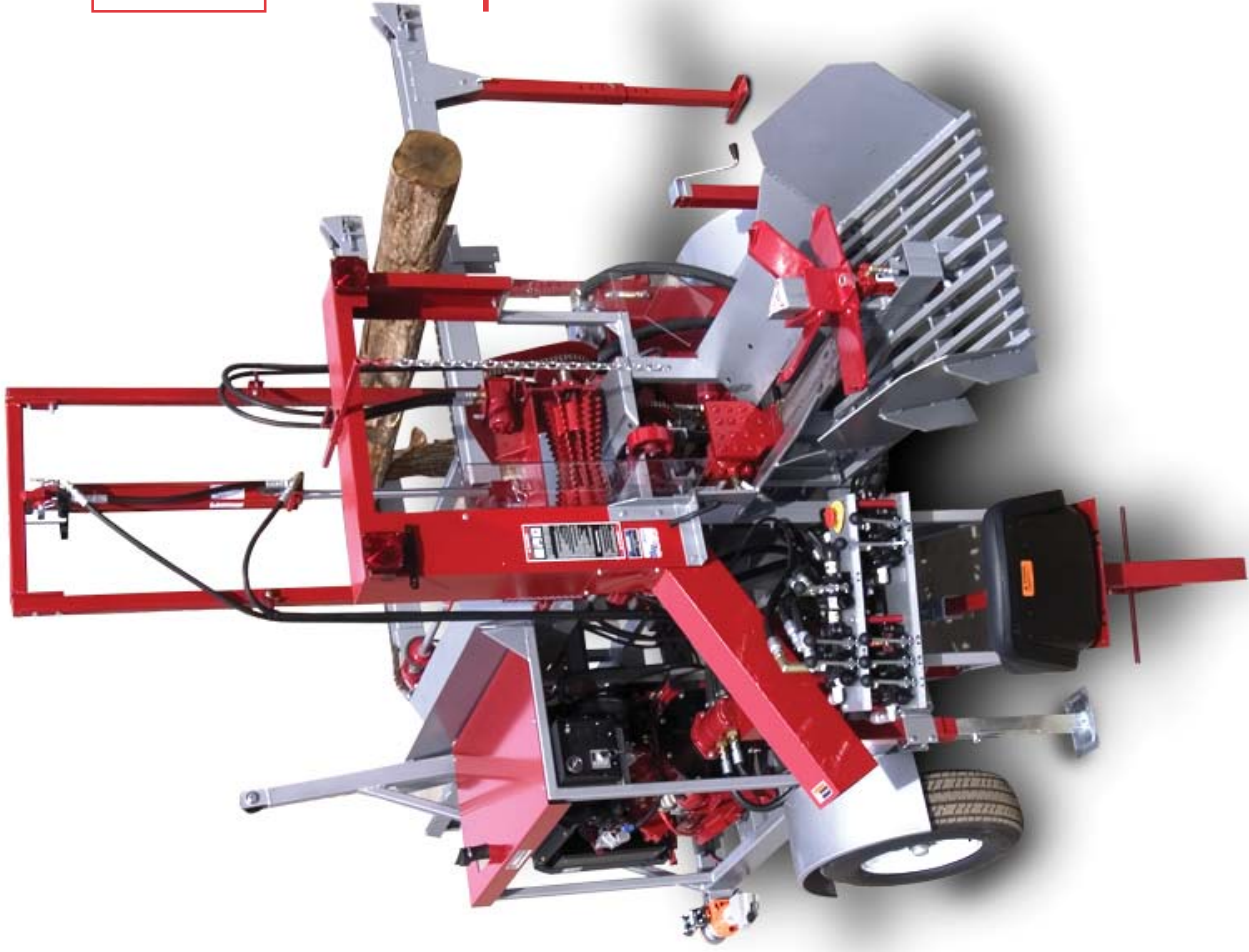


OPERATOR'S MANUAL



TW PRO-MP, TW-PRO-MP X,
TW PRO-MP XL, TW PRO-MX,
TW PRO-HD, TW PRO-HD XL

Firewood Processors



www.timberwolfequip.com



TW PRO-MP, TW PRO-MX, TW PRO-MP XL, TW PRO-MX, TW PRO-HD, TW PRO-HD XL

Firewood Processor 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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Timberwolf Firewood Processing Equipment

Record your firewood processor ID numbers here:

Model # _____ Serial # _____

Engine # _____ VIN # _____

Timberwolf Firewood Processing Equipment

2235 Clarks Corners Road
Marathon, NY 13803

Toll Free: 800-340-4386

E-mail: info@timberwolfequip.com
www.timberwolfequip.com

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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 firewood processor. 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 Firewood Processor

Safety Note



Please take time to read this manual and learning how to operate and maintain your firewood processor safely. If you have any questions regarding assembly, use, safety, or maintenance, please call Timberwolf at 1-800-340-4386. This **firewood processor** is a powerful piece of equipment that can generate more than 25 tons of force. **Incorrect use of the firewood processor 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 firewood processor. Hydraulic fluid can remain highly pressurized even while the processor'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

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Read this entire manual before starting or operating this firewood processor! 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 firewood processor 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 process 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 firewood processor and ONLY after reading this manual. Operators who are improperly trained or unfamiliar with this firewood processor risk serious injury to themselves and the equipment
- Before operating this firewood processor, 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 firewood processor 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 firewood processor while handling wood in preparation to processing. 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 diesel 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 firewood processor
- Only use dry powder, foam, or CO2 type fire extinguishers on or near the firewood processor
- Never use water to extinguish any diesel or oil fire

Moving the Firewood Processor



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

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 firewood processor.



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, 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 Processor Operation

Always do the following:

- Read this manual before using the firewood processor
- Locate the firewood processor 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.)
- Always wear the hardhat with face shield and hearing protection supplied by Timberwolf Firewood Processing Equipment, as well as hand and foot protection
- Keep away from the processing area and push block while operating
- Stand **ONLY** in the operator area when operating the firewood processor

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 firewood processor



General Cautions

- NEVER process anything other than wood logs
- DO NOT move or reposition the firewood processor when the engine is running
- DO NOT alter or modify the firewood processor in any way
- DO NOT operate the firewood processor with another person - one person operation only
- Only one person must position the logs and operate the controls
- Keep all bystanders at least 30 feet away from the firewood processor
- NEVER operate the firewood processor 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 firewood processor
- DO NOT allow anyone under the age of 18 to operate the firewood processor
- 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 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

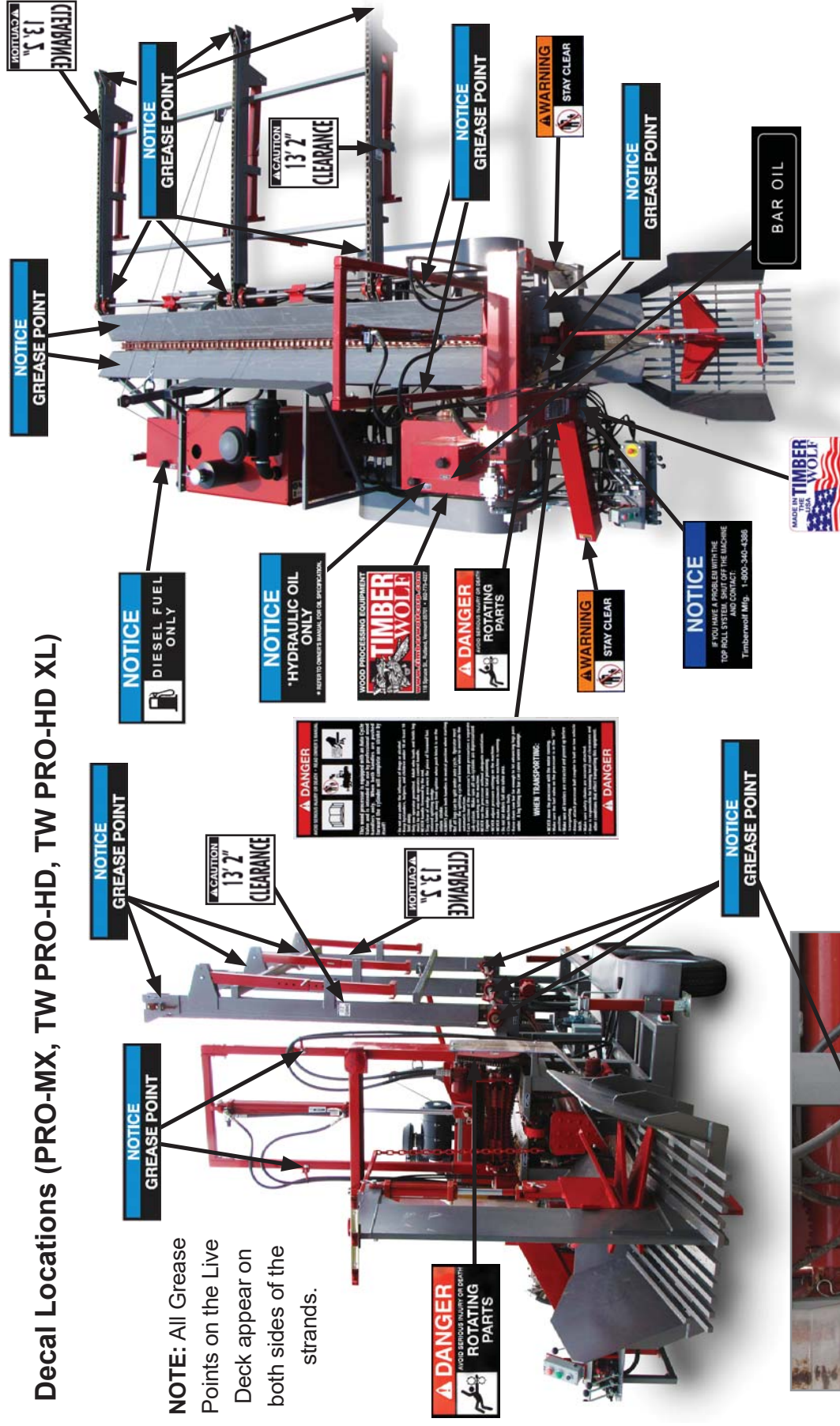
What You SHOULD NOT Do

- Never process 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 processed. 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 firewood processor at any time
- Do not move or reposition the firewood processor 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 firewood processor – it's a one-person job
- Never operate firewood processor under the influence of alcohol, drugs, or medication
- Never allow an untrained operator to use the firewood processor
- Never allow anyone under age eighteen to operate the firewood processor
- 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 firewood processor



Decal Locations (PRO-MX, TW PRO-HD, TW PRO-HD XL)

NOTE: All Grease Points on the Live Deck appear on both sides of the strands.

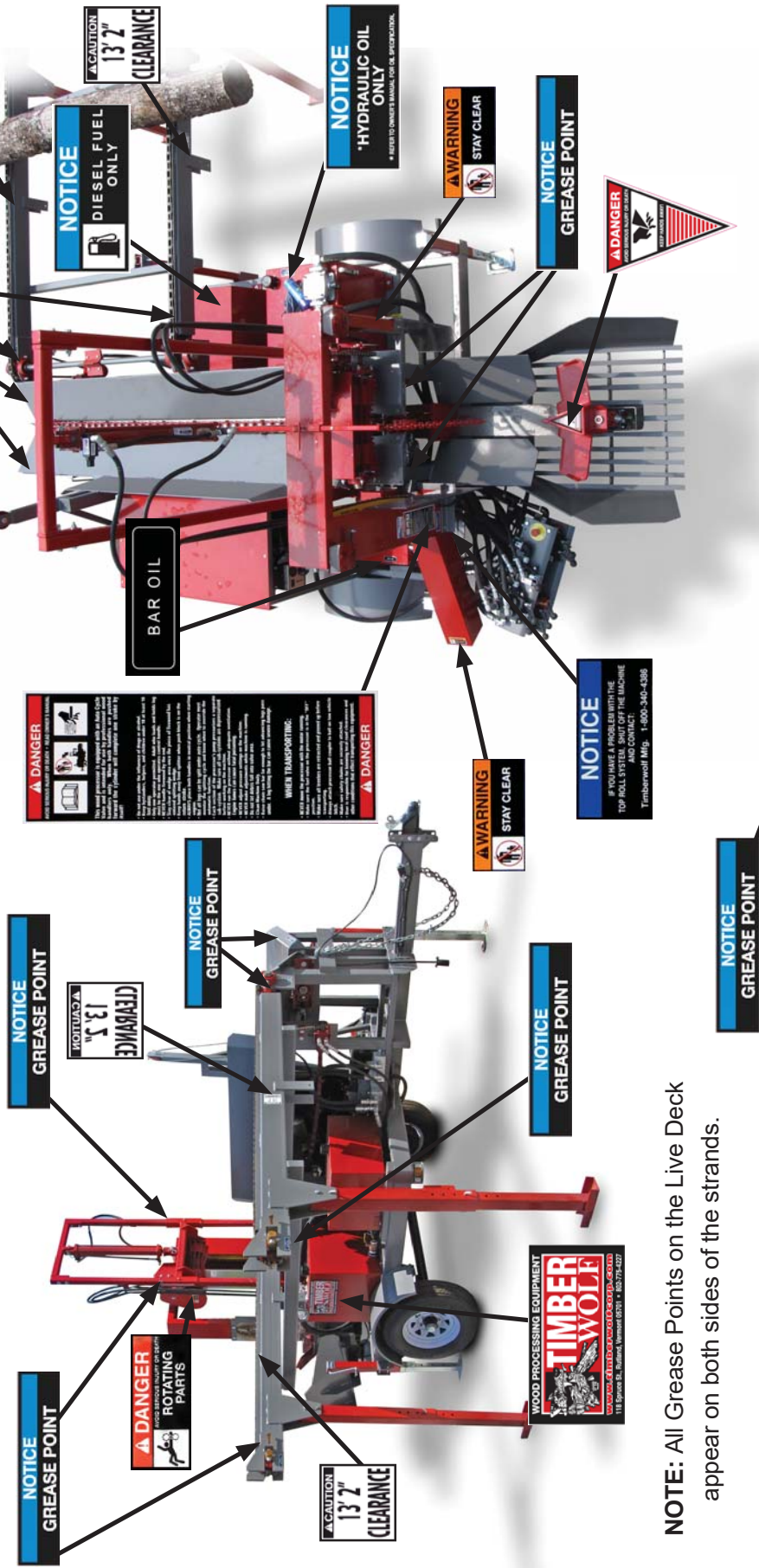


NOTE: Piston, valve and engine manufacturers apply their own warning labels. Please refer to the components' separate instructions and safety information before operating the firewood processor. Failure to do so may result in serious injury or death.



Shown Here: Splitter Cylinder Base

Decal Locations (TW PRO-MP, PRO-MP X, PRO-MP XL)



NOTE: All Grease Points on the Live Deck appear on both sides of the strands.



NOTE: Piston, valve and engine manufacturers apply their own warning labels. Please refer to the components' separate instructions and safety information before operating the firewood processor. Failure to do so may result in serious injury or death.



Shown Here: Splitter Cylinder Base

Features

General - TW PRO-MP, TW PRO-MP X, TW PRO-MP XL Processors

This manual covers Timberwolf Firewood Processing Equipment's TW PRO-MP, TW PRO-MP X, TW PRO-MP XL, TW PRO-MX, TW PRO-HD and TW PRO-HD XL Firewood Processors. These are extremely portable, ready to use systems available with a variety of self-powered features and options.

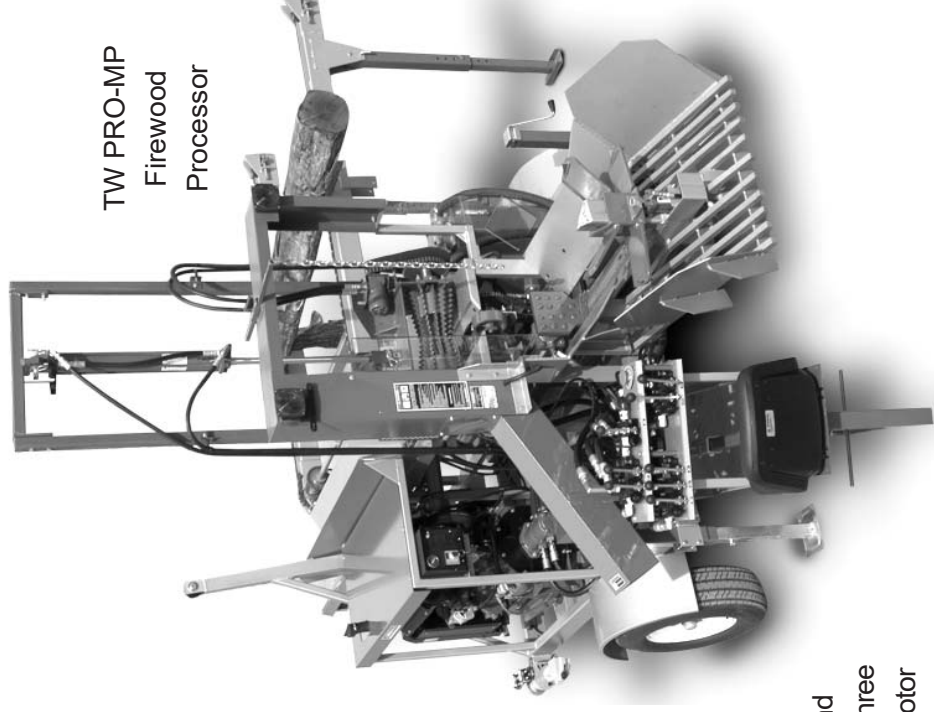
Working from the safety of the Operator's Station, you can saw and split as much as one-half to one and one-half cords an hour with the PRO-MP Processor.

Our PRO-MP processor handles logs up to 18 inches in diameter, while our PRO-MP X/MP XL models support diameters up to 22 inches.

All models in the PRO-MP line are equipped with a 10-foot feed trough that handles logs up to 14 feet long.

All processor functions, including the chain saw, are hydraulically driven. The self-powered PRO-MP Processor uses a 36HP Yanmar diesel engine to drive the hydraulic pump. The PRO-MP X/MP XL models are more robustly equipped with 45HP Mitsubishi power plants.

The PRO-MP and PRO-MP X processors feature a two-section pump as standard equipment. The sections produce 22 GPM for the splitter, 22 GPM to advance logs and power the chain saw motor, chain saw bar and the clamp. The PRO-MP XL sports a three section hydraulic pump with two pump sections to power the splitter, chain saw, bar motor and clamp, and a pump chamber to power an additional firewood conveyor.



Engine specifications subject to change without notice

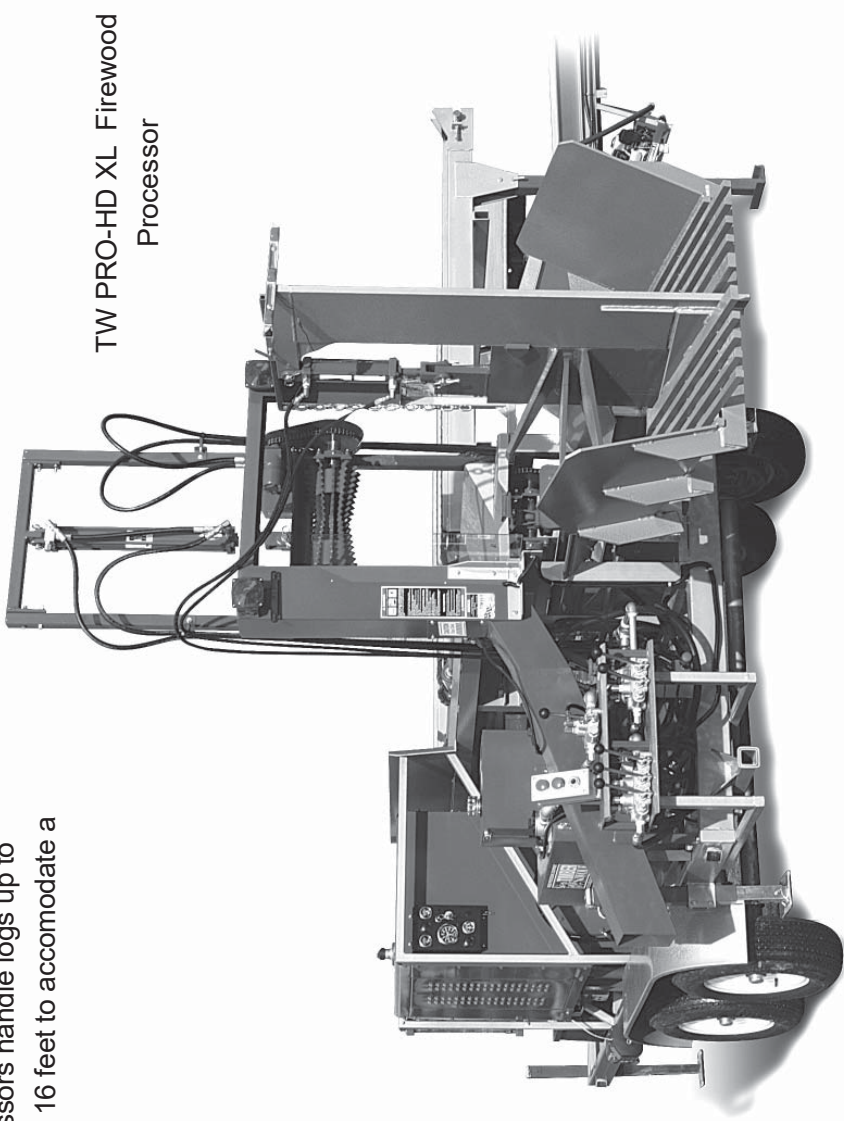
General - TW PRO-MX, TW PRO HD, TW PRO-HD XL Processors

You can saw and split as much as two and a half cords an hour with a PRO-MX processor, or more than three cords an hour with the robust PRO-HD and PRO-HD XL processors. These processors handle logs up to 22 inches in diameter, and feature a trough length of 16 feet to accommodate a log length of up to 24 feet.

All three processor use a diesel engine to power their functions. PRO-MX processors are equipped with a 49HP John Deere engine, while PRO-HD/ PRO-HD XL processors feature an 74 HP John Deere engine.

PRO-MX processors feature a two-section hydraulic pump as standard equipment. The pump is equivalent to a pair of 22 gallon per minute (GPM) pumps, and each section powers a separate hydraulic subsystem. One subsystem advances and cuts the logs, the other powers the splitter. As an option, PRO-MX models may be outfitted with a three section pump capable of powering a firewood conveyor in addition to processor components.

PRO-HD/ HD XL processors feature a three section pump as standard equipment, meaning that they come fully capable of powering a firewood conveyor with a few optional conveyor valving components.



TW PRO-HD XL Firewood
Processor

Components and Locations

Firewood processor functions divide into –

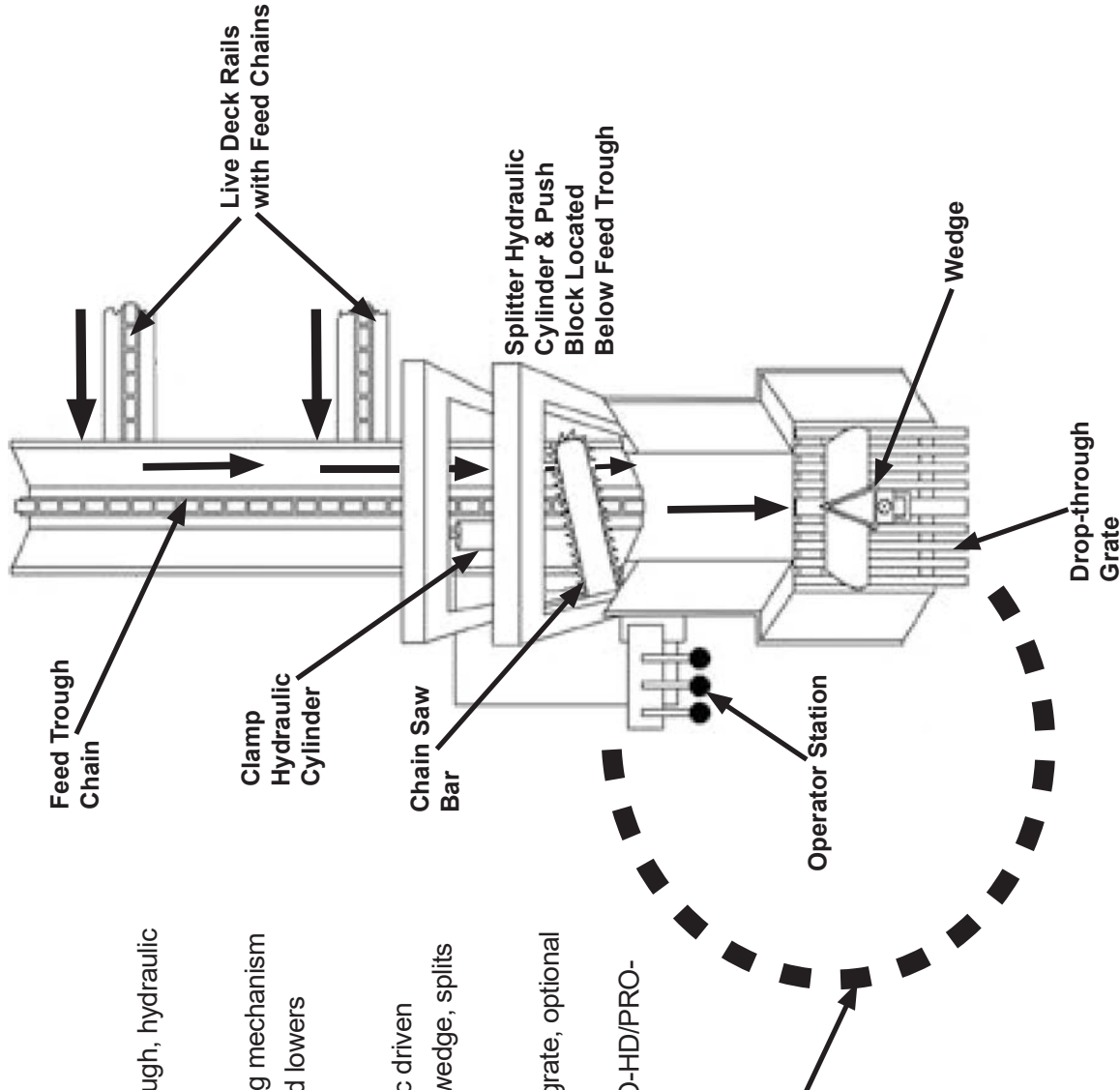
- Transport – live deck deposits logs into the feed trough, hydraulic driven chain advances log to be cut
- Top Roll Clamp/Chain Saw Bar – hydraulic clamping mechanism holds log in position, hydraulic mechanism raises and lowers hydraulic driven chain saw
- Splitter – cut piece drops onto log carriage, hydraulic driven push block forces log against adjustable, multi-wing wedge, splits multiple pieces with one stroke
- Removal – standard drop-through chip separating grate, optional provision for powering and controlling conveyor (conveyor valving available for TW PRO-MP XL/PRO-HD/PRO-HD XL) only

Operator Zone



CAUTION

Operator Zone identifies area to stand in while operating the firewood processor. Do not reach across to the controls from anywhere else.



Firewood Processor Function Diagram
(Heavy Arrows Indicate Log Travel Direction)

Hydraulics

The processor's hydraulic systems are complex and sophisticated. Major repairs or modifications should be handled only by Timberwolf-designated and authorized service personnel. Call your dealer or Timberwolf at 1-800-340-4386.

The Maintenance section of this manual has adjustment instructions for the splitter valve detentes. Inspect hydraulic hoses every day for loose fittings and signs of wear.

Timberwolf Firewood Processing Equipment recommends using ISO 46 hydraulic oil in its Firewood Processors.

Two Chamber Pumps

The PRO-MP, PRO-MP X and PRO-MX processors feature a 22/22 two-section hydraulic pump as standard equipment. Each section performs like a separate 22 GPM pump so you can run several functions at once.

Three Chamber Pumps

PRO-MP XL and PRO-HD/ HD XL processors feature a three-section pump as standard equipment, meaning that they come fully capable of powering a firewood conveyor with a few optional conveyor valving components.

The PRO-HD wood processors feature a 33/20/13 sectional hydraulic pump. The PRO-MP XL comes equipped with a 22/22/8 sectional hydraulic pump.

Power Plant

All Power Plants are diesel powered.

Controls

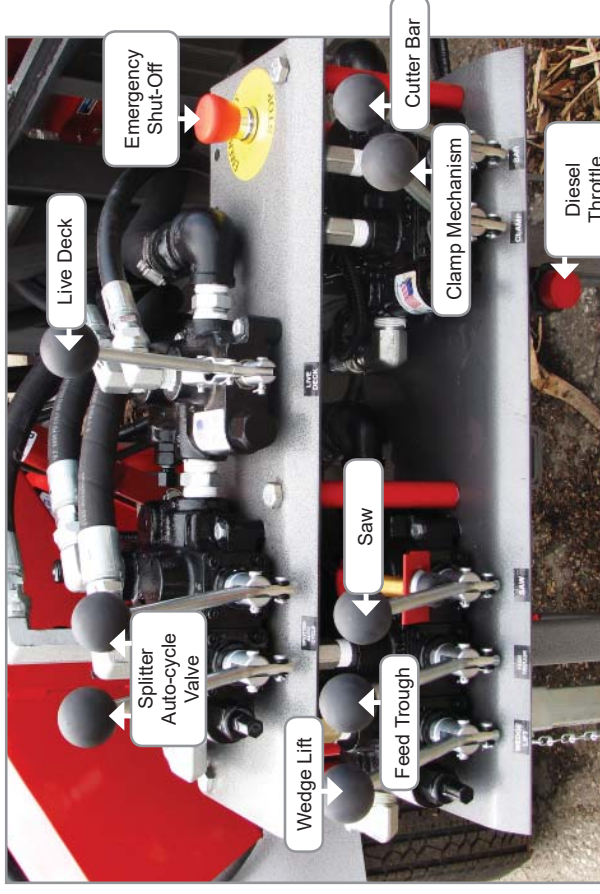
Control valves are carefully positioned for safety and ease of use. The live deck, feed trough, chainsaw, wedge, and splitter are all controlled from the Operator Station. The Operator Station is located on the opposite side from the live deck.

Optional factory-installed conveyor kits add a lever below the standard array to control the conveyor belt. The kit for connecting the conveyor lift as well as the belt drive also adds a control lever for the conveyor height adjustment (height adjustment is applicable to TW-C30HD only). Conveyor kits available for the PRO-MP XL, PRO-HD and PRO-HD XL models only.

Live Deck Features

- Single lever forward/reverse control at operator station
- Electric winch to extend deck for set up and retract it for transport is standard
- Hydraulic deck deployment system is available as an option on every model except for the PRO-MP and PRO-MP X

Height of fully raised standard live deck is 13 ft. 2 in. – low enough to travel safely on most public roads.



Standard Control Array



CAUTION

The user is responsible for knowing local road clearances and other conditions that affect transporting the processor.

Three Strand Live Deck

When setting up the processor, pay special attention to orienting the live deck. Arrange convenient access for your loading equipment.

The PRO-MX, PRO-HD and PRO-HD XL processors are equipped with a three strand live deck. The three strand deck rail employs a hydraulic motor to power feed chains in live deck rails mounted on the processor frame. The drive chain connects the motor to the drive axle, which has a drive sprocket for each rail. These strands are capable of holding up to one chord cord of logs.



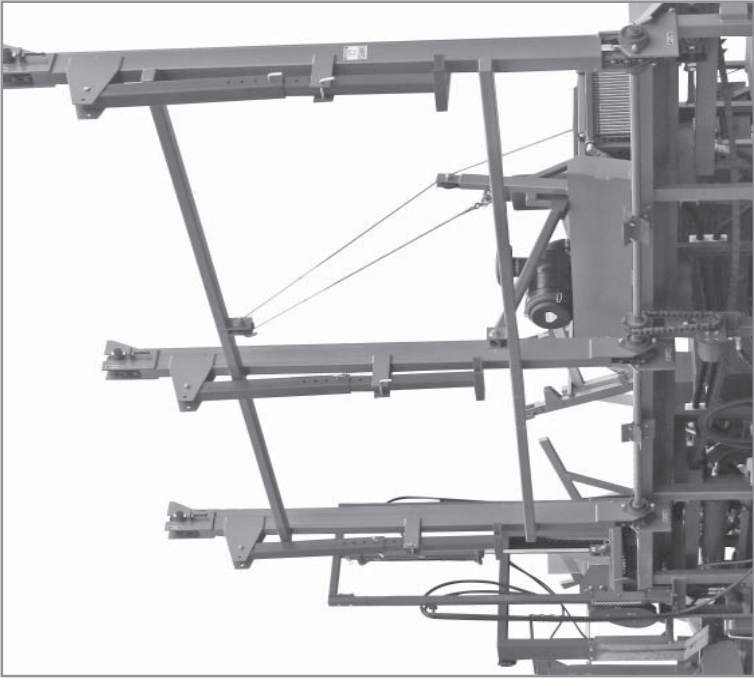
CAUTION

The user is responsible for knowing local road clearances and other conditions that affect transporting the processor.

The three strand live deck rails are unevenly spaced, enabling the live deck to handle a wide range of log lengths:

- Front rail to middle rail: 4 feet 8 inches on center
- Middle rail to rear rail: 6 feet 3 inches on center
- Dimensions are 8 feet by 12 feet on all 30 foot processors. On each model, the deck is centered on the feed trough for balanced and stable loading. Retracted deck height is a standard 13 feet 2 inches on all three strand models.

Hydraulic motor for feed chains in live deck rails is mounted on processor frame. Drive chain connects motor to axle, which has a drive sprocket for each rail.



Three Strand Live Deck Drive System

Two Strand Live Deck

When setting up the processor, pay special attention to orienting the live deck. Arrange convenient access for your loading equipment.

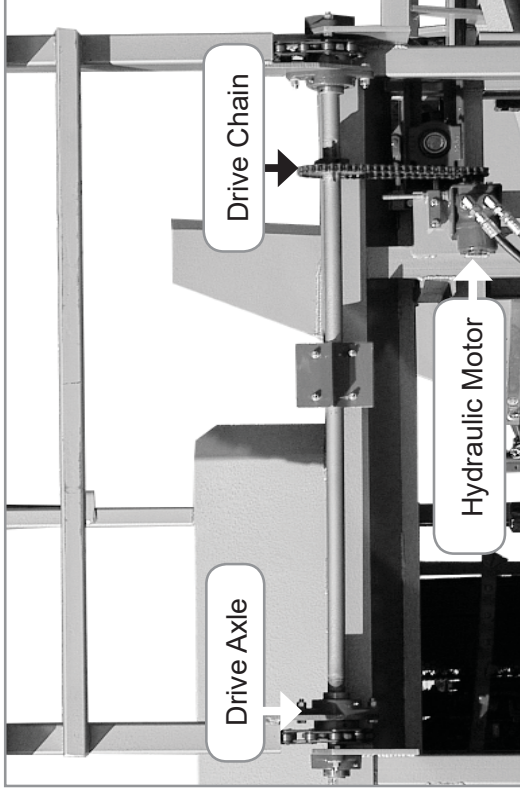
The PRO-MP, PRO-MP X and PRO-MP XL processors are equipped with a two strand, hydraulically powered live deck. The two strand deck rail employs a hydraulic motor to power feed chains in live deck rails mounted on the processor frame. The drive chain connects the motor to the drive axle, which has a drive sprocket for each rail. These strands are capable of holding up to a one-half cord of logs.

- Deck dimensions are 8 feet by 6 feet on all 18 foot long processor models.
- Retracted deck height is 13 feet 2 inches.



CAUTION

The user is responsible for knowing local road clearances and other conditions that affect transporting the processor.



Two Strand Live Deck Drive System

Top Roll Clamping System

The Top Roll Clamping System, standard on all processor models, is operated by a hydraulically powered motor. This motor rotates the feed roller, which simultaneously clamps wood tightly and propels it forward toward the chain saw bar, where it is then held firmly in place while the chain saw bar is making a cut.

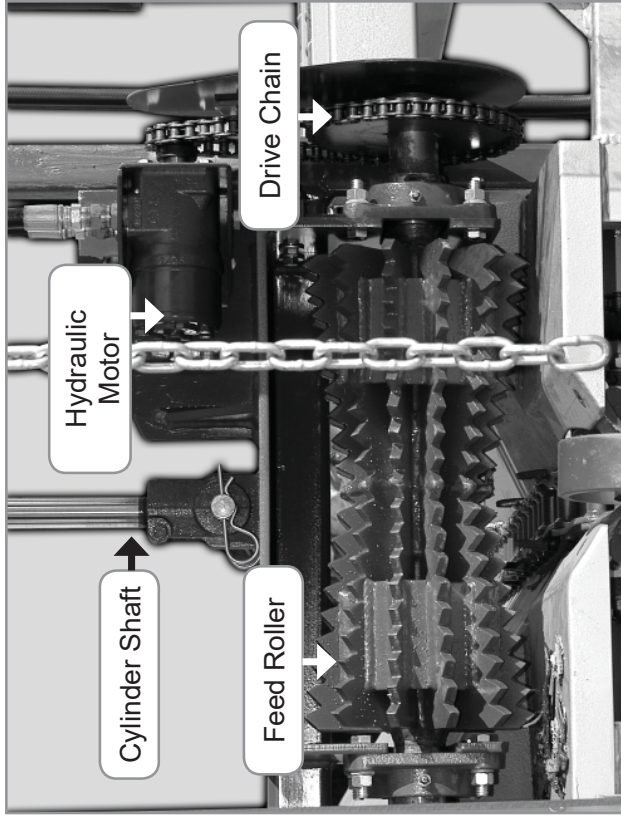
The feed roller can be easily raised and lowered to accommodate logs of varying thickness via hydraulically powered cylinder shafts attached at the center and sides of the top roll clamping system frame. The feed roller dictates the speed with which logs are fed through the chain saw and can feed logs in both forward and reverse.

The patented top roll clamping system speeds production and simplifies the firewood making process:

- Does not have to be raised and lowered every time log moves forward
- Motor driven feed roller rides over the contour of the log
- Feed roller maintains constant hold and helps feed trough chain advance log
- Top Roll speed advancement is controlled by the feed trough control lever

The top roll system's constant hold helps accurately position the last cut on each log.

Although our top roll clamping system is virtually identical on each processor model, due to their varied power plant capabilities the TW PRO-MP can only accommodate logs up to 18 inches in diameter. All other processor models can feed up to a 22 inch diameter through the top roll clamping system.



Top Roll Clamping System

Hydraulic Chain Saw

All Processors feature a hydraulically driven and controlled chain saw that:

- Cuts logs into sections up to 24 inches long
- Features a 25-inch bar
- Uses a .404 chain
- Is equipped with an automatic chain oiler with electric pump and 5 gallon reservoir
- Is easily and safely controlled from the operator station by saw and bar levers (Please see pg 15 for saw and bar lever placement.)

The chain saw is mounted on a hydraulically controlled bar arm that is able to be raised and lowered via the control panel's bar lever. The chain itself is controlled hydraulically by a separate saw lever. The saw blade will only rotate when this lever is pulled forward. Please see pg 15 for saw and bar lever placement.

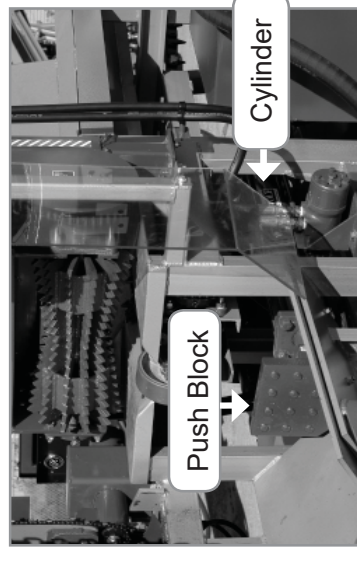
To reduce downtime, remove a dull chain and replace it with a fresh, sharp one. If you wish to sharpen a dull chain without removing it, a handheld electric sharpener gives best results. **ALWAYS TURN OFF THE ENGINE BEFORE REPLACING OR SHARPENING THE SAW CHAIN.**

NOTE: Chain should be sharpened at least every 9 to 10 cords. Depending on the condition of wood being cut, the chain might require more frequent sharpening.

Splitter

When a cut is finished by the chain saw bar, wood pieces fall directly into the log carriage. From here, a hydraulically powered splitting cylinder drives a push block forward to force the wood onto the blade(s) of the splitting wedge (the initial force of the push block begins the split of the log, while the pressure of the subsequent log dropped into the carriage and pushed forward finishes the first split, depositing cleanly separated firewood pieces onto the conveyor).

(continued on next page)



Push Block and Hydraulic Cylinder

Splitter (Continued)

Wedges

There are several different wedge types available, the 4-way, 6-way and 8-way. These are named not for how many blades they are equipped with, but for how many finished firewood pieces they create. All wedges are easily adjustable and are designed so the log doesn't contact all blades at once. The staggered blades engage a log in stages for easier splitting on tough pieces. Wedge availability per model is as follows:

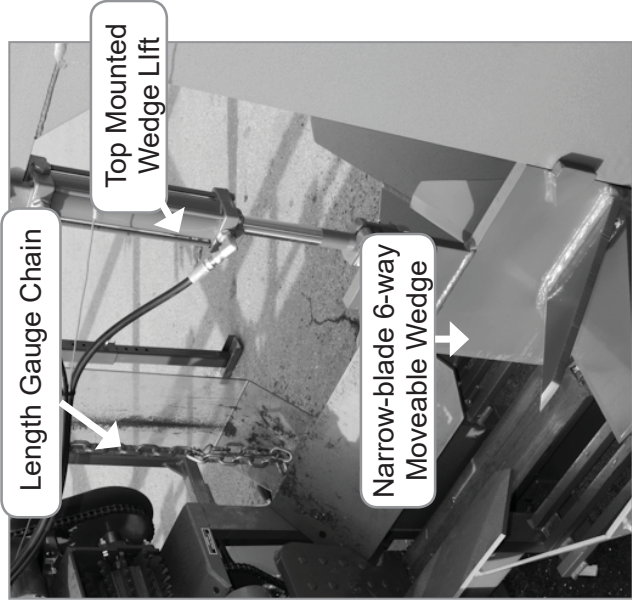
- **4-Way Wedge:** Standard on the PRO-MP, PRO-MP X and PRO-MX Optional on the PRO-MP XL , PRO-HD and PRO-HD XL
- **6-Way Wedge:** Standard on the PRO-MP XL and PRO-HD. Optional on the PRO-MP, PRO-MP X, PRO-MX and PRO-HD XL
- **8-Way Wedge:** Standard on the PRO-HD XL. Optional on the PRO-HD. Not Available for the PRO-MP, PRO-MP X, PRO-MP XL and PRO-MX

Wedge Lift

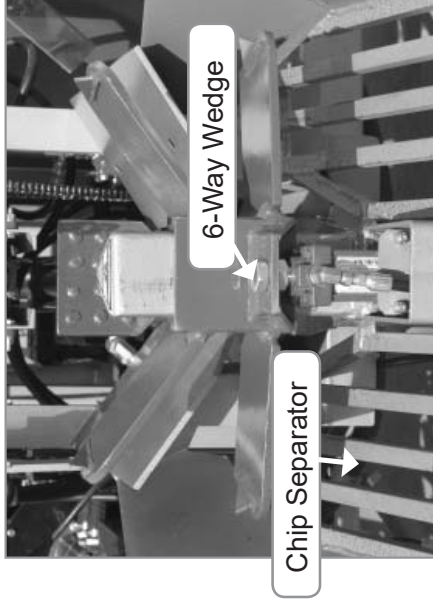
The PRO-MX PRO-HD, and PRO-HD XL processor units feature a top-mounted hydraulic wedge lift. The PRO-MP, PRO-MP X and PRO-MP XL utilize a bottom mounted hydraulic wedge lift. These allow for adjustment of the wedge's vertical position, which enables the wedge to be centered on logs of varying diameters for maximum splitting efficiency. The wedge lift is operated from the control panel using the wedge lift lever. Please see pg 15 for placement.

Chip Separator

The chip-separating grate lets most chips, splinters, and debris fall through the splitter hopper for a cleaner finished product. The drop-through grate keeps debris from falling onto the conveyor where it might cause belt alignment and slippage problems.



Splitter Wedge Assembly
PRO-MX, PRO-HD, PRO-HD XL



Splitter Wedge Assembly
PRO-MP, PRO-MP X PRO-MP XL

Auto-Cycle Valve

All firewood processors are equipped with an auto-cycle valve, which enables the splitter's push block to automatically complete a forward stroke and return to fully retracted position. This frees the operator to begin the next cut while the current log splits.

Operation of the auto-cycle valve depends on forward and return detente settings to control the cylinder and push block as they extend and retract. The detentes should be set for hands-free splitting on normal wood. See the pg 59 of this manual for auto-cycle adjustment instructions.



CAUTION

Auto-cycle control is intended for use by professional wood handlers only! Not all logs can be processed under auto-cycle control. Operator must monitor the splitting cycle and know when to override the automatic function.

Wood that resists splitting – because it is hard, twisty grained, or knotty – can make the detentes kick out to neutral position. When that happens, the push block usually starts back but will occasionally stop in place. The splitter can be operated manually to split logs that kick out the detentes.

The standard auto-cycle valve is controlled by a pair of levers mounted on the control panel. Please see pg 15 for placement.

Electric Auto-cycle

Timberwolf firewood processors can be factory-equipped with an electric auto-cycle feature. Pushbuttons control the splitter in place of the standard two-handle, manually operated auto-cycle valve.

Electric auto-cycle is standard on the PRO-MP XL and PRO-HD XL. Optional for the PRO-HD and PRO-MX. Not Available for the PRO-MP and PRO-MP X.

(continued on next page)

Electric Auto-cycle (Continued)

Timberwolf firewood processors can be factory-equipped with an electric auto-cycle feature. Pushbuttons control the splitter in place of the standard two-handle, manually operated auto-cycle valve.

Electric auto-cycle speeds processing by simplifying the control routine. In addition to its convenience, the electric valve requires less frequent adjustment than the two-handle valve.

Most instructions in this manual are written for the two-handle valve with separate instructions as needed for electric auto-cycle.

Operator Seat

Timberwolf firewood processors can be factory-equipped with a cantilever-mounted seat for the operator station (the seat swings out of the way, or can be easily removed, when the operator prefers to stand). The seat mount is a 2 inch reciever located below the hydraulic control valves. A self-locking retainer pin secures the seat base in the reciever.



Top and Right: Electric Auto-cycle Components



Processor Controls with Operator Seat

Hydraulic Oil Cooler

Timberwolf firewood processors can be factory-equipped with a hydraulic oil cooler to improve hot weather performance. Consult your Timberwolf dealer to determine what's best for your local temperature conditions. Hydraulic oil coolers are standard on the PRO-MP XL and PRO-HD XL. Optional on the PRO-MX and PRO-HD. Not Available on the PRO-MP and PRO-MP X.

Conveyor Kits

Timberwolf processors that have a three part hydraulic pump (PRO-MP XL, PRO MX, PRO-HD, PRO-HD XL) can be factory-equipped to power and control a Timberwolf hydraulic conveyor. Two versions of the conveyor kit are available, one that runs only the conveyor belt, and one that also runs the conveyor's lift mechanism (conveyor lift mechanism available on 30 foot conveyor only). The kits include:

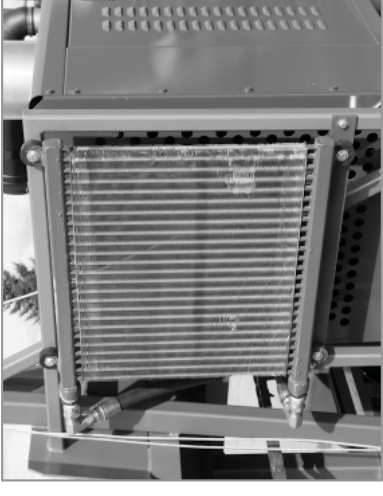
- Connectors for conveyor's hydraulic supply and return
- Operator station control lever(s) and hydraulic flow controller(s)

This manual includes instructions for connecting and controlling a conveyor (see pg 30)

Timberwolf Firewood Processing Equipment makes self-powered conveyors that operate completely independently of the processor. Self-powered conveyors are gasoline engine-powered and available in both hydraulic belt-driven models and chain models.

Timberwolf conveyors are supplied with their own Maintenance and Operation Manuals.

Please call Timberwolf at 1-800-340-4386 or visit www.timberwolfequip.com for more conveyor information.



Hydraulic Oil Cooler

Set Up Procedures

Overview

This part of the manual contains instructions for setting up the processor at the work site.

Set Up Procedures

- Planning the work area
- Positioning and leveling
- Live deck deployment (Electric Winch and Hydraulic)
- Processor Powered Conveyor Hookup
- Operator seat

Work Area Layout

- Locate processor on firm, level ground
- Select well-lit spot, outdoors or in well-ventilated area



CAUTION

Never run the processor without adequate ventilation. Diesel engine fumes can be fatal.

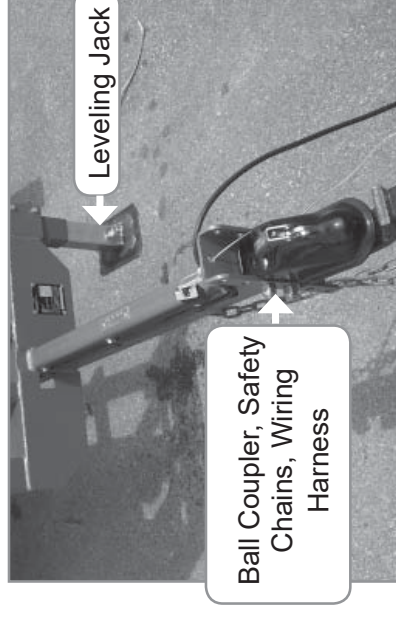
- Check for hazards around the processor. Make sure area is free of slippery surfaces and objects you could trip over
- Make sure there won't be people or animals in the area around the processor
- Plan for –
 - Log supply – access to load logs onto the live deck
 - Split wood takeaway – Conveyor to truck or pile
 - Sawdust handling – collection and removal
 - Chip removal under the grate

New Location Set Up

Position processor in the selected location, then disconnect tow vehicle:

1. Block wheels firmly so processor can't roll in either direction
2. Raise corner leveling jacks to lift processor ball coupler off tow vehicle's trailer hitch
3. Disconnect safety chains, emergency brake cable, and wiring harness for processor, lights and brakes
4. Drive tow vehicle clear
5. Adjust leveling jacks at the front and back until processor is level

(continued on next page)



Processor Towing Hitch

New Location Set Up (Continued)



CAUTION

Never use the hitch failure emergency brake unit as a parking brake. Using the break-away brake as a parking brake while hitched to the tow vehicle will overload the electrical system and burn out the wiring. Using it will also drain battery when un-hooked.

Live Deck Deployment Via Electric Winch

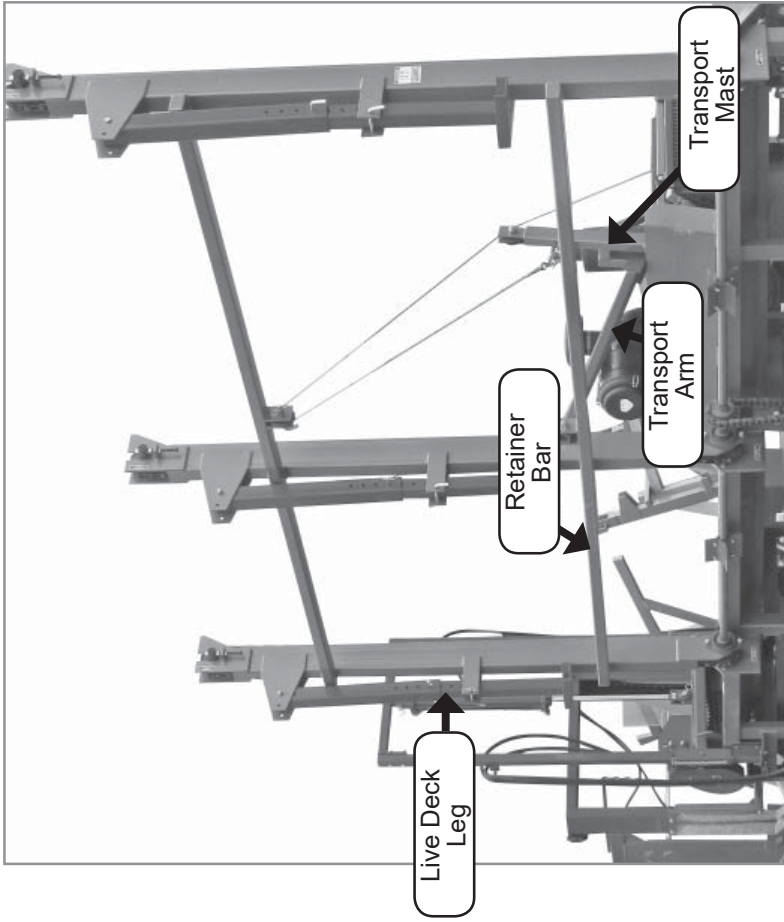
The electric winch live deck deployment system, which is standard on all processor units, uses an electric winch and cable to raise and lower the deck. The engine battery powers the winch. This unit of the manual will give instructions on how to safely and effectively lower the live deck from transport position for use.



WARNING

Never stand under live deck.

Do not attempt to lower or raise live deck with the processor's engine running!



Retracted Live Deck

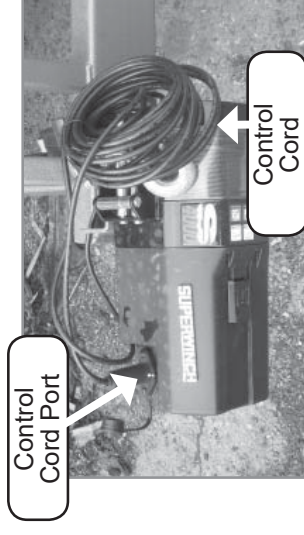
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Live Deck Deployment Via Electric Winch(Continued)

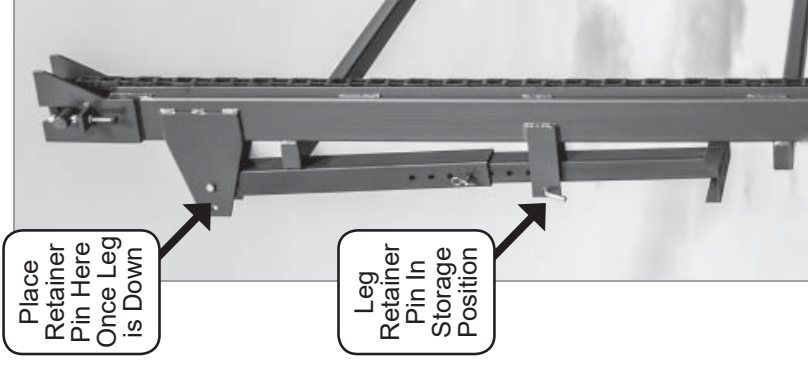
1. Make sure the processor's engine IS NOT RUNNING.
2. Remove the control cord port guard from the electric winch assembly and plug electric winch control cord in.
3. Remove the transport arm's retainer pin. Using the electric winch control, slowly and carefully lower the live deck until it is just above parallel with the ground. Make sure that you have enough room to unfold the deck's legs.
4. Fold the transport arm out into its deployed position and reinsert the retainer pin. Secure the retainer pin with its hairpin.
5. Remove the deck leg's retainer pin and unfold the leg until it is perpendicular to the deck strands. Reinsert the retainer pin through the leg's storage housing and the leg itself. Secure the retainer pin by reinserting its hairpin. Repeat as necessary for remaining legs.
6. Using the electric winch control, continue to lower the live deck until its legs are firmly on the ground. It should be level with the feed trough.
7. Unhook the winch cable's hook from the retainer bar clip. Retract cable onto winch



Winch Control

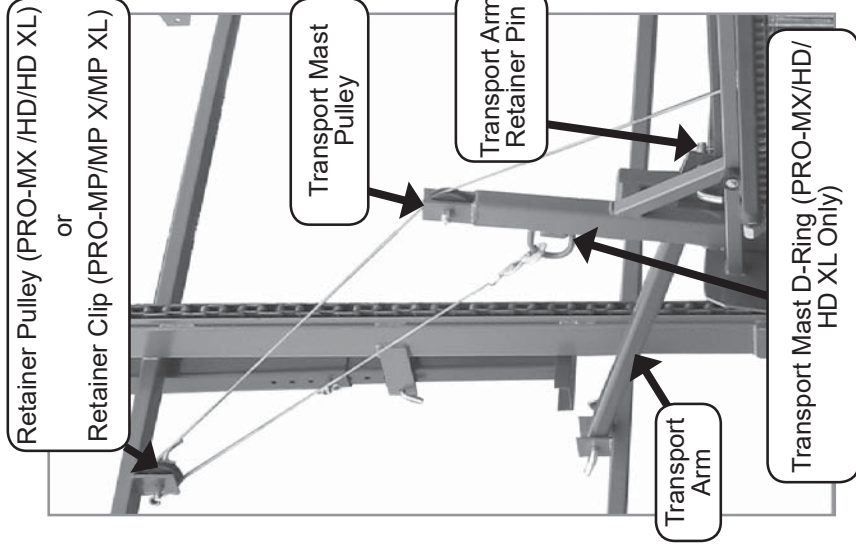


Winch Assembly



Place Retainer Pin Here Once Leg is Down

Leg Retainer Pin In Storage Position



Retainer Pulley (PRO-MX /HD/HD XL)
or
Retainer Clip (PRO-MP/MP X/MP XL)

Transport Mast Pulley

Transport Arm Retainer Pin

Transport Arm

Transport Mast D-Ring (PRO-MX/HD/HD XL Only)

(continued on next page)

Live Deck Deployment Via Electric Winch(Continued)

7.5. PRO-HD/HD XL

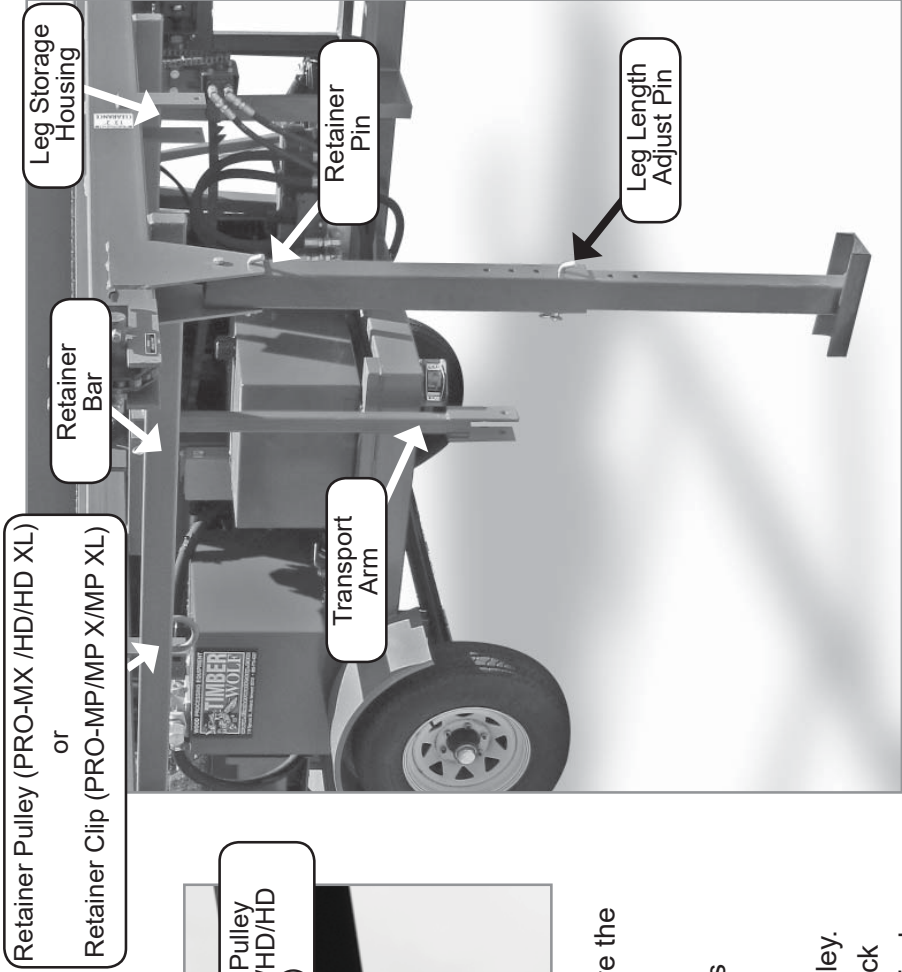
and PRO-MX only:

These models have a second pulley on the retainer bar instead of a clip. The winch hook clips to a D-ring on the transport mast itself. You will need to unclip the winch hook from

this D-ring and then remove the retainer bar pulley. To remove the retainer bar pulley, pull the hairpin from the retainer pin.

8. Using the electric winch control, reel out the cable so it has enough slack so that you can walk it around the feed trough.

9. Reaching up, unloop the cable from the transport mast pulley. Use the electric winch control to reel the cable all the way back in. Remove the electric winch control cord and reinsert the winch assembly's electric port guard.

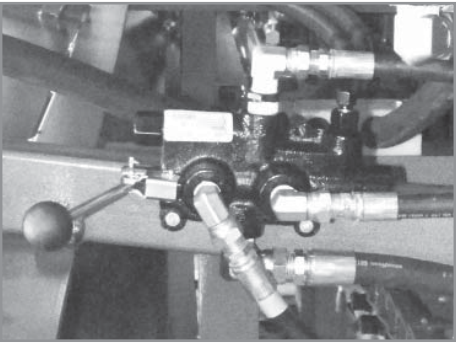


Deployed Live Deck Detail

Live Deck Deployment Via Hydraulic Lift

The Hydraulic Deck Lift is available as an option on the PRO-MP XL, PRO MX, PRO-HD, and PRO-HD XL only. Instructions for deployment using the hydraulic lift are as follows:

1. Make sure the processor's engine is running.
2. Remove the retainer pin from the transport arm/transport mast connection.
3. Push the hydraulic deck lift lever down(see right) to slowly and carefully lower the live deck until it is just above parallel with the ground. Make sure that you have enough room to unfold the deck's legs.
4. Remove the deck leg's retainer pin and unfold the leg until it is perpendicular to the deck strands. Reinsert the retainer pin through the leg's storage housing and the leg itself. Secure the retainer pin by reinserting its hairpin. Repeat as necessary for remaining legs.
5. Using the deck lift lever, continue to lower the live deck until its legs are firmly on the ground. It should be level with the feed trough.



Processor Powered Conveyor

Processor models PRO-MP XL , PRO-HD and PRO-HD XL can be equipped to power a Timberwolf hydraulic conveyor and control it from the operator station. Two types of factory-installed conveyor kit are available:

- Belt drive only – one set of hydraulics (control valve, hoses, connectors).
- Chain drive– includes second set of hydraulics for conveyor's lift mechanism, control valve, hoses, connectors.

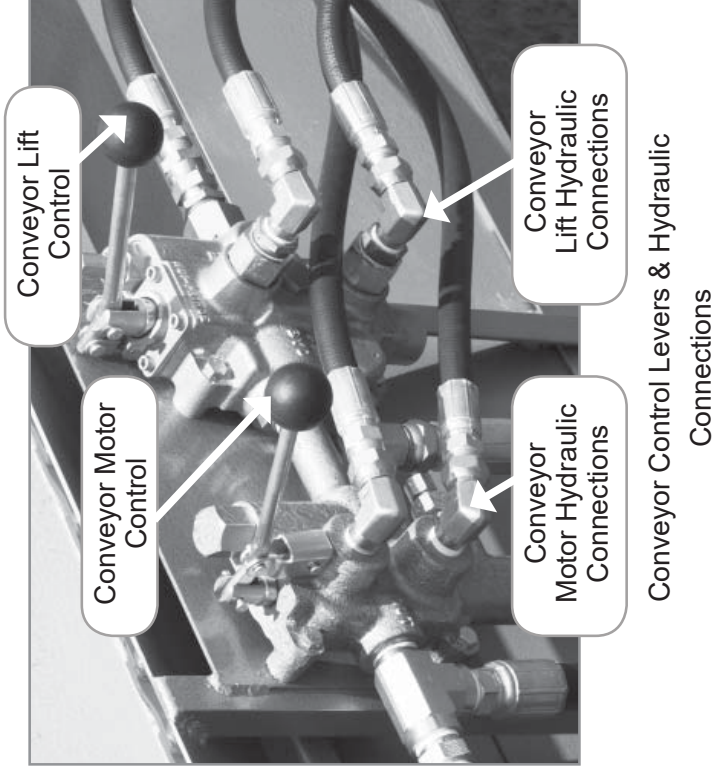
1. Position conveyor.
2. Make hydraulic connections. Connectors accept standard, barrel-style, self-locking hydraulic fittings. These are quick connect/disconnect fittings.



CAUTION

Always depressurize the entire processor hydraulic system before connecting or disconnecting any hydraulic fitting. Failure to observe this caution can result in serious injury.

Consult conveyor Maintenance and Operation Manual.



PRO-MX , PRO-HD, PRO-HD XL Changing Wedges

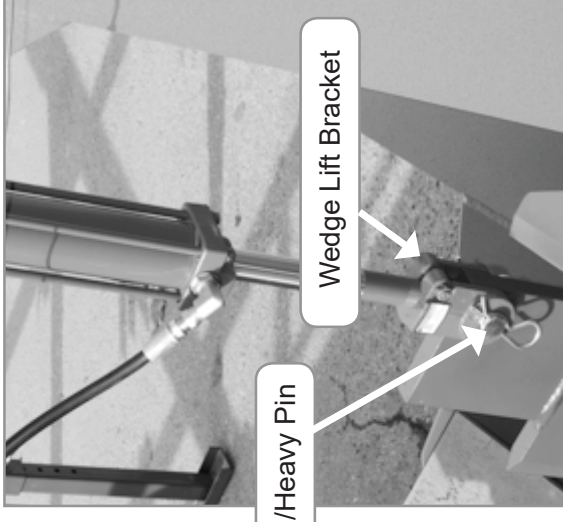
To change the processor's moveable wedge:

1. Turn engine on.
2. Lower wedge as far as it will go.
3. Shut off engine.
4. Pull cotter pin and remove heavy pin that secures the wedge to the wedge lift bracket.
5. Swing wedge-lift cylinder out of the way and support it.
6. Lift and remove wedge. A separate piece of heavy lifting equipment such as a tractor with a bucket or forklift, skid steer with a bucket will be needed along with a chain or hoist assembly. Use the hole where the heavy pin was in for lifting.
7. Position new wedge into log carriage and swing wedge lift cylinder back into place.
8. Align wedge lift bracket, then replace securing pin and lock it in place with cotter pin.

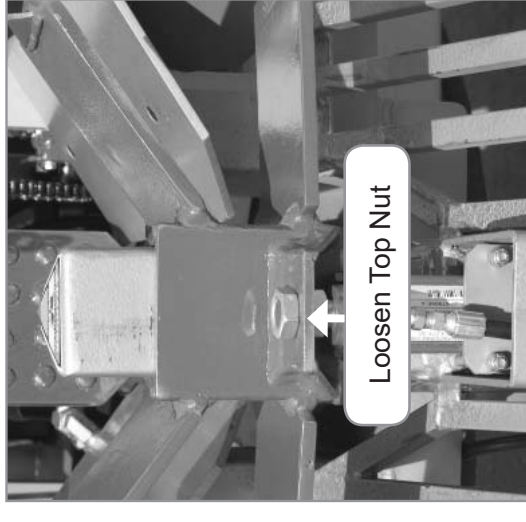
PRO-MP, PRO-MP X PRO-MP XL Changing Wedges

To change the processor's moveable wedge:

1. Turn engine on.
2. Raise wedge up as far as it will go.
3. Shut off engine.
4. Loosen and remove the top nut that holds the wedge in place.
5. Remove wedge and replace it with the new wedge.
6. Replace and tighten the top nut to secure the wedge tightly in place.



Wedge Lift Bracket
(PRO-HD, PRO-HD XL, PRO-MX)



Wedge Lift Bracket
(PRO-MP, PRO-MP XL)

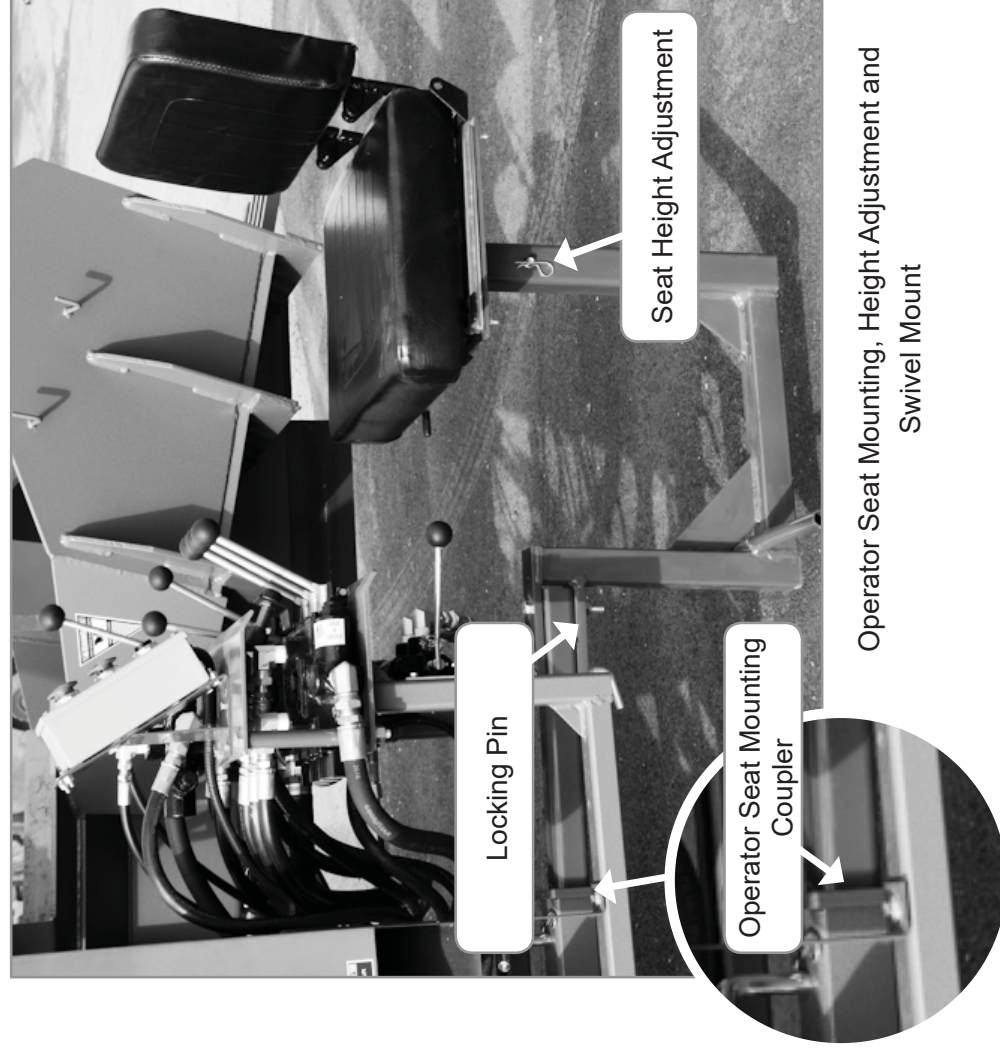
Operator Seat

If the processor is equipped with the optional operator seat, it needs to be installed during set up and removed during take down. An operator seat should not be left on the machine during transport.

To install the operator seat:

1. Make sure the engine is off.
2. Remove the locking pin from the coupler sleeve located below the operator station.
3. Slide seat bracket into the coupler.
4. Replace pin.
5. Adjust seat height as needed.

Seat can be swiveled out of the way when the operator prefers to stand.



Operator Seat Mounting, Height Adjustment and Swivel Mount

Operating Instructions

Startup Procedure

First, walk-around the entire machine:

- Check –
 - Fluid levels:
 - Diesel fuel – start the day with a full tank –
 - Plan to use one gallon per cord of firewood;
 - Use 60/40 diesel fuel/kerosene mix in winter weather (30 ° F and below).
 - Hydraulic oil – Timberwolf Firewood Processing Equipment recommends ISO 46.
 - Chainsawbar oil – use 30 weight in summer, 10 weight in winter.
- Petcocks on fuel, hydraulic, and bar oil lines – make sure all are open.
- Cutting chain condition – don't start the day with a dull or damaged chain.
- Hydraulic line condition – keep track of wear; save on downtime by replacing hoses before they fail.
- Nuts, bolts, and fittings – make sure all are tight and secure, especially on the push block.
- Welds – check high-stress joints.
- Cut off length gauge chain – adjust if necessary.
- **Wear proper protective equipment (PPE)**; this includes hand and foot protection, as well as the hardhat with face shield and hearing protectors supplied by Timberwolf Firewood Processing Equipment.

Engine Start Up

Diesel engine start up procedure:

- Make sure –
 - All control valve handles are in neutral/center position
 - No one is near any moving part
 - Emergency shut-off switch (“panic button”) is in the “ON” position (pulled up)
- Start the engine, following the instructions in its operating guide
- Allow engine to warm up at idle before you start to process firewood:

- Always warm up for at least ten minutes
- In winter weather (45° F and below) warm up for 60 minutes or until hydraulic oil is 80° or higher

Don't try to operate the processor before engine and hydraulic fluid are properly warmed up.

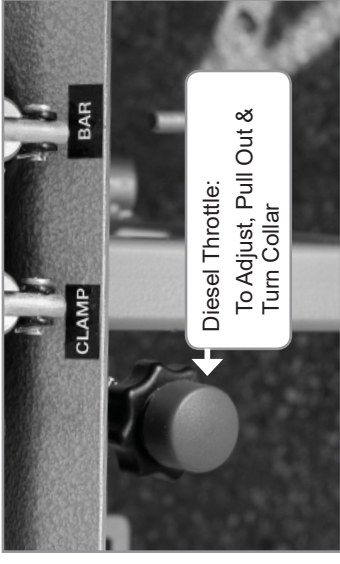
When the system is warmed up, return to the operator station and increase the engine speed.

Set a speed you're comfortable with in that range, based on your experience and judgement. Regulate engine speed by checking the tachometer located on the engine housing.

NOTE:

New operators should run the engine at slower speeds while learning to run the processor. Operator should be familiar with the controls and comfortable running the processor before increasing engine speed.

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Power Plant Controls – Throttle



Power Plant Controls – Emergency Shut Off

Engine Start Up (Continued)



CAUTION

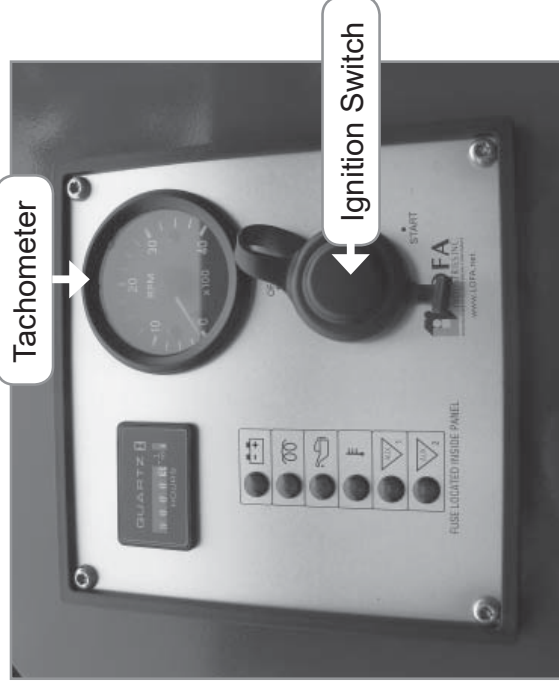
Never let anyone within 20 feet of the processor or log pile while the processor is in operation.

Hydraulic Start Up

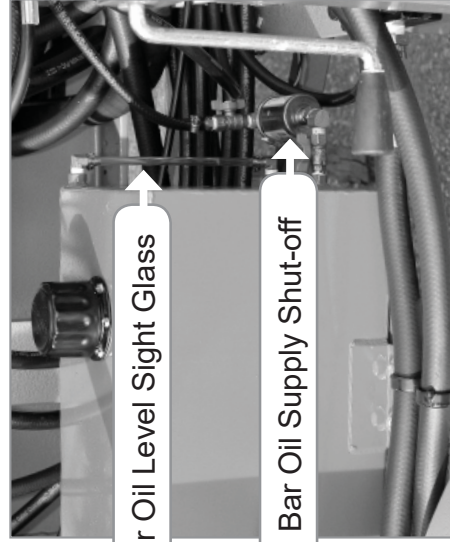
Timberwolf firewood processors have an open hydraulic system that begins circulating and warming the hydraulic oil when the engine starts running.

Chain Saw Set Up

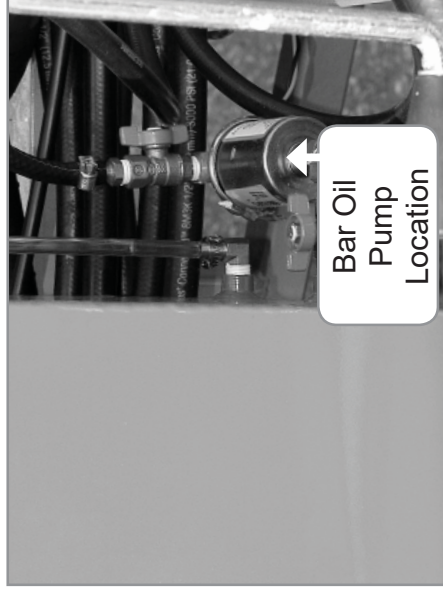
Check the sight glass on the bar oil tank and add oil if necessary. Make sure the bar oil tank shut-off petcock is open.



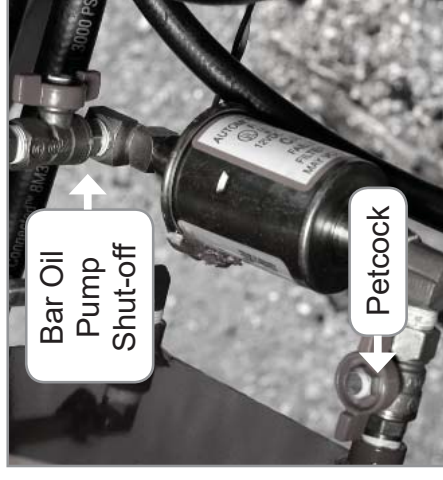
Diesel Gauges and Switches



Bar Oil Tank



Bar Oil Pump Location



Bar Oil Pump

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Chainsaw Setup (Continued)

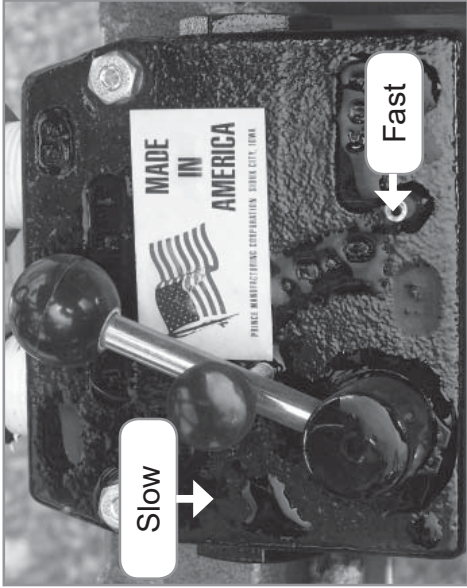
Chain Saw Speed

The hydraulic flow controller that governs chain saw speed is located below and to the left of the hydraulic control levers. Normal running speed is the #2 position. Check the setting each day to be sure it hasn't been changed accidentally. You may adjust the speed of the saw chain and cylinder speed to best suit your material and style.

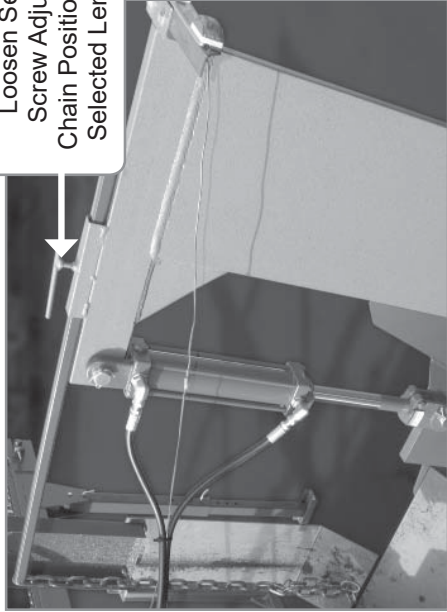
Chain saw speed shouldn't need to be adjusted very often.

Length Gauge Adjustment

Set the processor's length gauge to guide you in sawing off uniform pieces.



Chain Saw Speed Control



PRO-MX , PRO-HD, PRO-HD XL Inline Splitter
Length Gauge Adjustment



PRO-MP, PRO-MP XL Inline Splitter
Length Gauge Adjustment

Processing Firewood

PRO-MP - Maximum log diameter is 18 inches. The PRO-MP's 10-foot feed trough can handle logs from 4-feet, 8-inches up to 14-feet long.

PRO-MP X - Maximum log diameter is 22 inches. The PRO-MP's 10-foot feed trough can handle logs from 4-feet, 8-inches up to 14-feet long.

PRO-MP XL - Maximum log diameter is 22 inches. The PRO-MP XL's 10-foot feed trough can handle logs from 4-feet, 8-inches up to 14-feet long.

PRO-MX - Maximum log diameter is 22 inches. The PRO-MX's 16-foot feed trough can handle logs from 4-feet, 8-inches up to 24-feet long.

PRO-HD - Maximum log diameter is 22 inches. The PRO-HD's 16-foot feed trough can handle logs from 4-feet, 8-inches up to 24-feet long.

PRO-HD XL - Maximum log diameter is 22 inches. The PRO-HD XL's 16-foot feed trough can handle logs from 4-feet, 8-inches up to 24-feet long.

General Guidelines

Logs should be as smooth as possible and free of knots, bumps, and branches. Always try to point the butt end toward the wedge.

Use good judgment about log lengths, size, and straightness. The processor's production rate depends chiefly on the size of the wood being processed and your ability to run the machine efficiently.

Processing Crooked Logs

Processing crooked logs takes judgement and experience. Most crooked logs can feed through the machine without problems when handled correctly. Less experienced operators, though, should avoid them because they can make problems:

- Crooked logs can catch and damage clamp or saw mechanism.
- Crooked logs often result in pieces with ends cut diagonally, instead of square.
- Diagonal pieces cause problems and slow down operations because they tend to slide off the push block or the piece ahead, and can even pop up out of the splitter hopper.

(continued on next page)

Processing Firewood (Continued)

Processing Crooked Logs (Continued)



CAUTION

When you split a diagonal piece, watch carefully as it begins to split. Make sure the end closest to the wedge doesn't start to come up toward you as it pushes against the piece in front of it. If the end of a piece does start to lift, retract the push block and use the supplied pickeroon to reposition the piece.

As with anything you do processing wood, operating this machine is a learning process. As you spend more time with it you will become more proficient with it. Always pay attention. Never become complacent. Do not hesitate to call Timberwolf Firewood Processing if you have any questions about how to use the machine.



CAUTIONS

Never adjust pressure settings on the machine.

Never make an adjustment while machine is running.

Do not take chances.

Do not let debris fall into the valve area.

Clean the machine of debris daily.

Do not operate this machine when you're tired or while taking any form of medication, drugs, or alcohol.

Operator Station

Splitter (Auto-cycle)			
Push for manual retract			
Pull & release to split		Pull & release for auto retract	
Hyd Wedge	Feed Trough		Saw
Push to raise	Pull for forward		Release to stop
Pull to lower	Push to reverse		Pull to run
Live Deck		Clamp	Bar
Push for reverse		Push to Float	Push to raise
Pull for forward		Push to Raise	Pull to lower
		Pull to Neutral	
		Pull to Lower	

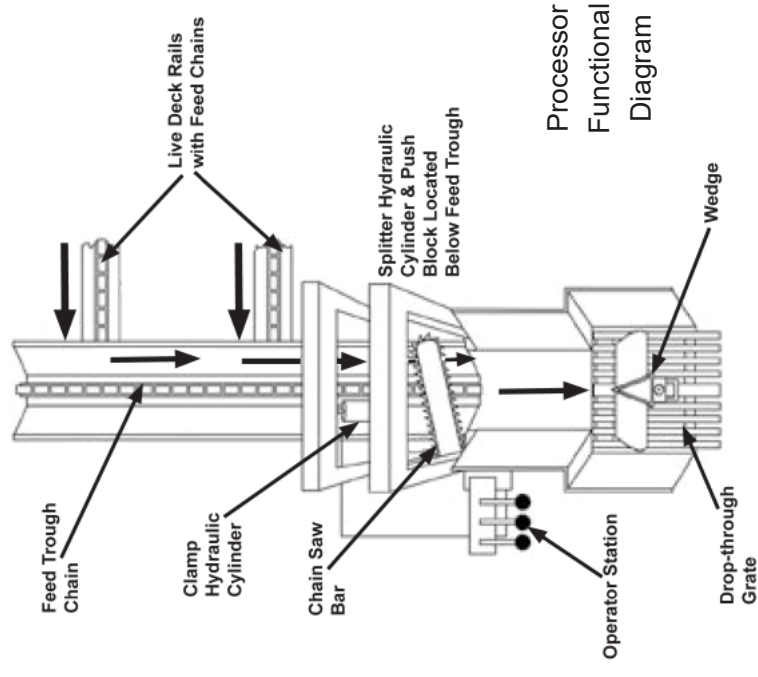
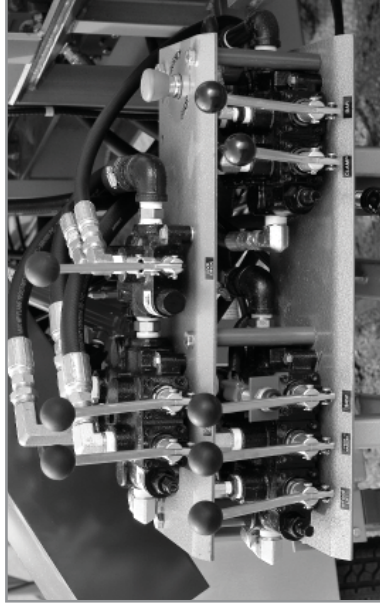
NOTES:

Splitter: For auto-cycle operation, pull and release both handles together. For manual splitter control, use only left splitter handle.

Operations

Procedures for processing firewood divided into four parts:

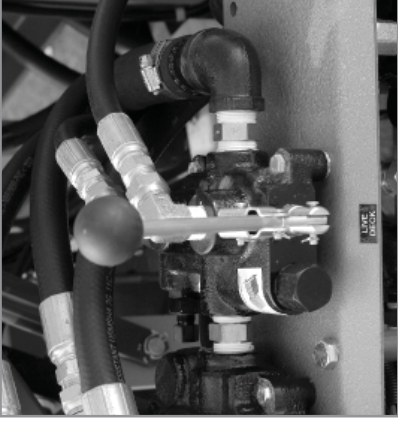
- Transport – Live deck moves logs into feed trough and feed trough advances logs to be cut
- Clamping – Top Roll holds log in place for cutting
- Cut off – Separate controls for chain saw motor and lowering/raising chain saw bar
- Splitting – Wedge positioning and auto-cycle operation; manual operation for problem pieces



(Continued on next page)

Operations (Continued)

1. Load logs onto deck with butt ends pointed toward the cutoff bar and splitter. Make sure logs are parallel to feed trough and weight is evenly distributed on deck strands
2. Live deck lever controls drive chains in the deck strands. Pull lever to move logs toward feed trough, push back for reverse
3. Advance logs carefully. Make sure only one log is positioned to drop into the feed trough



Live Deck Lever

NOTE:

If more than one log does fall into the feed trough, shut down the processor and remove the extra log(s) from the trough.

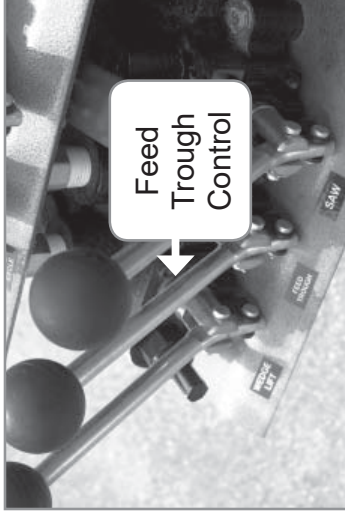
4. After log drops into feed trough, move it forward to be cut off by the chain saw



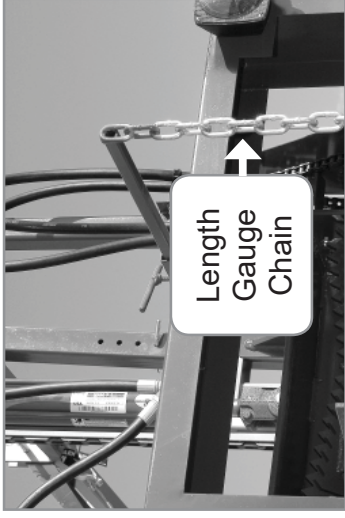
CAUTION

Advancing log without properly positioning the top roll and cutoff bar can cause severe damage to the equipment.

5. Before you advance the log, make sure the top roll clamping mechanism is raised far enough to let the log under the roller. Make sure the chain saw cutoff bar is in the full upright position as well
6. Advance log until it touches the length gauge chain
7. If log moves too far, push on the feed trough control lever for reverse



Feed Trough Lever



Length Gauge

8. Engage top roll

Top Roll System

To operate top roll feed mechanism:

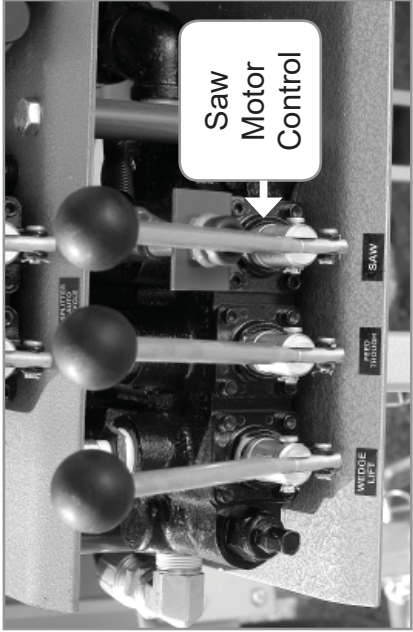
1. Push back on the clamp control lever to raise the roller. Lift just enough to let the incoming log pass under; advancing log should make the roller turn
2. When the log is under the roller, push the clamp lever all the way forward into the float position, releasing the roller to ride over the log's contour
3. The float position of the roller is enough to hold a log while the saw makes most cuts
4. Pull the feed trough lever to advance the log until it touches the length gauge chain. If the log advances too far, back it up by pushing back on the lever
5. Saw off piece and start splitter auto-cycle once the log is completely in splitting area
6. Repeat advancing and cutting log
7. The last cut on some logs can require extra clamping pressure to prevent tipping. For manual clamping –
 - Pull the valve handle back into the neutral position
 - Carefully pull on the handle to exert as much pressure on the log as needed
 - Return to float position before advancing the log again
 - Roller cannot climb over bumps on a log while manual clamping pressure is applied and will break top roll mounting hardware if moved while under pressure
8. Pay attention while you operate the machine:
 - Check how the roller rides on the log
 - Don't let the end of a log sneak up on you
 - Set roller onto each log; don't drop it roughly

Cutting

When the log is extended to the length gauge chain and firmly held in float position by the clamping mechanism, you're ready to cut off a piece to be split.



Bar Oil Pump



Saw Lever

NOTE:

Make sure oiler pump valve is open about one quarter turn to regulate bar oil. In mild weather use 30-weight bar oil. Use 10-weight oil at winter temperatures (30° F and below).

(continued on next page)

Cutting (Continued)

When log is in cutting position:

1. With your left hand, pull and hold saw lever to engage the chain saw. Saw only runs while you hold the lever in position. Running the chain also runs the bar oiler
2. At the same time, pull on the bar control lever with your right hand to bring the saw down for the cut. Push back on the lever to raise the saw
3. When the bar gets near the log, slow it down and approach carefully. Slamming the saw bar into a log can stall the chain
4. Apply more pressure as the bar enters the cut. Go slowly and carefully to feather the saw bar through the cut. As your experience increases, you'll know just how much pressure to exert with the valve handle
5. Exerting too much pressure can stall the saw motor. If that happens, let go of the bar lever to release the pressure and let go of the saw lever to stop the chain. Lift the bar up out of the cut by pushing back on the bar lever, then re-start the saw motor and begin the cut again
6. If the saw binds in a cut, reduce pressure on the bar control lever. If it continues to bind, raise the bar and bring it down again to make the cut wider
7. For a clean cut that drops the log smoothly into the splitter, hold the bar control until the log falls. Lifting the bar too soon can leave a hinge in the wood and make the log tumble into a bad position
8. Release the saw control lever when the cut is done. The lever returns to neutral position and the chain stops turning
9. At the same time, with your other hand, push back on the bar lever and raise the chain saw bar into position for the next cut



CAUTION

Be sure to raise chain saw bar to the full upright position to let advancing log pass by. A log hitting the bar can cause severe damage.

Splitting

The fourth processing operation is to split each piece as it's sawed off from the log. The processor's log splitter is similar to a standalone splitter. Pieces may have to be shifted to improve splitting position, and twisted or knotty pieces will exceed auto-cycle detentes and require manual control.

Always observe common rules of log splitter safety:



WARNING

Wear PPE: Steel Toed Boots, Tight Fitting Work Gloves, Supplied Hard Hat with Face Shield and Hearing Protection

Do not use under the influence of drugs or alcohol.

Never handle firewood by the ends. Use supplied pickeroon; keep hands OUT of splitting area

Stay clear of the wedge area once a log begins to split.

Keep hands away from the splitter during the return stroke.

Auto-Cycle Operation

Auto-cycle operating instructions for the log splitter:

1. The piece cut off by chain saw should drop into position on the splitter's log carriage. You may have to use the supplied pickeroon to reposition some pieces
2. Center the movable wedge on the log by adjusting up or down with the wedge lift control lever:
 - Push to raise wedge
 - Pull to lower wedge



Hydraulic Wedge Lift Lever

(continued on next page)

Auto-Cycle Operation (Continued)

3. Pull both splitter levers to the detente position and release. Push block should completely extend and return automatically.
4. Hard-to-split pieces that exceed detente settings make the control levers kick out to neutral position, which makes the push block start back or stop in place.
5. Use your judgement when that happens. You can split some pieces by just starting the push block forward again; some pieces need to be repositioned or turned around using the supplied pickeroon; some need to be removed. You also have the option of controlling the splitter manually with just the left handle.
6. While a piece splits under auto cycle control, you can advance the log in the feed trough and start the next cut. Always keep an eye on the splitter while you do that, though.
7. Both handles stay in detente position until push block is fully extended.
8. At the end of the stroke, forward detente returns lever to neutral position.
9. Right lever remains in detente position and controls cylinder while it retracts the push block.
10. When cylinder is fully retracted, return detente kicks right lever to neutral position.

You can start cutting the next piece before the push block returns to the retracted position. DO NOT finish a cut until the push block has fully retracted.

NOTE:

If auto-cycle handles kick out early too often, the valve's forward detente needs adjustment. Consult Maintenance section of this manual for adjustment instructions.

Manual Operation

Use left splitter lever to control the log splitter manually for tough logs that kick out the auto-cycle detentes:

1. Leave right splitter lever in neutral position
2. Pull and hold left splitter lever to extend the push block
3. When log is split, push and hold the lever until push block is fully retracted
4. Return lever to neutral position
5. Center the movable wedge on the log by adjusting up or down with the hydraulic wedge control lever:

- Push to raise wedge
- Pull to lower wedge



Electric Auto Cycle Operation

Electric auto cycle (not available for the PRO-MP or PRO-MP X) operating instructions for the log splitter:

1. Piece cut off by the chain saw should drop into position on the splitter's log carriage. You may have to use the supplied pickeroon to reposition some pieces.
2. Center the movable wedge on the log by adjusting up or down with the Hydraulic Wedge control lever.

- Push to raise wedge
- Pull to lower wedge

3. Push and release the center, green switch to start the cycle. Push block should completely extend and return automatically.

4. While a piece splits under the auto cycle control, you can advance the log in the feed trough and start the next cut. Always keep an eye on the splitter when you do this. DO NOT finish a cut until the push block has fully retracted.

5. If a hard-to-split piece stops or noticeably slows the push block, press and release the red stop button.

6. If you have to stop the push block in mid cycle, next push the black retract button. That button makes the push block return to its start position and resets the splitter to begin a new cycle. Use your judgement when that happens. You can split some pieces just by starting the push block forward again; some pieces need to be repositioned or turned around; some need to be removed.

You can start cutting the next piece before the push block returns to its retracted position.

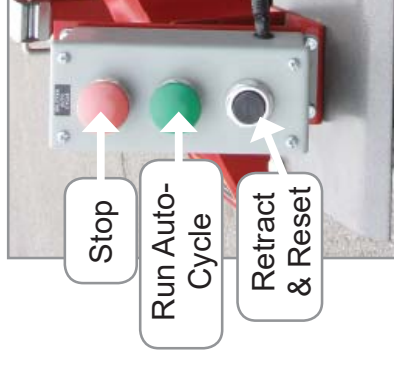


CAUTION

Never finish a cut before the push block returns completely to its retracted position.

Continue as previously instructed.

These operating instructions are designed as a guide for you. In time you will become proficient.



Electric Auto Cycle
Switches

Take Down Procedures

Shutting Petcocks

Petcocks on the processor’s hydraulic, fuel, and lubricant lines should be closed when the machine is secured for transport. During take down, check to make sure petcocks are closed on:

- Hydraulic lines
- Diesel fuel line
- Chain oiler

Processor Shut Down

Timberwolf Firewood Processing Equipment firewood processors are easily moved between work sites. With live deck retracted, processors meet the normal size limits for travel on public roads:

Shutting the processor down for a move requires special attention:

- Make sure feed trough, log carriage, and hopper are clear of scraps and debris
- Close petcocks on:
 - Hydraulic tank, supply and return
 - Diesel fuel line
 - Chain oiler



Petcocks

Retracting The Live Deck Via Electric Winch



WARNING

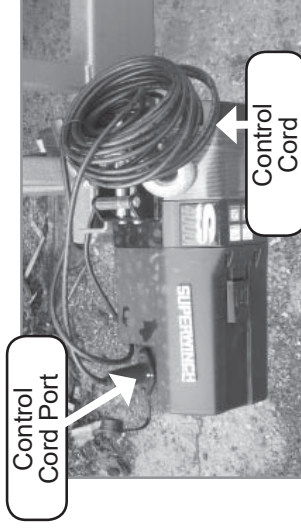
Never stand under live deck.

Do not attempt to lower or raise live deck with the processor's engine running!

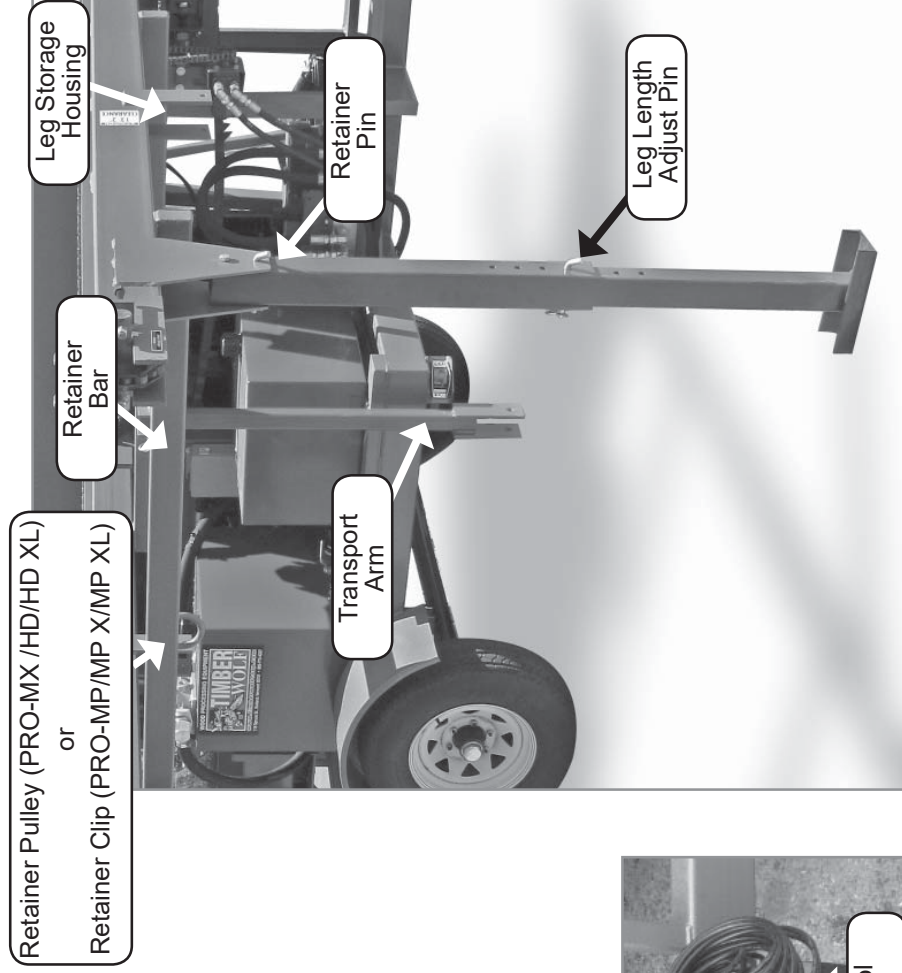
1. Make sure the processor's engine is NOT RUNNING.
2. Remove the control cord port guard from the electric winch assembly and plug electric winch control cord in.



Winch Control



Winch Assembly



Deployed Live Deck Detail

3. Grab hold of the winch cable and pull out a long enough length to give sufficient slack to feed up through the transport bar pulley.
4. Reaching up, loop the winch cable through the transport mast pulley. **DO NOT STAND ON THE PROCESSOR TO DO THIS.** Making sure that the winch cable is firmly on the pulley's guides; walk it around the feed trough. Pull out as much cable slack as you think you will need to reach the deck retainer bar's clip.

(continued on next page)

Retracting The Live Deck Via Electric Winch (Continued)

5. Lifting the cable over the transport stabilizer leg's crossbeam, attach the cable hook to the deck retainer bar's clip. Make sure the attachment is secure by using the winch control to pull in enough slack to make the attached cable taught.

5.5. PRO-MX and PRO-HD/HD XL only: These models have a second pulley on the retainer bar instead of a clip. The winch hook clips to a D-ring on the transport mast itself. You will need to:

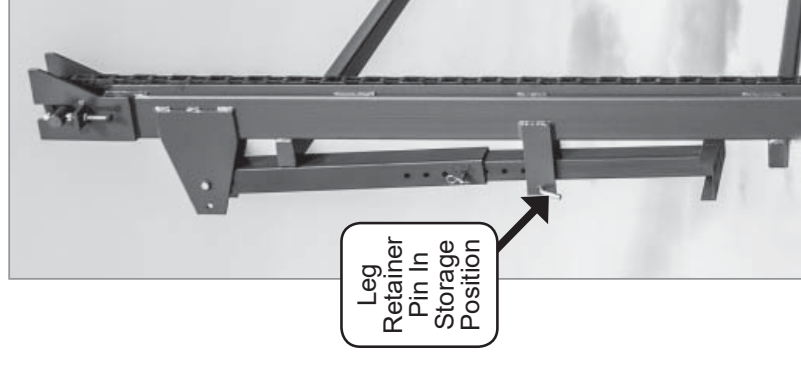
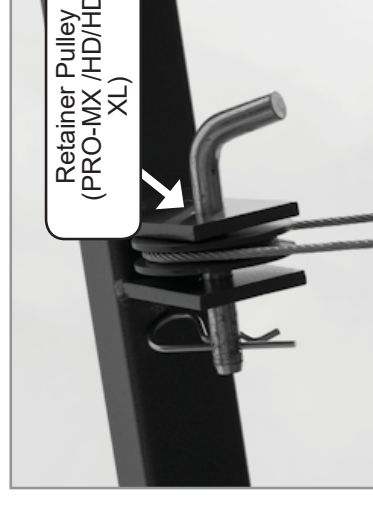
- Remove the retainer pin from the retainer bar pulley
- Slide the winch cable into the groove of the pulley
- Return the pulley to it's original position with the cable behind it
- Secure pulley with retainer pin
- Secure retainer pin with hair pin.
- Carry winch cable around feed trough, making sure it clears the transport arm separator bar
- Attach hook to D-ring on transport mast

6. Using the winch control, pull the live deck back enough to raise the deck legs off the ground approximately two feet.

7. Remove the leg retainer pin's hair pin and pull the retainer pin itself from the leg. Swing the leg back into holding position and secure by inserting the pin through its designated hole beneath the leg. Lock the retainer pin into place by reinserting the hairpin. Repeat as necessary for remaining deck legs.

8. Locate the transport leg's retainer pin. Remove the retainer pin's hair pin. Fold the transport leg back into its inactive position and secure with retainer pin.

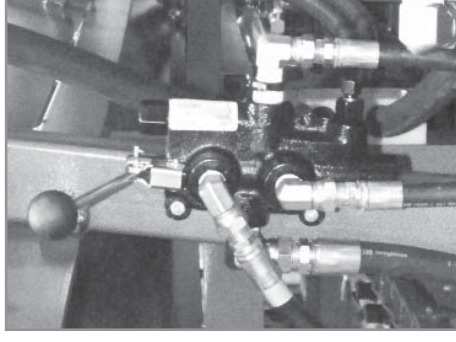
9. Using the electric winch control, continue raising the live deck until it is perpendicular to the ground. Make sure that the transport arm comes to rest snugly in its holding position at the base of the transport mast. Insert the transport arm's retainer pin through the arm's housing and directly behind the transport mast. Secure the retainer pin by reinserting its hairpin.



Live Deck Retraction Via Hydraulic Lift

The Hydraulic Deck Lift is available as an option on the PRO-MP XL, PRO MX, PRO-HD, PRO-HD XL and only. Instructions for live deck retraction using the hydraulic lift are as follows:

1. Make sure the processor's engine is running.
2. Push the hydraulic deck lift lever up (see right) to slowly and carefully raise the live deck until it is just about two feet off the ground so that you have room to comfortably fold the legs up.
3. Remove the deck leg's retainer pin from its locking position at the head of the deck strand.
4. Fold the leg back into its storage housing and secure by reinserting retainer pin through housing and leg itself. Secure retainer pin with hairpin. Repeat as necessary for remaining legs.
5. Using the deck lift lever, continue to lift the live deck until the deck strands are perpendicular to the ground, ensuring that the transport arm is securely guided into its housing on the transport mast.
6. Secure transport arm into its housing at the base of the transport mast with retainer pin. Secure the retainer pin with its hairpin.



Hydraulic Deck Lift Lever

Towing Procedures

Firewood Processor towing weights and overall lengths/widths:

- PRO-MP — 5,560 lbs./18 ft. x 9 ft.
- PRO-MP X — 5,650 lbs./18 ft. x 9 ft.
- PRO-MP XL — 5,750 lbs./18 ft. x 9 ft.
- PRO-MX — 6,500 lb./30 ft. x 9 ft.
- PRO-HD — 8,500 lb./30 ft. x 9 ft.
- PRO-HD XL — 9,000 lb./30 ft. x 9 ft.

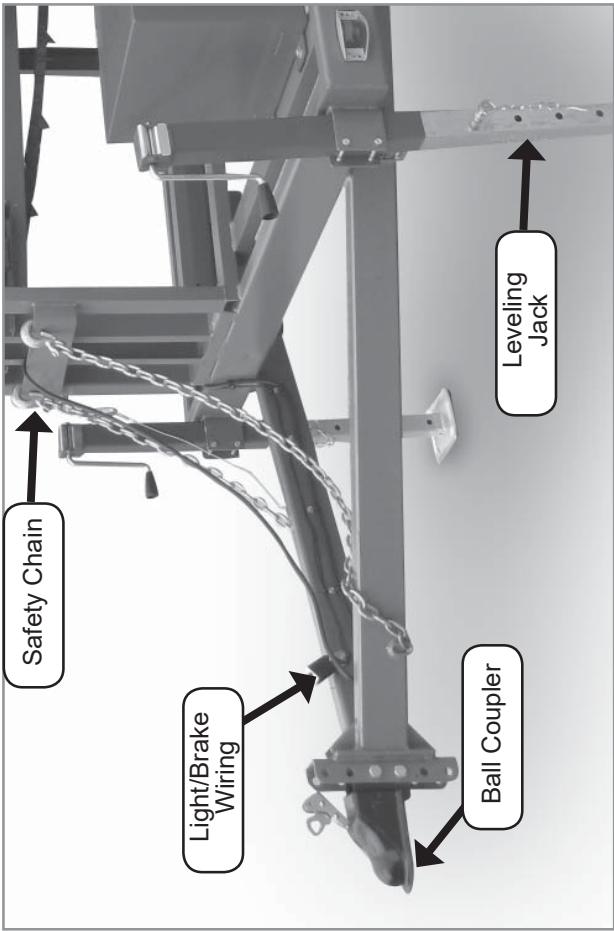
Tow vehicle equipment requirements:

- Hitch — 2 5/16 inch ball coupler or pintle hitch
- Electric brake controller
- Standard 7-pin wiring harness for lights and brakes
- 3/4 ton or larger truck

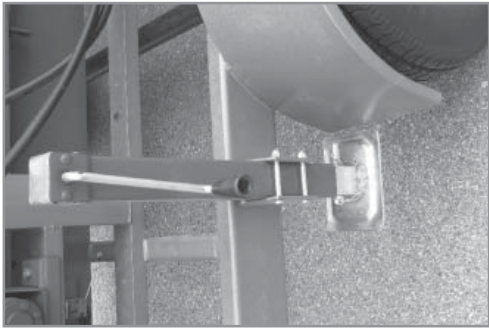
Connection Instructions

1. Fully retract back corner jacks so the tires and front corner jack support the processor.
Use front corner jacks to lift the processor's coupler. To adjust jack height:

- Use hand crank to manage jack height
- Remove retainer pin hair pin, then retainer pin itself
- Raise Jack Foot all the way up
- Reinsert retainer pin and retainer pin hair pin



(Rear Towing/Leveling Assembly)



Front Corner Jack

Towing Procedures (Continued)

1.5. PRO-MX, PRO-HD and PRO-HD XL models: Dual axle processor models come equipped with two rear corner jacks. It is important to keep these adjusted to an even height when lifting the processor's coupler in order to ensure balance.

2. Back tow vehicle into position with its hitch under the coupler
3. Fully retract front corner jacks when coupler is securely positioned on tow vehicle's hitch
4. You may need to reposition the ball coupler so the processor has the correct tongue weight
5. Connect light and brake wiring harness, hitch failure emergency brake cable, and safety chains



CAUTION

Neve use the hitch failure emergency brake unit as a parking brake. Using the break-away brake as a parking brake while hitched to the tow vehicle will overload the electrical system and burn out the wiring. Using it will also drain battery when un-hooked.

Maintenance

General

Good maintenance extends the processor’s life and helps to ensure efficient operation.



WARNING

Make sure engine is shut off and hydraulic system is depressurized before you perform any maintenance. Read “Safety” section of this manual before performing any repairs.

For engine maintenance schedules, consult the engine owner’s manual.

Daily Maintenance

Make maintenance a regular part of daily operation. The daily maintenance routine needs to include:

- Check –
- Fluid levels:
 - Diesel fuel – start the day with a full tank
 - Plan to use one gallon per cord of firewood
 - Use 60/40 diesel fuel/kerosene mix in winter weather (30° F and below)
- Hydraulic oil
- Chain saw bar oil – use 30 weight in summer, 10 weight in winter

(continued on next page)

Daily Maintenance (Continued)

- Cutting chain condition – don't start the day with a dull or damaged chain
- Splitter wedge – sharpen regularly with file or grinder
- Hydraulic line condition – keep track of wear; save on downtime by replacing hoses before they fail
- Nuts, bolts, and fittings – make sure all are tight and secure, especially wear plate bolts on the push block
- Welds – check high-stress joints
- Cut off length gauge – adjust if necessary
- Grease –
 - Saw arbor arm
 - Splitter push block
 - Clamp mechanism
 - Live deck drive mechanism and feed chain mounts
 - Feed trough drive mechanism and feed chain mounts
 - Test emergency shut off switch

Hydraulic Fluid

Timberwolf Firewood Processing Equipment recommends ISO 46 hydraulic fluid every 500 hours under normal conditions. Change it immediately if it becomes contaminated.

Plan to replace hydraulic line filters whenever the hydraulic fluid is changed.

Emergency Shut Off Switch

Check the emergency shut off switch ("panic button") every day, using the following procedure:

1. Start the processor
2. Depress the emergency shut off switch
3. The power plant should shut down immediately

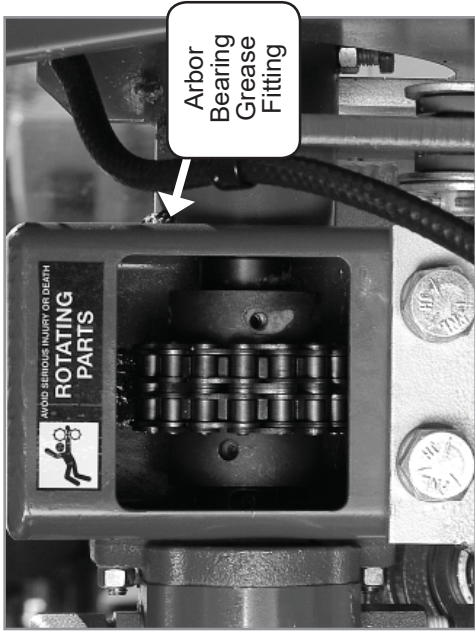
If the emergency shut off switch fails to function correctly, contact Timberwolf Firewood Processing Equipment immediately by calling 1-800-340-4386.



Emergency Shut Off Switch ("Panic Button")

Saw Arbor Bearing

1. Grease the saw arbor bearing every 4 to 6 hours of operation or once a day.
2. Insufficient lubrication could permit premature wear on the arbor, resulting in costly down time and repairs.
3. Turn engine on
4. Raise chain saw bar to the full upright position
5. Turn engine off
6. Locate grease fitting on the round sleeve between the saw bar and the motor mount
7. Administer one or two pumps of grease



Saw Arbor Bearing - One Grease Fitting

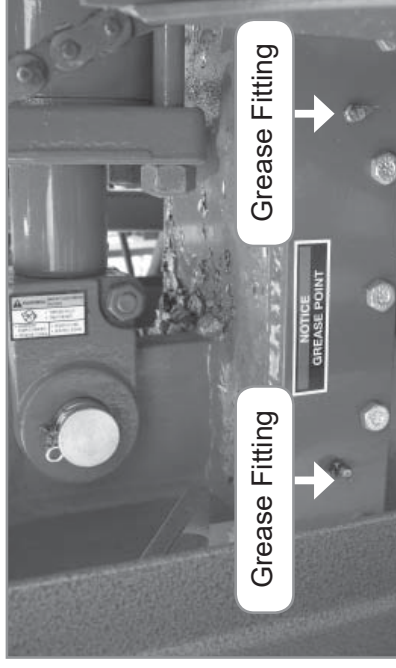
Push Block

Grease the splitter push block and check the wear plate bolts every 4 to 6 hours of operation. Replace wear plates as needed.

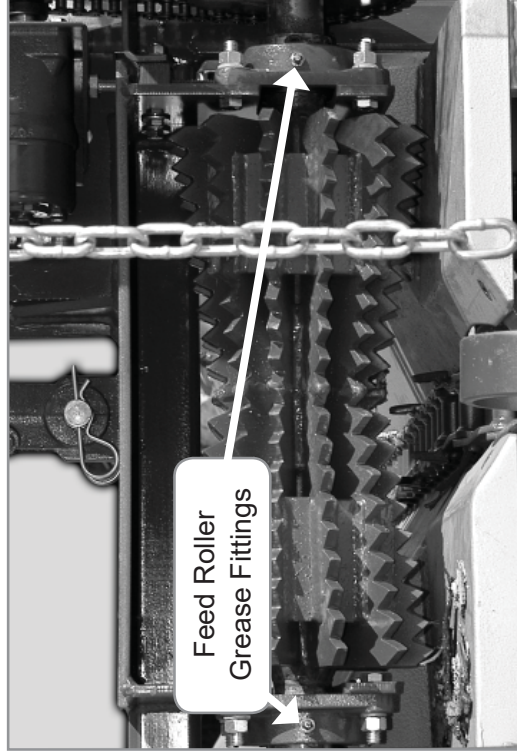
Good maintenance keeps the push block sliding smoothly for efficient operation and reduced wear.

Clamp

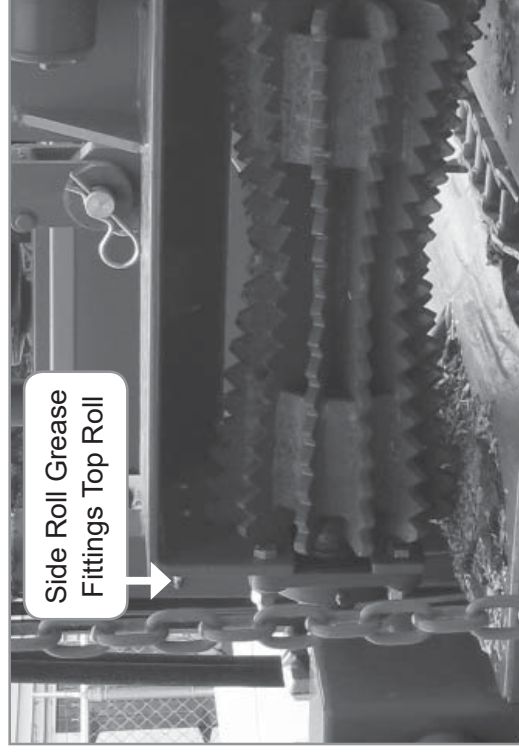
Grease the clamp mechanism every day. The photographs here show the top roll clamp system, which needs grease for the feed roller as well as for the vertical side rails.



Splitter Push Block - Grease Fittings & Gibb Bolts
(2 Grease Fittings, 5 Gibb Bolts On Each Side)



Feed Roller Grease Fittings



Clamp Mechanism Grease Fittings
Front and Back, Each Vertical Rail

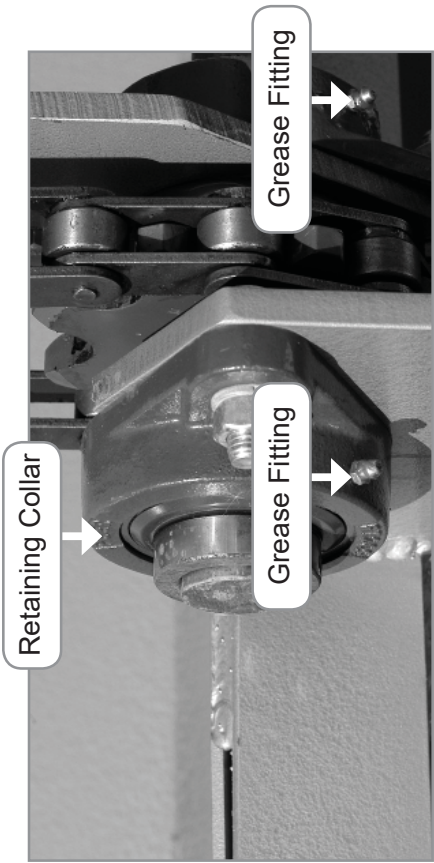
Live Deck

Grease the live deck components every day.

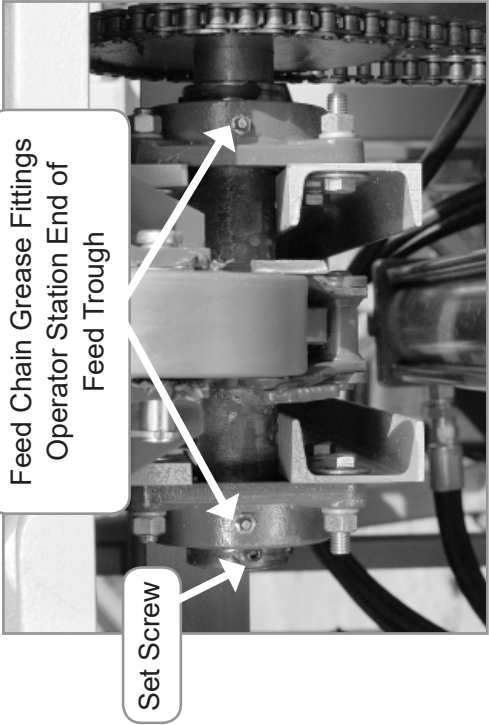
Feed Trough Chain

Grease the chain mount bearing at each end of the feed trough.

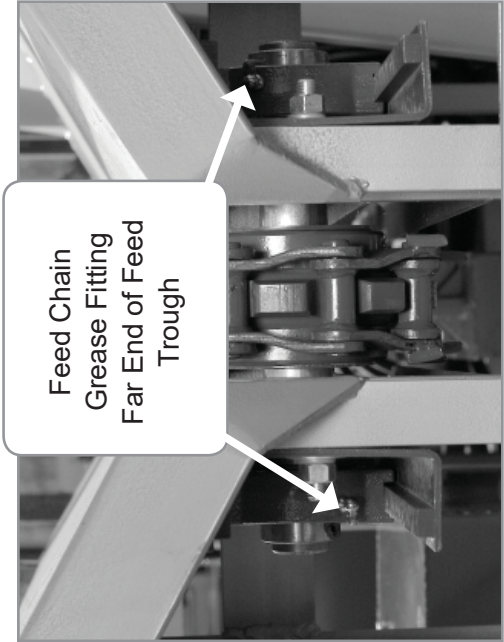
Check the retaining collar set screws (two on each side) that secure the chain mount in the bearing. Make sure that they are fully tightened.



Live Deck Drive Mechanism –
Two Grease Fittings On Each Drive Gear



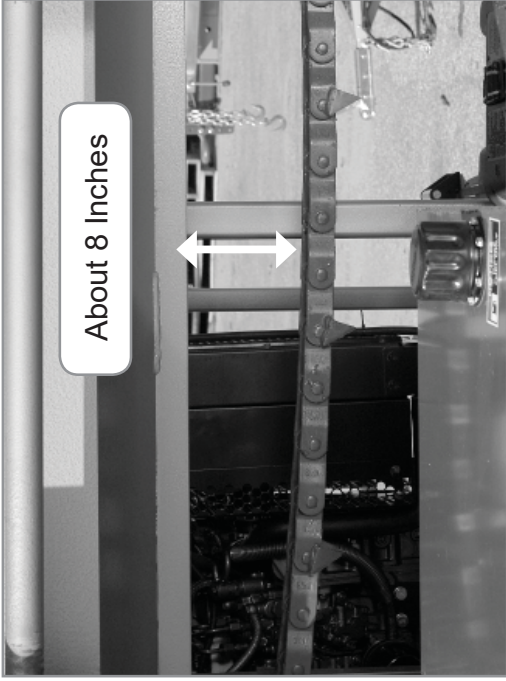
Feed Trough Chain Mounts – Four Grease Fittings Per Trough, Two at Each End



(continued on next page)

Feed Trough Chain (Continued)

Check tension adjustment on the Feed Trough Chain. Chain should hang roughly 8 inches below the bottom of the trough at its lowest point. If chain hangs low, increase chain tension. Use a wrench to loosen the locking nuts, then turn the large chain tension set screws. The tension



Feed Trough Chain Tension

adjuster is located at the far end of the trough away from the operator. There are two set screws, one on each side of the chain, be sure to adjust them both equally. Re-tighten locking nuts.



Feed Trough Chain Tension Set Screw

Auto Cycle Detente Valve Adjustment

NOTE: Make all adjustments with the log splitter at normal operating temperature. There are several things you need to know before you adjust the auto-cycle valve:

Make adjustments by turning the screw located on top of each valve (normally covered by black plastic protective cap).

(continued on next page)

Splitter Auto-Cycle Valve Adjustment (Continued)

NOTE: Auto-cycle valve will not function properly if the FORWARD stop position (detente) is adjusted so the handles can be released before the log starts to split. Normally both stop position screws (detentes) have to be adjusted to make the auto cycle work properly. Adjustment guidelines for auto-cycle valve detentes:

Correct adjustment requires you to hold both handles in their forward stop position (detente) until the log begins to split. You should then be able to release the handles while the push block automatically finishes advancing and retracts, completing the cycle.

The stop position (detente) for each spool on the auto cycle valve must be adjusted periodically, depending upon use. If you're having problems making adjustments, the following information should help. As always, please call us if you have any questions or need help.

Auto-Cycle Valve Adjustment Troubleshooting

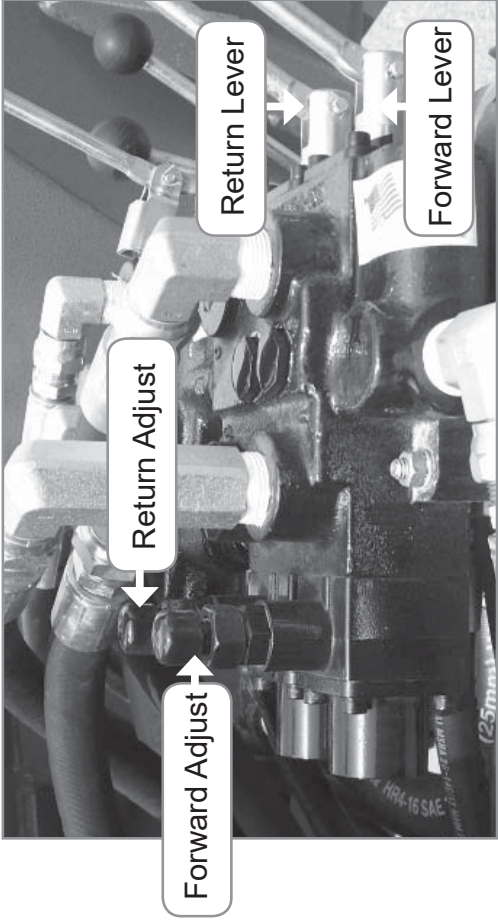
NOTE: "Left" and "right" in the following instructions are the directions when looking at the valve from the operating handle (wedge) end.

Push block will not extend completely:

Adjust FORWARD spool (closest to the tank)

1. Loosen jam nut
2. Turn adjusting screw clockwise one-quarter turn
3. Tighten jam nut

(continued on next page)



Splitter Subsystem Hydraulics

Splitter Auto-Cycle Valve Adjustment (Continued)

4. Split log to see if handle stays forward until the push block extends completely
5. Repeat adjusting and splitting until handle stays forward through the entire stroke

NOTE: If the engine slows way down before it can kick the FORWARD lever into the neutral position, the adjusting screw is turned too far in. Make small adjustments until engine speed remains fairly stable while the FORWARD lever returns to neutral position.

Push block will not return all the way OR Both handles kick to neutral when push block is all the way forward:

Adjust RETURN spool (closest to the engine)

1. Loosen jam nut
2. Turn adjusting screw clockwise one-quarter turn
3. Tighten jam nut
4. Split log to see if push block will return on its own
5. Repeat adjusting and splitting until push block does return on its own

Right or left valve handle will not kick back to neutral position:

1. Loosen jam nut
2. Turn detente sleeve counter-clockwise one-quarter of a turn at a time until handle kicks back to neutral
3. Tighten jam nut
4. If that doesn't work, shut down the log splitter, release system pressure, remove entire valve assembly, and check for dirt or broken parts

Specifications

PROCESSOR MODEL	PRO-MP	PRO-MP X	PRO-MP XL	PRO-MX	PRO-HD	PRO-HD XL
POWER PLANT	36 HP Yanmar	45 HP Mitsubishi	45 HP Mitsubishi	49 HP John Deere Diesel	74 HP John Deere Diesel	74 HP John Deere Diesel
PUMP (gpm)	22-22	22-22	22-22-8	22-22	33-20-13	33-20-13
WEIGHT (lbs)	5,560	5,650	5,750	6,500	8,500	9,000
SAW (in)/ CHAIN GAUGE	25 Hydraulic/ .404	25 Hydraulic/ .404	25 Hydraulic/ .404	25 Hydraulic/ .404	25 Hydraulic/ .404	25 Hydraulic/ .404
TOP ROLL CLAMPING SYSTEM	STD	STD	STD	STD	STD	STD
SPLITTER CYLINDER DIA. (in)	4	4	4	4	5	5
MAX LOG DIA. (in)	18	22	22	22	22	22
TROUGH LENGTH (ft)	10 STD	10 STD	10 STD	16 STD	16 STD	16 STD
MAX. LOG LENGTH (ft)	14	14	14	24	24	24
HYDRAULIC CAPACITY (gal)	40	40	40	65	65	65
LIVE DECK (Electric Winch)	STD	STD	STD	STD	STD	STD
LIVE DECK (Hydraulic)	N/A	N/A	OPT	OPT	OPT	OPT
DECK SIZE (ft deep x ft wide)	8 x 6	8 x 6	8 x 6	8 x 12	8 x 12	8 x 12
HYDRAULIC OIL COOLER	N/A	OPT	STD	OPT	OPT	STD
ELECTRIC AUTO CYCLE	N/A	N/A	STD	OPT	OPT	STD
CYCLE TIME (sec)	6	5	4.5	10	7	4.5
4-WAY WEDGE	STD	STD	OPT	STD	OPT	OPT
6-WAY WEDGE	OPT	OPT	STD	OPT	STD	OPT
8-WAY WEDGE	N/A	N/A	N/A	N/A	OPT	STD
DOT LIGHTS	STD	STD	STD	STD	STD	STD
OPERATOR SEAT	OPT	OPT	STD	OPT	OPT	STD

Limited Warranty

Product Covered	This warranty is for Timberwolf Firewood Processing Equipment branded log splitters, conveyors, wood processors, and their attachments or accessories.
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. However, charges for pickup, delivery, and service calls are not covered by this warranty. The engine is warranted separately by the engine manufacturer.
What Is Not Covered	This warranty does not apply to parts that have been damaged by accident, alteration, misuse, abuse or improper lubrication.
Limited Commercial Use Warranty	If used for rental purposes, 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 commercial 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	Timberwolf 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.

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 commercial or other non-residential 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.

Maintenance Log

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OPERATOR'S MANUAL



2235 Clarks Corners Road, Marathon, NY 13803 800-340-4386 www.timberwolfequip.com

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