TIMBERWOLF
Manufacturing Corporation

PRO-CMX
Firewood Processor
Operation Manual

Fill out and submit Registration Form to ensure warranty coverage and receive product updates.

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

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About the Manual

Thank you for buying a Timberwolf Manufacturing Corporation firewood processor. The processor is made with high quality components and will provide years of service under normal working conditions.

Please study this manual before you operate the machine. The manual is divided into the following sections:

- **Overview** – descriptions of the firewood processor and how it operates.
- **Safety Instructions** – information on safe operating practices. It is very important to be familiar with this information before operating the firewood processor.
- **Setup and Takedown** – instructions for setting the processor up for work and taking it down for travel.
- **Operation** – instructions for processing firewood: startup, operating the log lift and feed trough, cut off, splitting; separate instructions for Top Roll and guillotine clamping systems.
- **Maintenance** – information on periodic and preventive care, lubrication, adjustments for valves and other components.

If you have any questions regarding assembly, use, safety, or maintenance, please call Timberwolf Manufacturing Corp. at 1-800-340-4386.

Safety Note

Please take time to read this manual and learn to how operate and maintain the firewood processor safely. The processor is a powerful piece of equipment that can generate more than 50,000 pounds of force. Incorrect use of the processor can cause serious injury or death.

Read Entire Manual Before Operating the Firewood Processor

Attention Rental Companies

It is extremely important that any person who operates this equipment has access to and has read the operator's manual. Timberwolf Manufacturing Corporation strongly urges you to keep the manual with the processor at all times, and to instruct all persons who will operate this machine to read the manual.

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 processor motor (tractor motor if processor is run by PTO).**
2. **Move control valves 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.**

Record your firewood processor's ID numbers here:

Model # _____

Serial # _____

Motor # _____

Timberwolf PRO-CMX Firewood Processor

Overview

Timberwolf Manufacturing Corporation's PRO-CMX firewood processor is an extremely portable system with self-powered features for loading, advancing, clamping, and splitting logs. The cut off function is accomplished with a swivel-mounted, gasoline-powered chain saw. Working from the safety and comfort of the operator's station, you can saw and split as much as two cords an hour with a PRO-CMX processor.

The processor has a 16-foot trough that enables it to handle logs as long as 22 feet and its heavy-duty splitter unit makes easy work of logs up to 22 inches in diameter.

A 25-inch chain saw bar equipped with a mounting pin that mates to the processor's chain saw mount is provided with the processor. The bar can be installed easily on whatever saw you select to use with the processor.

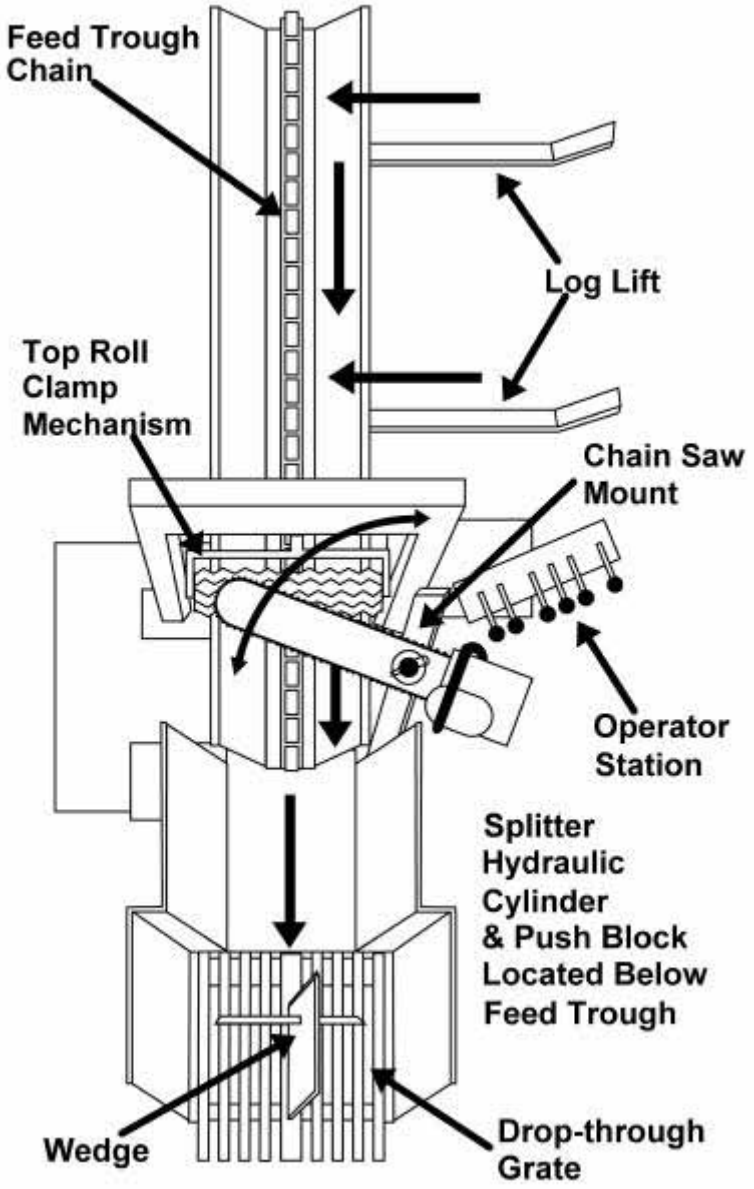
All the self-powered processor functions are hydraulically driven. The PRO-CMX processor uses an 11 horsepower Honda gasoline engine to drive a x gallon per minute hydraulic pump.

PRO-MX processors are also available in PTO-driven models. Those processors require a tractor with at least 45 horsepower to drive the hydraulic pump.

Processor Functions

Firewood processor functions divide into –

- **Transport** – log lift drops log into feed trough, hydraulic driven chain advances log to be cut.
- **Clamp/Saw** – hydraulic clamping mechanism holds log in position to be sawed off by swivel mounted gas 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** –drop-through chip separating grate.



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

Hydraulics

The processors' hydraulic systems are complex and sophisticated. Major repairs or modifications should be left to Timberwolf-designated and authorized service personnel.

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

Timberwolf Mfg. recommends using Texaco Rando 46 hydraulic oil in its PRO-CMX firewood processor.

PRO-CMX Pump

PRO-CMX processors features a 22 GPM pump so you can run several functions at once.

One section powers transport and cutoff functions:

- Feed trough chain
- Clamp mechanism cylinder
- Feed roller drive)

One section powers splitter functions:

- Splitter cylinder
- Wedge lift cylinder.

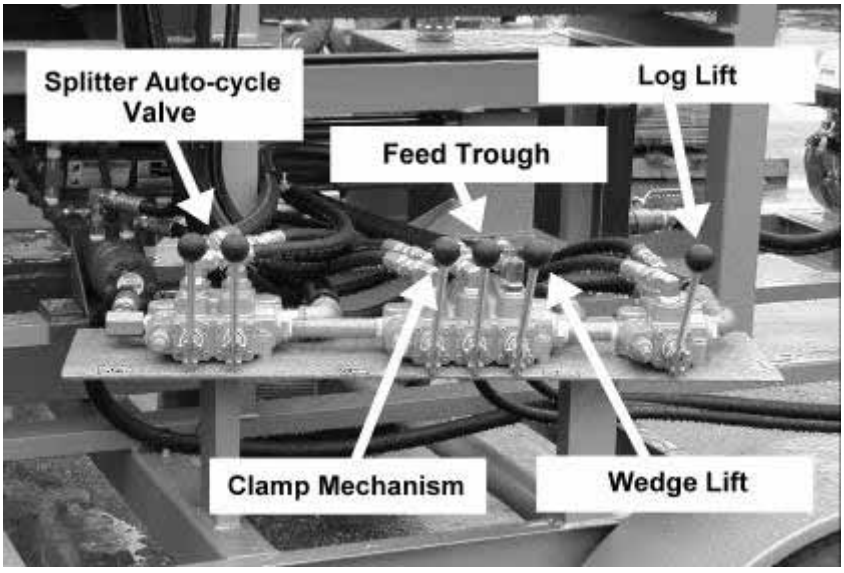
Power Plant

The PRO-CMX processor uses a Honda 11 horsepower gasoline engine to power the hydraulic pump.

The tractor that powers a PTO-driven PRO-MX processor should produce at least 45 horsepower.

Controls

Control valves are carefully positioned for safety and ease of use. The log lift, feed trough, wedge lift, and splitter are all controlled from the operator station.



Standard Control Array

Log Lift

The PRO-CMX processor is equipped with a hydraulic log lift for raising logs from the ground and tipping them into the feed trough. The lift is controlled from the operator station.

When setting up the processor, make sure to arrange convenient access for loading equipment. Pile logs so that they can be rolled onto the log lift easily.

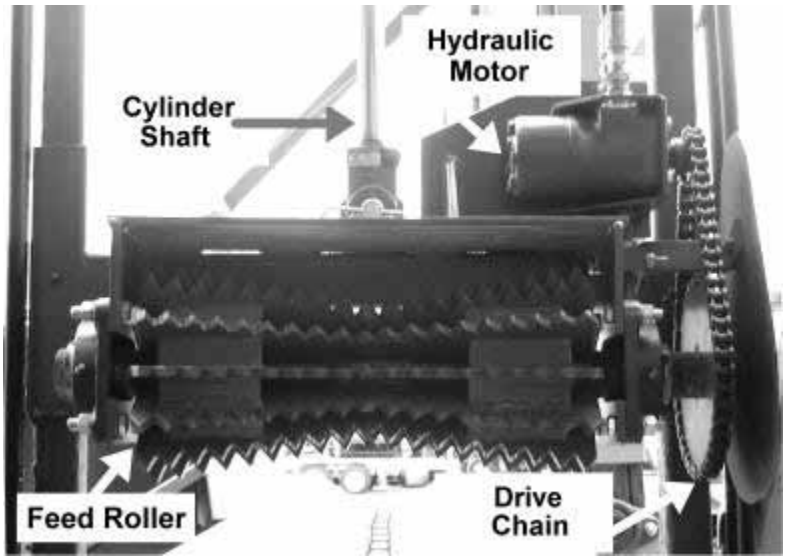
Log Lift

The log lift has removable "feet." Take off when transporting the processor, both to provide ground clearance and to reduce the processor's width.

Top Roll Clamp Mechanism

The processor 's 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 on top of log.
- Feed roller maintains constant hold and helps feed trough chain advance log.
- Roller drive controlled by Feed Trough control lever.



Top Roll Clamping System

The Top Roll system's constant hold helps accurately position the last cut on each log. Traditional clamping systems often have to catch the log as it starts to tip forward, leaving it poorly positioned.

Chain Saw

WHAT DO I TELL THEM? MINIMUM SIZE/HORSE POWER?

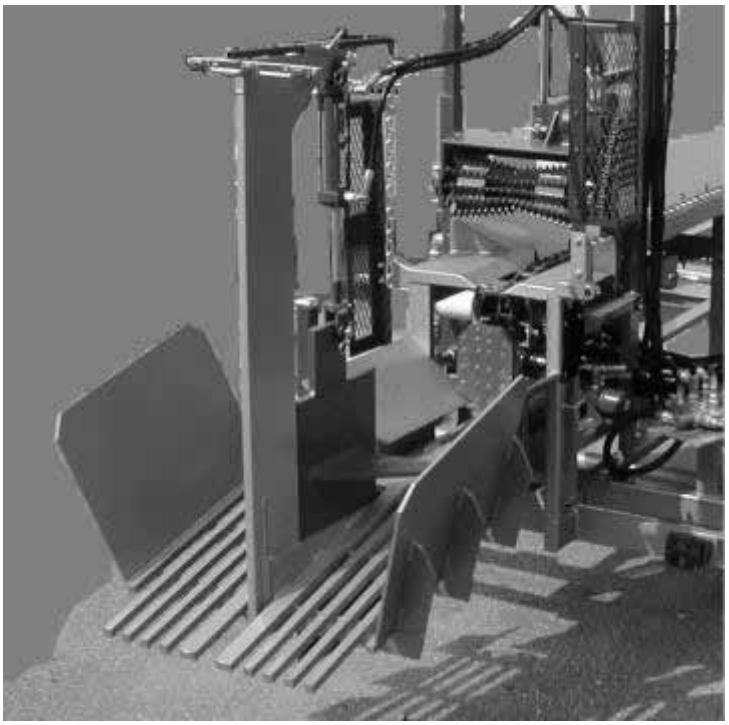
NOTE

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

The splitter unit features:

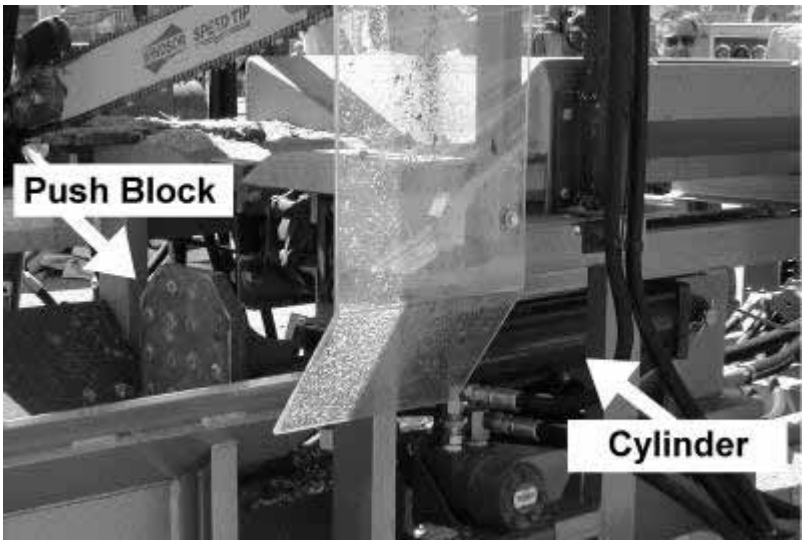
- Inline design that drops pieces straight down onto the log carriage as they're sawed.
- 4-way movable wedge standard.
- 6-way movable wedge available.
- Narrow-blade wedge.
- Cylinder located directly below feed trough.



Inline Splitter – Piece Drops Straight Down onto Log Carriage

The inline splitter design makes for quick cycle times and the narrow wedge keeps split pieces aligned, reducing split logs' tendency to splay outward.

Splitter cylinders have oversized shafts for greater strength. An oversize shaft also speeds up the splitting cycle by reducing the amount of hydraulic fluid the cylinder uses to retract the push block.



Inline Splitter Push Block and Hydraulic Cylinder

Logs should drop right into position on the splitter's log carriage as they're sawed. When a log does need to be repositioned, use a peavey or cant hook if you can.

Auto-cycle Valve

Log splitter is equipped with auto cycle valve for hands-free operation.

With auto-cycle valve engaged, splitter automatically completes forward stroke and returns to fully retracted position. Operator can start next cut while log splits.

⚠CAUTION

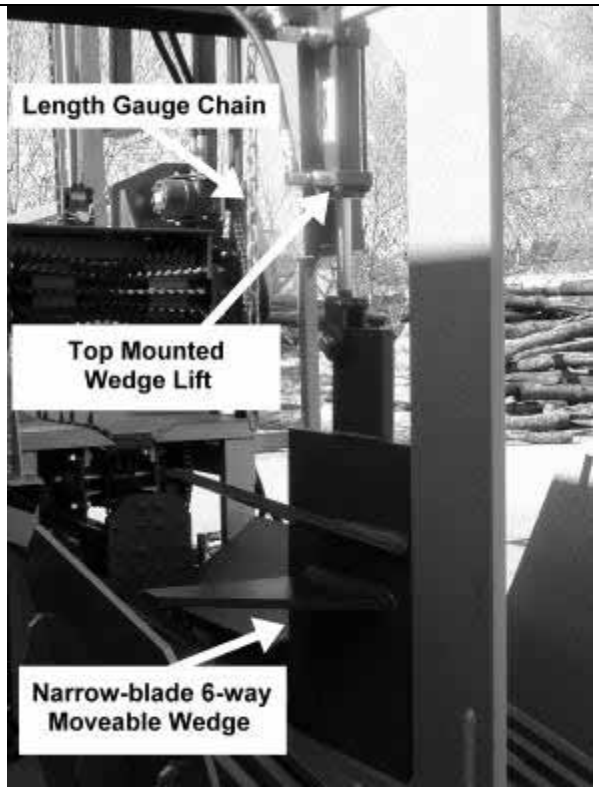
Auto-cycle control is intended for use by professional wood handlers only! Not all logs can be split under auto-cycle control. Operator has to monitor the splitting cycle and know when to override the automatic function.

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

Wood that resists splitting – because it's hard, twisty grained, or knotty – can make the détentes kick out to neutral position. When that happens the push block usually starts back, sometimes stops in place. The splitter can be operated manually to split logs that kick out the détentes.

Wedge

The inline splitter features narrow-blade, moveable, 4-way or 6-way wedges. The wedges have "wings" to speed production by making multiple sticks of firewood with each cycle.



Inline Splitter Wedge Assembly

Wedge shape and position determine final size of split firewood. Multi-wing, 4- and 6-way wedges are available.

Multi-wing wedges are named by the number of sticks they make, not how many wings they have –

- 4-way wedge – 2 wings
- 6-way wedge – 4 wings

Wedges are designed so log doesn't hit all wings at once. The staggered wings engage a log in stages for easier splitting on tough pieces.

Wedge Lift

Splitter unit features a top-mounted hydraulic wedge lift for adjusting the moveable wedge's vertical position.

Wedge lift is controlled from the operator station. Moveable wedge is usually centered on log.

Drop-Through Grate

The drop-through, 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.

PRO-CMX Processor Specifications

Feed Trough Length	16 ft.
Maximum Log Diameter	22 in.
Maximum Log Length	Approximately 22 ft.
Cords Per Hour	1.0 to 2.0
Power Plant:	Honda 11 HP Gasoline engine
Hydraulics:	
Pump	2–22 GPM sectional pump (std.)
Tank Capacity	40 gallons
Splitter:	20 tons splitting force 4 in. x 24 in. tie rod cylinder 2 in. shaft 8 in. H-beam log carriage
Wedge:	4-way moveable wedge (std.) 6-way moveable wedge (opt.) Top-mounted wedge lift
Clamp Mechanism:	Top Roll system (std.)
Log Lift:	x ft x in between lift arms Centered on feed trough Xx lb. maximum log weight Lift feet removable for transport

Important Safety Instructions

What You SHOULD Do

- Read this manual before you operate the firewood processor.
- Locate firewood processor only on firm, level ground. Site must be free of slippery surfaces and tripping obstacles.
- Only operate the firewood processor outdoors or in a well-ventilated area. Diesel engine fumes can cause fatal poisoning.
- Only operate the firewood processor in a well-lit area.
- Always wear personal protective equipment –
  - Goggles or face shield for eye protection
  - Ear plugs or hearing protectors
  - Snug-fitting work gloves (loose gloves increase risk of snagging)
  - Steel toe safety shoes.
- Keep hands and feet clear of moving components. .

What You SHOULD NOT Do

- Never cut or split anything other than logs.
- When loading pieces into the splitter by hand, do not handle them by the ends.

You don't want 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 piece that's being split; it might close suddenly and with great force. • Don't put anything between the side of the hopper and the side of a log; logs spread as they're forced against the wedge. • Do not straddle or climb over the firewood processor while it is running. • Do not move or reposition the firewood processor with the motor running. • Do not move or reposition the firewood processor without retracting and fully securing the live deck. • Do not modify or alter the machine in any way at any time.
What You SHOULD NEVER Do	• Never team up with another person to operate the firewood processor controls – 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 leave firewood processor unattended with its motor running.

Hydraulic Safety

⚠ WARNINGS

Escaping pressurized fluid from hydraulic system leaks can have enough force to penetrate skin and cause serious injury or death.

Hydraulic fluid can remain highly pressurized while splitter motor is off.

Never use your hand or any part of your body to check for hydraulic system leaks while the system is pressurized.

Get professional medical help at once if hydraulic oil penetrates anyone's skin.

Always release residual energy from pressurized hydraulic fluid before doing any maintenance or repair work on the firewood processor.

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 log to check for hydraulic leaks while system is running.
- Depressurize system to release residual hydraulic energy before starting any repairs.
  1. Shut off diesel engine.
  2. Move all control valve handles back and forth, from one limit of travel to the other, at least four times.
  3. Hold valves for three seconds at each limit of travel.

⚠ CAUTION

Make sure hydraulic system is completely de-pressurized before working on the machine.

- Contact Timberwolf Manufacturing Corp. or a qualified hydraulic mechanic to replace worn components.

What You SHOULD NOT Do

- Do not make any adjustments to the pressure relief valve.
- Never remove cap from hydraulic tank while motor is running or while tank is still warm after motor is shut off. Hot pressurized oil can cause serious injury, so wait for hydraulic tank to cool before removing cap.
- Never use any connectors, valves, or fittings that are different from the ones originally installed on the firewood processor.

Setup and Takedown

Overview

This part of the manual contains instructions for setting up the processor at the work site and taking it down for transport.

Setup procedures include –

- Planning the work area
- Positioning and leveling
- Installing log lift feet
- Mounting the chain saw
- Opening petcocks
- Routine maintenance tasks.

Takedown procedures include –

- Shutting petcocks
- Removing the chain saw
- Removing log lift feet
- Tow vehicle hookup

Work Area Layout

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

⚠CAUTION

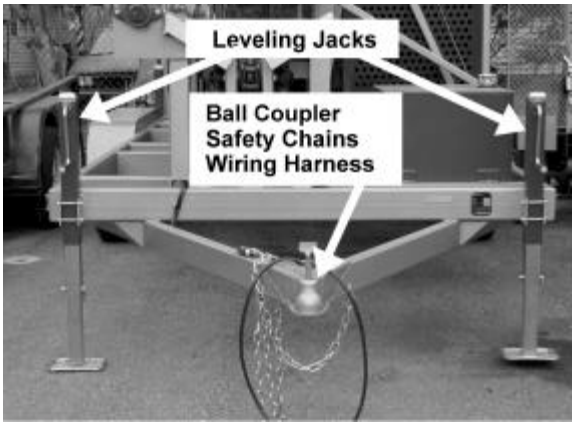
Never run the processor without adequate ventilation. The engine emits colorless, odorless carbon monoxide gas that can cause fatal poisoning.

- Check for hazards around the processor. Make sure area is free of slippery surfaces and objects to 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 log lift
  - Split wood takeaway – conveyor to truck or pile
  - Sawdust handling – collection and removal

Positioning and Leveling

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

1. Block wheels firmly so processor can't roll in either direction.

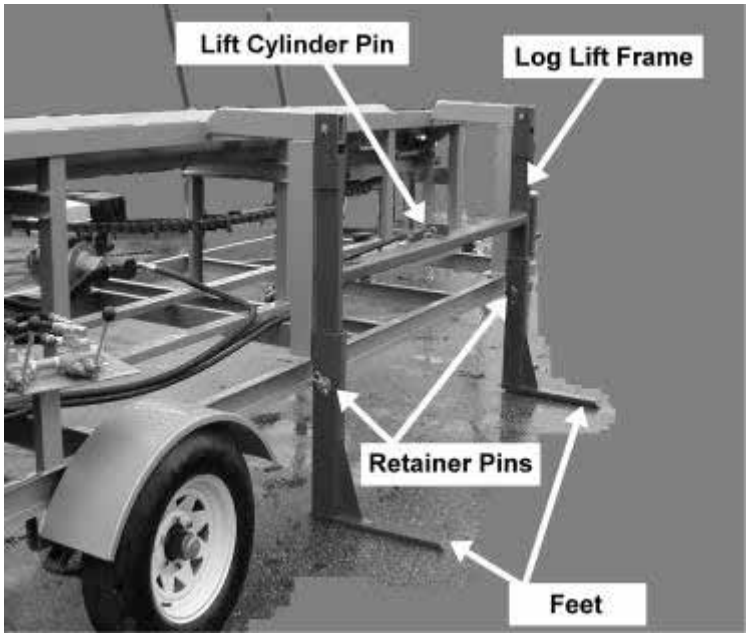


Processor Towing Hitch

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 four corners until processor is level.

Log Lift Set Up

For transport, the log lift feet have to be removed to provide ground clearance and to reduce the processor's width. Re-install them when processor is in position,.



Log Lift

The lift has to be tilted up from its vertical position while installing the feet. You can either wait until the engine and hydraulics are running or disconnect the lift's hydraulic cylinder to permit raising the lift by hand.

1. Take out retainer pins.
2. Tilt log lift frame up for clearance.
3. Slide on foot and lock in place with retainer pin.
4. Repeat for second foot.

Conveyor

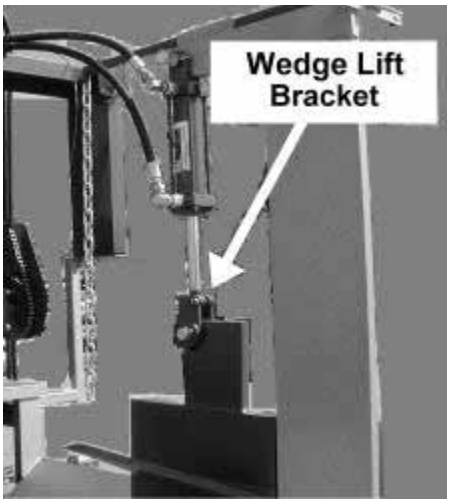
Provide a sturdy, high-capacity conveyor to carry split firewood clear of the work area. Timberwolf Mfg. builds a variety of conveyors specifically designed for firewood production.

Be sure to arrange convenient access for trucks to be loaded by the conveyor.

Changing Wedges

To change the processor's moveable wedge:

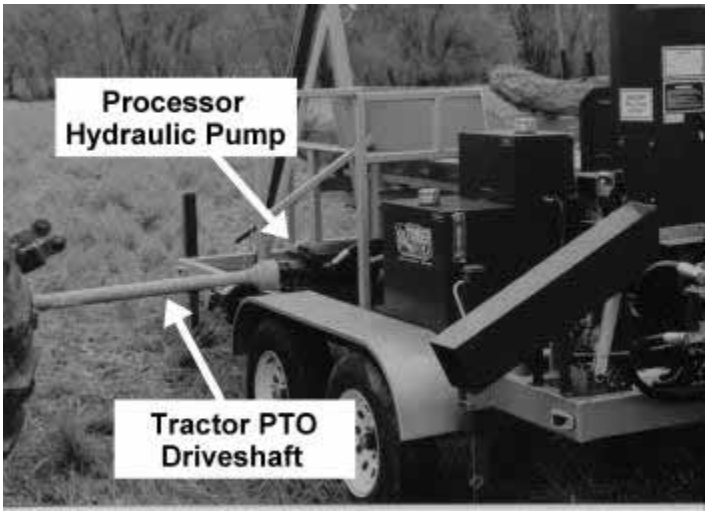
5. Lower wedge as far as it will go.
6. Pull cotter pin and remove heavy pin that secures the wedge to the wedge lift bracket.
7. Swing wedge-lift cylinder out of the way and support it.
8. Lift and remove wedge.
9. Position new wedge into log carriage and swing wedge lift cylinder back into place.
10. Align wedge lift bracket, then replace securing pin and lock it in place with cotter pin.



Wedge Lift Bracket

PTO Hookup

On PTO driven PRO-MX processors the hydraulic pump is positioned at a right angle to the feed trough. Position the tractor (45 HP minimum) so that its PTO drive shaft can be connected to the pump.



PTO Driven PRO-MX Processor

Opening Petcocks

Petcocks on the processor's hydraulic, fuel, and lubricant lines should be closed when the machine is secured for transport. During set up, check to make sure all petcocks on hydraulic lines are open.

Takedown Procedures

Timberwolf Mfg. firewood processors are easily moved between work sites. The PRO-CMX processor meets 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 all hydraulic lines.
- Remove chain saw.

Removing Log Lift Feet

Remove the log lift feet for transport to provide ground clearance and reduce the processor's width.

The lift has to be tilted up from its vertical position while removing the feet. You can either remove them before shutting down the engine and hydraulics or disconnect the lift's hydraulic cylinder to permit raising the lift by hand.

1. Tilt log lift frame up for clearance.
2. Take out retainer pin.
3. Slide foot off; replace retainer pin in lift frame for safekeeping.

4. Repeat for second foot.
5. Put feet in tow vehicle for transport.

Tow Vehicle Hookup

The firewood processor is a massive piece of equipment; make sure the tow vehicle is heavy enough and powerful enough to safely maintain control while pulling it.

Processor towing weight and overall length:

- PRO-CMX 16-foot processor – 5,980 lb./25 ft.

Tow vehicle equipment requirements:

- Hitch – 2 5/16 inch ball coupler or pintle hitch
- Electric brake controller
- Standard 6-pin wiring harness for lights and brakes

1. Fully retract back corner jacks so the tires and front corner jacks support the processor. Use front corner jacks to lift the processor's coupler.
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. Connect light and brake wiring harness, hitch failure emergency brake cable, and safety chains.

Operating Instructions

Startup Procedure

First, walk-around the entire machine:

- Check –
  - Fluid levels:
    - Gasoline – start the day with a full tank –
      - Plan to use one gallon per cord of firewood;
    - Hydraulic oil – Timberwolf Mfg. recommends Texaco Rando 46.
    - Chain saw fuel – gas/oil mix according to saw manufacturer's instructions.
    - Chain saw bar oil – according to saw manufacturer's instructions.
  - Petcocks on fuel and hydraulic 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 – adjust if necessary.

Engine Startup

Gasoline engine startup procedure:

- Make sure –
  - All control valve handles are in neutral/center position
  - **No one** is near any moving part
- 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 (30° F and below) warm up for 30 minutes.

Don't try to operate the processor before engine and hydraulic fluid are properly warmed up. Take care of other tasks during warm 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.

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.

⚠CAUTION

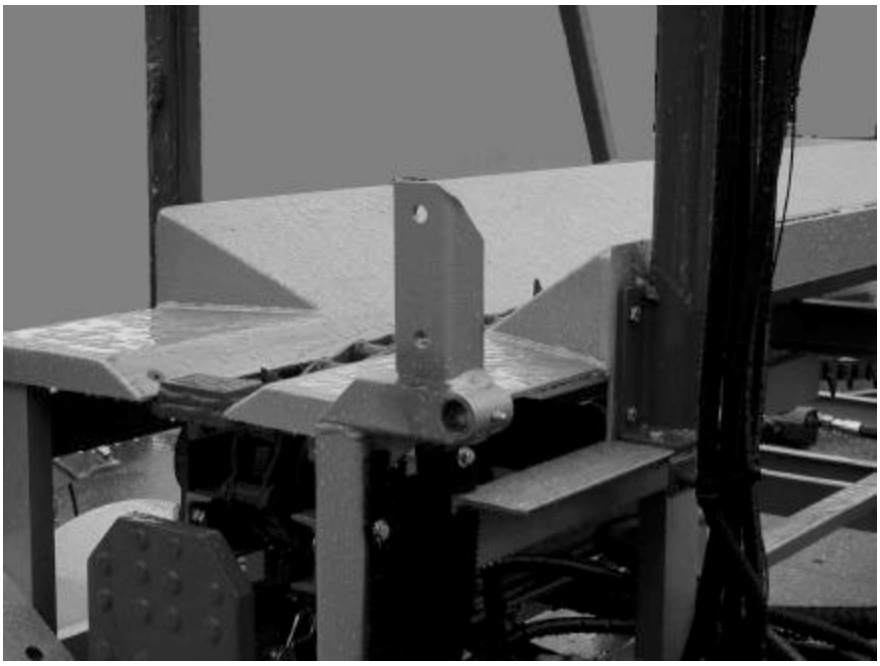
Never let anyone within 20 feet of the processor or log pile while the processor is in operation.

Hydraulic Startup

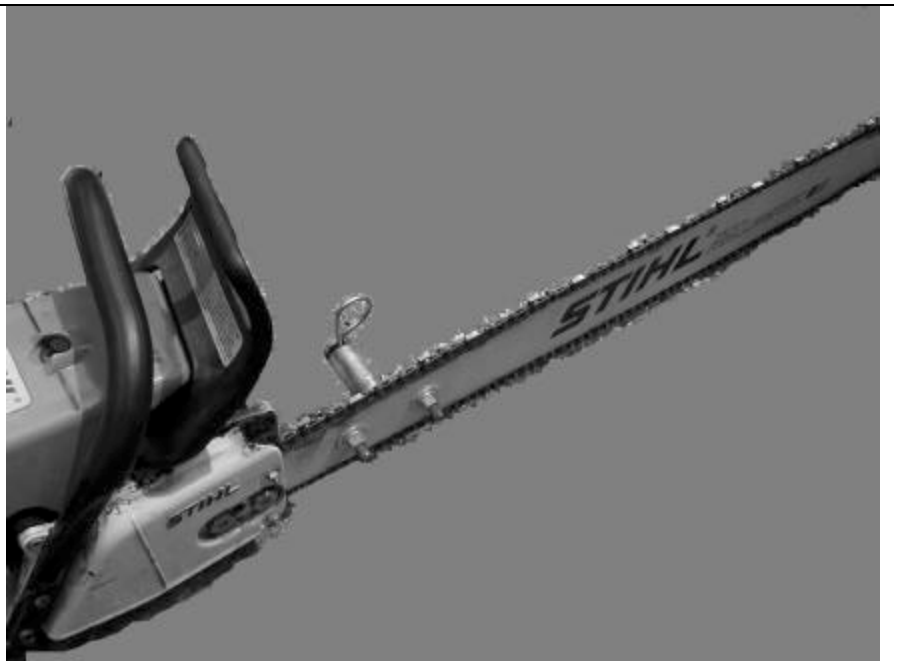
Timberwolf Mfg. firewood processors have an open hydraulic system that begins circulating and warming the hydraulic oil when the engine starts running. The processor's hydraulic system is ready to go when engine warm-up is complete.

Chain Saw

The PRO-CMX processor's chain saw mount mates with a swivel pin on the 25-inch chain saw bar supplied with the processor. The bar can be installed on any saw. The chain saw to be mounted on the PRO-CMX processor should develop at least x HP to ensure efficient, trouble-free cutting.



Chain Saw Mount



Chain Saw with PRO-CMX Bar

Length Gauge Adjustment

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

Inline Splitter Length Gauge Adjustment

Processing Firewood

General Guidelines

Maximum log diameter is 22 inches. Length can be up to 22 feet.

Logs should be as smooth as possible, and free of knots, bumps, and branches. Always try to point the butt end toward the wedge, not the smaller tip end.

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 up operations because they tend to slide off the push block or the piece ahead, and can even pop up out of the splitter hopper.

⚠CAUTION

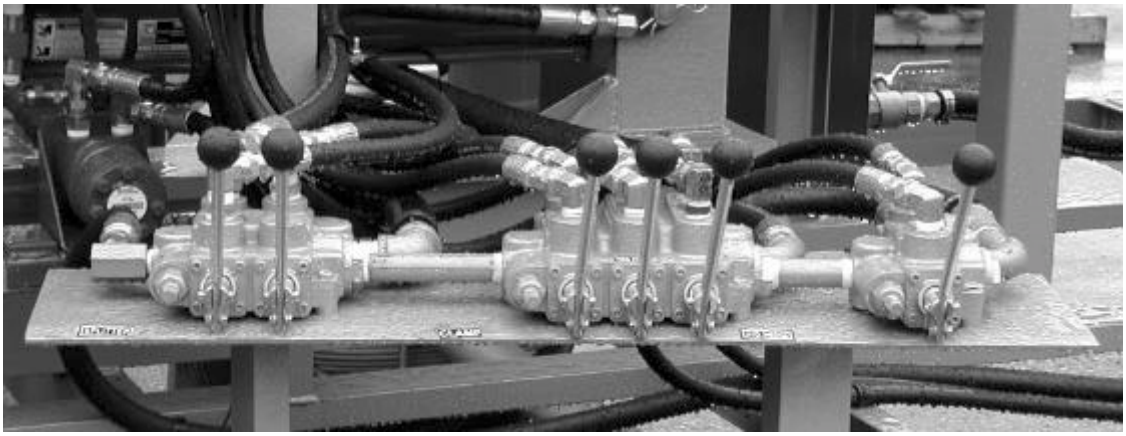
When you split a diagonal piece, watch carefully as it begins to split. Make sure the end closest to the wedge doesn't start to come up toward you as it pushes against the piece in front of it. If the end of a piece does start to lift, retract the push block and use a peavey or cant hook to reposition 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 Mfg. 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)		Clamp	Feed Trough	Hyd Wedge	Log Lift
Push for manual retract		Push to raise	Push for reverse	Push to raise	Push to raise
Pull & release to split	Pull & release for auto retract	Pull to lower	Pull for forward	Pull to lower	Pull to lower

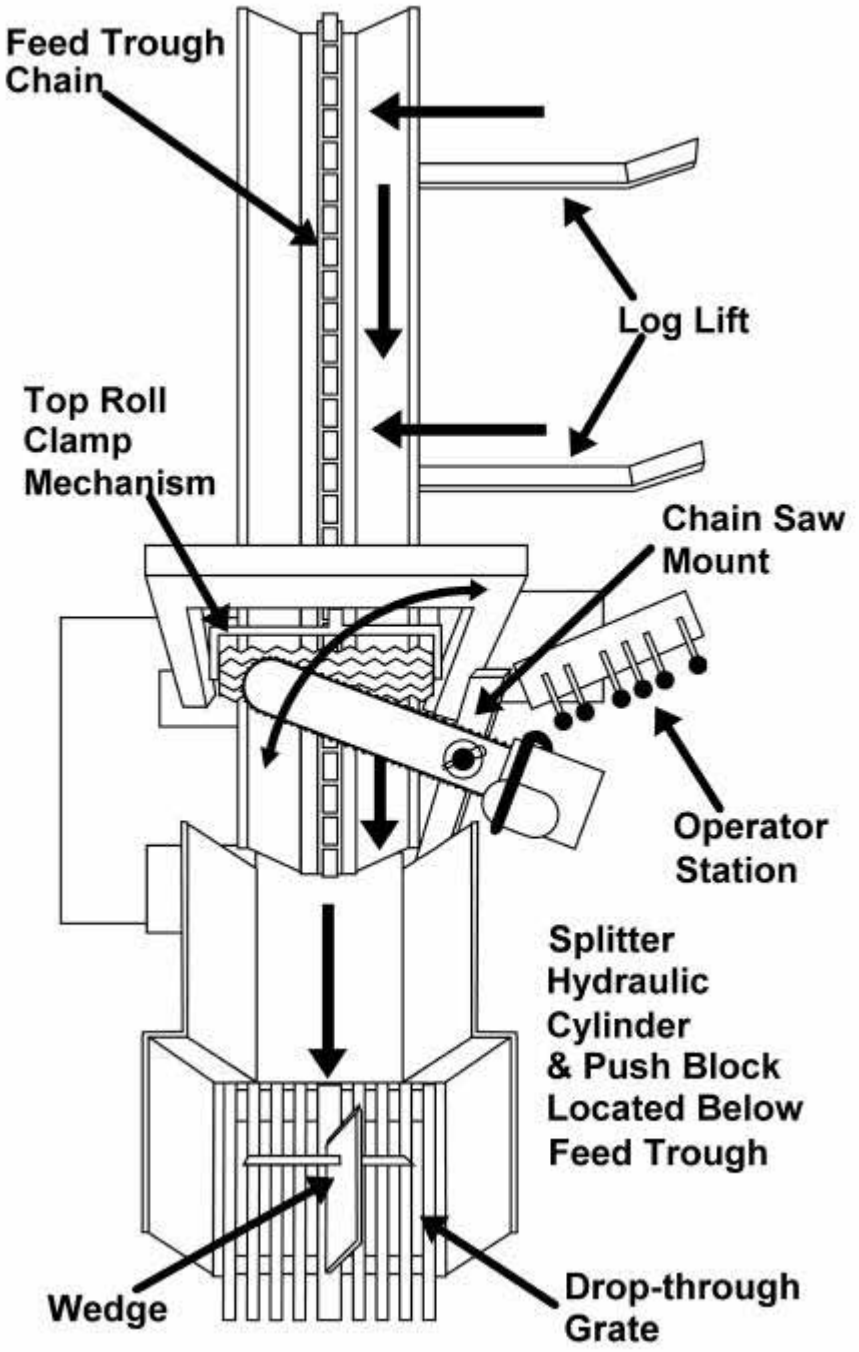
NOTE

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

Operations

Procedures for processing firewood divide into four parts:

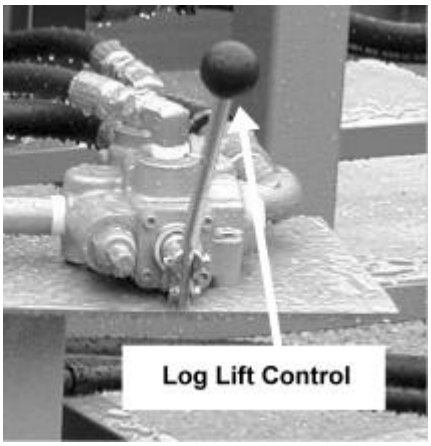
- **Transport** – log lift drops logs into feed trough and feed trough advances logs to be cut.
- **Clamping** – top roll holds log in place for cutting.
- **Cut off** – swivel-mounted, gasoline-powered chain saw.
- **Splitting** – wedge positioning and auto-cycle operation; manual operation for problem pieces.



Processor Functional Diagram

Transport

1. Roll log onto log lift feet with butt end pointed toward the splitter. Make sure log's weight is evenly distributed on lift feet.
2. Pull Log Lift control lever to raise log. Stop lifting as log begins to roll toward feed trough. Push back on lever to lower the lift.



Log Lift Control Lever

3. After log drops into feed trough, move it forward to be cut off by the chain saw.
4. Before you advance the log, make sure top roll mechanism is raised far enough to let log under roller.

⚠CAUTION

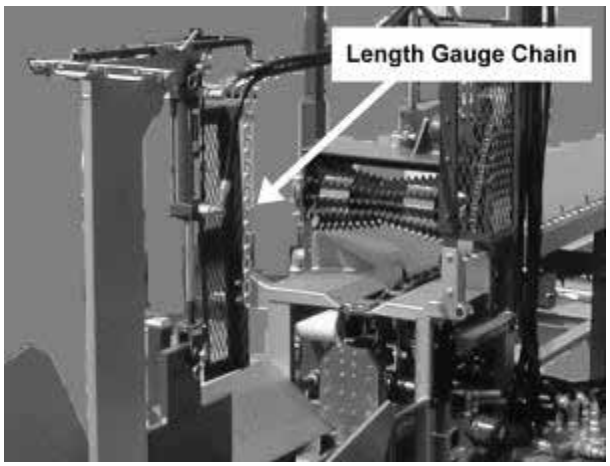
Advancing log without properly positioning the clamp mechanism can cause severe damage to the equipment.

5. Pull on Feed Trough control lever: to move log forward toward clamp and cut-off. Push back on Feed Trough lever for reverse. Top roll system's roller motor operates in tandem with the feed trough motor.

Transport (Continued)

Feed Trough Lever

6. Advance log until it touches the length gauge.



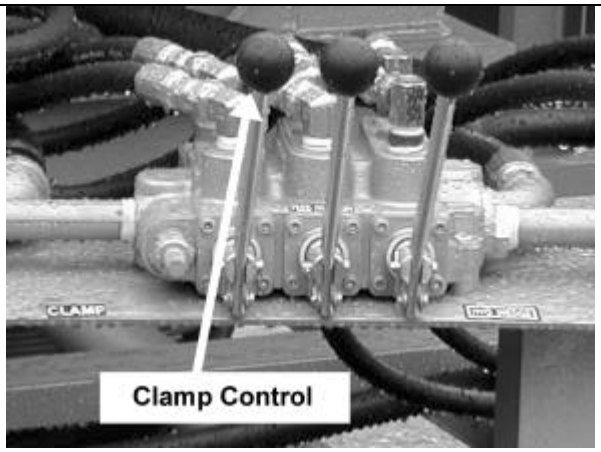
Length Gauge

7. If log moves too far, push on the Feed Trough control lever for reverse.
8. Engage clamp mechanism.

Clamping

The operator station Clamp lever raises and lowers the Top Roll feed mechanism:

1. Pull 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.



Clamp Lever

2. When the log is under the roller, push the Clamp lever all the way forward into the float position. That releases the roller to ride over the log's irregular surface.
3. The weight of the roller is enough to hold a log while the saw makes most cuts. The roller takes the place of the clamp bar, but doesn't have to be raised and lowered for every cut.
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.
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 push in on the handle to exert as much pressure on the log as needed.
    - Release manual clamping pressure before advancing the log again: return lever all the way forward into float position.
    - Roller cannot climb over bumps on a log while manual clamping pressure is applied.
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.
    - Lift roller onto each log; don't drop it roughly.

⚠CAUTION

If you have a problem with the Top Roll System,

shut off the machine and contact Timberwolf Mfg. or a Timberwolf dealer. Do not attempt to solve the problem without qualified assistance. Call Timberwolf Mfg. directly at (800) 340-4386 with any questions about the Top Roll System.

Cutting

When the log is extended to the length gauge and firmly held by the top roll mechanism, pivot the chain saw on its mount and cut off the piece to be split.

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 détentes and require manual control.

Always observe common rules of log splitter safety:

- Do not use under the influence of drugs or alcohol.
- Never handle firewood by the ends.
- Stay clear of the wedge area once a log begins to split.
- Keep hands away from the splitter during the return stroke.
- Always place both Splitter handles in the neutral position when starting the engine.

Auto-cycle Operation

Auto-cycle operating instructions for the log splitter:

1. Piece cut off by chain saw should drop into position on the splitter's log carriage. You may have to use a peavey or cant hook to reposition some pieces.

Hydraulic Wedge Lift Lever

1. Center the movable wedge on the log by adjusting up or down with the Hyd Wedge control lever:

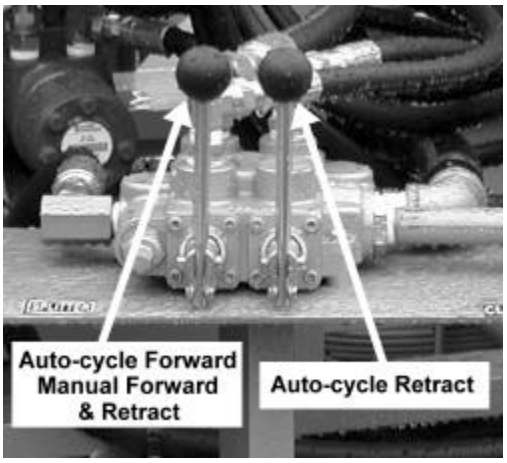
- Push to raise wedge.
- Pull to lower wedge.

2. Pull both Splitter levers to the détente position and release. Push block should completely extend and return, automatically.
3. Hard-to-split pieces that exceed détente settings make the control levers kick out to neutral position, which makes the push block start back or stop in place.

4. 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; and some need to be removed. You also have the option of controlling the splitter manually with just the left handle.

NOTE

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



Splitter Auto-cycle Levers

5. 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.
6. Both handles stay in détente position until push block is fully extended.
7. At the end of the stroke, forward détente returns left lever to neutral position.
8. Right lever remains in détente position and controls cylinder while it retracts the push block.
9. When cylinder is fully retracted, return détente kicks right lever

to neutral position.

You can start cutting the next piece before the push plate returns to the rest position.

⚠CAUTION

Never finish a cut before the push plate returns completely to its rest position.

Continue as previously instructed.

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

Manual Operation

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

1. Leave right Splitter lever in neutral position.
2. Push and hold left Splitter lever to extend the push block.
3. When log is split, pull and hold the lever until push block is fully retracted.
4. Return lever to neutral position.

Maintenance

General

Good maintenance extends the processor's life and helps to insure efficient operation.

Plan to replace hydraulic filters every 150 hours of operation (roughly monthly).

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:
    - Gasoline – start the day with a full tank –
      - Plan to use one gallon per cord of firewood;
    - Hydraulic oil – Timberwolf Mfg. recommends Texaco Rando 46.
    - Chain saw fuel – gas/oil mix according to saw manufacturer's instructions.
    - Chain saw bar oil – according to saw manufacturer's instructions.
  - 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 gibb bolts on the push block.
  - Welds – check high-stress joints.
  - Cut off length gauge – adjust if necessary.
- Grease –
  - Chain saw mount
  - Splitter push block
  - Clamp mechanism
  - Feed trough drive mechanism and feed chain mounts.

Chain Saw Mount

Grease the chain saw mount every 4 to 6 hours of operation.

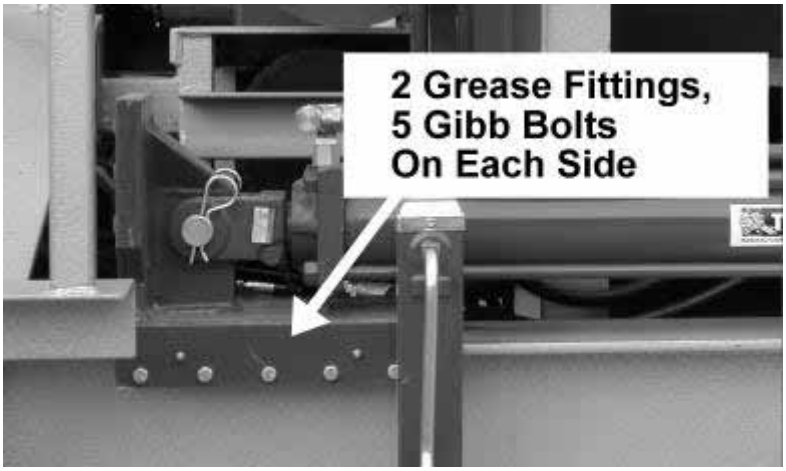
Chain Saw Mount – One Grease Fitting

1. Shut off chain saw.
2. Locate grease fitting on the round chain saw mount sleeve.
3. Administer one or two squirts.

Push Block

Grease the splitter push block and check the gibb bolts every 4 to 6 hours of operation. Tighten bolts as needed.

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



Splitter Push Block –Grease Fittings & Gibb Bolts

Clamp

Grease the clamp mechanism every day. The illustrations here show the Top Roll clamp system, which needs grease for the feed roller as well as for the vertical side rails. Grease fittings for guillotine clamp system side rails are in the same positions as those for the Top Roll mechanism illustrated here.

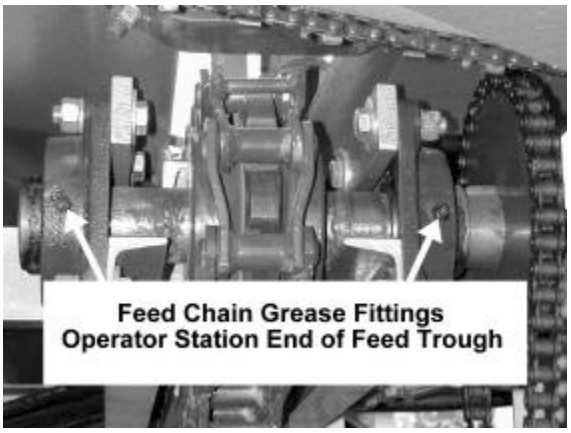
Clamp Mechanism Grease Fittings – Front and Back, Each Vertical Rail

Feed Roller Grease Fittings

Feed Trough Chain

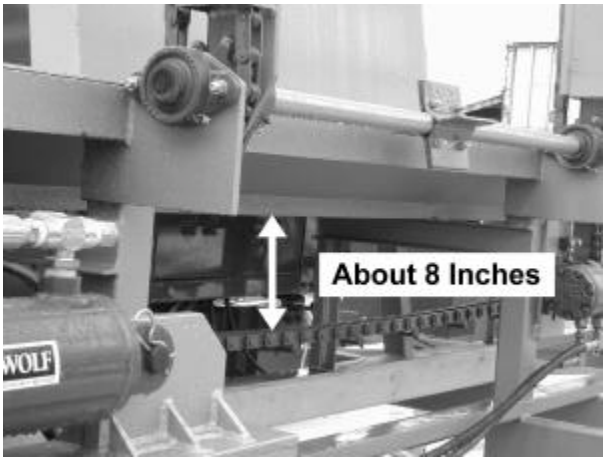
Grease the chain mount bearing at each end of the feed trough.

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



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

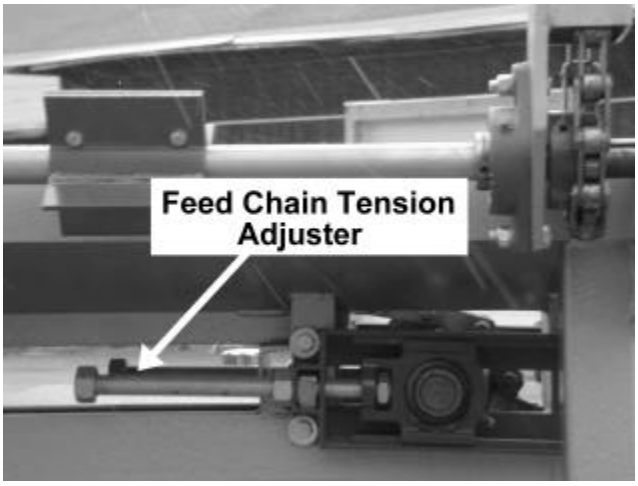
Check tension adjustment on the feed trough chain. Chain should hang roughly 8 inches below the bottom of the trough.



Feed Trough Chain Tension

Feed Trough Chain (Continued)

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



Feed Trough Chain Tension Set Screw

Splitter Auto-cycle Valve Adjustment

Check the auto-cycle valve that controls the splitter periodically for correct operation and adjust it as required. The valve has two détentes (left and right sides of valve are as seen from the operator position):

- Forward détente (left side of valve) determines when the handles can be released on the forward stroke to let the cycle complete automatically.
- Return détente (right side of valve) determines when the cycle is complete, and returns the valve to the neutral position..

Splitter Subsystem Hydraulics

Splitter Auto-cycle Valve Adjustment (Continued)

Adjustment guidelines for auto-cycle valve détentes:

1. Never make adjustments before the processor is fully warmed up to normal operating temperature.
2. Be sure to check both détentes. When one needs adjusting, the other one usually does, too.
3. Forward détente:
   - Setting forward détente pressure too high interferes with switchover to return.
   - Setting forward détente pressure too low permits handles to kick out too easily on hard or knotty pieces.
4. Valve should complete the cycle automatically when handles are released.

Trouble Shooting

The following trouble shooting chart describes how to adjust the auto-cycle valve. Adjust détentes with a flat screwdriver:

- Clockwise to increase pressure
- Counterclockwise to reduce pressure
- Make adjustments in quarter turns
- Test each adjustment.

Problem:	**Solution:**
Forward handle kicks out to neutral position before cylinder is completely extended on normal wood	Increase pressure on the forward (left) détente until handle stays forward through entire stroke.
Engine slows way down before forward handle kicks out to neutral position at the end of the stroke.	Reduce pressure on the forward (left) détente until valve releases without making the engine strain.
Cylinder does not return all the way.	Increase pressure on the return (right) détente until cylinder completes return on its own.
Both handles kick out to neutral position at the end of the forward stroke.	Either reduce pressure on the forward (left) détente or increase pressure on the return (right) détente.
Right or left valve handle does not kick back to neutral position	Reduce pressure on the détente that won't return to neutral until handle goes to neutral position correctly. If adjustments don't work, remove entire détente assembly and check for dirt or broken parts.

Filters

Changing hydraulic and engine filters regularly can help keep the processor running well and reduce downtime.

Hydraulic

There are two hydraulic oil filters, one where each return line enters the hydraulic tank:

- Hydraulic Oil Filter P550387

Honda Engine??

The 47 HP Perkins diesel engine for PRO-MX processors uses the following filters:

- Motor Oil Filter 140517000
- Fuel Filter 120366120
- Air Filter PK26510337

Check engine manufacturer's documentation for replacement schedules.

Limited Warranty

Product Covered:

This warranty is for Timberwolf and/or Valley Wood Processing branded log splitters, conveyors, wood processors, ride-on equipment and their attachments or accessories.

Date Warranty Begins:

The warranty begins on the date of sale and is warranted by Timberwolf Mfg. Corp. 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 residential 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. The following items are not covered after the first six months of home use: hoses, batteries, bushings, seals, filters, tires, wheels, paint, chains, appearance items, light bulbs, and similar items which are normally replaced through periodic maintenance.

Limited Commercial Use Warranty:

If used for commercial, institutional or 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.

Commercial Use Definition:

For the purpose of this warranty "consumer use" means personal residential household use by the original retail consumer. "Commercial use" means all other uses, including use for commercial, income producing or rental purposes. Once a unit has experienced "commercial" use it will be considered as a commercial unit for the purposes of this warranty.

How To Get Service:

To obtain service, contact our nearest dealer, or Timberwolf Mfg. Corp. at 118 Spruce Street, Rutland, VT 05701, or call us at 802-775-4227. 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 Mfg. Corp. 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.

TIMBERWOLF MANUFACTURING CORPORATION

Warranty Registration Form

Timberwolf Manufacturing Corporation requires this warranty registration form to be filled out and returned within 30 days after the machine's purchase. The record of your purchase helps us to efficiently process any warranty claims that may arise.

Purchaser Name (Individual or Company): _____

Address: _____

_____

_____

Purchased From (Dealer): _____

Address: _____

_____

_____

Date of Purchase: _____

Model Number: _____

Serial Number: _____

Motor Serial Number: _____

Options: _____

Mail to TIMBERWOLF Manufacturing Corporation
118 Spruce Street
Rutland, Vermont 05701

OR

Fax to 802-773-1275

Detach and Fold this page, Tape Shut, Affix Stamp, and Mail To:

TIMBERWOLF Manufacturing Corporation
118 Spruce Street
Rutland, Vermont 05701