



# TIMBER WOLF™

**TIMBERWOLF™ MFG.**  
CORPORATION  
WOOD PROCESSING EQUIPMENT

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**WOOD PROCESSING EQUIPMENT**



**M A N U A L**

## **Commercial Grade Conveyor**

❖ **C20** ❖ **C24** ❖ **C26 Hydraulic Drive Conveyor**



**TIMBERWOLF**  
**Manufacturing Corporation**

**Commercial Grade**  
**Hydraulic Conveyors**  
**Operation & Maintenance**  
**Manual**

**Model TW-C20**

**Model TW-C24**

**Model TW-C26**

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

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TIMBERWOLF Manufacturing Corporation,  
Rutland, VT 05701

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

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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.

**Rev 09/02**

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Cover by Anything Graphic ([bearsaway@aol.com](mailto:bearsaway@aol.com))

## About the Manual

Thank you for buying a Timberwolf Manufacturing Corporation conveyor. The conveyor 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 Timberwolf conveyors and how they operate.
- **Safety Instructions** – information on safe operating practices.
- **Set Up and Take Down** – instructions for setting up conveyor and taking it down for travel.
- **Operation** – instructions for running the conveyor.
- **Maintenance** – information on periodic and preventive care, lubrication, and adjustments.

If you have any questions regarding assembly, use, safety, or maintenance, please call Timberwolf Manufacturing Corp. at 802-775-4227.

### Safety Note

Please take time to read this manual and learn to how operate and maintain the conveyor safely.

## Read Entire Manual Before Operating the Conveyor

### 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 conveyor 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 conveyor. Hydraulic fluid can remain highly pressurized even after the pump stops running. Escaping pressurized hydraulic fluid can penetrate skin and cause serious injury.

To release residual hydraulic energy:

1. Shut off conveyor motor (if conveyor is connected to processor hydraulics, shut off processor motor).
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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Record your conveyor's ID numbers here:

Model # \_\_\_\_\_

Serial # \_\_\_\_\_

Motor # \_\_\_\_\_

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Protect the investment you've made in a Timberwolf Manufacturing conveyor.

Fill out the Registration Form and send it to us by mail or Fax to ensure your warranty coverage and enable you to receive product updates.

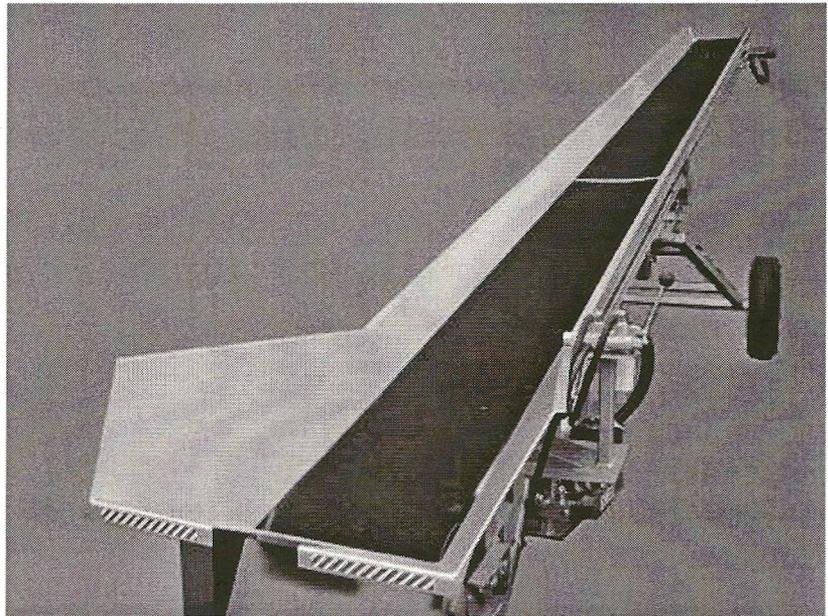
# Timberwolf Hydraulic Conveyors

## General Information

Timberwolf Mfg. commercial grade hydraulic-powered belt conveyors can be used for a wide variety of applications. They are rugged and dependable units that can be used in a woodlot or agricultural setting to move firewood, mulch, and hay.

Conveyors are available in 20-, 24- and 26-foot lengths. A hand operated 8-ton hydraulic jack adjusts the conveyor's height. Maximum height for the 26-foot model is 13 feet, 8 inches.

The hydraulic motor that drives the conveyor is located at the top for greater efficiency. Conveyor models are available with an on-board gasoline engine and hydraulic pump to power the motor or with fittings for connection to an external hydraulic system. Timberwolf firewood processors, for example, can be specially equipped to power a conveyor.



**Timberwolf Mfg. Commercial Grade Hydraulic Conveyor**

A variety of hopper configurations and control arrangements are available to meet specialized requirements.

<p><b>General Information (Continued)</b></p>	<p>Timberwolf Mfg. commercial grade conveyors feature heavy steel frame construction and an 18-inch wide belt made of two-ply polyester Ruff Top™ belting. The belt slides on continuous strips of polyurethane to insure smooth operation and reduce wear.</p> <p>Optional T-cleat Ruff Top belting is also available. The 1-inch cleats provide reliable transport even in extreme weather conditions.</p> <p>The conveyors can be easily transported on public roads. They come standard with a 2-inch ball coupler, and feature high speed DOT approved wheels and tires. No model is more than eight feet tall in its lowered position.</p> <p>Gasoline powered conveyors feature a Honda 5.5 HP overhead valve engine. One tank of gasoline can run the conveyor for approximately eight hours.</p>	
<p><b>Product Specifications</b></p>	<p>Power Plant</p>	<p>4 GPM hydraulic pump driven by 5.5 HP Honda engine  External hydraulic power option (compatible with specially equipped Timberwolf Mfg. processor)</p>
	<p>Conveyor Length</p>	
	<p>TW-C20</p>	<p>20 feet</p>
	<p>TW-C24</p>	<p>24 feet</p>
	<p>TW-C26</p>	<p>26 feet</p>
	<p>Maximum Height</p>	
	<p>TW-C20</p>	<p>11 ft</p>
	<p>TW-C24</p>	<p>12 ft, 4 in</p>
	<p>TW-C26</p>	<p>13 ft, 8 in</p>
	<p>Retracted Height</p>	
	<p>TW-C20</p>	<p>7 ft, 3 in</p>
	<p>TW-C24</p>	<p>7 ft, 4 in</p>
	<p>TW-C26</p>	<p>8 ft</p>
	<p>Mobility</p>	<p>DOT approved wheels and tires 2" ball coupler standard</p>
	<p>Belt</p>	
	<p>Type</p>	<p>Ruff Top Belting</p>
	<p>Width</p>	<p>18 in</p>
	<p>Speed</p>	<p>2.2 Ft/Sec</p>
	<p>Height Adjustment</p>	<p>8-ton hydraulic jack, hand operated</p>
	<p>Product Options</p>	<p>Low Clog Wing Pulley Drive Drum 1-inch T-Cleat Ruff Top Belting Hydraulic lift Chip Separator Light Kit</p>

# 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 conveyor 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 conveyor.

**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 conveyor (or processor) 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 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 conveyor.

# Set Up and Take Down

## Overview

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

Set up procedures include –

- Planning the work area
- Positioning
- Height adjustment

Take down procedures include –

- Lowering the conveyor
- Tow vehicle hookup

This part of the manual also includes directions for connecting and disconnecting hydraulic lines to a Timberwolf Mfg. firewood processor. Both the conveyor and the processor require factory-installed special equipment for that application.

## Work Area Layout

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



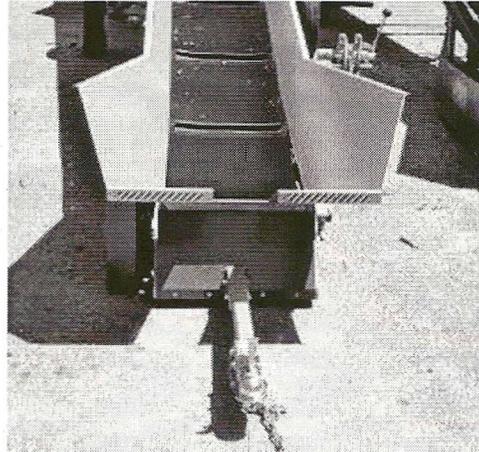
Never run the conveyor without adequate ventilation. Engine fumes from conveyor or processor can cause fatal poisoning.

- Check for hazards around the conveyor. 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 conveyor.
- Plan access for the trucks or trailers to be loaded by the conveyor.

## New Location Set Up

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

- Firmly block wheels so conveyor can't roll in either direction.
- Disconnect safety chains, emergency brake cable, and wiring harness for conveyor lights and brakes.
- Lift conveyor ball coupler off tow vehicle's trailer hitch.
- Drive tow vehicle clear.

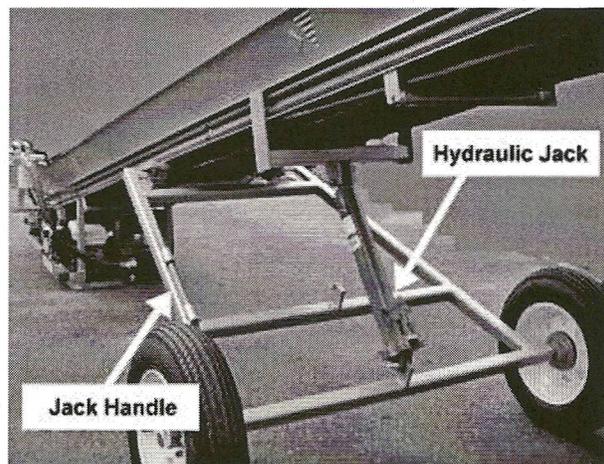


**Conveyor Towing Hitch**

## Height Adjustment

To adjust conveyor height:

1. Insert jack handle in hydraulic jack.
2. Make sure jack's pressure relief is closed.
3. Pump jack until conveyor reaches required height.
4. Place jack handle in storage position on conveyor frame.



**Height Adjustment Mechanism**

## Processor Hydraulic Power

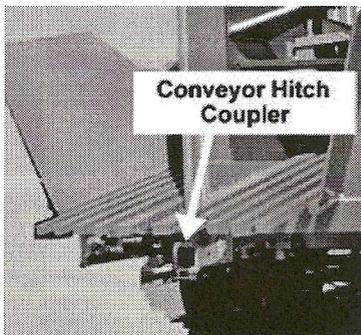
Timberwolf hydraulic conveyors can be equipped to be powered and control by a Timberwolf firewood processor. An externally powered conveyor does not have an engine and pump, hydraulic tank, or control valve lever. The firewood processor assumes the functions of those components.

A processor set up to power a conveyor is equipped with a hitch adapter for connecting the conveyor to the processor, and a control lever and set of hydraulic connectors for the conveyor.

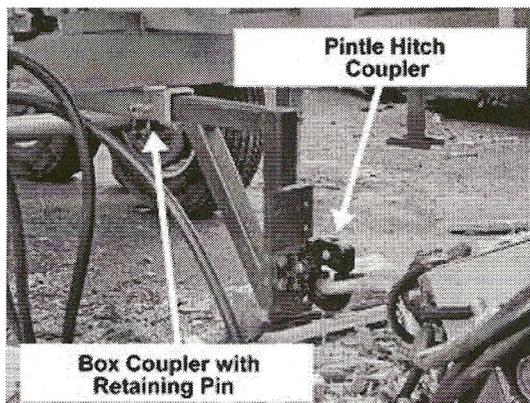
The conveyor/processor hitch adapter secures the machines together for positioning and short, on-site moves. Two hitch adapters are available to match the type of hitch on the conveyor: ball coupler or pintle hitch.

To connect a conveyor to the processor:

1. Position conveyor.
2. Insert conveyor/processor hitch adapter into the coupler sleeve located under the processor's splitter hopper. Lock the adapter in place with the retaining pin.



**Coupler Sleeve Under Splitter Hopper**

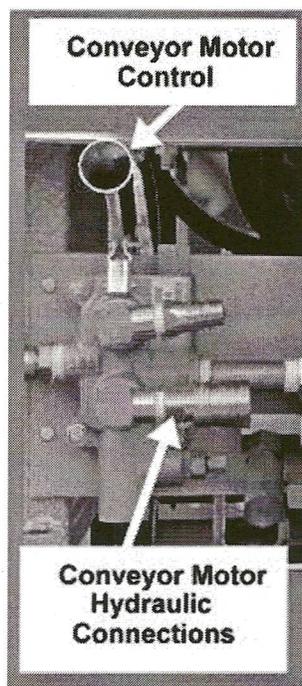


**Conveyor/Processor Hitch Adapter**

3. Connect the conveyor's towing hitch to the conveyor/processor hitch adapter.
4. Make hydraulic connections. Connectors accept standard, barrel-style, self-locking hydraulic 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.



**Conveyor Control Lever & Hydraulic Connections**

Consult processor Maintenance and Operation manual.

**Routine Maintenance**

Routine periodic maintenance is vital to keeping your Timberwolf Mfg. conveyor on the job.

- Pay attention to the maintenance schedule
- Some maintenance tasks should be performed daily or even more often.
- Make maintenance part of the regular workflow, not an afterthought.
- Power plant warm-up time is a good chance to take care of grease fittings and to check set screws and belt tension.

**Take Down Procedures**

Timberwolf firewood conveyors are easily moved between work sites. Conveyors meet the normal size limits for travel on public roads.

Shutting the conveyor down for a move requires special attention:

- Make sure belt and hopper are clear of scraps and debris
- Close petcocks on
  - Hydraulic tank, supply and return
  - Fuel line

**Lower the Conveyor**

The conveyor must be in its fully lowered position for transport:

1. Make sure nothing will block the conveyor as it descends.
2. Carefully open the pressure relief on the height adjusting hydraulic jack so that conveyor settles slowly to its retracted height; allowing it to descend rapidly puts unnecessary strain on the frame.
3. Leave pressure relief open during transport to insure jack cannot extend.
4. Remove jack handle from its storage position on frame and transport in tow vehicle.

**NOTE**

Never leave jack handle in storage position on frame when transporting conveyor.

**Tow Vehicle Hookup**

Tow vehicle must be big enough and properly equipped to pull the conveyor:

- Towing weight, overall length, and retracted height:
    - TW-C20 – 1120 lb, 24 ft, 7 ft 3 in
    - TW-C24 – 1260 lb, 28 ft, 7 ft 4 in
    - TW-C26 – 1340 lb, 30 ft, 8 ft
  - Standard 6-pin wiring harness for lights and brakes
1. Fully compress conveyor's height adjustment jack and place it in the lowest position on the frame.
  2. Back tow vehicle into position.
  3. Lift conveyor's ball coupler and position it securely on tow vehicle's hitch.
  4. Connect light and brake wiring harness, hitch failure emergency brake cable, and safety chains.
  5. DO NOT tow the conveyor faster than 45 m.p.h.

# Operating Instructions

## Start Up Procedure

First, walk-around the entire machine:

- Check –
  - Fluid levels:
    - Fuel – start the day with a full tank of gasoline.
    - Engine should run about eight hours on a tank of gas.
  - Hydraulic oil – Timberwolf Mfg. recommends Texaco Rando 46 hydraulic oil.
- 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.
- Welds – check high-stress joints.

## Engine Start Up

Start the engine:

- Make sure –
  - Control valve handle is in Off 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:
  - Always warm up for at least five minutes.
  - In winter weather (30° F and below) warm up for 30 minutes.

Don't try to operate the conveyor under a load before the engine is properly warmed up. Take care of other tasks while the engine warms up.

## Hydraulic Start Up

Timberwolf Mfg. conveyors use an open hydraulic system that starts circulating hydraulic oil when the engine starts running. The conveyor's hydraulic system is ready to go when engine warm-up is complete.

### CAUTIONS

- Never adjust pressure settings on the machine.
- Never make adjustments 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 or alcohol.

**Operation**

When engine and hydraulic system are sufficiently warmed up, start the belt by pulling on the control valve. The belt continues running until the valve is pushed back to the Off position.

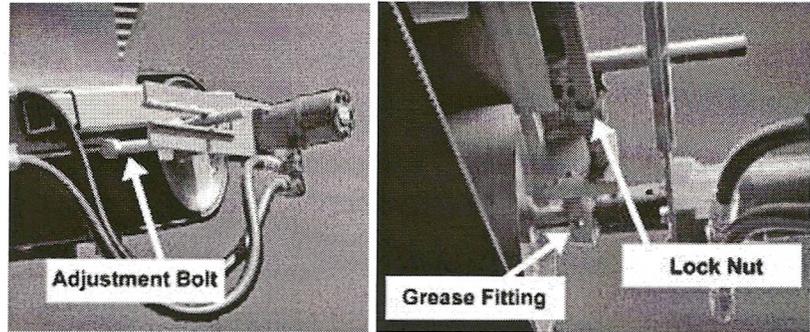
**NOTE**

Be sure there are no objects on the conveyor belt when it starts running

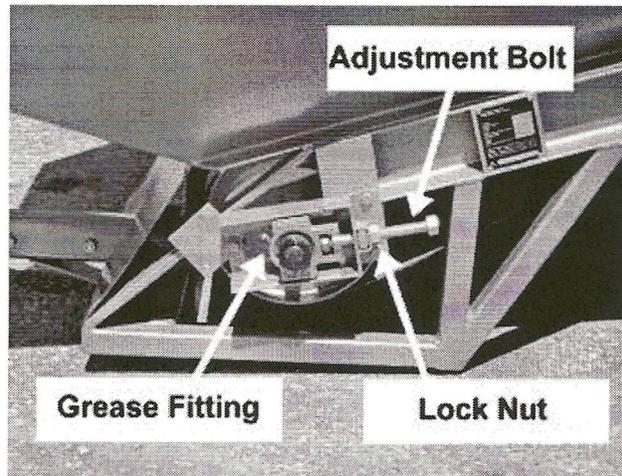
# Maintenance

<p><b>General</b></p>	<p>Good maintenance extends the conveyor’s life and helps to insure efficient operation.</p> <p>For engine maintenance schedules, consult the engine owner’s manual.</p>
<p><b>Periodic Maintenance</b></p>	<p>Establish a routine of performing periodic maintenance as a regular part of daily operation.</p> <p>Daily maintenance needs to include:</p> <ul style="list-style-type: none"> <li>• Grease bearings on top and bottom belt drums.</li> <li>• Check belt tension</li> </ul> <p>Hydraulic filters should be replaced at each 150 hours of operation (roughly monthly).</p>
<p><b>Conveyor Belt Adjustment</b></p>	<p>Conveyor belt tension requires occasional adjustment to prevent the belt from slipping on the drive drum. Adjustments can be performed at either the top or bottom drum.</p> <p>To tighten the belt:</p> <ol style="list-style-type: none"> <li>1. Loosen the lock nut on each side's adjustment bolt assembly.</li> <li>2. Turn each adjustment bolt an equal number of turns. Turn clockwise to extend bolt and tighten belt, counterclockwise to reduce belt tension.</li> <li>3. If belt begins to run to one side on the drum, extend the adjustment bolt on the opposite side until belt moves to the center.</li> <li>4. Securely re-tighten lock nuts when adjustment are complete.</li> </ol> <div data-bbox="689 1313 1256 1742" data-label="Image"> </div> <p><b>Top Adjustment Bolt Assembly, Left Side</b></p>

**Conveyor Belt Adjustment  
(Continued)**



**Top Adjustment Bolt Assembly, Right Side**



**Bottom Adjustment Bolt Assembly, Right Side**

## 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:

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118 Spruce Street  
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