

TW-C1 Log Splitter

OPERATOR'S MANUAL



www.timberwolfcorp.com



TW-C1 Log Splitter Operation Manual

Fill out and submit registration form to ensure warranty coverage and receive product updates.
Register online at www.timberwolfcorp.com/warranty

This manual and all its contents Copyright © 2010
Timberwolf Manufacturing Corporation

Record your log splitter ID numbers here:

Model # _____ Serial # _____

Engine # _____ VIN # _____

Timberwolf Manufacturing Corporation

126 Spruce Street
Rutland, Vermont 05701

Toll Free: 800-340-4386

Phone: 802-775-4227

FAX: 802-773-1275

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

©Timberwolf is a trademark of Timberwolf Manufacturing Corporation. All other brands or product names are trademarks or registered trademarks of their respective holders.

©Timberwolf Manufacturing Corporation 2010. Printed in the USA

No part of this work covered by copyright may be reproduced in any form. Reproduction, adaptation, or translation without prior written permission is prohibited, except as allowed under the copyright laws.

Timberwolf Manufacturing Corporation provides this document “as-is” without warranty of any kind, either expressed or implied. This includes, but is not limited to, implied warranties or conditions of merchantability or fitness for a particular purpose. Timberwolf Manufacturing Corporation shall not be liable for any errors or omissions that may occur in this document, nor for incidental or consequential damages of any kind resulting from the furnishing, performance, or use of this document.

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 May, 2010

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

About This Manual

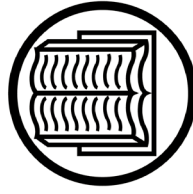
Thank you for buying a Timberwolf log splitter. This machine is made with high quality components and will provide years of service under normal working conditions.

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

If you have questions regarding anything outlined in this manual, please call Timberwolf at **1-802-775-4227**.

Read Entire Manual Before Operating the Log Splitter

Safety Note



Please take time to read this manual and learn how to operate and maintain the log splitter safely. If you have any questions regarding assembly, use, safety, or maintenance, please call Timberwolf at 1-802-775-4227. The log splitter is a powerful piece of equipment that can generate more than 50,000 pounds of force. **Incorrect use of the log splitter can cause serious injury or death.**

Caution! Residual Hydraulic Energy!



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

To release residual hydraulic energy:

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

Table Of Contents

General Information and Safety	1-13	Operating Instructions	18-20
General Safety Warnings.....	1-6	Start Up	18
About Your Timberwolf Log Splitter	7	Handling Logs	19
Components and Locations.....	8-9	Operating the Log Splitter.....	19-20
TW-C1 Features	10-11	Moving the Log Splitter	20
Safety Labels and Locations	12		
Specifications	13	Maintenance.....	21-22
		Engine Oil.....	21
Important Safety Instructions	14-15	Hydraulic Oil	21
What You SHOULD Do.....	14	Push Block	21
What You SHOULD NOT Do	15	Wedge	21
		Daily Checks.....	22
Hydraulic Safety	16-17	Hydraulics.....	22
What You SHOULD Do.....	16		
What You SHOULD NOT Do	17	Limited Warranty	23-24
		Maintenance Log.....	25
Before You Start the Log Splitter	18		
Location & Setup	18		
Check Fluids.....	18		



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



Attention Rental Companies

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



High Pressure Warning!

Escaping hydraulic fluid can penetrate skin and cause serious injury!

Caution! Residual High Pressure Hydraulic Energy

Your log splitter has been tested at the factory and is delivered to you ready to run. That means that there may be residual pressure in the hydraulic system. If for some reason you need to perform any maintenance or repair to the machine, you ***must*** release that pressure before any work can begin. Please refer to page 16 for instructions.

General Use:

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



- Only qualified personnel, 18 years and older, may operate the log splitter and **ONLY** after reading this manual. Operators who are improperly trained or unfamiliar with this log splitter risk serious injury to themselves and the equipment
- Before operating this log splitter, the user must become familiar with proper emergency shut down procedures
- Do not stand on any part of the machine while it is running, for any reason; pinching or crushing injury is possible
- Never operate the log splitter while under the influence of alcohol or drugs
- Never touch parts of the engine as burns can result
- Never operate the machine indoors or without adequate ventilation. Ensure that plenty of fresh air is available. Failure to do so could result in carbon monoxide poisoning
- You should always wear eye protection, hearing protection, snug fitting work gloves (loose gloves and clothing increase risk of snagging) and steel toed boots when you operate or work near this machine



Drawing In/Trapping Hazard

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



Impact Hazard

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



Burn Hazard

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



Fire Hazard - Flammable

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



Moving the Log Splitter

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



Residual Risk

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



Crushing Hazard

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

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



Shear Hazard

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



Entanglement Hazard

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

General Warnings for Safe Splitter Operation

Always do the following:

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

Log Handling



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



About Your Timberwolf Log Splitter

General

This manual covers Timberwolf's convenient, compact log splitter:

- TW-C1

This log splitter comes with a variety of standard features that increase production by making it more versatile and convenient to use.

- 8 Tons splitting power
- Made In USA
- Split up to 18" long logs
- Factory tested
- 1 Year warranty
- 160cc Honda Easy-Start engine
- 4 GPM pump
- 3 inch diameter cylinder
- 14 second cycle time
- Powder coated finish

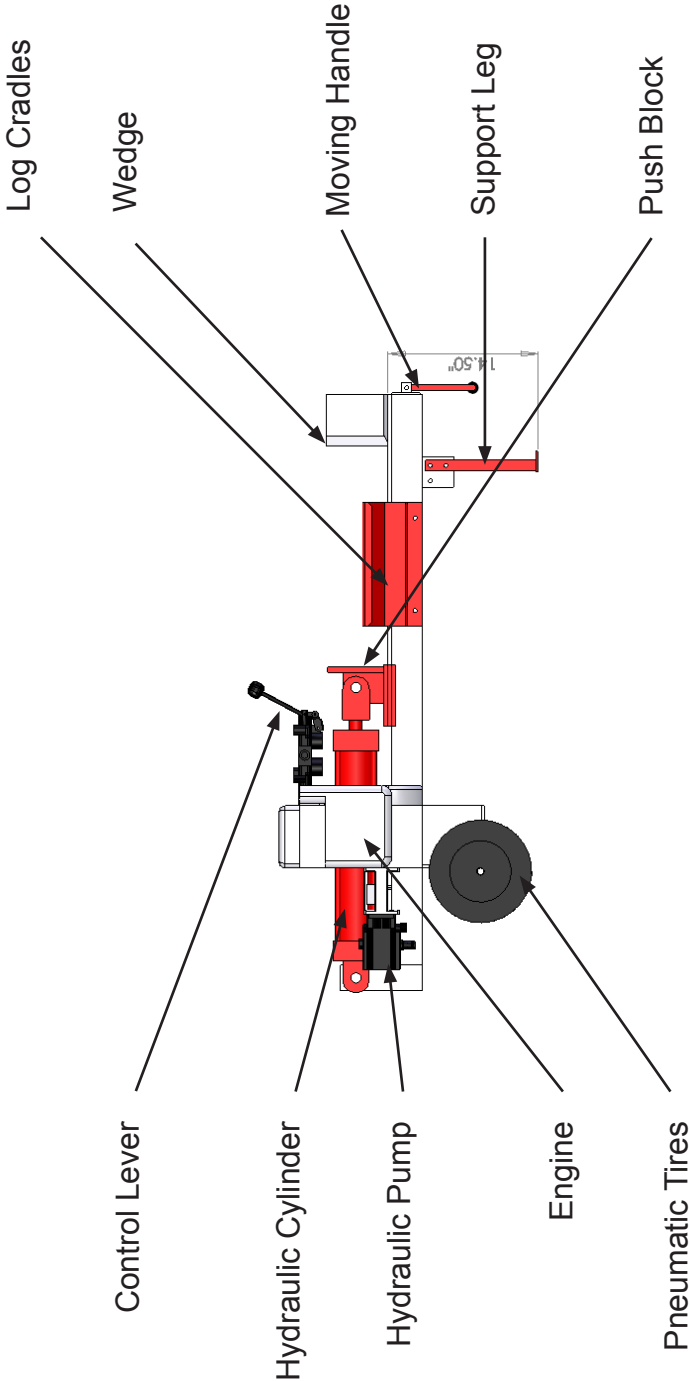


Components and Locations

General Description

Log splitter parts as referenced in this manual.

TW-C1 Components Side View:

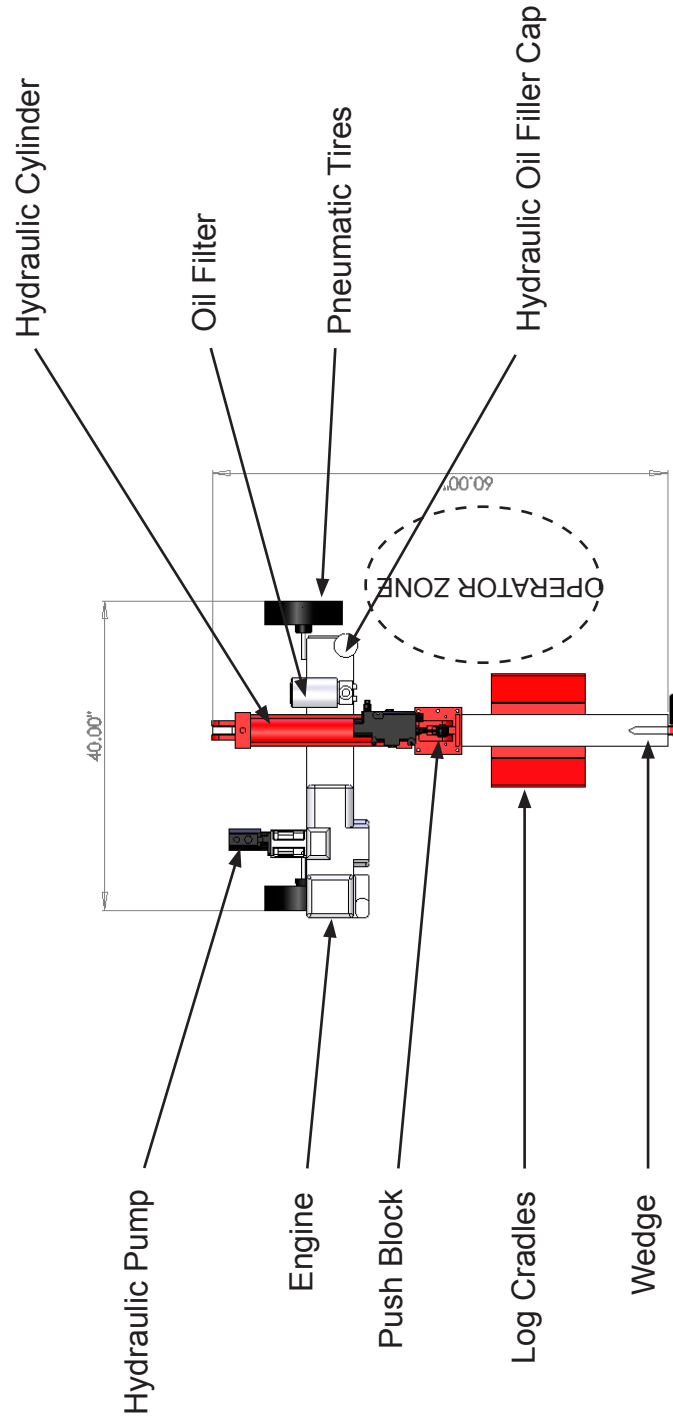




CAUTION!

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

TW-C1 Components-Top View:



TW-C1 Features

Tube Beam

- A 2" x 3" steel tube is the frame and log carriage for the Timberwolf TW-C1 log splitter.

Single Handle Valve

Standard-equipment hydraulic control is a single handle valve.

- Push block travels forward only while valve handle is held in the forward position
- Cylinder automatically completes return stroke when valve handle is pushed back to detent position and released



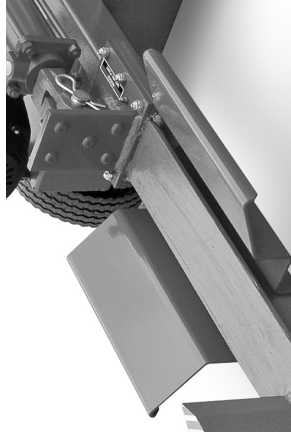
Wedges

- Each Timberwolf log splitter has a permanently installed, single-blade, fixed wedge
- Fixed wedge splits logs into two pieces



Log Cradle

The log cradles—one on each side of the main beam and standard on the TW-C1, hold the logs in place as they are being forced into the wedge.



Engine

Your Honda 160cc engine is one of the most reliable 4 stroke engines in the power equipment industry. Please make sure that you read the separate engine manual that is provided in your operator's information packet. There you will find out about specific starting procedures and general maintenance information. It is very important that you read this manual and all other component manuals prior to operation or maintenance of this log splitter.



Safety Labels and Locations



NOTE: Cylinder, valve and engine manufacturers apply their own warning labels. Please refer to the components' separate instructions and safety information before operating the log splitter. Failure to do so may result in serious injury or death. Do not remove any labels and replace labels that are worn or damaged by calling (802) 775-4227, and we will replace them free of charge.

Specifications

Model Name	TW-C1
Weight	255 lb.
Splitting force	8 tons
Engine CC	160cc
Hydraulic pump	4 GPM
Hydraulic tank	2 gallons
Max. log length	18 inches
Cylinder size	18 x 3 x 1.25 in.
Cycle time	14 seconds
Tube frame	2 in. x 3 in.

Honda engine	Standard
Log cradles	Standard
Pneumatic tires	Standard

Important Safety Instructions

What You SHOULD Do

- Read this manual before you operate the log splitter
- Locate log splitter only on firm, level ground. Site must be free of slippery surfaces and obstacles you could trip over
- Operate the log splitter only outdoors or in a well-ventilated area. The engine emits colorless, odorless carbon monoxide gas that can cause fatal poisoning
- Operate the log splitter in a well-lit area only
- 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)
 - Safety shoes
- Always keep hands and feet clear of splitting area

What You SHOULD NOT Do

- Never split anything other than logs
- Don't handle logs by their ends when you position them
- Never place your hands at pinch points where they can get caught between a log and the wedge, push block, or log cradle
- Don't put any part of yourself, your clothing, or your personal protective equipment into a crack in a log that's being split. It might close suddenly and with great force
- Don't put anything between the log cradle and the side of a log. Logs spread as they're forced against the wedge
- Do not straddle or climb over the log splitter at any time
- Do not move or reposition the log splitter with the engine running
- Do not modify or alter the machine in any way, at any time
- Never team up with another person to operate the log splitter – it's a one-person job
- Never operate log splitter under the influence of alcohol, drugs, or medication
- Never allow an untrained operator to use the log splitter
- Never allow anyone under age eighteen to operate the log splitter
- Never leave log splitter unattended with its engine running



Hydraulic Safety

WARNING

- 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 engine 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 the skin
- Always release residual energy from pressurized hydraulic fluid before doing any maintenance or repair work on the log splitter

What You SHOULD Do

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

What You SHOULD NOT Do

- Do not make any adjustments to the pressure relief valve
- 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
- Never use any connectors, valves, or fittings that are different from the ones originally installed on the log splitter

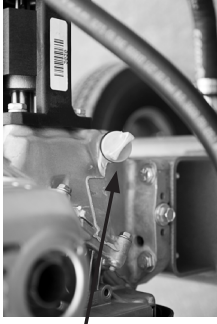
Before You Start the Log Splitter

Location & Startup

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

Check Fluids

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



Operating Instructions

Startup

NOTE

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

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



Handling Logs



- Handle logs only from the sides; never by the ends
- For best splitting results, place log on beam with butt end toward hydraulic cylinder
- Be very careful to keep arms and fingers away from the wedge and push block

- Keep hands and fingers clear at all times. When log splitting accidents happen, they are usually due to operator inattention on the return stroke

Operating the Splitter

- Put one hand on top of log in the middle to keep it steady until it's held firmly between push block and wedge – then BEFORE the lever is activated, REMOVE YOUR HAND from the top of the log while keeping your hands away from the pushblock and wedge
- Advance the control level forward to move the log towards the wedge
- Keep holding valve handle down until split pieces fall away or push block reaches full extension, one or two inches from wedge
- Before starting return stroke, let hydraulic system recover by moving valve handle to the neutral position for a moment
- Make sure nothing will interfere with push block while it retracts
- Press valve handle backward into locked position and let go. Push block returns by itself
- Valve handle stays in locked position until push block is fully retracted



Operating the Splitter (continued)

- To stop push block:
- During forward stroke, release control handle
- During return stroke, pull control handle forward to release it from the locked position

NOTE

Operate hydraulic control valve smoothly. Allow a short pause when reversing directions, then press lever firmly in direction you need to go. Rapidly forcing (“slamming”) the valve lever in either direction will unnecessarily shorten the system’s working life.

Moving the Splitter

The TW-C1 comes with a convenient handle for moving the machine. The machine is heavy, so get someone to help you if moving it on anything but level ground. Never tow this machine behind a vehicle of any kind or remove or alter the moving handle.

CAUTION

Do not move your log splitter while it is running or has stored up hydraulic energy.

- Remove any logs before moving and plan your path of movement
- This log splitter is heavy. Get help if you need to lift it or move it up or down an incline
- Make sure the front leg is retracted and pinned up before moving



Moving Handle



Front Leg in
Operating
Position

Maintenance

WARNING

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

Engine Oil

- Follow the engine manufacturer’s recommendation which will be found in their instruction manual

Hydraulic Oil

- Change hydraulic oil after every 200 hours of operation, or once a season
- Timberwolf recommends use of ISO-46 hydraulic oil
- Level should be two inches below the top of the tank

NOTE

If hydraulic oil becomes contaminated it should be changed immediately

Push Block

- Grease assembly daily to reduce wear on beam and sides
- Use any high-grade bearing grease

Wedge

- Sharpen wedges regularly with file or grinder



Daily Checks

- Check all nuts, bolts, and welds to be sure that the frame and components are secure
- Make sure that the wear plates attached to the push block are firmly bolted in place
- Make sure push block and top of beam are well lubricated with grease
- Grease push block at grease fittings

Hydraulics

- Change hydraulic oil annually
- Change hydraulic oil filter annually
- Check all hoses for fraying, looseness, leaking, etc.

CAUTION



Make sure system is depressurized before you do any hydraulic system repairs. See Hydraulic Safety in the Safety section. Know and understand how to release hydraulic pressure as outlined on page 16.

Limited Warranty

Product Covered	This warranty is for Timberwolf Manufacturing Corporation log splitters.
Date Warranty Begins	The warranty begins on the date of sale and is warranted by Timberwolf Manufacturing Corporation to the original purchaser only.
What We Will Do for You:	We or your authorized dealer will, at our option, repair or replace any part found to be defective in material or workmanship, without charge for parts or labor, to the original purchaser for a period of time of one year.
What Is Not Covered By This Warranty	This warranty does not apply to parts that have been damaged by accident, alteration, misuse, abuse or improper lubrication. Charges for pickup, delivery, and service calls are not covered by this warranty. The engine is warranted separately by the engine manufacturer.
Limited Rental Use Warranty	If used for rental purposes (to produce an income by renting this equipment), the warranty on this product is limited in duration to 90 days from date of purchase. This warranty does not apply to parts that have been damaged by accident, alteration, misuse, abuse or improper lubrication. The engine for rental use is warranted separately by the engine manufacturer.
How To Get Service	To obtain service, contact our nearest dealer, or Timberwolf Manufacturing Corporation at 126 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 Manufacturing Corporation 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.

Limited Warranty (Continued)

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

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

Maintenance Log	

OPERATOR'S MANUAL



126 Spruce Street Rutland, VT 05701 802-775-4227 (Local) 800-340-4386 Fax 802-773-1275 www.timberwolfcorp.com

©TMC2010/G2W/0410