

## **OPERATOR'S MANUAL AND PARTS LIST 4 and 6 Ton Log Splitters - THLS-4 and THLS-6**

Spares & Support: 01793 333212

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**Before use please read & understand this manual, paying particular  
attention to the safety instructions.**

## SAFETY WARNINGS & INSTRUCTIONS

SYMBOL AFFIXED TO THE  
MACHINE

### ● UNDERSTAND YOUR LOG SPLITTER

Read and understand the owner's manual and the labels affixed to the log splitter. Learn its application and limitations as well as the specific potential hazards peculiar to it.

### ● DRUGS, ALCOHOL AND MEDICATION

Do not operate the log splitter while under the influence of drugs, alcohol, or any medication that could affect your ability to use it properly.

### ● AVOID DANGEROUS CONDITIONS

Put the log splitter on a 60 - 75cm high, stable, flat, and level work bench where there is plenty of room to work. Bolt the log splitter to the work surface if it tends to slip, walk, or slide.

Keep your work area clean and well lighted. Cluttered work areas increase the likelihood of injuries occurring.

Do not use the log splitter in wet or damp areas or expose it to rain.

Do not use it in areas where fumes from paint, solvents or flammable liquids pose a potential hazard.

### ● INSPECT YOUR LOG SPLITTER

Check your log splitter before turning it on. Keep guards in place and in working order. Frequently check to see that keys and adjusting wrenches are removed from the tool area before turning it on. Replace damaged, missing or failed parts before using it.

### ● DRESS PROPERLY

Do not wear loose clothing, neckties or jewelry (rings, wrist watches). They can be caught in moving parts.

Protective electrically non conductive gloves and non-skid footwear are recommended when working. Wear protective hair covering to contain long hair, preventing it from getting caught in the machinery.

### ● PROTECT YOUR EYES AND FACE

Any log splitter may throw foreign objects into the eyes. This can cause permanent eye damage. Always wear safety goggles. Everyday eyeglasses have only impact resistant lenses. They are not safety glasses.

Do not put the log splitter on the ground for operations. This is an awkward operating position and may cause the operator to bring their face close to the machine and risk being struck by wood chips or debris.



### ● EXTENSION LEADS

Improper use of extension leads may cause inefficient operation of the log splitter which can result in overheating. Be sure the extension lead is no longer than 10m and its cross-section is no less than 2.5mm<sup>2</sup> to allow sufficient current flow to the motor.

Avoid use of loose or inadequately insulated connections. Connections must be made with a protected material suitable for outdoor use.

### ● AVOID ELECTRICAL SHOCK

Check that the electric circuit is adequately protected and that it corresponds with the power, voltage and frequency of the motor. Check that there is a ground connection, and a regulation differential switch further up the circuit.

Ground the log splitter. Prevent body contact with grounded surfaces: pipes, radiators, ranges, and refrigerator enclosures.

Never open the pushbutton box on the motor. Should this be necessary, contact a qualified electrician.

Make sure your fingers do not touch the plug's metal prongs when plugging or unplugging the log splitter.

### ● KEEP VISITORS AND CHILDREN AWAY

The log splitter must only be operated by one person. Other people should keep a safe distance from the work area, especially when the log splitter is under operation. Never use another person to help you with freeing a jammed log.

### ● INSPECT YOUR LOG

Make sure there are no nails or foreign objects in logs to be split. The ends of the logs must be cut square. Branches must be cut off entirely so that the trunk is relatively smooth.

### ● DON'T OVERREACH

Floor must not be slippery.

Keep proper footing and balance at all times.

Never stand on the log splitter. Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted. Do not store anything above or near the log splitter so that someone might stand on the tool to reach them.

### ● AVOID INJURY FROM ACCIDENTS

Always pay full attention to the movement of the log pusher.

Do not attempt to load the log on until the log pusher has stopped.

Keep hands out of the way of all moving parts.

### ● PROTECT YOUR HANDS

Keep your hands away from splits and cracks which open in the log. They may close suddenly and crush your hands.

Do not remove jammed logs with you hands.



### ● DO NOT FORCE THE TOOL

It will do a better and safer job at its designed rate. Never try to split logs larger than those indicated in the specifications table. This could be dangerous and may damage the machine. Do not use log splitter for a purpose for which it was not intended.

### ● NEVER LEAVE THE TOOL RUNNING UNATTENDED

Do not leave the tool until it has come to a complete stop.

### ● DISCONNECT POWER

Unplug when not in use, before making adjustments, changing parts, cleaning, or working on the log splitter. Consult the technical manual before servicing.

### ● PROTECT THE ENVIRONMENT

Take used oil to an authorized collection point or follow the local stipulations that apply where the log splitter is being used.

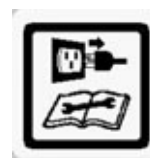
Do not discharge into drains, soil or water.

### ● MAINTAIN YOUR LOG SPLITTER WITH CARE

Keep the log splitter clean for the best and safest performance.

### ● STORE THE LOGSPLITTER SAFELY

Store the log splitter away from children and others not qualified to use it.



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## WORKING CONDITIONS

This log splitter is a domestic use model. It is designed for operating under ambient temperatures between +5°C and 40°C and for installation at altitudes no more than 1000m above M.S.L. The surrounding humidity should be less than 50% at 40°C. It can be stored or transported under ambient temperatures between -25°C and 55°C.

## SPECIFICATIONS

Model Number		THLS-4	THLS-6
Motor		230V~ 50Hz 1500W IP54	230V~ 50Hz 2200W S6(40%) IP54
Log Capacity	Diameter *	5 - 25cm	
	Length	37cm	52cm
Splitting Force		4 t	6 t
Hydraulic Pressure		16Mpa	20Mpa
Hydraulic Oil Capacity		2.4L	3.5L
Overall Size	Length	780mm	940mm
	Width	270mm	
	Height	510mm	
Weight		38kg	45kg

\* The diameter of the log is not the only factor that determines how easy it will be to split. A small log can be difficult to split when it has knots or is a particularly hard wood.

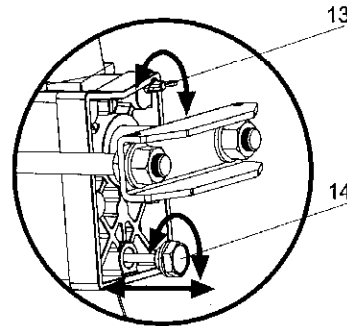
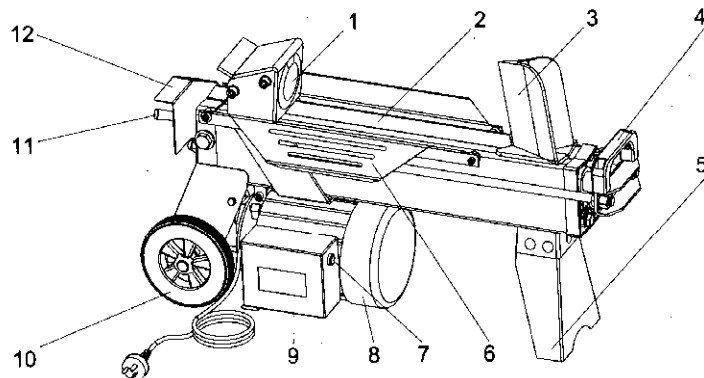
## ELECTRICAL REQUIREMENTS

Connect the main leads to a standard 230V $\pm$ 10% (50Hz $\pm$ 1Hz) electrical supply which has protection devices for under-voltage, over-voltage, over-current as well as a residual current device (RCD) with maximum residual current rated at 0.03A.

## SET UP AND PREPARATION FOR OPERATION

1. Bolt the Support Leg to the Log Splitter, lift the log splitter by the handles at both ends and place it on a 60 – 75cm high, stable, flat and level work surface.
2. Familiarize yourself with the controls and features of this log splitter in the illustrations.

1. Log Pusher
2. Work Table
3. Wedge
4. Handle
5. Support Leg
6. Log Retaining Plates
7. Switch
8. Motor
9. Electric Motor Switch Case
10. Wheels (for short distances ONLY).
11. Hydraulic Control Lever
12. Control Lever Guard
13. Bleed Screw
14. Oil Drain Bolt w/ Dipstick



**Before operating the log splitter, the Bleed Screw should be loosened a few rotations until air can go in and out of the oil tank smoothly.**

**Air flow thru the Bleed Screw hole should be noticeable while the log splitter is working.**

**Before moving the log splitter, make sure the Bleed Screw is tightened to avoid oil leaks.**



*FAILURE TO LOOSEN THE BLEED SCREW WILL KEEP THE SEALED AIR IN HYDRAULIC SYSTEM COMPRESSED. SUCH CONTINUOUS AIR COMPRESSION WILL BLOW OUT THE SEALS OF THE HYDRAULIC SYSTEM AND CAUSE PERMANENT DAMAGE TO THE LOG SPLITTER.*

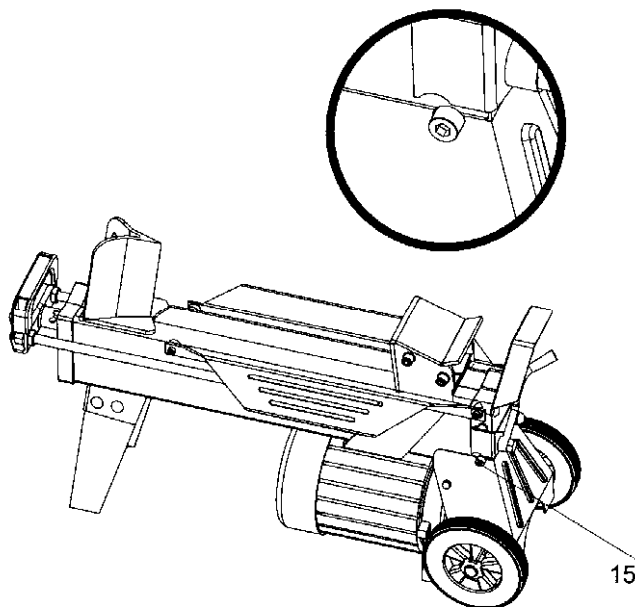
## 15. Max Pressure Limiting Screw



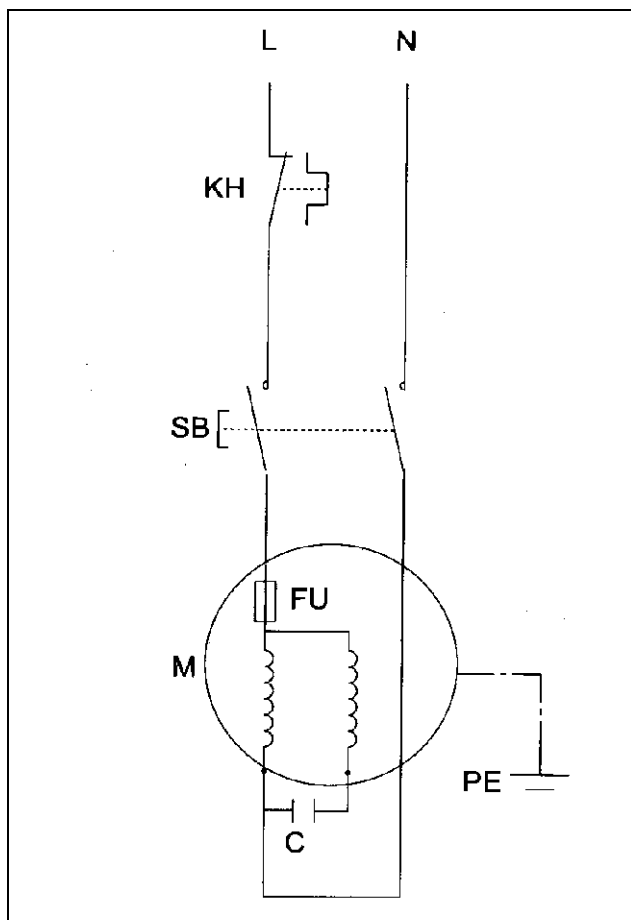
**DO NOT ADJUST THE MAX PRESSURE LIMITING SCREW!**

The max pressure was set by the manufacturer. The max pressure limiting screw is sealed with glue to ensure the log splitter works under pressure no more than is listed in the specifications. The setting was made by a qualified mechanic with professional instruments.

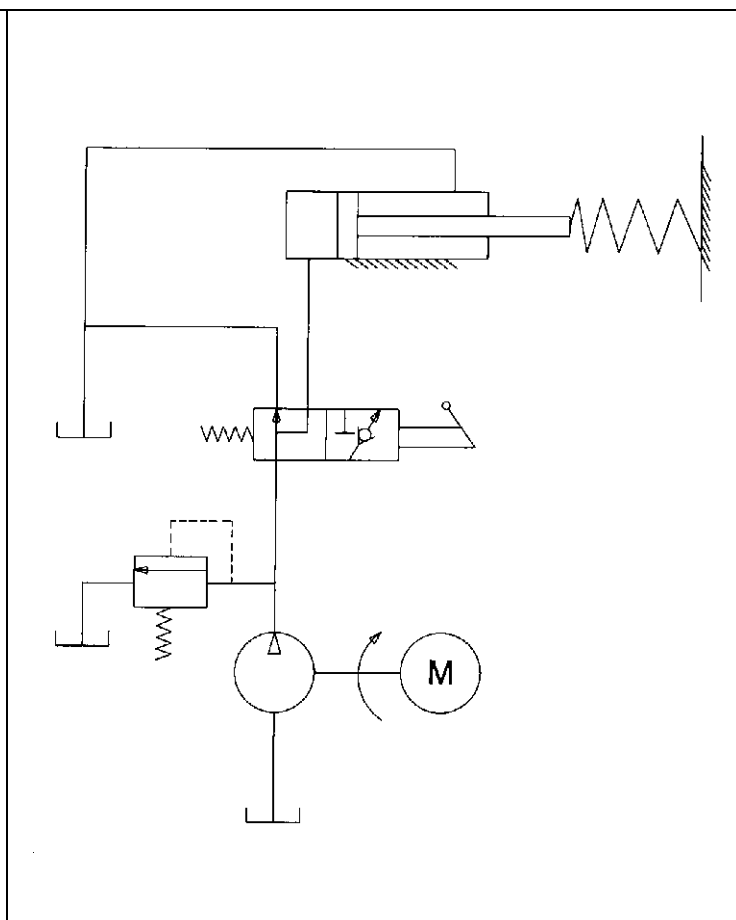
Unauthorized resetting will reduce the performance of the hydraulic pump to or **RESULT IN SERIOUS INJURY AS WELL AS DAMAGE TO THE MACHINE**.



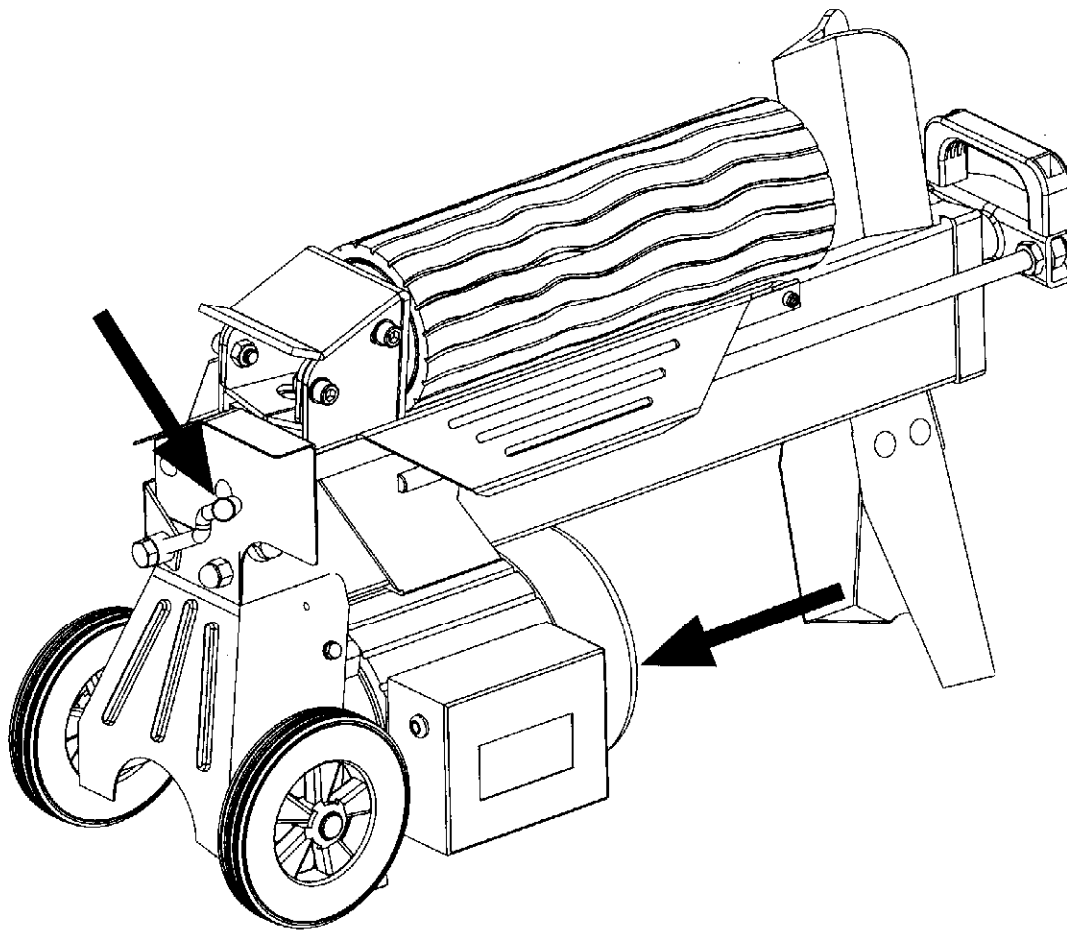
## WIRING DIAGRAM



## PLUMBING DIAGRAM



## LOG SPLITTER OPERATION



This log splitter is equipped with “ZHB” control system that must be operated with both of the users hands – the left hand controls the hydraulic control lever while right hand controls the pushbutton switch. The log splitter will freeze if either hand is removed. The log pusher will only start to return backward to the starting position after both hands release the controls.

The trigger type lockout device is used to avoid accidental Hydraulic Control Lever activation. To operate the Hydraulic Control Lever, draw the Trigger backward with your index finger before pushing the Hydraulic Control Lever forward.

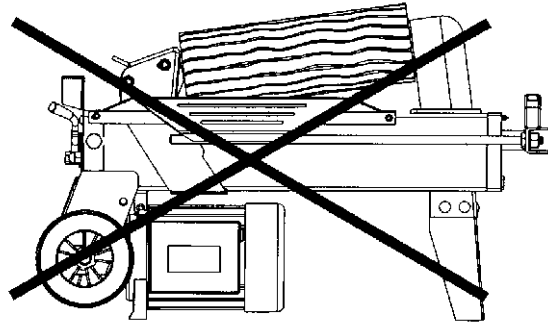


**Never force the log splitter for more than 5 seconds. Do not keep pressure on it to split excessively hard wood.**

After 5 seconds of constant use, the oil under pressure will be overheated and the machine could be damaged. For such extremely hard logs, rotate it by 90° to see whether it can be split in a different direction (the log should still be split with the grain as shown in the diagrams in this manual). In any case, if you are not able to split the log, this means that its hardness exceeds the capacity of the machine and thus that log should be discarded to protect the log splitter.



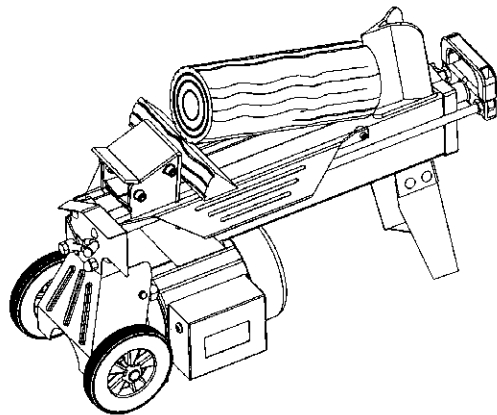
Always set logs firmly on the log retaining plates and work table. Make sure that the log will not twist, rock or slip while being split. Do not force the blade by splitting the log on the upper part of the wedge (as shown in the diagram). This will break the blade or damage the machine.



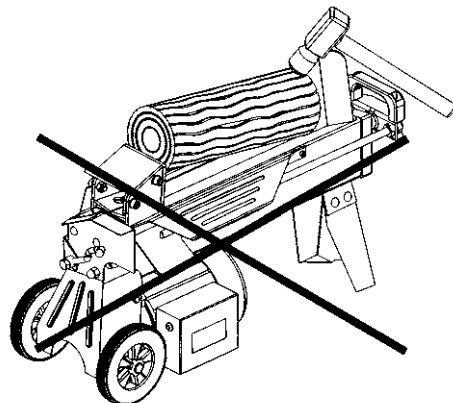
Break the log in the direction of its growing grain. Do not place log across the log splitter for splitting. It may be dangerous and may seriously damage the machine. Do not attempt to split 2 pieces of logs at the same time. One of them may be thrown by the machine which could cause serious injuries to the user.

## **FREEING A JAMMED LOG**

- Release both controls.
- After the log pusher moves back and completely stops at its starting position, insert a wedge of wood under the jammed log.
- Start the log splitter to push the wedge wood to go completely under the jammed one.
- Repeat above procedure with sharper sloped wedges of wood until the log is completely freed.



Do not try to knock the jammed log off. This will damage the machine or may launch the log and cause serious injuries.



## REPLACING HYDRAULIC OIL

Replace the Hydraulic oil in the log splitter after every 150 hours of use. Follow the steps below to replace it.

- Make sure all moving parts stop and the log splitter is unplugged.
- Unscrew the Oil Drain Bolt with Dipstick to remove it.
- Tip the log splitter onto the Support Leg side over a 4 litre capacity container to drain the hydraulic oil off.
- Tip the log splitter on the motor side.
- Refill with fresh hydraulic oil as per the hydraulic oil capacity indicated in the specifications.
- Clean the Dipstick and put it back into the oil tank while keeping the log splitter held upright.
- Make sure the level of the refilled oil is just between the 2 grooves around the Dipstick.
- Clean the Oil Drain Bolt before replacing it. Make sure they are tightened to avoid leaks before lowering the log splitter back to a horizontal position.

**Periodically check the oil level to ensure it is between the 2 grooves around the Dipstick. If the oil level is lower, refill the oil. To check the oil level, stand the log splitter onto its wheels and remove the dipstick. The oil level should be between the 2 grooves.**

**The following hydraulic oils or equivalent are recommend for the log splitter's hydraulic transmission system:**

SHELL Tellus 22

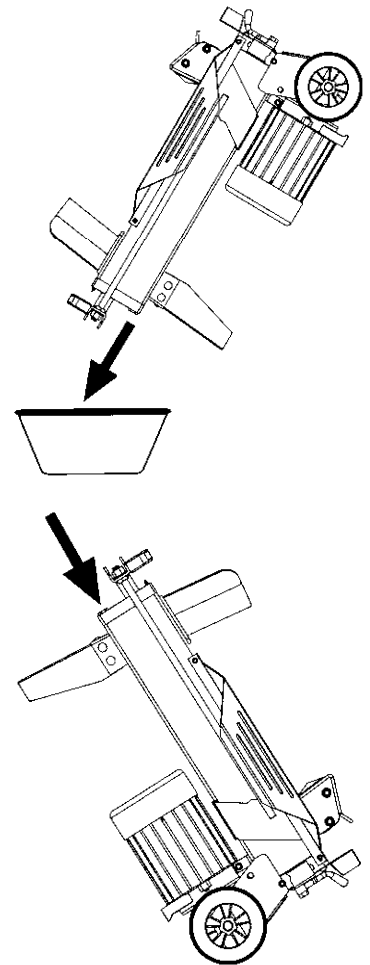
MOBIL DTE 11

ARAL Vitam GF 22

BP Energol HLP-HM 22

## SHARPENING WEDGE

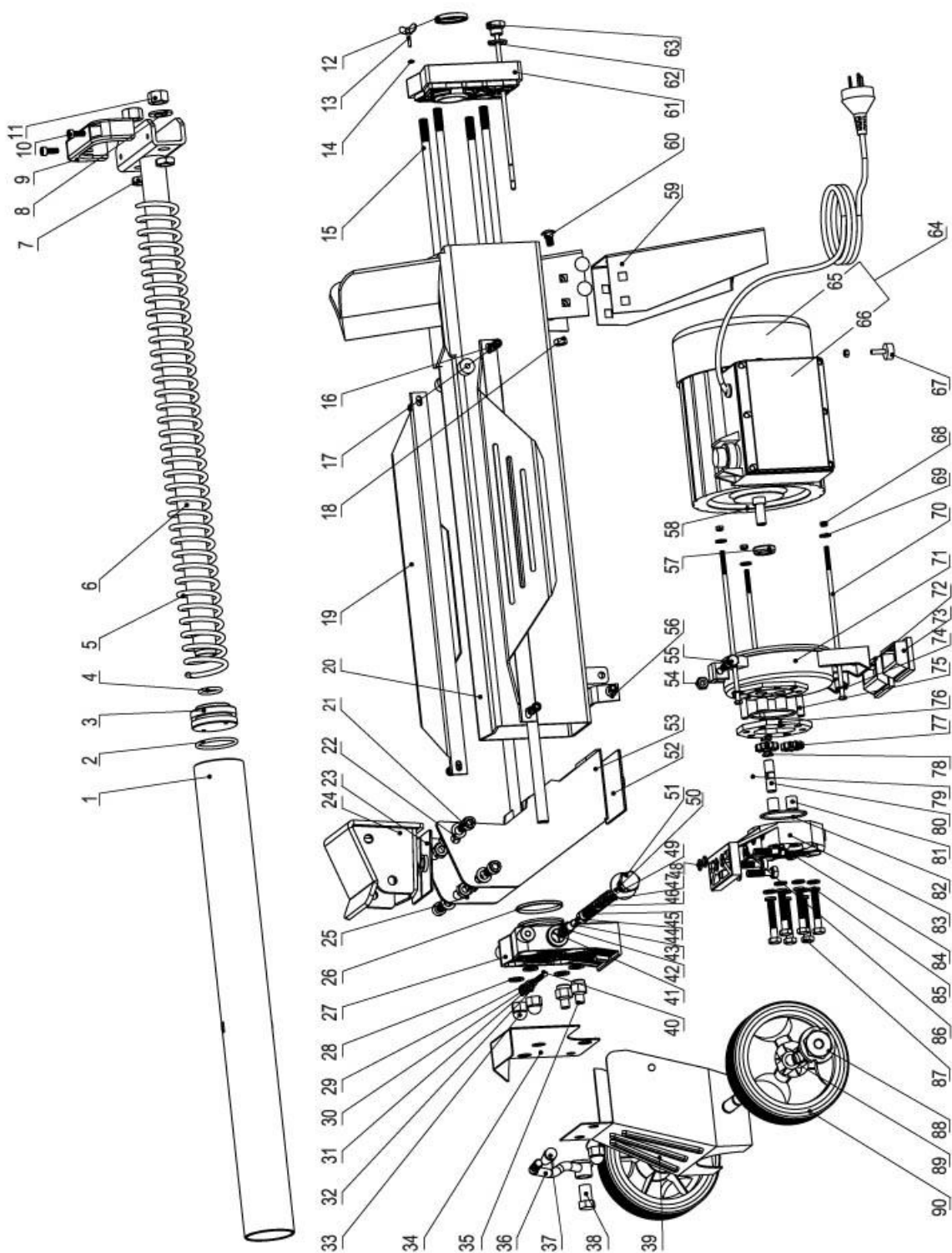
After using the log splitters for some time, sharpen the wedge of the log splitter using a fine-toothed file and smooth any burrs or crushed areas along the cutting edge.



## TROUBLE SHOOTING

PROBLEM	PROBABLE CAUSE	REMEDY SUGGESTED
Fails to split logs	Log is improperly positioned	Refer to the "Log Splitter Operation" section for log loading instructions.
	The sizes or hardness of the log exceeds the capacity of the machine	Reduce the log sizes before splitting it on the log splitter
	Wedge cutting edge is blunt	Refer to "Sharpening Wedge " section to sharpen the cutting edge.
	Oil leaks	Locate leak(s) and contact the dealer
	Unauthorized adjustment was made on Max. Pressure Limiting Screw. Lower max pressure rating was set.	Contact the dealer.
The log pusher moves jerkily, making unfamiliar noises or vibrating excessively	Lack of hydraulic oil	Check oil level for possible oil refilling.
	Excessive air in the hydraulic system.	Remove the bleed screw. Operate the ram 5 or 6 times without a log in place. Return the bleed screw and split the log. If the problem continues contact the dealer.
Oil leaks around the cylinder ram or from other points.	Air sealed in the hydraulic system while operating.	Loosen the Bleed Screw by 3 - 4 rotations before operating the log splitter
	Bleed Screw was not tightened before moving the log splitter.	Tighten the Bleed Screw before moving the log splitter.
	The Oil Drain Bolt with Dipstick is not tight.	Tighten the Oil Drain Bolt with Dipstick.
	The Hydraulic Control Valve Assembly and / or seal(s) are worn	Contact the dealer

PARTS SCHEMATIC



### THLS-4 Parts List

No	Part No	Description	Qty	No	Part No	Description	Qty
1	TH186-1	Cylinder	1	46	TH114-46	O-ring	5
2	TH186-2	Piston O-ring	1	47	TH114-47	O-ring	2
3	TH186-3	Piston	1	48	TH114-48	Sliding Sleeve Spring	1
4	TH114-4	O-ring	1	49	TH114-49	Sliding Sleeve	1
5	TH186-5	Spring	1	50	TH114-50	Washer	1
6	TH186-6	Piston Rod Weldment	1	51	TH114-51	Valve Plug	1
7	TH114-7	Nut	2	52	TH114-52	Lower Plastic Insert	1
8	TH114-8	Washer	2	53	TH186-53	Drawing Weldment	1
9	TH114-9	Moving Handle	1	54	TH114-54	Loose Nut	1
10	TH114-10	Hex. Bolt	2	55	TH114-55	Hex. Bolt	1
11	TH114-11	Nut, M14	2	56	TH114-56	Washer	2
12	TH114-12	Plastic Seal	1	57	TH114-57	Motor Shaft Seal	1
13	TH114-13	Wing Screw / Bleed Screw	1	58	TH114-58	Steel Ball, 2.5	1
14	TH114-14	O-ring	1	59	TH114-59	Carriage	5
15	TH186-15	Long Stub	4	60	TH114-60	Support Leg	1
16	TH114-16	Hex. Bolt	6	61	TH186-61	Cylinder Cover - Right	1
17	TH114-17	Spring washer	4	62	TH114-62	Dipstick Gasket	1
18	TH114-18	Nut	5	63	TH186-63	Dipstick	1
19	TH186-19	Support Plate	2	64	TH114-64	Motor with switch	1
20	TH186-20	Tube Frame / Oil Tank	1	65	TH114-65	Motor	1
21	TH114-21	Hex. Bolt	4	66	TH114-66	Switch box	1
22	TH114-22	Washer	4	67	TH114-67	Bolt	1
23	TH114-23	Upper Plastic Insert	1	68	TH114-68	Nut	1
24	TH114-24	Log Pusher Weldment	1	69	TH114-69	Spring Washer	3
25	TH114-25	Nut	4	70	TH114-70	Bolt	3
26	TH186-26	O-ring	1	71	TH114-71	Motor Cover	1
27	TH186-27	Cylinder Cover - Left	1	72	TH114-72	Motor Support Shoe - Left	1
28	TH114-28	Copper Gasket	4	73	TH114-73	Motor Support Shoe - Right	1
29	TH114-29	Safety Valve Spring	1	74	TH114-74	Washer	9
30	TH114-30	Screw	1	75	TH114-75	Pin	2
31	TH114-31	Safety Valve Bolt	1	76	TH186-76	Gear Housing Plate	1
32	TH114-32	O-ring	1	77	TH186-77	Gear	2
33	TH114-33	Round Head Nut	3	78	TH114-78	Gear Shaft Snap Washer	2
34	TH114-34	Lever Guard	1	79	TH114-79	Pin	1
35	TH114-35	Nut	2	80	TH186-80	Gear Shaft	1
36	TH114-36	Lever Weldment	1	81	TH114-81	Sliding Bearing	4
37	TH114-37	Lever Head	1	82	TH114-82	O-ring	2
38	TH114-38	Lever Nut	1	83	TH114-83	Pump Cover	1
39	TH114-39	Wheel Frame Plate Weldment	1	84	TH114-84	Bolt	3
40	TH114-40	Steel Ball, 6	1	85	TH114-85	Spring washer	9
41	TH114-41	Circlip	1	86	TH114-86	Washer	9
42	TH114-42	Restore Valve Spring	1	87	TH114-87	Bolt	6
43	TH114-43	Valve Rod	1	88	TH114-88	Wheel Cover	2
44	TH114-44	O-ring	1	89	TH114-89	Wheel Shaft Snap Ring	2
45	TH114-45	Valve Sleeve	1	90	TH114-90	Wheel	2

### THLS-6 Parts List

No	Part No	Description	Qty	No	Part No	Description	Qty
1	TH114-1	Cylinder	1	46	TH114-46	O-ring	5
2	TH114-2	Piston O-ring	1	47	TH114-47	O-ring	2
3	TH114-3	Piston	1	48	TH114-48	Sliding Sleeve Spring	1
4	TH114-4	O-ring	1	49	TH114-49	Sliding Sleeve	1
5	TH114-5	Spring	1	50	TH114-50	Washer	1
6	TH114-6	Piston Rod Weldment	1	51	TH114-51	Valve Plug	1
7	TH114-7	Nut	2	52	TH114-52	Lower Plastic Insert	1
8	TH114-8	Washer	2	53	TH114-53	Drawing Weldment	1
9	TH114-9	Moving Handle	1	54	TH114-54	Loose Nut	1
10	TH114-10	Hex. Bolt	2	55	TH114-55	Hex. Bolt	1
11	TH114-11	Nut, M14	2	56	TH114-56	Washer	2
12	TH114-12	Plastic Seal	1	57	TH114-57	Motor Shaft Seal	1
13	TH114-13	Wing Screw / Bleed Screw	1	58	TH114-58	Steel Ball, 2.5	1
14	TH114-14	O-ring	1	59	TH114-59	Carriage	5
15	TH114-15	Long Stub	4	60	TH114-60	Support Leg	1
16	TH114-16	Hex. Bolt	6	61	TH114-61	Cylinder Cover - Right	1
17	TH114-17	Spring washer	4	62	TH114-62	Dipstick Gasket	1
18	TH114-18	Nut	5	63	TH114-63	Dipstick	1
19	TH114-19	Support Plate	2	64	TH114-64	Motor with switch	1
20	TH114-20	Tube Frame / Oil Tank	1	65	TH114-65	Motor	1
21	TH114-21	Hex. Bolt	4	66	TH114-66	Switch box	1
22	TH114-22	Washer	4	67	TH114-67	Bolt	1
23	TH114-23	Upper Plastic Insert	1	68	TH114-68	Nut	1
24	TH114-24	Log Pusher Weldment	1	69	TH114-69	Spring Washer	3
25	TH114-25	Nut	4	70	TH114-70	Bolt	3
26	TH114-26	O-ring	1	71	TH114-71	Motor Cover	1
27	TH114-27	Cylinder Cover - Left	1	72	TH114-72	Motor Support Shoe - Left	1
28	TH114-28	Copper Gasket	4	73	TH114-73	Motor Support Shoe - Right	1
29	TH114-29	Safety Valve Spring	1	74	TH114-74	Washer	9
30	TH114-30	Screw	1	75	TH114-75	Pin	2
31	TH114-31	Safety Valve Bolt	1	76	TH114-76	Gear Housing Plate	1
32	TH114-32	O-ring	1	77	TH114-77	Gear	2
33	TH114-33	Round Head Nut	3	78	TH114-78	Gear Shaft Snap Washer	2
34	TH114-34	Lever Guard	1	79	TH114-79	Pin	1
35	TH114-35	Nut	2	80	TH114-80	Gear Shaft	1
36	TH114-36	Lever Weldment	1	81	TH114-81	Sliding Bearing	4
37	TH114-37	Lever Head	1	82	TH114-82	O-ring	2
38	TH114-38	Lever Nut	1	83	TH114-83	Pump Cover	1
39	TH114-39	Wheel Frame Plate Weldment	1	84	TH114-84	Bolt	3
40	TH114-40	Steel Ball, 6	1	85	TH114-85	Spring washer	9
41	TH114-41	Circlip	1	86	TH114-86	Washer	9
42	TH114-42	Restore Valve Spring	1	87	TH114-87	Bolt	6
43	TH114-43	Valve Rod	1	88	TH114-88	Wheel Cover	2
44	TH114-44	O-ring	1	89	TH114-89	Wheel Shaft Snap Ring	2
45	TH114-45	Valve Sleeve	1	90	TH114-90	Wheel	2



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