

8 TON VERTICAL HYDRAULIC LOG SPLITTER

Operator's Manual

MODEL NUMBER : FM8VE

SERIAL NUMBER : _____

Both model number and serial number may be found on the main label.
You should record both of them in a safe place for future use.

FOR YOUR SAFETY

READ AND UNDERSTAND THE ENTIRE MANUAL BEFORE OPERATING
MACHINE

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INTRODUCTION

Your new log splitter will more than satisfy your expectations. It has been manufactured under stringent quality standards to meet superior performance criteria. You will find your new unit easy and safe to operate, and with proper care, it will give you many years of dependable service.



Carefully read through this entire operator's manual before using your new log splitter. Take special care to heed the cautions and warnings.

ENVIRONMENTAL



Recycle unwanted materials instead of disposing of them as waste. All tools, hoses and packaging should be resorted, taken to the local recycling center and disposed of in an environmentally safe way.

SYMBOLS

The rating plate on your machine may show symbols. These represent important information about the product or instructions on its use.



Read these instructions in full before using the machine.



Wear safety footwear!



Wear protective gloves!



Wear eye protection!
Wear hearing protection!



Keep your work space tidy!
Untidiness may result in accidents.



Do not remove or tamper with any protection or safety devices.



Dispose of the used oil in an environment-friendly way.



Do not use in the rain.



Danger! Keep clear of moving parts!



Do not remove jammed logs with your hands.



Before starting any repair maintenance or cleaning, always disconnect the power.



Avoid injury from the movement of the splitting blade.



Keep bystanders away from the working area.

SAFETY

Safety Warnings & Instructions

• UNDERSTAND YOUR LOG SPLITTER

Read and understand the owner's manual and 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

Always operate your log splitter on dry, solid, level ground. Never operate your log splitter on slippery, wet, muddy, or icy surfaces. The location you choose should be free from any tall grass, brush, or other interferences. There should be plenty of room for handling, and help the operator stay alert. Keep your work area clean and well lighted. Cluttered areas invites injuries. To avoid tripping, do not leave tools, logs, or other components laying around the work area. 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. Form a habit of checking to see that keys and adjusting wrenches are removed from tool area before turning it on. Replace damaged, missing or failed parts before using it. Make sure all nuts, bolts, screws, hydraulic fittings, hose clamps, etc. are securely tightened. Always check the oil level in the hydraulic oil tank. Never operate your log splitter when it is in need of repair or is in poor mechanical condition.

• DRESS PROPERLY

Do not wear loose clothing, gloves, 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 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.

• EXTENSION CORDS

Improper use of extension cords may cause inefficient operation of the log splitter which can result in overheating. Be sure the extension cord is no longer than 10m and the diameter of each line is no less than 2.5mm² to allow sufficient current flow to the motor. Avoid use of free and inadequately insulated connections. Connections must be made with 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 upstream. Ground the log splitter. Prevent body contact with grounded surfaces: pipes, radiators, ranges, and refrigerator enclosures. Never open the switch / plug box. 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. Avoid excessive bending and twisting of the connection between the power cord of the British plug and the junction box.

• PREVENT FIRES

Do not smoke or have open flames when operating or refilling the log splitter. Never operate the log splitter near a flame or spark. Oil is flammable and can be exploded.

• KEEP BYSTANDERS AWAY

Allow only one person to load and operate the log splitter. Always keep bystanders, including visitors, children and pets away from the work area, especially when the log splitter is under operations. Only the operator should stand near the machine and only within the safe operating area prescribed in this manual. Never use another person to help you with freeing a jammed log. No one under the age of 16 should be allowed to operate the log splitter. Any individual under the age of 18 should have the necessary training & skills to perform the functions properly and safely and should always be under the supervision of an adult.

• INSPECT YOUR LOG

Never attempt to split logs containing nails, wire or debris. Always make sure that both ends of the log you are splitting are cut as square as possible. This will prevent the log from sliding out of position while under pressure. Branches must be cut off flush with the trunk.

• DON'T OVERREACH

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 tools are unintentionally contacted. Do not store anything above or near the log splitter where anyone might stand on the tool to reach them.

• AVOID INJURY FROM UNEXPECTED ACCIDENT

Do not straddle or reach across the splitting area when operating the log splitter. Never pile logs to be split in a manner that will cause you to reach across the log splitter. Only use your hands to operate the control levers. Never use your foot, knee, a rope, or any other extension device. Always pay full attention to the movement of the wedge ram. Never attempt to load your log splitter while the ram is in motion. Keep hands out of the way of all moving parts. Never try to split two logs on top of each other. One of them may fly up and hit you.

• PROTECT YOUR HANDS

When the ram of the log splitter is in the return mode, keep your hands off the machine – the log splitter is designed to automatically stop when the cylinder is fully retracted. Keep your hands away from splits and cracks which open in the log. They may close suddenly and crush or amputate your hands. Do not remove jammed logs with you hands.

• DON'T FORCE TOOL

It will do a better and safer job at its design rate. Don't use log splitter for a purpose for which it was not intended. Do not, under any circumstances, alter your log splitter. This equipment was designed and engineered to be used in accordance with the operating instructions. Altering the equipment, or using the equipment in such a way as to circumvent its design capabilities and capacities, could result in serious or fatal injury and will void the warranty. Never try to split logs larger than those indicated in the specifications table. This could be dangerous and may damage the machine.

• NEVER LEAVE TOOL RUNNING UNATTENDED

Don't leave 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 technical manual before servicing.

• MAINTAIN YOUR LOG SPLITTER WITH CARE

Always clean the unit after each use. Keep the log splitter clean for best and safest performance. Follow instructions for lubricating. Inspect all hydraulic seals, hoses and couplers for leaks prior to use. Control levers and power switch must be kept clean, dry and free from oil and grease at all times.

• PROTECT THE ENVIRONMENT

Take used oil to an authorized collection point or follow the stipulations in the country where the log splitter is used. Do not discharge into drains, soil or water.

• MAKE THE WORKSHOP CHILDPROOF

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

Special Warnings & Instructions

- *The splitting operation of the machine is designed to be activated by one person. While there is the possibility that additional operators could be working with the machine (e.g. for loading and unloading), only one operator should activate splitting operations;*
- *The machine shall not be used by children;*
- *Description of functional tests of the machine;*
- *The installation and maintenance requirements including a list of those devices e.g. two-hand control device which should be verified, how frequently the verification shall be carried out and by what method;*
- *Never attempt to remove a log which has got stuck on the wedge by hand. Lower the wedge until the log is completely split;*
- *If a log becomes stuck on the wedge at the bottom position, press the handle with one hand and turn off the machine with the other hand. Slightly knock the log by hammer to free it;*
- *Only qualified person can assemble the machine.*

Specifications

Model Number		FM8VE
Motor		230V – 50Hz 13A S6 40% 3000W
Maximum Diameter	Log Size	8 – 30 cm
	Length	10 – 55 cm
Maximum Force		8 Ton
Hydraulic Pressure		21.0 Mpa
Hydraulic Oil Capacity		4 L
Ram Travel		48.5 cm
Speed	Forward	3.1 cm/sec
	Retract	17.3 cm/sec
Noise Pressure Level (LpA)		74.7 dbA under no load; 77.8 dbA under full load
Vibration		<2.5 m/s ²
Overall Sizes	Length	84.5 cm
	Width	93.5 cm
	Height	150 cm
Weight		109.9 kg

* S6 40%, continuous operation periodic duty: time of one load cycle is 10 minutes, operation time at constant load is 4 minutes, operation time at no-load is 6 minutes.

APPLICATION CONDITIONS

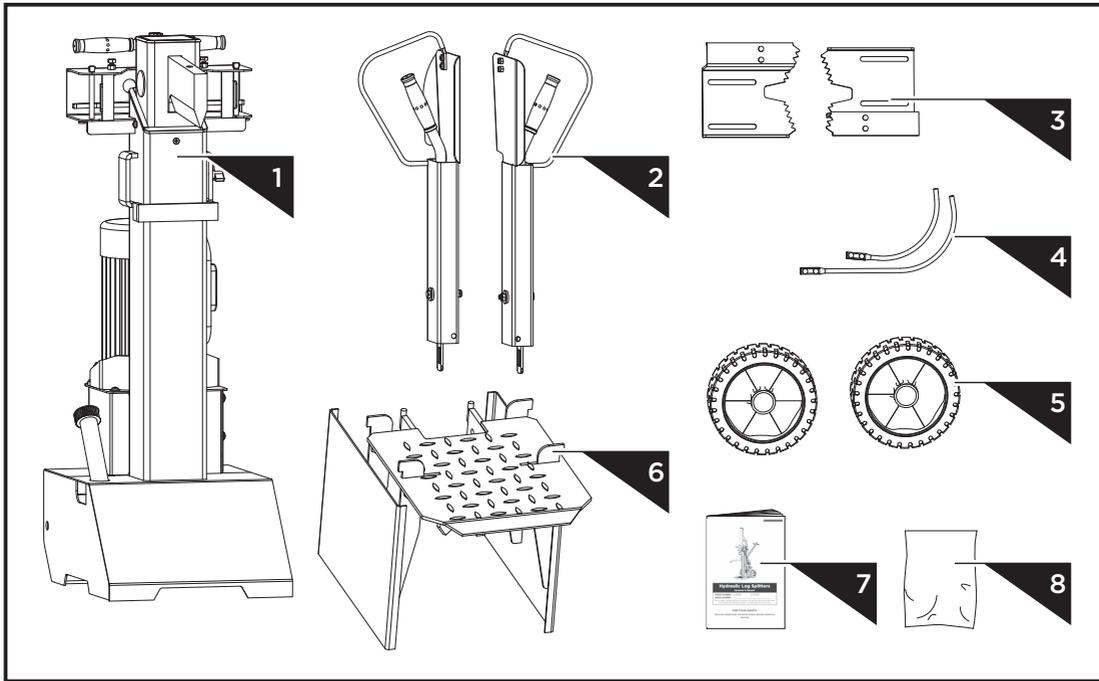
This log splitter is designed for operating under ambient temperatures between +5°C and 40°C and for installation at altitudes no more than 1000m above M.S.L. The surrounding humidity should be less than 50% at 40°C. It can be stored or transported under ambient temperatures between -25°C and 55°C.

ELECTRICAL REQUIREMENTS

With 230 Volt / 50Hz motor, the log splitter should be connected to standard 230V±10% /50Hz±1%.

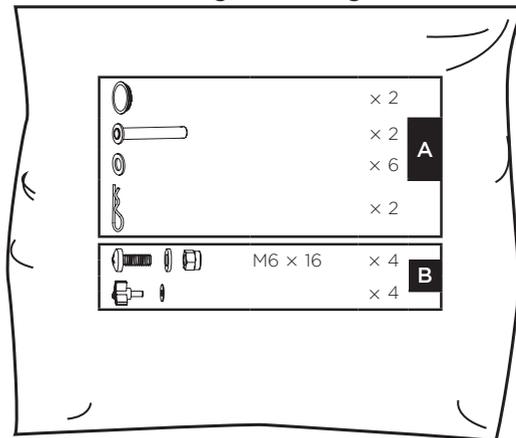
Electrical supply which has protection devices of under-voltage, over-voltage, over-current (16 A) as well as a residual current device (RCD) which maximum residual current rated at 0.03A. Electrical connection rubber cables must comply with EN60245 which are always marked with symbol H 07 RN. Cables should be identified, as it is a legal requirement.

CONTENTS SUPPLIED



1. Log Splitter Frame
2. Control Lever and Guard Assy (1 pair)
3. Adjustable Log Holder (1 pair)
4. Retainer 1 and Retainer 2
5. Wheels (1 pair)
6. Support Table

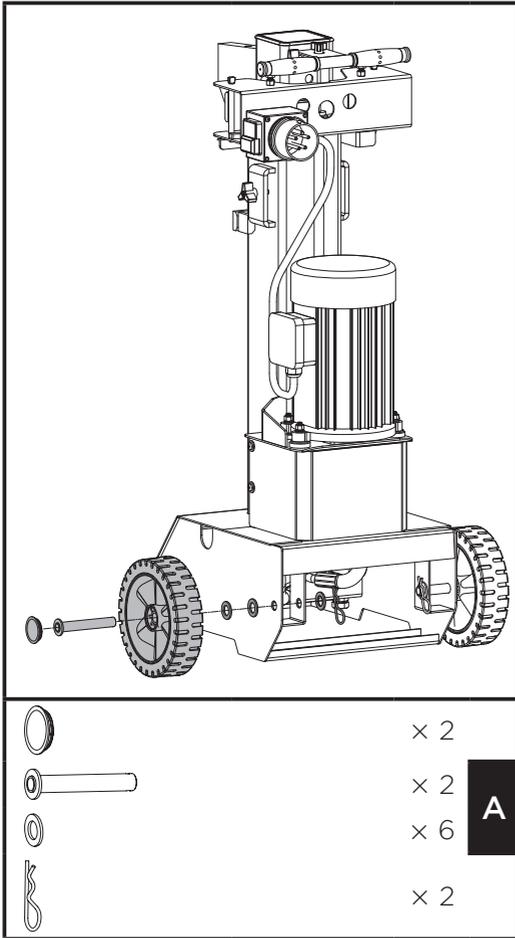
7. Operator's Manual
8. Hardware Bag, including



ASSEMBLY

Wheels

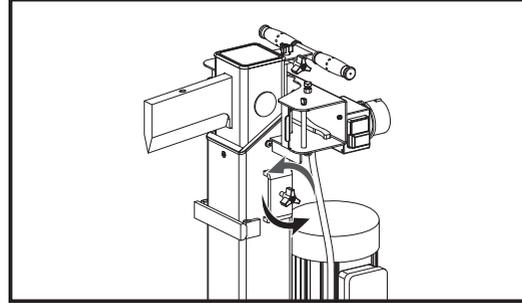
1. Pass the axle through the wheel from outside and put on two washers as shown in the following figure. Slide the axle into the two holes on the base of log splitter and secure it with another washer and R-pin from inside. Put on the wheel cap.



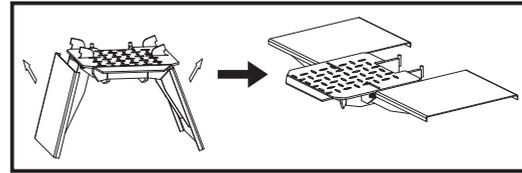
2. Repeat the same steps to mount the wheel on the other side.

Support Table

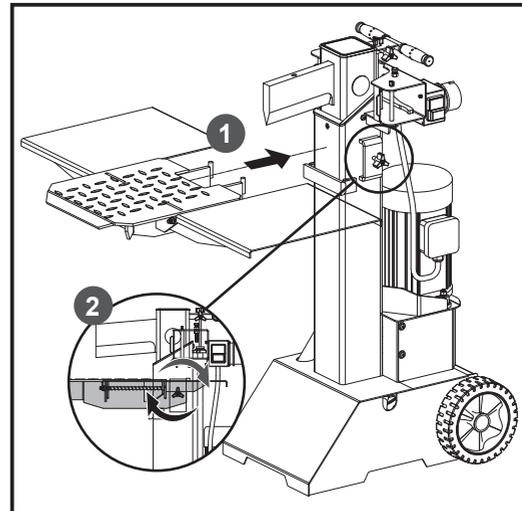
1. Before assembly, loosen the star knob by turning it counterclockwise.



2. Unfold the log support table, make sure the three parts of it at the same surface level.



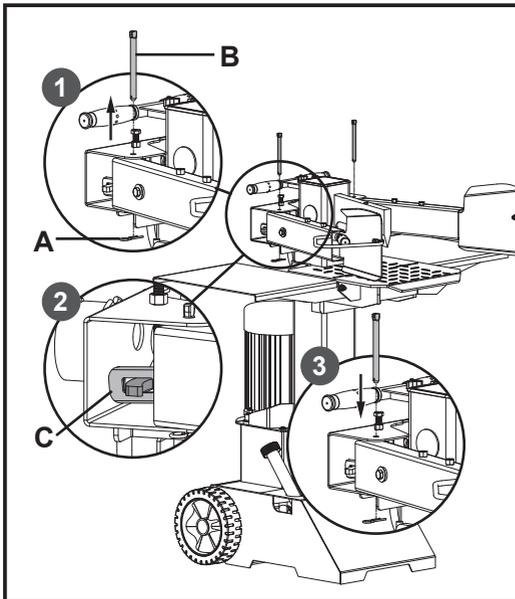
3. Insert the hooks of the log support table into the mount brackets.



4. Tighten the star knob.

Control Lever

Pull Spring Pin (A) to remove the Lock Pin (B). Apply a thin coat of grease to both surfaces of the Control Lever Guard as illustrated. Insert the Control Lever and Guard Assy and make sure the Control Lever End goes into the slot of Connection Bracket (C). Lock the Control Lever and Guard Assy. down with the Lock Pin (B) and Spring Pin (A). Follow the same steps to install the other Control Lever and Guard Assy on the other side.

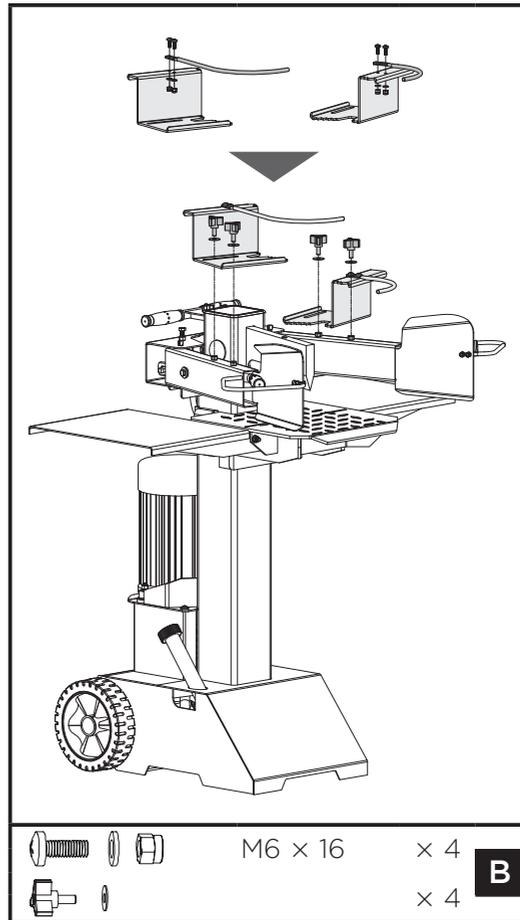


Check both sides after assembly. The control levers must be placed in the slots of connection brackets.

Adjustable Log Holder

Align the holes and assemble the retainer 1 and retainer 2 onto the clamps. Ensure the direction of the retainers as shown in the following picture. Secure the connection with M6x16 bolts, washers and nuts.

Secure the log clamps on the armguards with star knobs and flat washers.



KNOW YOUR MACHINE

Transport Handle

Split Wedge

Ram

Log Holder Adjusting Knob

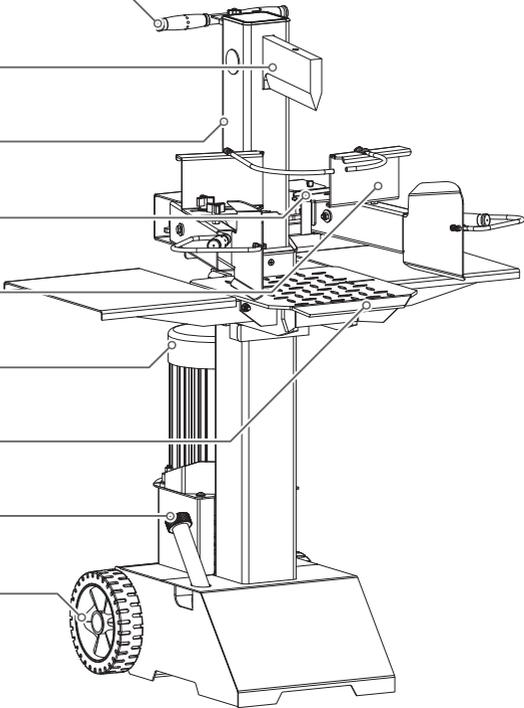
Adjustable Log Holder

Motor

Support Table

Oil Tank Cover / Air Bleeder

Wheels



Ram Travel Adjusting Rod

Control Lever

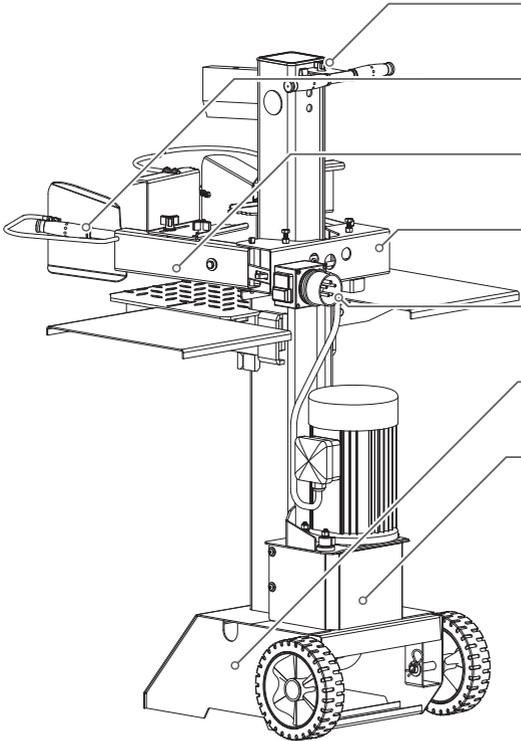
Control Lever Guard

Control Levers Connection Bracket

Plug & switch

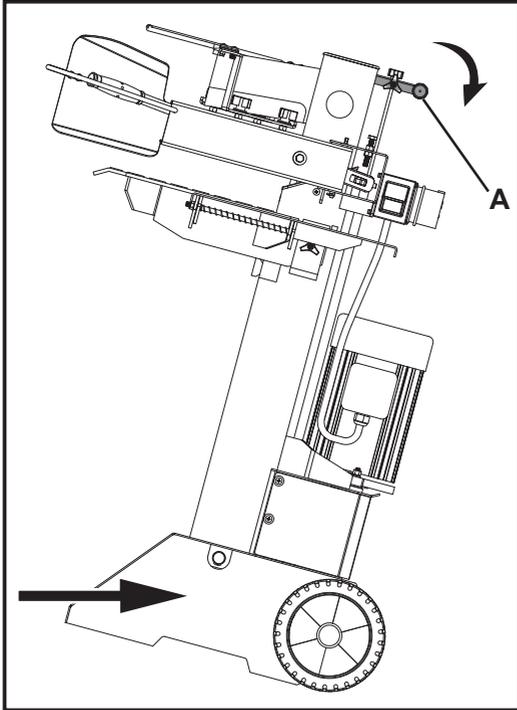
Base

Base Cover

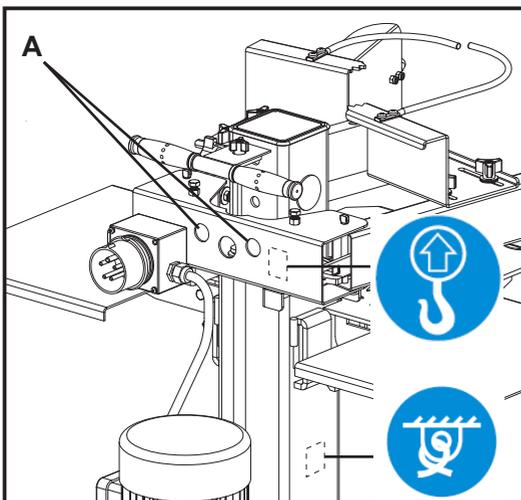


TRANSPORT

The log splitter is equipped with 2 wheels for minor moving. To move the log splitter to the work site. Grip the handle (A) to tilt the log splitter slightly after making sure the oil tank cover is tightened.



DELIVERING LOG SPLITTER TO WORK SITE



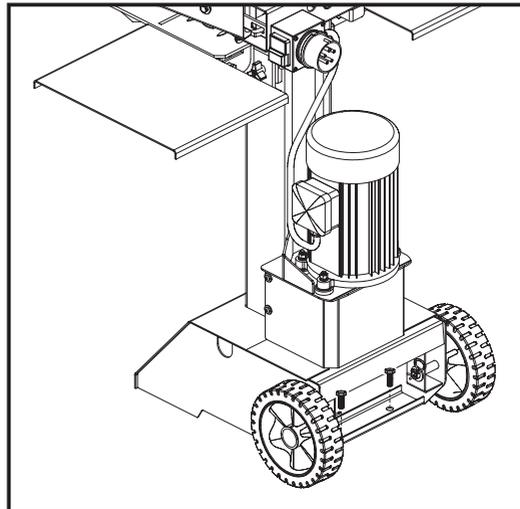
If using a crane, lay hoist sling at the lifting point (A).



For long distance transport, fasten the log splitter at the position with bundling sign after lifting it into the truck, to avoid free movement during transportation.

SPLITTER OPERATION

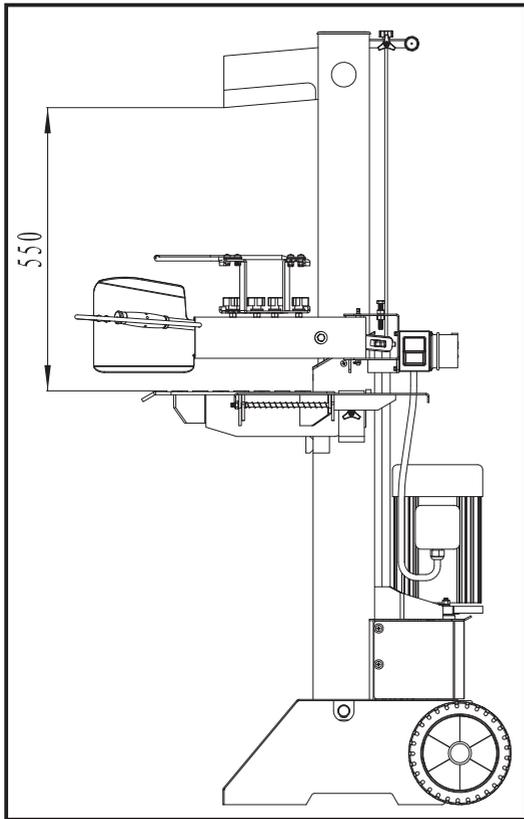
Before operation, fix the machine using Bolts M10X30 on level ground.



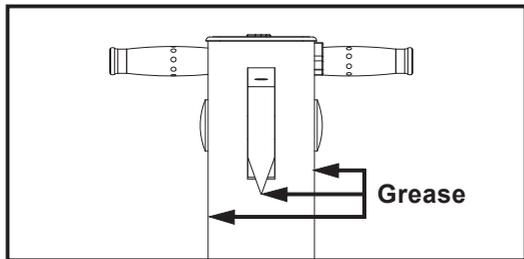
1. Plan your work site. Work safely and save effort by planning your work before hand. Have your logs positioned where they can be easily reached. Have a site located to stack the split wood or load it onto a nearby truck or other carrier.
2. Prepare the logs for splitting. This splitter accommodates logs up to 55cm in length. When cutting up limbs and large sections, do not cut sections any longer than 55cm.



Do not attempt to split green logs. Dry, seasoned logs split much more easily, and will not jam as frequently as green wood.



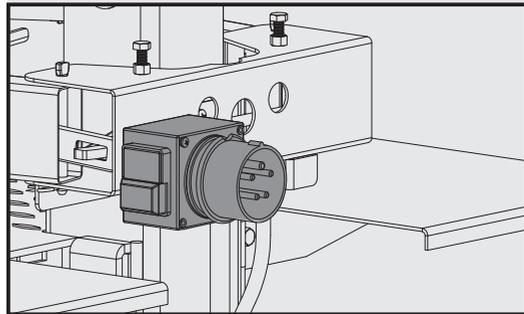
3. Applying a thin coat of grease to the surfaces of the ram before operation will lengthen the durability of the ram.



4. Route the power cord. Route the cord from the power source to the splitter in a way that safeguards against tripping on the cord, or the cord becoming damaged during the work session. Protect the power cord from impacts, pulling or corrosive materials.
5. Open the Air Bleed. Loosen the oil tank cover a few turns whenever the splitter is being used. Retighten this cover when you have finished.

Only for model #65584:

- *6. Make sure the direction of motor rotation. Turn the motor on, the wedge ram should rise to the highest position automatically. If the wedge ram is already at the highest position when the motor starts, grip both control levers and lower them, the wedge ram should start to move downward.



In case, no ram motion detected after the motor starts, power off the motor immediately to change motor polarity by turning the pole switching device inside the plug with a screwdriver.



Never allow motor running at counter direction. This will damage the pump and will void the warranty.

7. While operating under extremely low temperature, keep the log splitter running under no load for 15 minutes to preheat the hydraulic oil.
8. Before initial operation, check to be sure the two-handed operation is properly functioning by following steps:
 - (1) Lower both control levers, the splitting wedge will lower to 5cm above the highest table position.
 - (2) Release either of the levers, splitting wedge should remain in the original position.

(3) Release both levers, the ram should rise to the highest position automatically.

9. To set wedge ram stroke, take the following steps:

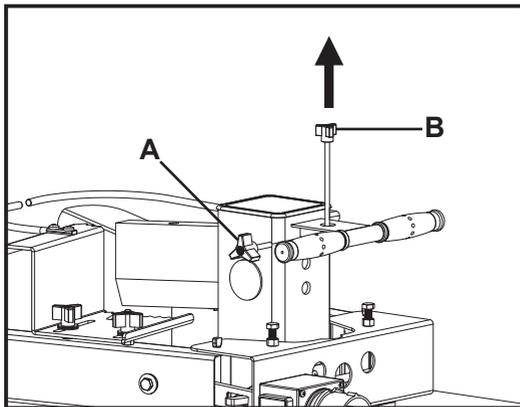
(1) Move splitting wedge to desired position. The upper position of the ram wedge travel should be about 3-5cm over the logs to be split.

(2) Release a control lever or switch off motor.

(3) Release the Setscrew (A) with L key. Raise Adjusting Rod (B) until Adjusting Rod (B) begins to be stopped by the spring inside. Tighten the Setscrew (A).

(4) Release both control levers or switch on motor.

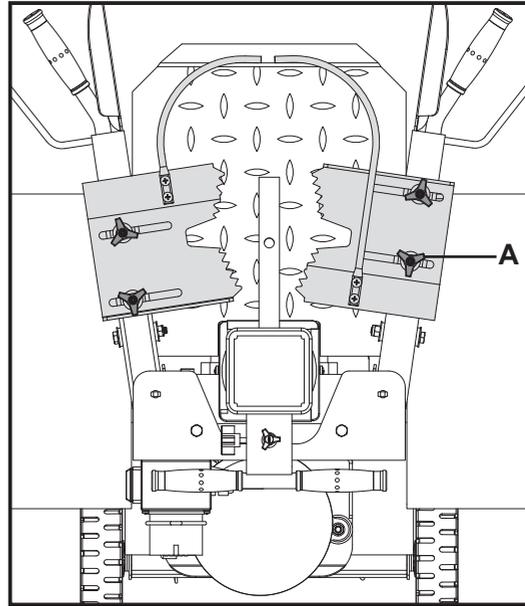
(5) Check upper position of splitting wedge.



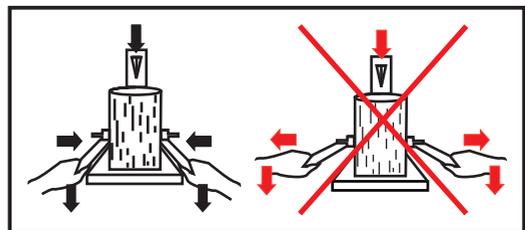
10. Place log onto splitter. Place the log onto the support table vertically and sitting flat on the support table. Be sure the wedge and support table will contact the log squarely on the ends. Never attempt to split a log at an angle.

 **Break 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.**

11. Adjust the Log Holders (A) according to the diameter of the log to obtain the most comfortable Control Levers angle.



12. Hold the log with clamping brackets closely in the control lever guards. lower levers to start the splitting. Releasing either lever stops the motion of the splitting wedge. Releasing both handles to return the splitting wedge to the upper position.



13 Stack as you work. This will provide a safer work area, by keeping it uncluttered, and avoid the danger of tripping, or damaging the power cord.

 **Accumulated split wood and wood chips can create a hazardous work environment. Never continue to work in a cluttered work area which may cause you to slip, trip or fall.**

REPLACING HYDRAULIC OIL

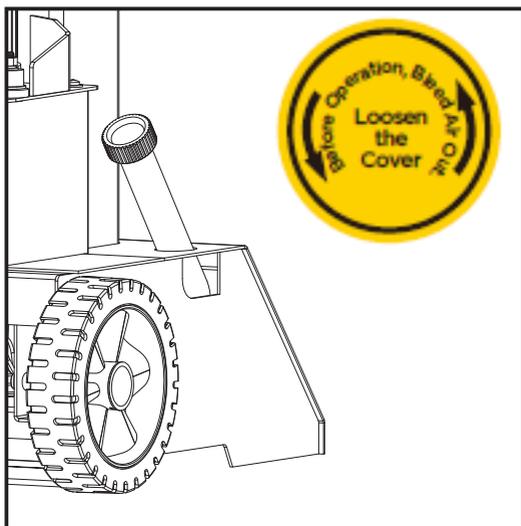
The hydraulic system is a closed system with oil tank, oil pump and control valve. Check oil level regularly with dipstick. Low oil levels can damage the oil pump. Oil Level should measure approx. 1 - 2 cm lower than the upper surface of the oil tank.

The oil should be completely changed once a year.

- Make sure moving parts stop and the log splitter is unplugged.
- Make sure that no dirt or debris finds its way into the oil tank.
- Collect used oil and responsibly recycle.
- Following an oil change, activate the log splitter a few times without actually splitting.

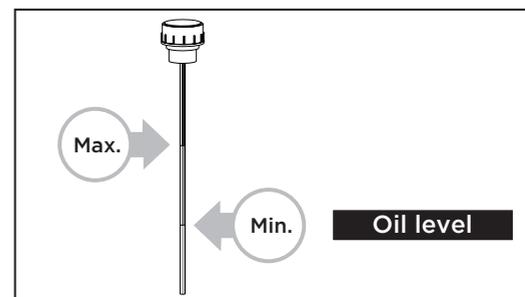
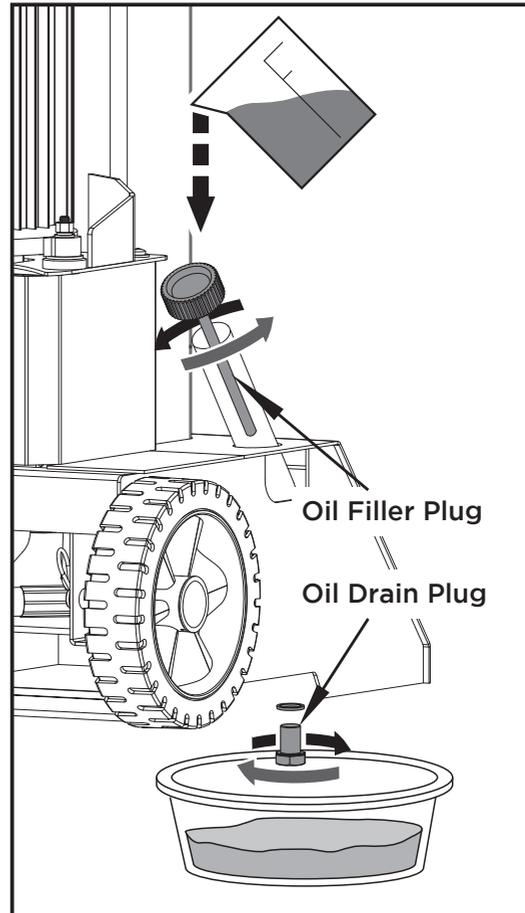
Following hydraulic oils or equivalent are recommended for the log splitter's hydraulic transmission system:

SHELL Tellus 22
MOBIL DTE 11
ARAL Vitam GF 22
BP Energol HLP-HM 22



Use a drain pan to aid in the removal of all used oil and particles.

Remove oil drain plug to drain oil from the hydraulic tank. Examine oil for metal chips as a precaution to future problems.





Read dipstick to determine the maximum and minimum of the oil level. Low oil can damage the oil pump. Overfilling can result in excessive temperature in the hydraulic transmission system.

SHARPENING WEDGE

This log splitter is equipped with a reinforced splitting wedge and has a blade which is specially treated. After long periods of operation, and when required; sharpen the wedge using a fine-toothed file removing any burrs or flat spots on the edge.

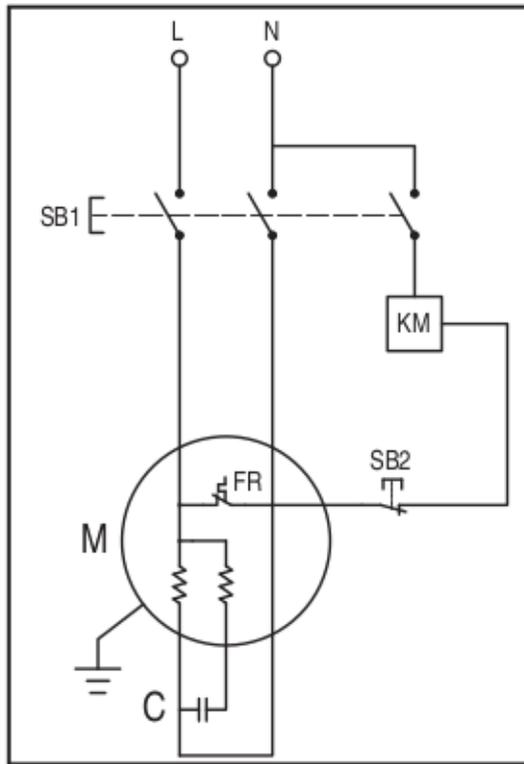
TROUBLE SHOOTING

PROBLEM	PROBABLE CAUSE	REMEDY SUGGESTED
Motor does not start	No current in the socket	Check mains fuse
	Electrical extension line defective	Unplug, Check and replace.
	Switch defective	Have checked by Electrician
Log Splitter does not work while motor running	Valve is not opened owing to the connection parts loosening	Check and tighten the parts.
	Control Levers or Connection parts bent	Repair the bent parts
Log Splitter works with abnormal vibration and noise	Lower hydraulic oil level	Check and refill hydraulic oil.
	Lower hydraulic oil level	Check and refill hydraulic oil.

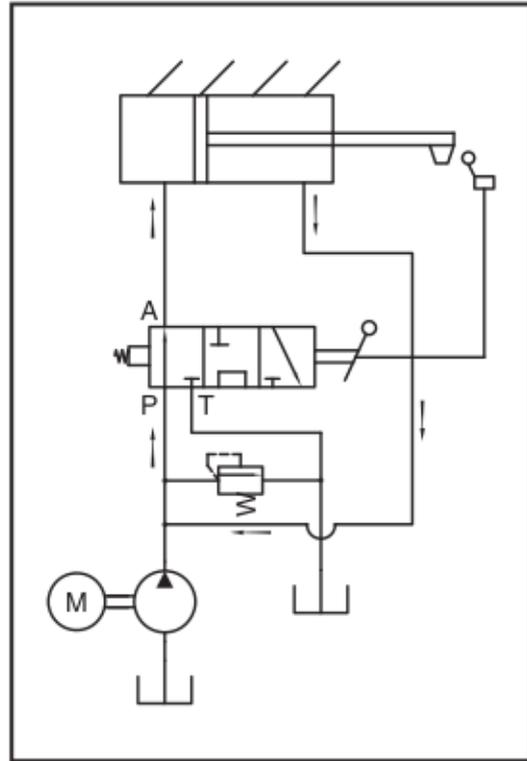


ATTENTION: ALL REPAIR WORK MUST BE DONE BY A SPECIALIST FOR THIS PRODUCT.

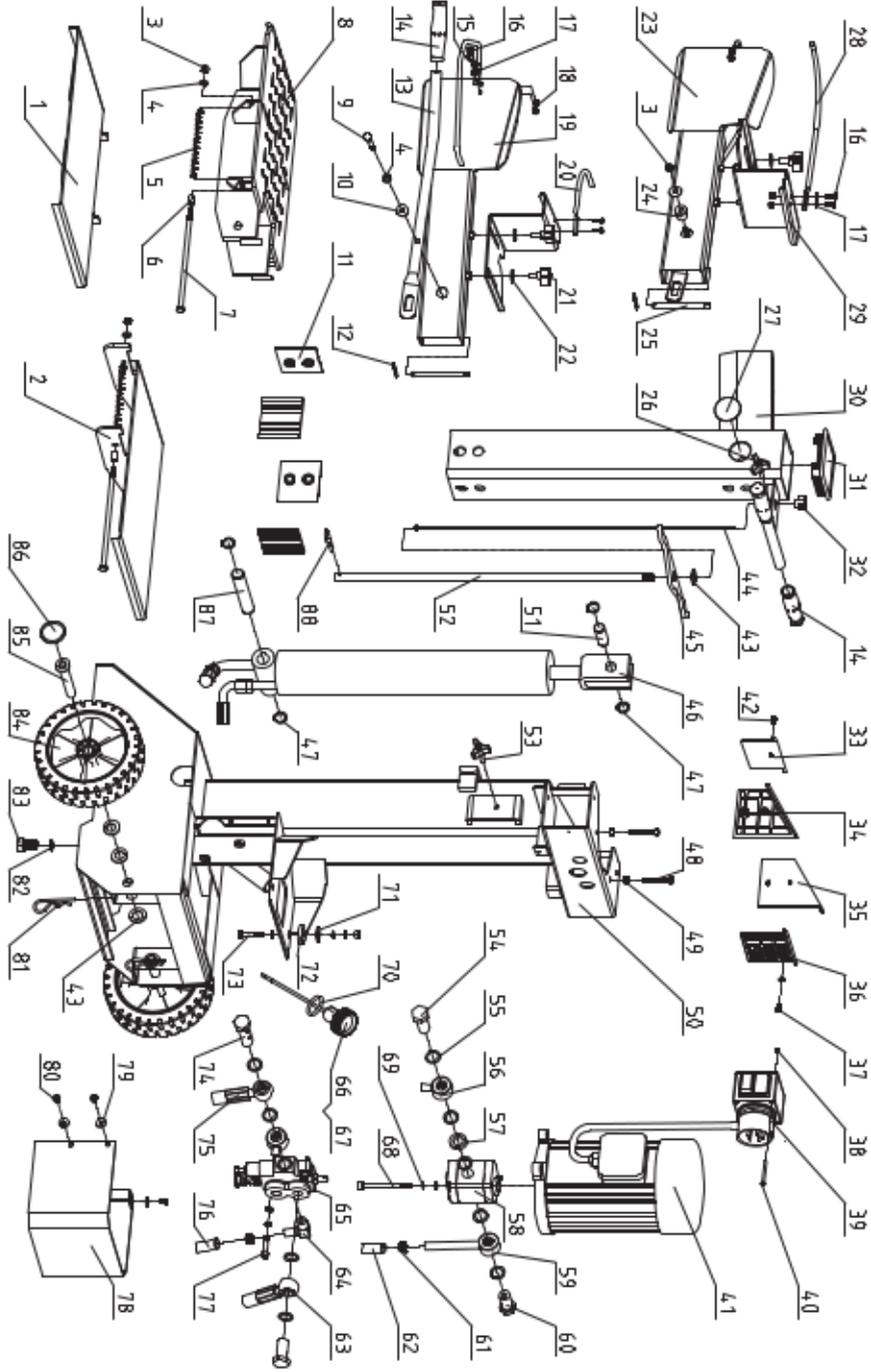
WIRING DIAGRAM



HYDRAULIC SYSTEM DIAGRAM



PARTS SCHEMATIC



Parts List

No.	Description	Q'ty
1	Side Log Support 2	1
2	Side Log Support 1	1
3	Locknut M8	4
4	Washer 8	8
5	Spring	2
6	Bush	2
7	Bolt 8.8 M8x210	2
8	Log Support C1	1
9	Bolt 8.8 M8x60	2
10	Bush 2	2
11	Lining Plate	4
12	Clip 2.5	2
13	Handle C1	2
14	Handgrip	4
15	Guard Ring C1	2
16	Screw M6x16	8
17	Washer 6	6
18	Locknut M6	8
19	Right Armguard C1	1
20	Retainer 1	1
21	Star Knob	4
22	Big Washer 8	11
23	Left Armguard C1	1
24	Bush 1	2
25	Pin C1	2
26	Star Knob M6	1
27	Cap	2
28	Retainer 2	1
29	Clamp	2
30	Splitting Pipe G5	1
31	Square Cap	1
32	Star Knob M5(black)	1
33	Upper Lining Plate 2-C	1
34	Upper Lining Plate 4	1
35	Upper Lining Plate 3	1
36	Upper Lining Plate 1	1

No.	Description	Q'ty
37	Screw M6x8	1
38	Locknut M4	2
39	Switch	1
40	Screw M4x60	2
41	Motor	1
42	Screw M6x10	1
43	Washer 16	7
44	Pull Rod G5	1
45	Lever C1	1
46	Cylinder C1	1
47	Circlip 22	4
48	Bolt M8x50	2
49	Nut M8	5
50	Main Frame C1	1
51	Short Shaft D	1
52	Tube C1	1
53	Star Knob (black)	1
54	Oil Plug A1	1
55	Washer Groupware 20	10
56	Oil Hose C1	1
57	Collar	1
58	Gear Pump C1	1
59	Nozzle C1	1
60	Oil Plug A2	2
61	Hose Clamp 18-23(24)	4
62	Oil Hose 13	1
63	Oil Hose C1	1
64	Nozzle A	1
65	CCA Valve	1
66	Oil Cap K	1
67	Oil Dipstick KG	1
68	Screw M8x90	2
69	Spring Washer 8	7
70	O-Ring 25x2.65	1
71	Big Washer 10	3
72	Motor Support	3

No.	Description	Q'ty
73	Bolt 8.8 M8x45	3
74	Oil Plug A6	1
75	Oil Hose C1	1
76	Oil Hose 13	1
77	Screw M8x35	2
78	Shield C1	1
79	Big Washer 6	3
80	Screw M6x10	5

No.	Description	Q'ty
81	Clip 3	2
82	Washer Groupware 16	1
83	Bolt M16x25	1
84	Wheel	2
85	Wheel Axle C1	2
86	Wheel Cap	2
87	Long Shaft A4	1
88	Clip 4	1