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# Hydraulic Log Splitters

Operator's Manual

MODEL NUMBER:	□CEDLS10V	
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 UNDERSTANDTHEENTIREMANUALBEFORE OPERATING MACHINE

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## **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 plateonyour 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.



Do not smoke or have open flames.



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



Do not use in the rain.

## INTRODUCTION

Your newlog 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.



Danger! Keep clear of moving parts!



Do not remove jammed logs with your hands.



Caution! Thrown objects.



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.

## DRESS PROPERLY

Do not wear loose clothing, gloves, jewelry neckties or (rings, watches). They can be caught in moving parts. Protective electrically non-conductive gloves, non-skid footwear and hearing protection are recommended when working. Wear protective hair covering to contain long hair, preventing it from get caught in machinery.

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

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. Before starting work, test the stopping devices to keep them in safe working

•INSPECT YOUR LOG SPLITTER

potential hazard.

condition.

#### •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 its section 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.

### 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. Be thoroughly familiar with the controls and their proper operation.

#### 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

#### •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. 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.

#### •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 people to help you with freeing 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 has necessary training, skills to perform the functions properly and safely and always should be under supervision of 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 of flush with the trunk.

#### •DON'T OVERREACH

Keep proper footing and balance at all times. Never stand on log splitter. Serious injury could occur if the tool is tipped or if the cutting tools is 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**

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 your 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 alter the equipment, or use the equipment in such a way as to circumvent its design capabilities and capacities. Never try to split logs larger than those indicated in the specifications table.

#### •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

Before cleaning, repair, inspecting or adjusting, shut off the machine and make certain all moving parts have stopped. 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.

#### **•DEAL WITH ACCIDENT**

Always have a fire extinguisher and a first-aid kit available for use should the need arise. In emergency always know the location of the nearest phone or keep a phone on the job site. Also know the phone numbers of the nearest ambulance, doctor and fire department. This information will be invaluable in the case of an emergency.

#### SPECIAL WARNING

- 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;

#### Specifications

Model Number		CEDLS10
Motor		SV 40% IP54 5100W
Voltage		400V 3N~ 50Hz
Log Sizo	Dia.	8-35 cm
Log Size Capacity	Length	56~110 cm 22
	<u> </u>	Ton ± 10%
Maximum Force		27.5 Mpa 24 L
Hydraulic Pressure		94.8 cm 10.5
Hydraulic Oil Capacity		cm/s 4.3 cm/s
Ram Travel		7.5 cm/s ≤80
		db(A) 2.5 m/s <sup>2</sup>
Speed	Forward	` '
	Retract	105 cm 155
Noise Pressu	re Level (LpA)	cm 250 cm
Vibration		296.5 kg
Tibration		
O !!	Length Width	
Overall Sizes	Height	
Weight		

\* 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 splitterisdesignedfor 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 less than 50% at 40°C. It can be stored or transported under ambient temperatures between -25°C and 55°C.

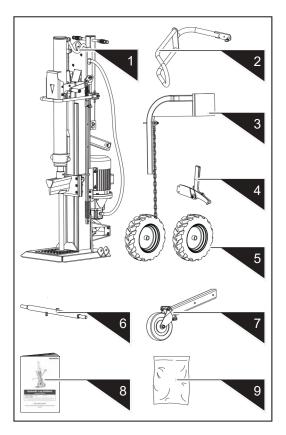
**ELECTRICAL REQUIREMENTS** 

With 3 phase 400 Volt / 50Hz motor, the log splitter should be connected to standard  $400V\pm10\%$  /  $50Hz\pm1\%Hz$ .

Electrical supply which has protection devices of under-voltage, over-voltage, over-current as well as a residual current device (RCD) which maximum residual current rated at 0.03A.

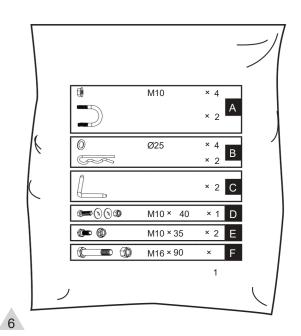
The mains connection and extension cable must have 5 wires = 3P + N + PE (3/N/PE). The mains connection must have maximum 16 A fuse. Electrical connection rubber cables must comply with EN60245 which are always marked with symbol H 07 RN. Cables should be identified, as it is a legal requirement.

## **CONTENTS SUPPLIED**



1.Log Splitter Frame & Power Station

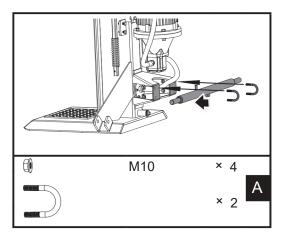
2.Guard Arm 3.Log Lift 4.Retaining Hook 5. Wheel 6.Wheel Shaft 7.Support Wheel 8.Operator's Manual 9.Hardware Bag, including



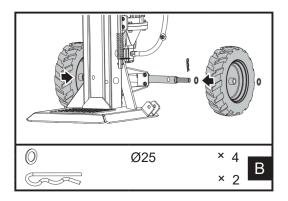
## **ASSEMBLY**

1. Attach the wheel shaft to the splitter

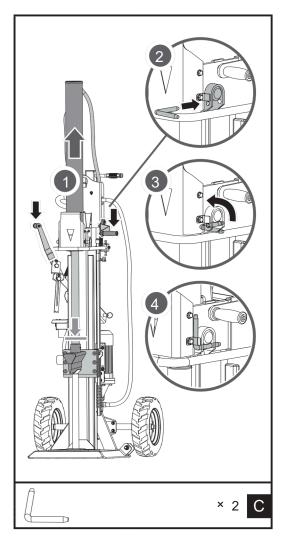
with U-bolts and lock nuts.



2. Place a washer onto the axle, then a wheel followed by another washer, and secure with a hairpin retainer. Repeat above procedure for the other side.

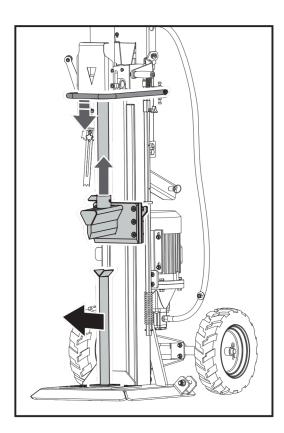


3. Keeping the support stand against the wedge, lower both control handles to expand wedge ram. Insert the L pins to secure the cylinde to the splitter. Lock the L pins into the spring tabs.

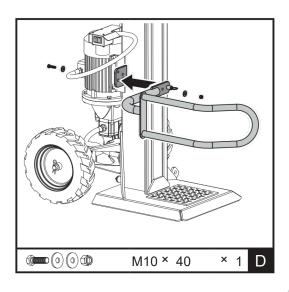




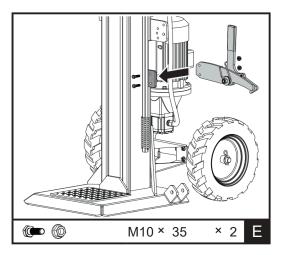
4. Release both control handles to retract the wedge ram. Remove the support stand.



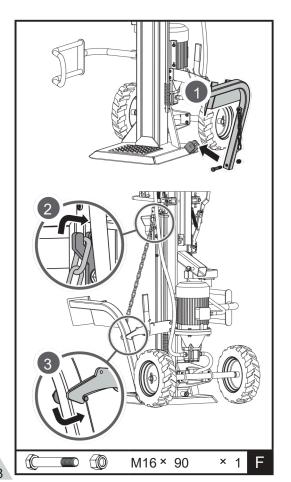
5. Align the hole and locking pin of the guard arm with the mount bracket. Secure the guard arm with a M10 × 40 hex bolts, two washers and a nut from the hardware bag.



6. Position the retaining hook onto the frame and secure with two M10×35 hex bolts and nuts.



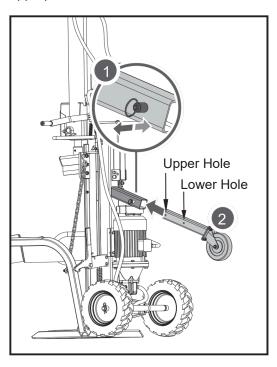
7. Præsitimonountithe blrægketliftandnsådlign with mounting bracket holes. Secure with a M16×90 hex bolt and nut. Hook the lift chain to wedge slide guide.



3.830.4 movement and 4.4.35.2.2.2.00

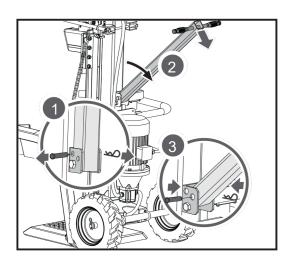
### **TRANSPORT**

Pull the spring pin and slide the square tube of the support wheel into the holder. Loosen the spring pin to fix it after selecting the appropriate hole.



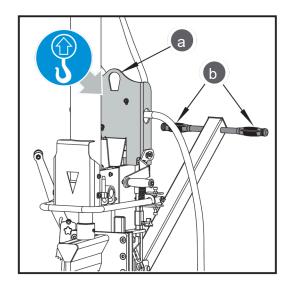
The transporting handle is fixed upright by the pin with clip for easier delivery.

Remove the clip and pin. lower the handle in the direction of the arrow as shown and secure it by fixing the pin with clip to the outer hole.



## DELIVERYING LOG SPLITTER TO WORK SITE

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



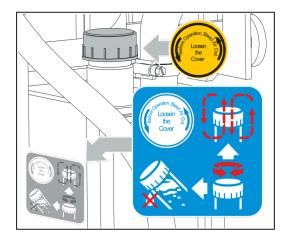


If using a crane, lay hoist sling at the lifting point (a). Never try to lift the log splitter at the Handle (b).

## SPLITTER OPERATION

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. Position the log splitter on solid level ground.

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



Bleed the air out of the hydraulic system before starting the log splitter. The cover of the hydraulic oil tank should be loosened by some rotations until air can go in and out of the oil tank smoothly.

Air flow thru the oil tank filler should be detectable during the operations.

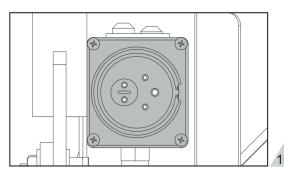
Before moving the log splitter, make sure the cover of the oil tank is tightened to avoid oil leaking from this point.



Failed to loosen the oil tank cover will keep the sealed air in hydraulic system being compressed after being decompressed. Such continuous air compression and decompression will blow out the seals of the hydraulic system and cause permant damage to the log splitter.

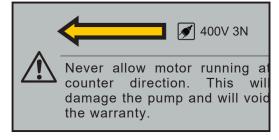
#### Motor

Turn the motor switch to the ON position to start the log splitter. To stop the machine, just turn the motor switch to the OFF position.



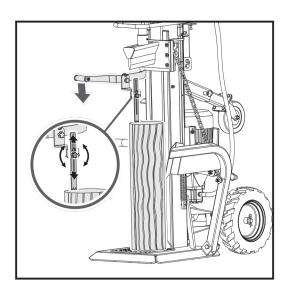
Make sure the direction of motor rotation. Turn the motor on, the wedge ram should rise to the highest position automatically. If the wedge ram is already at the highest position when the motor starts, grip both control levers and lower them, the wedge ram should start to move downward.

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.



#### Splitting

1.Place the log vertically
on the support table, so that it
lies flat on its face. Press the
left lever to lower the
extended log fixing claw
against the log to secure it.
The extended log fixing claw
can be adjusted to fit logs with
different heights.

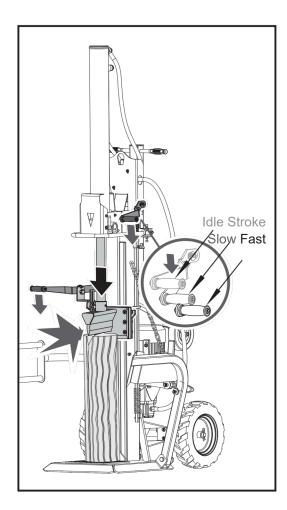


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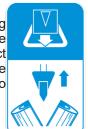
2.Hold the left press lever.

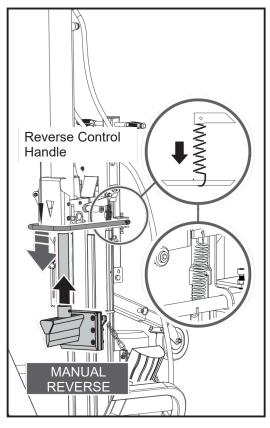
Meanwhile, move the
splitter wedge down by
pressing the right splitting
lever to the half stroke to
split the log slowly first and
then press it to the end
until the log is completely
split.





3.Return the splitter wedge to the starting position. Operate the spring-loaded retract control lever to lift wedge above the height of log to be split.





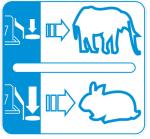


The spring is already connected to the handle in factory.

#### Splitting Lever

The splitting force and speed are governed by the splitting lever.

The first half stroke of the splitting lever is idle speed; press the splitting lever to the half stroke for maximum splitting force at slower speed to split the log at the beginning or particularly hard and seasoned logs;



Press the splitting lever to the end for faster speed at less splitting force to finish the splitting or to split usual logs.

It can be shifted by simply raising and lowering the splitting lever slightly.





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



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.



Do not remove jammed logs with your hands. Never use another people to help you with freeing jammed log.

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.



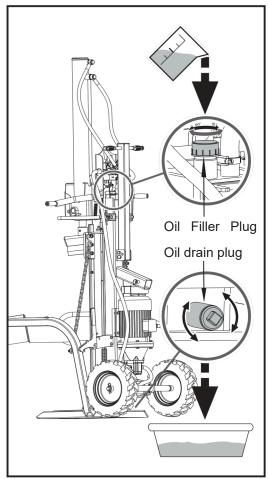
Accumulated split wood and wood chips can create a hazardous work environment. Never continue to work in a cluttered work area which may cause you to slip, trip or fall.

### REPLACING OIL

The hydraulic system is a closed system with oil tank, oil pump and control valve. Low oil levels can damage the oil pump. Check oil level regularly with dipstick. The oil should be completely changed once a year.

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



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

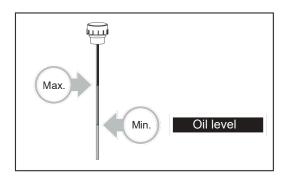
## FREE A JAMMED LOG

Do not remove jammed logs with your hands. If jammed, stop the motor and loosen the log by a downward stroke on the log with a hammer.

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

After oil has been completely drained from the machine, reinstall drain plug. Add the hydraulic transmission system with recommended oil through filler plug opening.





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.

Apply sealant to filler plug and reinstall it.

Following an oil change, activate the log splitter a few times without actually splitting.

## SHARPENING WEDGE

Thislog splitter is equipped with reinforced splitting wedge which blade 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

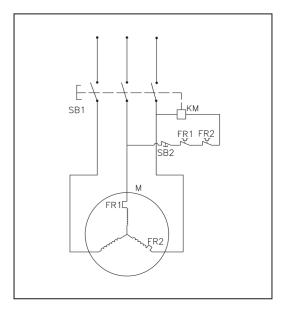
PROBLEM	PROBABLE CAUSE	REMEDY SUGGESTED
Motor does not start	Switch is OFF	ON the switch Change pole
Incorrect motor rotation direction	Incorrect connection	switching device in the plug with a polarity by electrician Check and tighten the parts
	Valve is not opened owing to the connection parts or connection parts or connection parts bent	
Log Splitter does not work while motor running		Repair the bent parts
	Lower hydraulic oil level	Check and refill hydraulic
Log Splitter works with abnormal vibration and noise	Lower hydraulic oil level	Check and refill hydraulic oil



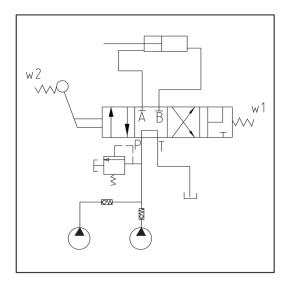
ATTENTION: ALL REPAIR WORK MUST BE DONE BY A SPECIALIST FOR THIS PRODUCT.



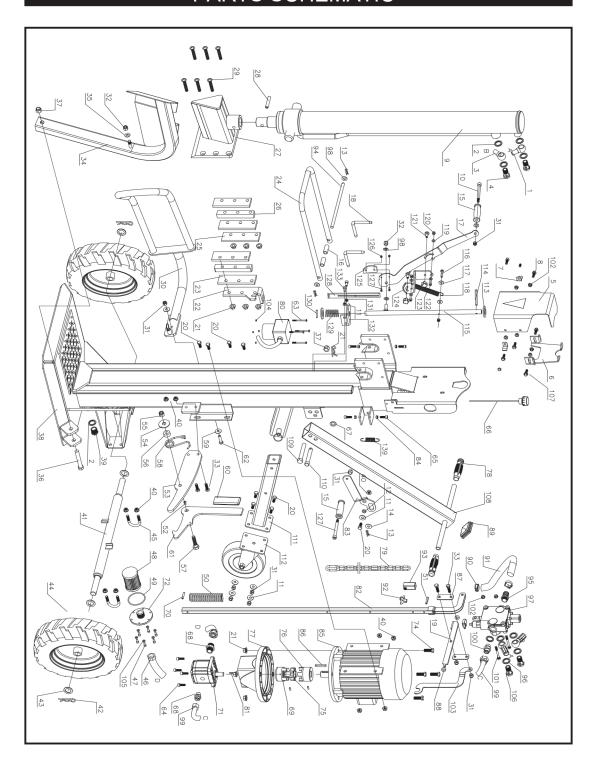
## WIRING DIAGRAM



## HYDRAULIC SYSTEM DIAGRAM



## PARTS SCHEMATIC





## Parts List

No.	Description	Q'ty
12	Upper High Pressure Hose	15
3 4	Seal Kit 22 Lower High	12
56	Pressure Hose D12 Hose Link	11
7 8	Upper Guard Cylinder Lock	24
9	Plate Pin Bolt M8x25 Cylinder	12
		8 2
		42
		22
		12
10 \$	Screw	1 10
11 1	2/1/3/s/h/e/1/501/65/h/7a/1/8	10 1
$\vdash$	052de2/2 23P2/4 25 26	41
27W	/&/d/geh/e/k/0m(@ing)	12
	Grip Sleeve	11
	Pressured Lever	81
	Cylinder Pin	72
	Operated Plate Bolt	4
	M10×25 Flange Nut	
	M12 Plate Right	
	Plate Middle Lock	
	Stop Plate Left	
	Clamp Plate	
28	Pin 12×70 Screw	
29	M12×70 Guard	
30	Bracket Left Locknut	
31	M10 Locknut M12	
32	Bolt M10×35	
33		

No.	Description	Q'ty
34 3	Masherula (Middle)	11
		12
36 3	78989116ing0F(Shet)Weldment	11
	Nut M16	12 1
		24
39 4	0P4494122×1.5	22
43W	asanggaBolt M10	16
	Wheel Axle Pin 4	11
		11
		11
44 4	5T <b>Vre</b> olt	11
		11
46	Inlet Hose	12
47	Screw M6×14	11
48	Oil Filter	14
	)-Ring80×3.1	4 4
	18 <b>52f63Sp#WgsPie</b> r6×35	1
	B&p)rew M6×10 Lift	
,	Frame Lock Plate	
55	<b>56</b> ut 1817/4	
Scre	Nuck Spring	
58 5	977. Vessett eTrot Si ((M. Kilphrier))g	
60 C	rip	
61 6	2Restaining Hook	
64 6	5366t M10×40	
Сар	Screw M4×60	
	Screw M8×30	
	Screw M8×25	

No.	Description	Q'ty
67 V	Vasher 16	12
68	Hose Fitting(Zg1/2-M22× 1.5	11
69	Coupler )	11
70P	n₁ ∮ 6×45	4 1
71 [	Pump	11
72 7	73FlZa4gZe5Bolt	21
76	M712×7455	11
Cha	inCoup <b>re</b> Ring	11
Swit	o6oup&@2 Cone	4 1
Splii	n <b>€</b> rame Handle	12
	Sleeve	11
		21
		11
		11
81 8	2 <b>083 v64</b> Bar	51
	Arm Right	61
	Nut M8	12
		1
85 8	8681ine8 8875091 5itting	
	921 ats 96 13 pwn shePlate	
	Leyer(Smalap Hose	
	Clamp 18-32 Oil	
	Return Hose D20 Knob	
	Regulating Sleeve	
	Lock Shaft Hose Fitting	
	Seal Kit 22 Valve	
_		
_		
98	High Pressure Hose	
98	Half Union	
	crew M8×65	
<u> </u>		
101	Washer 12 (Middle)	

No.	Description	Q'ty
102F	lange Nut M8	8 1
103	104bkuPM4te	4 6
105\	Vasher 6	22
		11
106	Valve Fitting	11
107	olt M8×30 108Draw Bar	12
Weld	ment 109Bolt M16×100	11
(Lon	g)	12
11	Pin 16 Straight	14
0	Weldment	3 2
112	Wheel Assy	22
1113	Washer 22	11
114	1Pi5Aใช้เชื9table Bar Weldment	22
		11
116	1971Waisher 8	12
(Mic	dle)	12
118	1RestetasTeension Spring	1
8		
1201	ock Nut M8 Bolt	
M2110	× <b>22</b> 02Bo <b>128</b> ×21024Log	
Aidjid	statilewHandle	
125	1 <b>B6Ny</b> ytFriction Pad	
M5		
127	1 <b>월9</b> 性統治협ed Log Fixing Claw	
12	Reset Spring	
<b>\$</b> 30I	in 5×35	
131	1 <b>3</b> മ്ലിൻ്33Gasket 10	
134	Տ <b>ֆւմpg</b> ort Plate Bolt	
	10×20	