

Model: CW8T520

1314

Electric / Hydraulic Log Splitter

OPERATOR'S MANUAL



Please read the manual first. It will help you assemble, prepare, operate and maintain the unit for best performance. Pay special attention to the safety instructions before operating. For future reference, please copy the model number and the serial number of the equipment you purchased in the space below.

Model Number:

Serial Number:

If you have difficulty or any problems regarding the assembling, operation or maintenance of this unit, please call customer support of an authorized dealer or the manufacturer.

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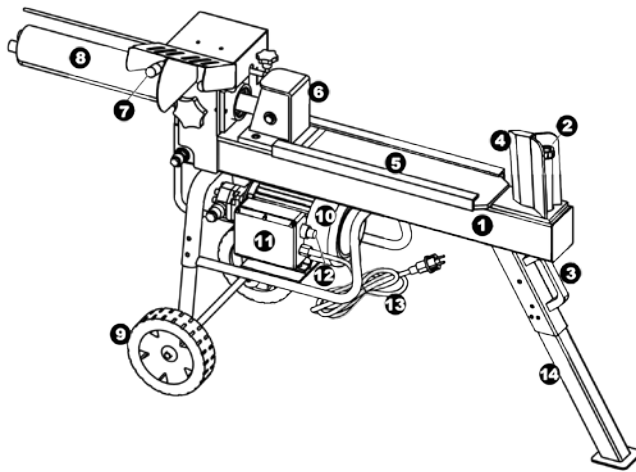
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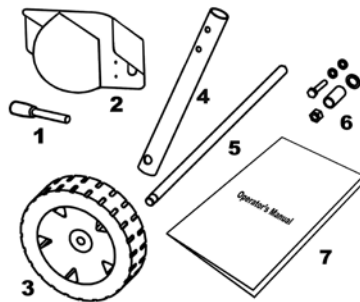
SECTION 1: Know Your Log Splitter

1. Machine overview



1. Hydraulic tank
2. Oil dipstick with vent cap
3. Towing handle
4. Wedge
5. Guiding plate
6. Ram
7. Control handle
8. Cylinder
9. Wheel
10. Electric motor
11. Connecting box
12. Switch
13. Power cable and plug
14. Front frame

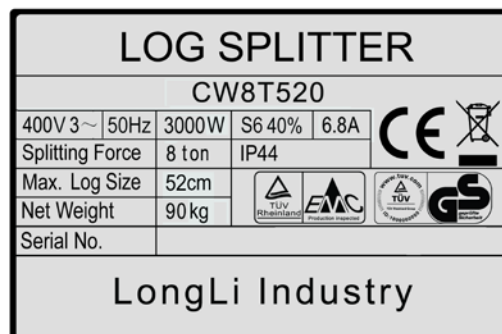
2. Accessories



1. Control handle barx2
2. Safe guardx1
3. Wheelx2
4. Wheel framex2
5. Wheel axisx1
6. Screws, washers & nuts
7. Operator's manualx1

3. Decals on machine

Locate model plate and safety label on the equipment. Read and follow the instructions in them.



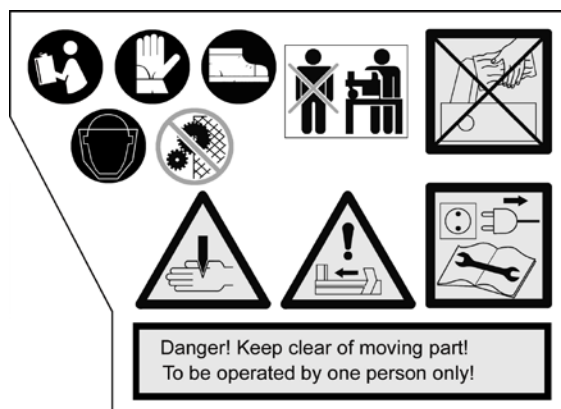
Model plate (CW8T520)

Note: 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.



WEEE label

- 1) The left figure means: Do not abandon the waste product freely; the product should be sent to relevant recycle organization.
- 2) Dispose of the packing in the proper manner. Should you wish to part with the product, dispose it in accordance with the latest provision. Regarding the detail information, please refer to us.



Safety label

Symbols meaning



Read the manual carefully before assembly, operation and maintenance.



Wear safety gloves.



Wear safety shoes or heavy boots.



Wear a protection mask or protective eye wear.



Don't touch the rotating parts.



Allow only one person to operate this machine, keep bystanders away.



Warning: Fill hydraulic oil before using!



Caution: Pinch point.



Warning: Moving parts. Never place body between log and ram during forward or reverse stroke.



Never remove stuck log or clean the wedge bare-handed.



Maintenance, installation adjustment and cleaning of the machine only once the power supply is disconnected according to the instructions in this manual.

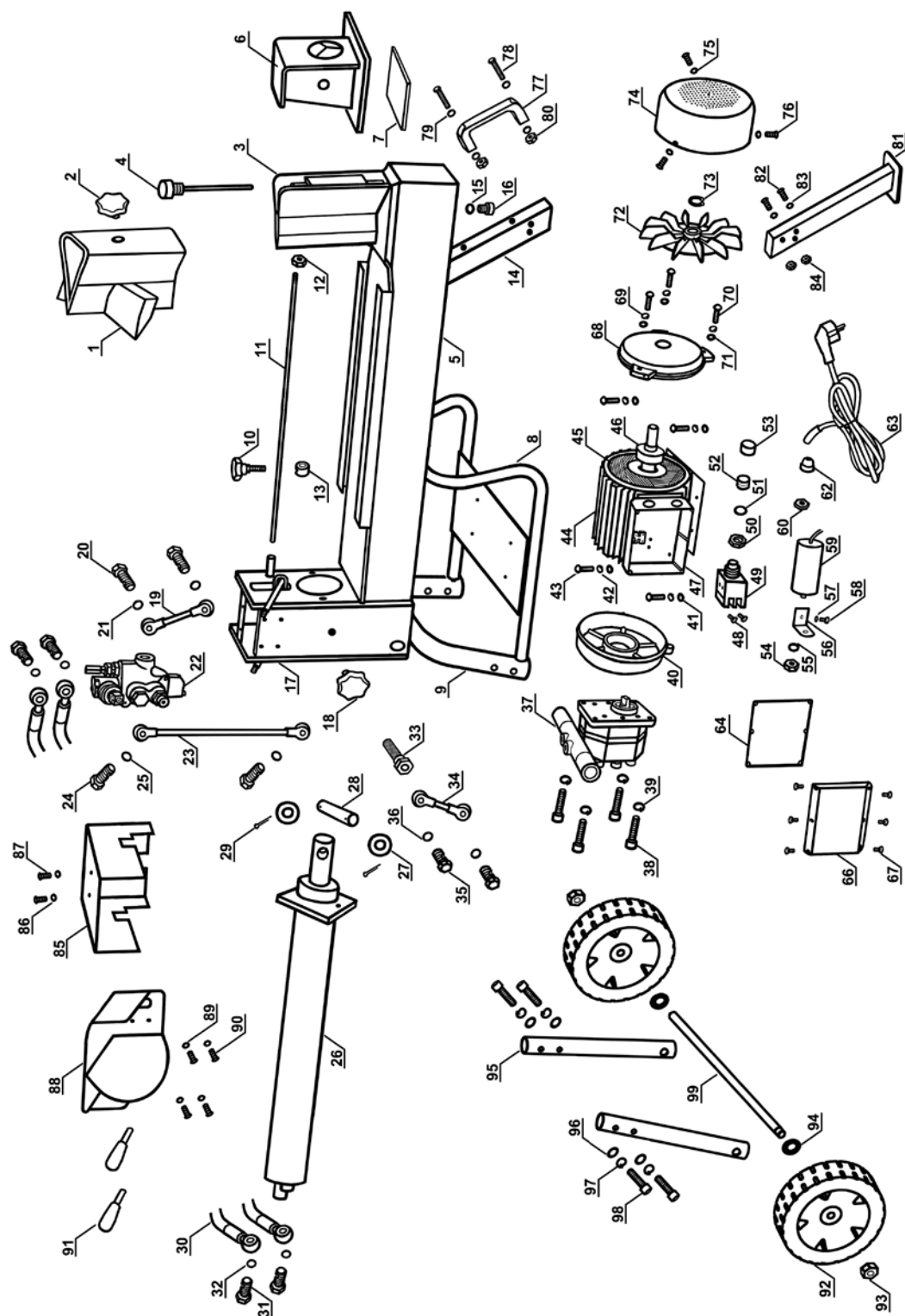
4. Technical specifications

Technical specifications		CW8T520
Electrical requirement	Voltage	400V±10%
	Frequency	50±1 Hz
	HVF	<0.02
Power input		3000W
Power output		2200W
Rated current		6.8 A
Motor speed		2800 rpm
Thermal protector		130°C
Protection degree		IP44
Motor working mode		S6 40%
Power cable		3G1.5mm ²

Technical specifications		CW8T520
Machine dimension (L×W×H) (cm)		111x33x51
Machine net weight		90kg
Min. oil capacity		5.2Liter
Max. splitting force		8ton
Max. splitting length		520mm
Max. splitting diameter		400mm
Min. splitting diameter		50mm
Inner hydraulic pressure		24MPa
Cylinder inner diameter		63mm
Feed time		10s
Retract time		8s
Noise emission value		≤70dB(A)
Vibration of control handle		≤2.5m/s ²

Environmental data			CW8T520
Operation	Altitude		≤1000m
	Temperature		5~40℃
	Humidity	40℃	≤50%
		20℃	≤90%
Transportation & storage temperature (℃)			-25~+50

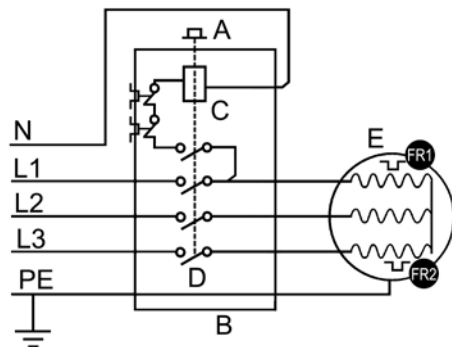
5. Component parts diagram



Note: Due to continuous product improvement, we reserve the right to change the product without prior notice.

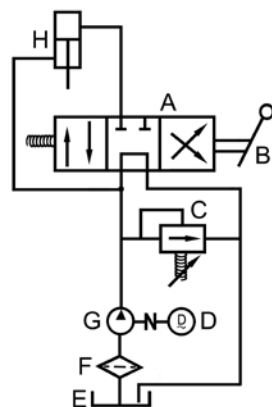
Ref. No.	Part Description	Ref. No.	Part Description
1—2	Optional cross wedge	40—43	Motor rear end plate assembly
3	Wedge	44	Motor shell
4	Dipstick	45	Stator
5	Tank	46	Rotator
6	Ram	47	Connecting box bottom assembly
7	Nylon liner	48—53	Key switch assembly
8	Motor frame	54—59	Capacitor assembly
9	Rear leg	60—62	Cable fastener assembly
10—13	Control rod assembly	63	Power cable and plug
14	Front leg	64	Rubber cover
15—16	Bolt assembly for draining oil	65—67	Connection box cover assembly
17	Valve encase	68—71	Motor front end plate assembly
18	Cylinder fixing knob	72—73	Fan assembly
19—21	Oil tube (valve-tank)	74—76	Fan cover assembly
22	Hydraulic valve	77—80	Towing handle assembly
23—25	Oil tube (pump-valve)	81—84	Long front frame assembly
26	Hydraulic cylinder	85—87	Main shield assembly
27—29	Cylinder-ram connecting assembly	88—90	Safe guard assembly
30—32	Hydraulic hose	91	Control handle
33	Oil filter	92—94	Wheel assembly
34—36	Oil tube (tank-pump)	95—98	Wheel frame assembly
37-39	Two stage pump w/ mount & coupler Assy	99	Wheel axis

6. Electric circuit principle diagram



- A. Key of switch
- B. Switch box
- C. Self-drive winding
- D. Switch
- E. Thermal protector
- F. Electric motor
- G. Live wire
- H. Ground wire

7. Hydraulic circuit principle diagram



- A. Hydraulic valve
- B. Control handle
- C. Relief valve
- D. Electric motor
- E. Hydraulic tank
- F. Oil filter
- G. Hydraulic pump
- H. Hydraulic cylinder

SECTION 2: Safe Operating Instructions

NOTE: This machine is only intended for homeowners to split firewood as detailed in instructions, not for any other purpose.

Danger This machine was built to be operated according to the safety instructions in this manual. As with any type of power equipment, carelessness or error on the part of operator could endanger the personal safety and/or property of yourself and others. It can result in serious injury or death, such as amputating hands or feet, throwing objects and other unforeseeable damage. Read and follow all instructions before initial operation. The manufacturer isn't liable for any damages by disregard of the instructions.

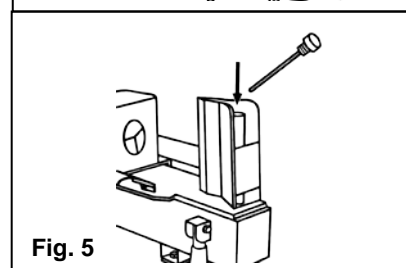
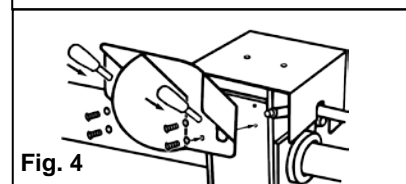
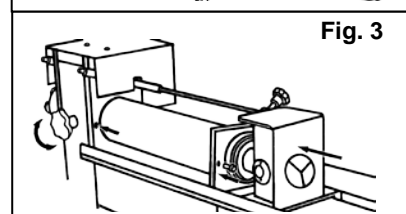
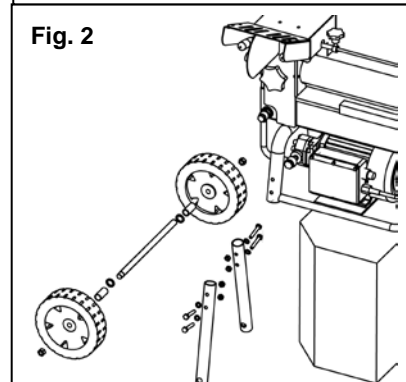
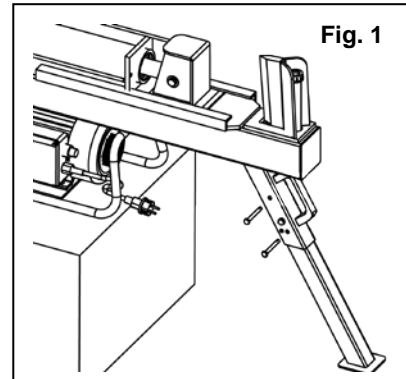
1. Assembling your log splitter

- Cut and remove straps bound to the carton and unpack the carton.
- Remove the loose parts included with unit (i.e., operator's manual, accessories, etc.).
- Set the foams aside.
- Put the machine on a sturdy level surface and assemble the long frames by two persons.

- 1) Put on the machine on a sturdy level surface, pull out the long front frame and fix it tightly. **(Fig. 1)**
- 2) One person takes care of the machine to avoid falling down during another person assemble the frames.
- 3) Screw on the two long wheel frames, and assemble the wheel axis. Then fix the two wheels. **(Fig. 2)**
- 4) Move the machine down by two persons.

- Fix the cylinder.
 - 1) Release the band to the hydraulic hoses.
 - 2) Loosen the cylinder fixing knob, push the cylinder backward. **(Fig. 3)**
 - 3) Screw on the two inner hex screws. **(Fig. 3)**
 - 4) Tighten the cylinder fixing knob again
- Connect the safe guard and the control handle bars **(Fig.4)**

- Fill the tank with universal hydraulic oil (3210W AW hydraulic fluid). **(Fig. 5)**
 - 1) Disconnect the dipstick.
 - 2) Fill the tank at least the range marked on the dipstick. If the tank permits, more oil added will do good to the hydraulic system for better operation
 - 3) After filling, insert the dipstick and tighten.
 - 4) Operate the unit fully extended for several times to repel out the air in the tank.



NOTE:

- a) Dispose of the packing in an environmental friendly manner. Take to a proper collecting point.
- b) If you notice transport damage while unpacking, notify your supplier immediately. Don't operate the machine.
- c) Read, understand and follow all safety instructions in this manual and labels on the equipment carefully.
- d) Keep the manual in a safe place for future and regular reference.
- e) Ensure the machine is disconnected from power supply while assembling.

2. Preparation before operating

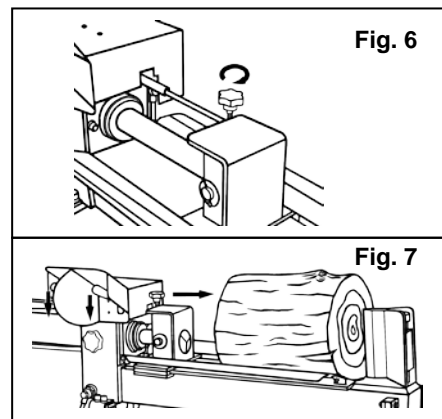
- Put the machine on the sturdy level surface, and fix the machine to the ground before operating better.
- Always block the wheels to prevent movement of the log splitter while in operation
- Oil the wedge and upper side of the tank, which would make your operating more smoothly.
- Check all nuts, bolts and hydraulic fittings are tight to be sure the equipment is in safe working condition.
- Make sure your outlet, mains voltage and frequency match the data stated on the model plate (or "Technical specifications" in this manual
- The power supply for this splitter must have the protection device of under-voltage, over-voltage, and circuit breaker with a residual current device (RCD) which maximum residual current rated at 0.03A.
- Check the switch, power cable and plug are not damaged (no cracks, etc.) to exclude the risk of electric shock and circuit short.
- Check all safe devices to be sure they are in the proper position.
- Wear non-slip safety shoes, safety goggles, safety gloves and suitable work clothing. Never wear jewelry, necktie and other loose clothing.
- Logs should be cut with square ends and permissible dimensions in advance. Uneven log (e.g. knotted, curved, etc) should not be cut.

NOTE:

- a) Make sure the power cable is unplugged while adjusting.
- b) After adjusting, take away the accessories on or around the unit before switching on.
- c) Ensure the motor properly earthed or apply protection device.
- d) Use only rubber-jacketed cable of sufficient lead cross section as extension cable. Never use an extension cord longer than 25 feet. Cord gage must be 14 or lower
- e) Keep away from inflammable liquids or gases before starting the machine.
- f) Hydraulic oil is flammable and can explode. Always take a Class B fire extinguisher with you when operating this log splitter in dry area as a precautionary measure against possible flying sparks.
- g) Always check the oil level of the hydraulic reservoir before operation. Operating the log splitter without an adequate oil supply will cause severe damage to the pump.
- h) Keep handles free of oil, grease and resin.
- i) Before starting work, hydraulic pipes and hoses shall be inspected and the stopping devices should be tested.
- j) Selection and preparation of a suitable working are free from obstructions.
- k) The need to keep the working area free from obstructions, e.g. logs, split wood, etc.
- l) Check on the function of the machine: operate two control handles without loading to check whether this unit works normally (Refer to terms **3. Operation** below).

3. Operation

- Plug the power cable and switch on.
- Allow the motor to run no-loaded for a while, and then switch off. Cool the machine for 15 minutes then switch on again to operate.
- Adjust the control rod according to the logs length needed. Let the wedge go forward, stop the ram where you needed, then tighten the control knob again. **(Fig. 6)**
- Load log between log cradles and on the tank. Move both control handles down until the log is split. **(Fig. 7)**
- Release any control handle to stop the ram extending.
- Release both control handles to retract the ram for loading next log.
- After log splitting, switch off and unplug the power cable.



NOTE:

- a) After log splitting, switch off and unplug the power cable.
- b) Ensure the horizontal distance between splitter and outlet is more than 3m in case of the dust influence.

- c) Allow only responsible adults who have read and understood the manual to operate this machine.
- d) Be familiar with all controls and proper operation. Know how to stop the machine quickly in the event of an emergency.
- e) Don't operate the machine while under the influence of alcohol, drugs or medication.
- f) Only a single operator is allowed to load and operate this log splitter. Keep bystanders, helpers, pets and children a sufficient distance to the machine.
- g) Only use your hands to operate the control handle and switch. Arms, feet, knees, rope, heavy objects and extension device are not allowed.
- h) Never put any part of your body between the log cradle and the wedge.
- i) Don't step over the splitter when the motor is running.
- j) Always split log along its grain. If across the grain, some types of wood may burst or fly out resulting in injury.
- k) If you experienced problems splitting especially hard wood, don't keep pushing on the handles. Release both control handles at once, the ram will return. If keep pushing, the ram will fail to retract. If this occurs, turn off the motor and on again to continue operation.
- l) If the log is clipped on the wedge, release both hands, switch off and unplug the power cable immediately. Knock off the log with a hammer slightly (not with your hands).
- m) Never attempt to split more than one log at a time unless the ram has fully extended and a second log is needed to complete the separation of the first log. Never attempt to split one log on top of another.
- n) Regularly clear the split wood to keep work area tidy for firm footing.
- o) Periodically check that all nuts, bolts, screws, hydraulic fittings and hose clamps are tightened.
- p) Never operate your splitter on wet, muddy or icy surface. Safe footing is essential in preventing accidents.
- q) Never leave the machine unattended with the motor running.
- r) Never use this machine in damp or rainy environment to avoid electric shock or short circuit.
- s) Operate log splitter in proper lighting.
- t) Never tamper with the motor to run it at excessive speeds. The maximum motor speed is preset by the manufacturer and is within safety limits.
- u) Switch off and unplug power cable quickly when the machine is out of order. For example: the noises becoming louder and the wedge running erratic indicate there's a shortage of hydraulic oil in tank for you to add hydraulic fluid.
- v) Don't pull on power supply cable to unplug.

4. Transportation

- Hold the towing handle to move about slowly.
- If take the unit for a long distance, please recover the machine as you had unpacked it from the carton.

NOTE:

- a) Never move this machine while the motor is running.
- b) Be extra cautious when moving this machine on rugged and rough terrain.
- c) Be careful to keep upright, not to be tipped or crashed during transportation
- d) Never allow anyone to ride on the machine while moving.

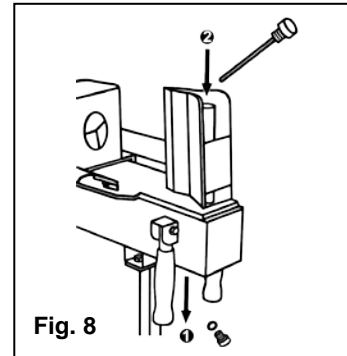
5. Maintenance and repair

- Refer to the Components drawing and parts list should it become necessary to disassemble the unit for repair or replacement of parts.

NOTE:

- a) Ensure the power cable is unplugged while performing any maintenance and repair.
- b) The hydraulic system is preset at the factory. Don't adjust the valve.
- c) Never alter this machine in any manner under any circumstances. Any alteration circumventing the design capabilities and capacities of this machine could result in serious injury and will void the warranty.
- d) Replace all damaged and worn parts immediately with original equipment manufacturer's parts only.
- e) Wipe unit with an oiled rag to prevent rust. If the wedge becomes dull or nicked, it can be sharpened. Wear safety gloves while handling the wedge.
- f) Never check for leaks of hydraulic fluid with your hand. Escaping fluid under pressure can have sufficient force to penetrate skin causing serious personal injury or even death. Leaks can be detected by passing a piece of cardboard over the suspected leak and looking for discoloration.
- g) Never loosen or remove hydraulic fittings or the cap of hydraulic tank while the log splitter is running.
- h) If the motor is overload for a long time, the thermal protector in it which operating temperature is 130°C will disconnect the power of motor. Switch off and unplug the power cable, cool down the motor for half an hour and it will connect again for continual operation. If not, it's necessary for you to call your dealer for customer support.

- i) The troubles of hydraulic system and motor other than described above should only be handled by qualified specialists.
- j) Periodically check the oil level in the hydraulic reservoir. If there's a slow or erratic ram running during operation, it indicates the problem of oil shortage or excessive air in the reservoir. To solve this problem, please refer to the following Term 5. I).
- k) After each season use, check if the hydraulic oil need to change. Generally, this log splitter has oil filter in the tank, so just change the oil when there's abnormal louder noise or ram block during operation. To solve this problem, please refer to the following Term 5. I).
- l) **Directions: how to changing hydraulic oil, fill the hydraulic reservoir and repel the excessive air in the reservoir. (Fig. 8)**
 - If you want to change the oil, please drain the tank firstly. Put some container under the front of the tank, raise the wheels 5cm off the ground on blocks.
 - Disconnect the bolt under the front of the tank to drain the tank.
 - Deposit the hydraulic fluid for refilling or change the new oil (32W AW hydraulic fluid).
 - After draining, screw on the bolt tightly.
 - Refill the tank at least within the range marked on the dipstick. If the tank permits, more oil added will do good to the hydraulic system for better operation
 - After refilling, start the motor and operate the unit fully extended for several times to repel out the air in the reservoir.
 - When make sure the oil level is OK and no excessive air in the tank, insert and tighten the dipstick.



Note: The hydraulic tank is shipped with 32 W AW hydraulic fluid in hydraulic cylinder. If it's difficult to obtain, Dextron III automatic transmission fluid can be substituted. You must drain the system. Don't mix Dextron III automatic transmission fluid and 32 W hydraulic fluid. Use only clean oil and take care to prevent dirt from entering the hydraulic reservoir.

6. Storage

NOTE:

- a) Store this unit switched off and unplugged.
- b) Allow machine to cool 5 minutes after every use before storing.
- c) Protect power supply cable from heat, sunshine, aggressive liquids and sharp edges.
- d) Store unit in a clean, dry area. Don't store it unprotected outdoors, next to corrosive materials or in damp environment.
- e) Store this splitter where children can't start it.