

FOR YOUR SAFETY

**READ AND UNDERSTAND THE ENTIRE MANUAL
BEFORE OPERATING MACHINE**

MODEL NUMBER : C070 

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.

Save This Manual for Future Reference

 **7 TON VERTICAL LOG SPLITTER**

Owner's Manual

TABLE OF CONTENTS

Introduction	2
Specifications	2
Symbols	2
Safety	3
Application Conditions	7
Unpacking	7
Contents of Shipping Container	8
Set up and Preparation for Operation	8
Delivering Log Splitter to Work Site	10
Log Splitter Operation	10
Replacing Hydraulic Oil	12
Sharpening Wedge	12
Trouble Shooting	13
Plumbing Diagram	13
Parts Schematic	14

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.

Your log splitter has many features that will make your job faster and easier. Safety, performance, and dependability have been given to top priority in the development of this machine, making it easy to maintain and operate.

The **Engine Manufacturer** is responsible for all engine-related issues with regards to performance, power rating, specifications, warranty and service. Please refer to the **Engine Manual**, packed separately with your unit, for more information.

Specifications

Model Number	C070	
Power	4780W	
Log Size Capacity	Dia.	12 cm ~ 32 cm
	Length	104 cm / 78 cm / 52 cm
Maximum Force	7 t	
Hydraulic Pressure	17.8 Mpa	
Hydraulic Oil Capacity	6 L	
Ram Travel	475mm	
Forward Speed	4.9cm / sec.	
Retract Speed	22.3cm / sec	
Noise Pressure Level	88.1dbA under no load ; 93.0dbA under full load	
Overall Sizes	Length	107cm
	Width	46 cm
	Height	103 cm
Weight	125 kg	

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.



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



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



Wear safety footwear.



Wear safety gloves.



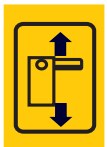
Wear eye protection.
Wear hearing protection.



Do not smoke or have open flames.



Keep bystanders away from the working area.



Avoid injury from the movement of the splitting blade.



Always keep hands out of the path of all moving parts.



Do not remove jammed logs with your hands.



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



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



Do not touch a hot muffler, gear housing or cylinder.



Caution! Thrown objects.

SAFETY

General Safety Rules

Understand your machine

Read and understand the operator's manual and labels affixed to the machine. 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. Know how to stop the machine and disengage the controls quickly.

Make sure to read and understand all the instructions and safety precautions as outlined in the **Engine Manual**, packed separately with your unit. Do not attempt to operate the machine until you fully understand how to properly operate and maintain the **Engine** and how to avoid accidental injuries and/or property damage.

Work area

Never start or run the engine inside a closed area. The exhaust fumes are dangerous, containing carbon monoxide, an odorless and deadly gas. Operate this unit only in a well ventilated outdoor area.

Never operate the machine without good visibility or light.

Never operate the machine on a steep slope.

Personal safety

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

Dress properly. Wear heavy long pants, boots and gloves. Do not wear loose clothing, short pants, jewelry of any kind. Secure long hair so it is above shoulder level. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.

Use safety equipment. Any log splitter may throw foreign objects into the eyes. This can cause permanent eye damage. Always wear eye protection. Safety equipment such as a dust mask, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

Never tamper with safety devices. Check their proper operation regularly.

Do not use the machine if the engine's throttle control does not turn it on or off. Any gasoline powered machine that can not be controlled with the engine throttle control is dangerous and must be replaced.

Stay alert, watch what you are doing and use common sense when operating the machine.

Do not overreach. Do not operate the machine while barefoot or when wearing sandals or similar lightweight footwear. Wear protective footwear that will protect your feet and improve your footing on slippery surfaces. Do not stand on the machine. Keep proper footing and balance at all times. This enables better control of the machine in unexpected situations.

Avoid accidental starting. Be sure the engine's throttle control is off before transporting the machine or performing any maintenance or service on the unit. Transporting or performing maintenance or service on a machine with its throttle control on invites accidents.

Fuel safety

Fuel is highly flammable, and its vapors can explode if ignited. Take precautions when using to reduce the chance of serious personal injury.

When refilling or draining the fuel tank, use an approved fuel storage container while in a clean, well-ventilated outdoor area. Do not smoke, or allow sparks, open flames or other sources of ignition near the area while adding fuel or operating the unit. Never fill fuel tank indoors.

Keep grounded conductive objects, such as tools, away from exposed, live electrical parts and connections to avoid sparking or arcing. These events could ignite fumes or vapors.

Always stop the engine and allow it to cool before filling the fuel tank. Never remove the cap of the fuel tank or add fuel while the engine is running or when the engine is hot. Do not operate the machine with known leaks in the fuel system.

Loose the fuel tank cap slowly to relieve any pressure in the tank.

Never overfill fuel tank. Fill tank to no more than 12.5mm (1/2") below the bottom of the filler neck to provide space for expansion as the heat of the engine and/or sun cause fuel to expand.

Replace all fuel tank and container caps securely and wipe up spilled fuel. Never operate the unit without the fuel cap securely in place.

Avoid creating a source of ignition for spilled fuel. If fuel is spilled, do not attempt to start the engine but move the machine away from the area of spillage and avoid creating any source of ignition until fuel vapors have dissipated.

Store fuel in containers specifically designed and approved for this purpose.

Store fuel in a cool, well-ventilated area, safely away from sparks, open flames or other sources of ignition.

Never store fuel or machine with fuel in the tank inside a building where fumes may reach an spark, open flame, or any other sources of ignition, such as a water heater, furnace, clothes dryer and the like. Allow the engine to cool before storing in any enclosure.

Machine use and care

Never pick up or carry a machine while the engine is running.

Walk, never run with the machine.

Do not force the machine. Use the correct machine for your application. The correct machine will do the job better and safer at the rate for which it was designed.

Do not change the engine governor settings or over-speed the engine. The governor controls the maximum safe operating speed of the engine.

Do not run the engine at a high speed when you are not splitting.

Do not put hands or feet near moving parts.

Avoid contact with hot fuel, oil, exhaust fumes and hot surfaces. Do not touch the engine or muffler. These parts get extremely hot from operation. They remain hot for a short time after you turn off the unit. Allow the engine to cool before doing maintenance or making adjustments.

If the machine should start to make an unusual noise or vibration, immediately shut off the engine, disconnect the spark plug wire, and check for the cause. Unusual noise or vibration is generally warning of troubles.

Use only attachments and accessories approved by the manufacturer. Failure to do so can result in personal injury.

Maintain the machine. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the machine's operation. If damaged, have the machine repaired before use. Many accidents are caused by poorly maintained equipment.

Keep the engine and muffler free of grass, leaves, excessive grease or carbon build up to reduce the chance of a fire hazard.

Keep splitting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

Never douse or squirt the unit with water or any other liquid. Keep handles dry, clean and free from debris. Clean after each use.

Observe proper disposal laws and regulations for gas, oil, etc. to protect the environment.

Store idle machine out of the reach of children and do not allow persons unfamiliar with the machine or these instructions to operate it. Machine is dangerous in the hands of untrained users.

Service

Before cleaning, repair, inspecting, or adjusting, shut off the engine and make certain all moving parts have stopped. Always make sure the engine's throttle control is in its "STOP" position. Disconnect the spark plug wire, and keep the wire away from the plug to prevent accidental starting.

Have your machine serviced by a qualified repair personnel using only identical replacement parts. This will ensure the safety of the machine maintained.

Specific Safety Rules

Avoid dangerous condition. 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 in poor mechanical conditions.

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 operation. 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 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 adults.

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 flush with the trunk.

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 devices.

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 your hands, if jammed, follow the under mentioned instruction to remove the log. Stop the motor. Loosen the log by a downward stroke on the log with a hammer.

Don't force tool. 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. Stop the machine when not in use, before making adjustments, changing parts, cleaning, or working on the log splitter. Consult technical manual before servicing.

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.

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.

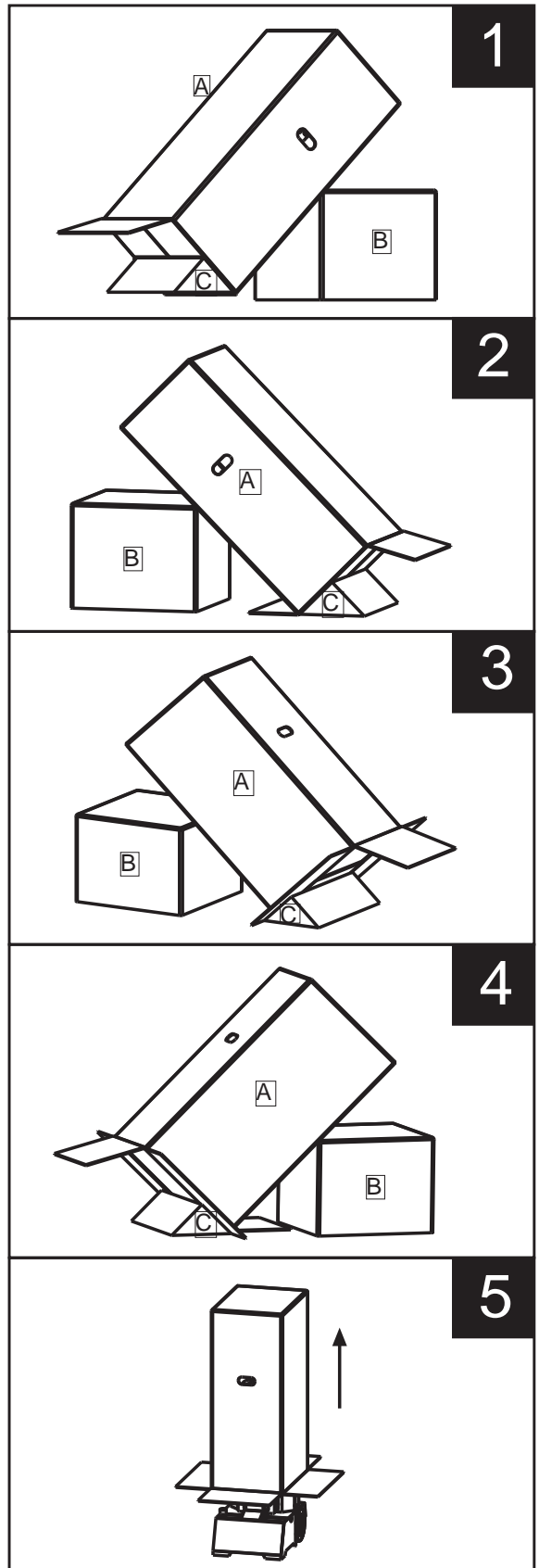
Make the workshop childproof. When not in use, lock the unit in the workshop. Store the log splitter away from children and others not qualified to use it.

APPLICATION CONDITIONS

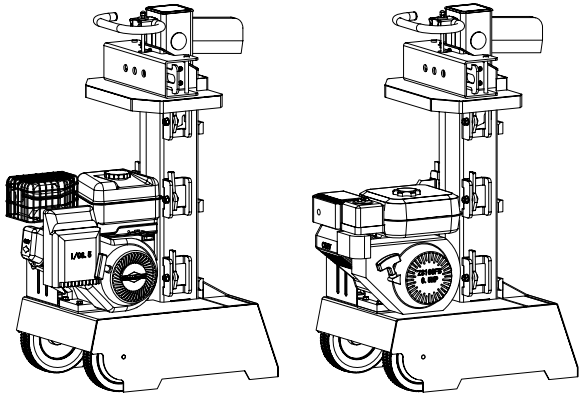
This log splitter is designed for operating under ambient temperatures between +5°C and 40°C and for installation at altitudes no more than 1000m above M.S.L. The surrounding humidity should be less than 50% at 40°C. It can be stored or transported under ambient temperatures between -25°C and 55°C.

UNPACKING

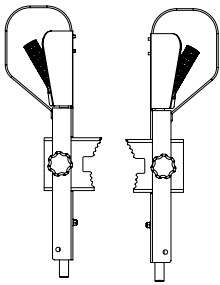
At least 2 people are required to unpack the log splitter package. Take the following steps to put the Log Splitter on the ground by tipping every side of the carton by 45 degree. Make sure put Block (B) to support the Log Splitter package (A) at the point a little higher than the middle. The other side of Block (B) shall be against steady objects, such as a wall. Wedge (C) shall be arranged under the tipped Log Splitter Package (A) every step to avoid slipping. Then remove the carton off the Log Splitter.



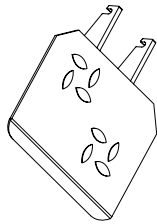
CONTENTS OF THE SHIPPING CONTAINER



A



B



C

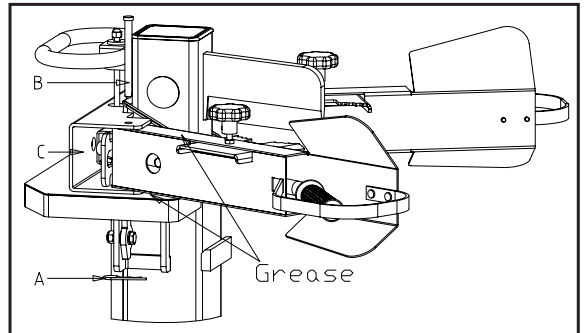


D

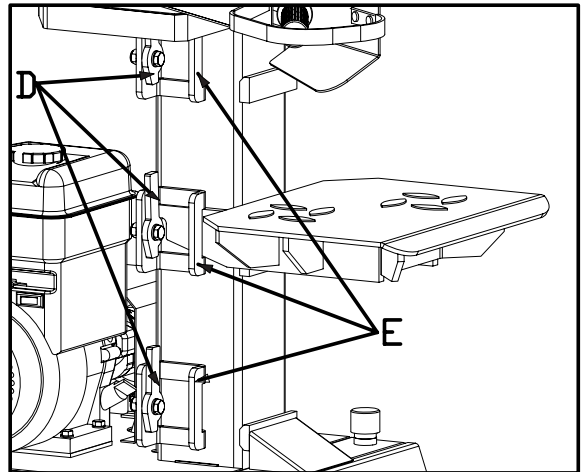
- A. Log Splitter Frame1 set
- B. Control Lever and Guard Assy..... 2 sets
- C. Removable Support Table.....1 pc
- D. Owner's Manual2 pcs

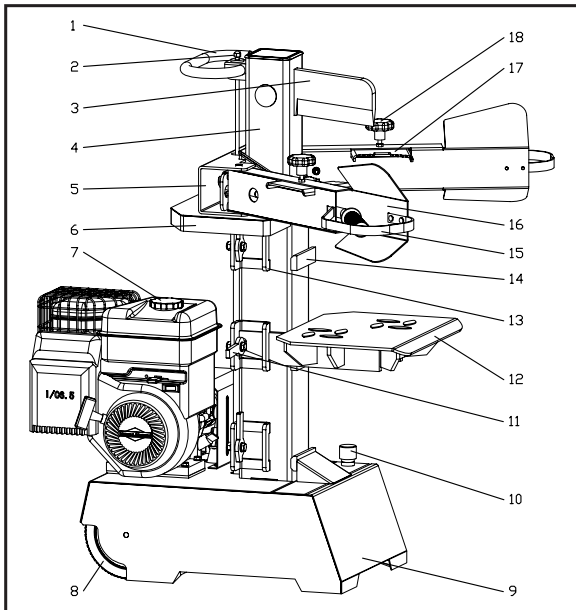
SET UP AND PREPARATION FOR OPERATION

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.



Three installation positions are available for the Support Table for different splitting length. At every installation position, Lock Down Hooks (D) are available. Insert the Support Table in the selected Brackets (E). Turn the Lock Down Hooks (D) on both sides by 90 degrees to lock the Support Table down.

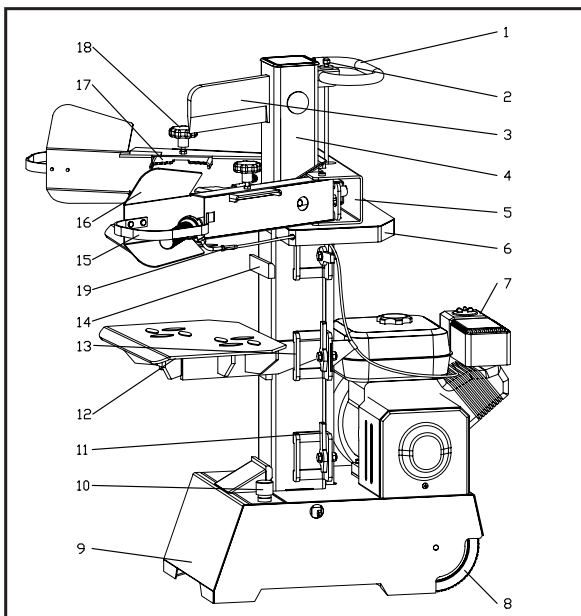




Engine type:122432

Familiarize yourself with the controls and features of this log splitter in the illustrations.

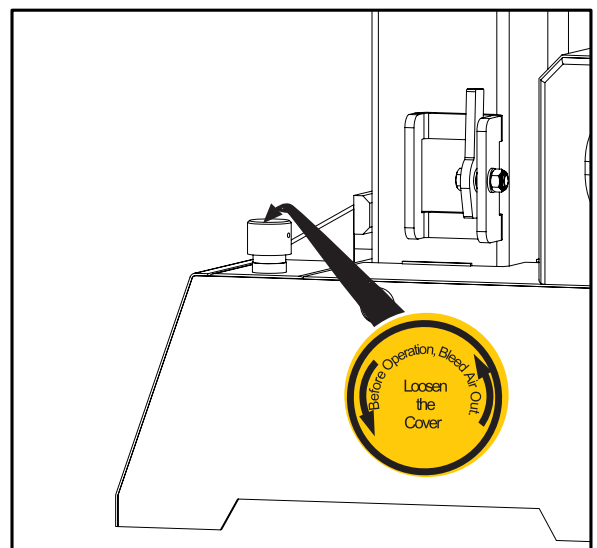
1. Transport Handle
2. Ram Travel Adjusting Rod
3. Split Wedge
4. Ram
5. Control Levers Connection Bracket
6. Top Motor Shield
7. Oil Tank
8. Wheels
9. Base
10. Oil Tank Cover / Air Bleeder
11. Table Lock Down Hook
12. Support Table
13. Side Bracket for Support Table
14. Front Bracket for Support Table
15. Control Lever
16. Control Lever Guard
17. Adjustable Log Holder
18. Log Holder Adjusting Knob
19. Accelerator Draw Tube



Engine type:ZS168F8

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.

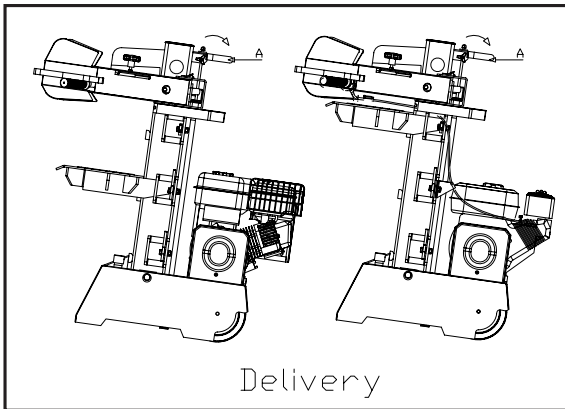




FAILED TO LOOSEN THE OIL TANK COVER WILL KEEP THE SEALED AIR IN HYDRAULIC SYSTEM BEING COMPRESSED AFTER BEING DECOMPRESSED. SUCH CONTINUOUS AIR COMPRESSION AND DECOMPRESSION WILL BLOW OUT THE SEALS OF THE HYDRAULIC SYSTEM AND CAUSE PERMANENT DAMAGE TO THE LOG SPLITTER.

DELIVERING LOG SPLITTER TO WORK SITE

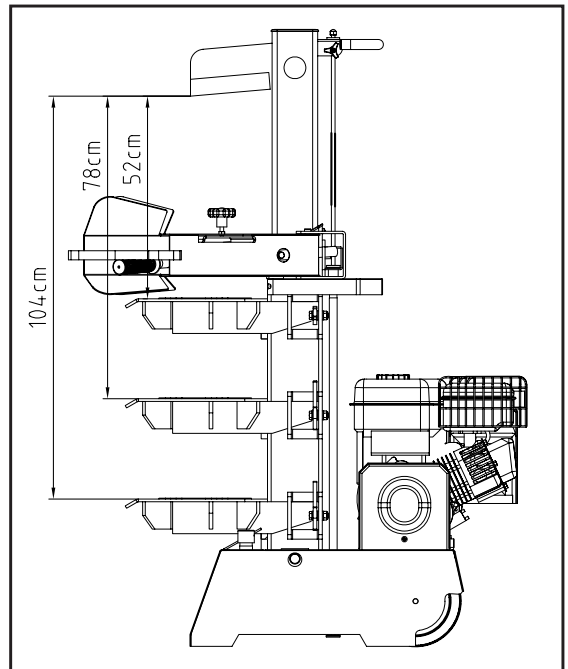
The log splitter is equipped with 2 wheels for minor moving. To move the log splitter to the work site, grip the handle (A) to tilt the log splitter slightly after making sure the oil tank cover is tightened.

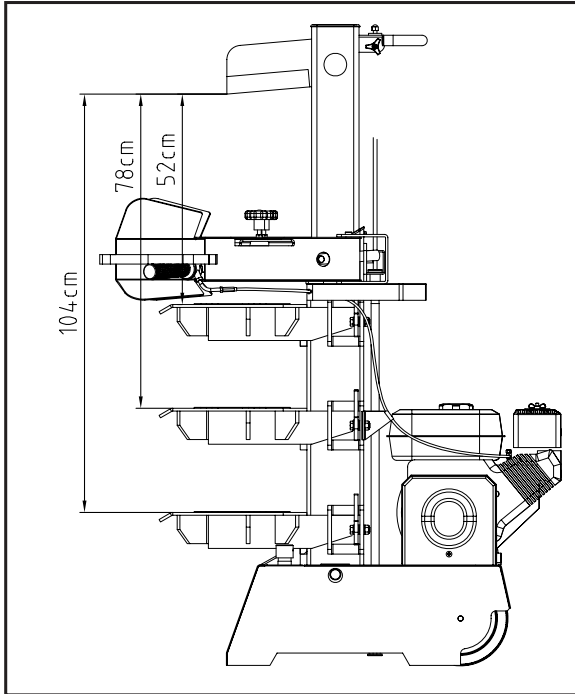


If using a crane, lay hoist sling around the housing. Never try to lift the log splitter at the Handle (A).

LOG SPLITTER OPERATION

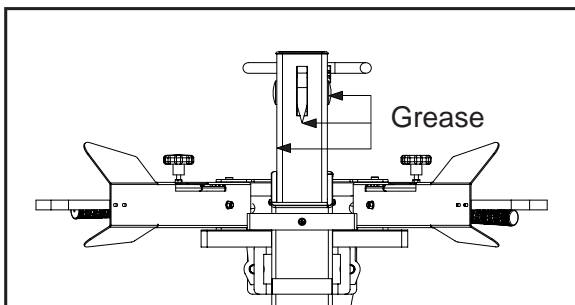
1. Plan your work site. Work safely and save effort by planning your work beforehand. Have your logs positioned where they can be easily reached. Have a site located to stack the split wood or load it onto a nearby truck or other carrier.
2. Prepare the logs for splitting. This splitter accommodates logs up to 104cm in length. When cutting up limbs and large sections, do not cut sections any longer than 100cm. With 3 support table positions for splitting for 52cm, 78cm 104cm in length, insert the support table in a position nearest the log length, and secure the support table with the locking hook.





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

3. Before operation, applying a thin coat of grease to the surfaces of the ram will lengthen the durability of the ram.



4. Open the Air Bleed. Loosen the oil tank cover a few turns whenever the splitter being used. Retighten this cover when you finish.

5. 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.

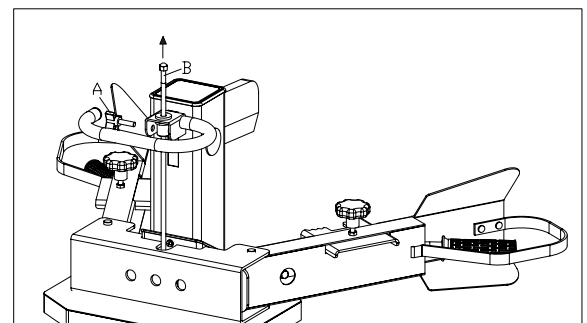
6. While operating under extremely low temperature, keep the log splitter running under no load for 15 minutes to preheat the hydraulic oil.

7. Before initial operation, check to be sure the two-handed operation is properly functioned by following steps:


- (1) Lower both control levers, splitting wedge lowers to approx 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.

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

- (1) Move splitting wedge to the 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 the motor.
- (3) Release the Setscrew (A) with L key. Raise Adjusting Rod (B) until Adjusting Rod (B) is started to be stopped by the spring inside. Tighten the Setscrew (A).
- (4) Release both control levers and start motor.
- (5) Check the upper position of the splitting wedge.

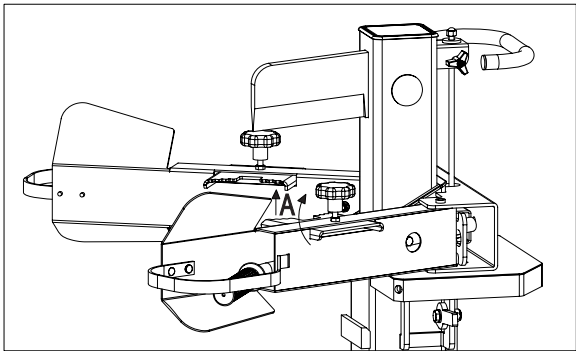


9. Place log onto splitter. Place the log onto the support table vertically and sitting flat on the support table. Be sure the wedge and support table will contact the log squarely on the ends. Never attempt to split a log at an angle.

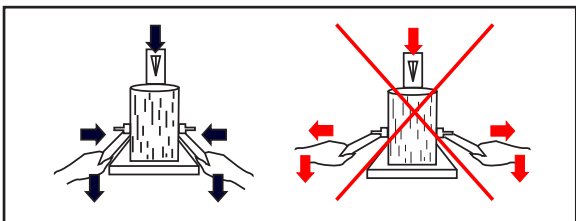


Break log in the direction of its growing grain. Do not place log across the log splitter for splitting. It may be dangerous and may seriously damage the machine.


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



11. 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. Release both handles to return the splitting wedge to the upper position.



12. Stack as you work. This will provide a safer work area, 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.

- 1 Make sure moving parts stops and the engine is stopped.
- 1 Make sure that no dirt or debris finds its way into the oil tank
- 1 Collect used oil and responsibly recycle.
- 1 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

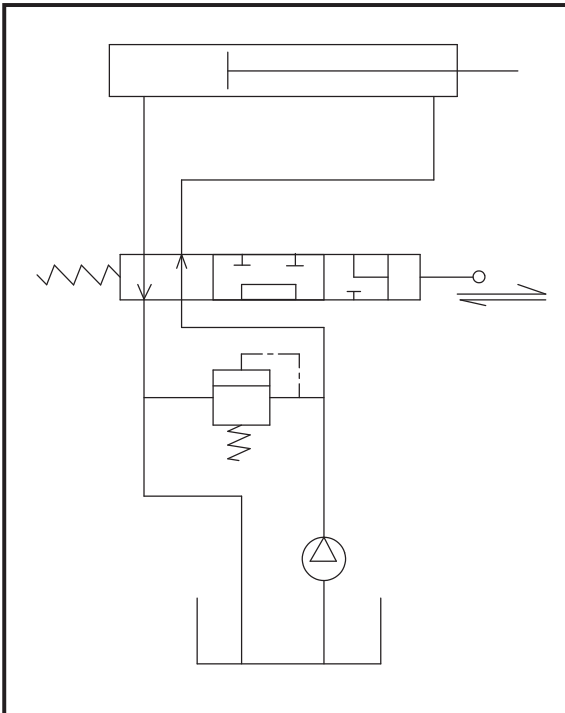
SHARPENING WEDGE

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

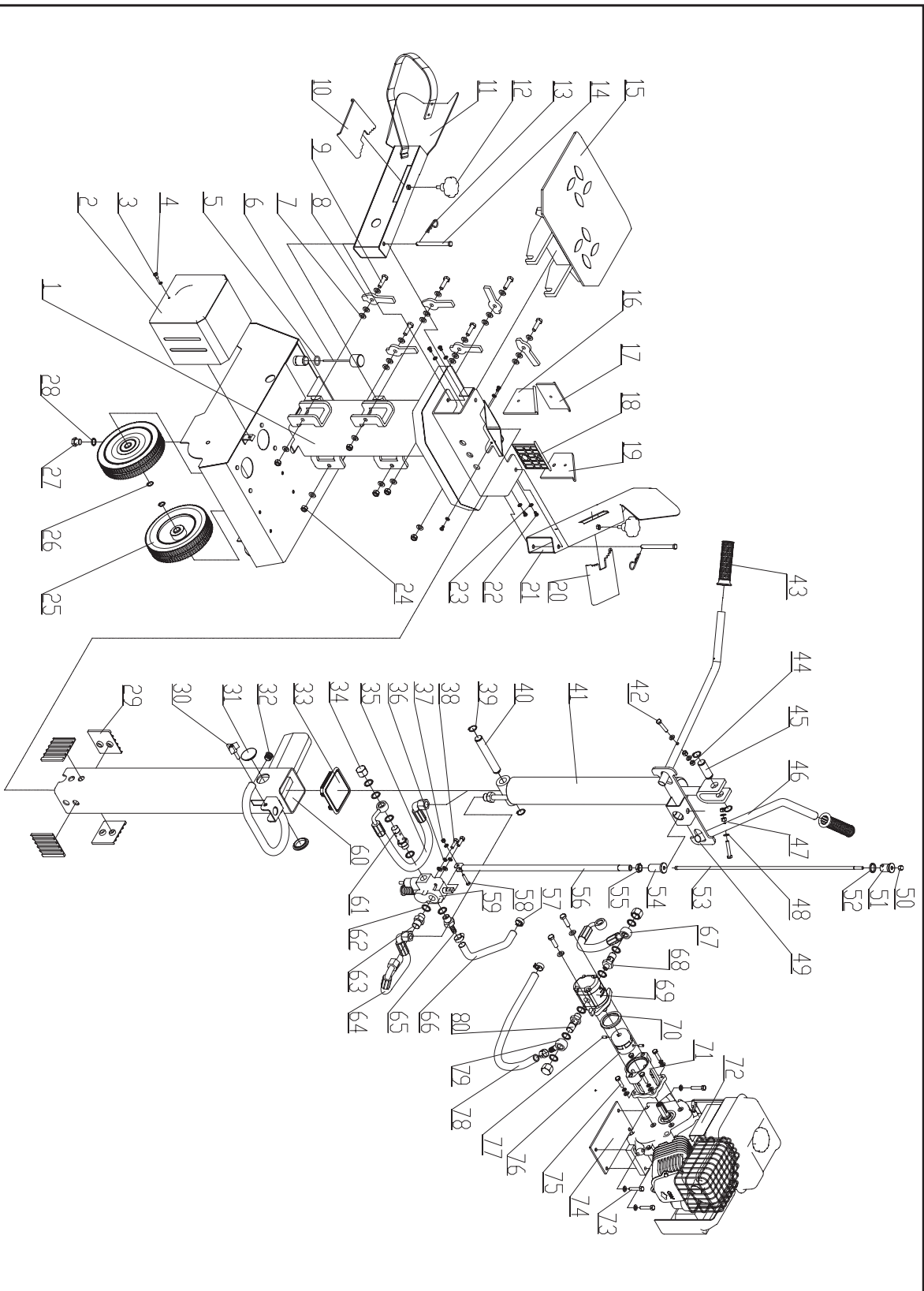
TROUBLE SHOOTING

PROBLEM	PROBABLE CAUSE	REMEDY SUGGESTED
Engine does not start	Engine oil of brace box is not enough	Filling engine oil
	Switch is OFF	ON the switch
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
	Lower hydraulic oil level	Check and refill hydraulic oil
Log Splitter works with abnormal vibration and noise	Lower hydraulic oil level	Check and refill hydraulic oil

PLUMBING DIAGRAM



PARTS SCHEMATIC (Engine type:122432)



PARTS SCHEMATIC (Engine type: ZS168F8)

