



# OPERATOR'S MANUAL

MODEL #90720


7 TON FULL BEAM LOG SPLITTER



REGISTER YOUR PRODUCT ONLINE

at [championpowerequipment.com](http://championpowerequipment.com)



  **1-877-338-0999**

or visit [championpowerequipment.com](http://championpowerequipment.com)

**READ AND SAVE THIS MANUAL.** This manual contains important safety precautions which should be read and understood before operating the product. Failure to do so could result in serious injury. This manual should remain with the product.

Specifications, descriptions and illustrations in this manual are as accurate as known at the time of publication, but are subject to change without notice.

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# INTRODUCTION

Congratulations on your purchase of a Champion Power Equipment (CPE) product. CPE designs, builds, and supports all of our products to strict specifications and guidelines. With proper product knowledge, safe use, and regular maintenance, this product should bring years of satisfying service.

Every effort has been made to ensure the accuracy and completeness of the information in this manual at the time of publication, and we reserve the right to change, alter and/or improve the product and this document at any time without prior notice.

Since CPE highly values how our products are designed, manufactured, operated and are serviced, and also highly value your safety and the safety of others, we would like you to take the time to review this product manual and other product materials thoroughly and be fully aware and knowledgeable of the assembly, operation, dangers and maintenance of the product before use. Fully familiarize yourself, and make sure others who plan on operating the product fully familiarize themselves too, with the proper safety and operation procedures before each use. Please always exercise common sense and always err on the side of caution when operating the product to ensure no accident, property damage, or injury occurs. We want you to continue to use and be satisfied with your CPE product for years to come.

When contacting CPE about parts and/or service, you will need to supply the complete model and serial numbers of your product. Transcribe the information found on your product's nameplate label to the table below

<b>CPE TECHNICAL SUPPORT TEAM</b>
<b>1-877-338-0999</b>
<b>MODEL NUMBER</b>
<b>90720</b>
<b>SERIAL NUMBER</b>
<b>DATE OF PURCHASE</b>
<b>PURCHASE LOCATION</b>

# SAFETY DEFINITIONS

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols, and their explanations, deserve your careful attention and understanding. The safety warnings do not by themselves eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention measures.

## DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

## WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

## CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

## NOTICE

NOTICE indicates information considered important, but not hazard-related (e.g., messages relating to property damaged).

## IMPORTANT SAFETY INSTRUCTIONS

### ⚠ WARNING

Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

### ⚠ DANGER

Log splitter engine exhaust contains carbon monoxide, a colorless, odorless, poison gas. Breathing carbon monoxide will cause nausea, dizziness, fainting or death.

If you start to feel dizzy or weak, get to fresh air immediately.

Operate log splitter outdoors only in a well ventilated area.

DO NOT operate the log splitter inside any building, including garages, basements, crawlspaces and sheds, enclosure or compartment.

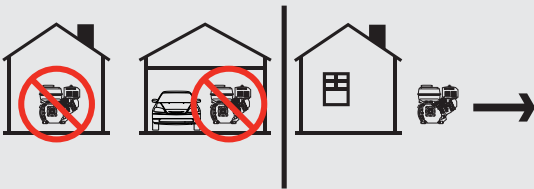
DO NOT allow exhaust fumes to enter a confined area through windows, doors, vents or other openings.

### ⚠ DANGER

Using an engine indoors **CAN KILL YOU IN MINUTES**. Engine exhaust contains carbon monoxide. This is a poison you cannot see or smell.

**NEVER** use inside a home or garage, **EVEN IF** doors and windows are open.

**ONLY** use **OUTSIDE** and far away from windows, doors, and vents.



Install battery-operated carbon monoxide alarms or plug-in carbon monoxide alarms with battery back-up according to the manufacturer's instructions.

### ⚠ DANGER

Rotating parts can entangle hands, feet, hair, clothing and/or accessories. Traumatic amputation or severe laceration can result.

Keep hands and feet away from rotating parts.

Tie up long hair and remove jewelry.

Operate equipment with guards in place.

DO NOT wear loose-fitting clothing, dangling drawstrings or items that could become caught.

### ⚠ WARNING

Operation of this equipment may create sparks that can start fires around dry vegetation.

A spark arrestor may be required. The operator should contact local fire agencies for laws or regulations relating to fire prevention requirements.

### ⚠ WARNING

Sparks can result in fire or electrical shock.

#### When servicing the engine:

Disconnect the spark plug wire and place it where it cannot contact the plug.

DO NOT check for spark with the plug removed.

Use only approved spark plug testers.

### ⚠ WARNING

Running engines produce heat. Severe burns can occur on contact. Combustible material can catch fire on contact.

DO NOT touch hot surfaces.

Avoid contact with hot exhaust gases.

Allow equipment to cool before touching.

Maintain at least 3 ft. (91.4 cm) of clearance on all sides to ensure adequate cooling.

Maintain at least 5 ft. (1.5 m) of clearance from combustible materials.

### ⚠ WARNING

Crush Hazard

Wedge can cut through skin and break bones. Keep all limbs away from wedge and endplate.

### ⚠ WARNING

Projectile Hazard

Pieces of log may be ejected from the splitter while operating. Wear ANSI approved safety glasses when operating. Be alert.

### ⚠ WARNING

Keep Operator Work Zone Clear

Keep work zone clear of debris while working to ensure safe footing.

**⚠ WARNING**

Before removing the pin installed into the front support leg make sure hitch is installed onto vehicle. Releasing the pin before will cause support leg to slide up and possibly cause injury.

**⚠ WARNING**

Skin Injection Hazard. High pressure hydraulic oil can inject under your skin.

Make sure all fittings are tightly secure before applying pressure. Relieve system of pressure before servicing.

**⚠ WARNING**

Rapid retraction of the starter cord will pull hand and arm towards the engine faster than you can let go. Unintentional startup can result in entanglement, traumatic amputation or laceration. Broken bones, fractures, bruises or sprains could result.

When starting engine, pull the starter cord slowly until resistance is felt and then pull rapidly to avoid kickback.

**⚠ CAUTION**

Parts of the hydraulic circuit (cylinder, pump, valve-body, hoses) can become very hot during operation.

**⚠ WARNING**

In most states towing on public streets is either prohibited or would require further licensing or modifications. Please check with your local authorities or DMV regarding regulations, restrictions and registration.

**⚠ CAUTION**

Improper treatment or use of the log splitter can damage it, shorten its life and void your warranty.

Use the log splitter only for intended uses.

Operate only on level surfaces.

DO NOT expose log splitter to excessive moisture, dust, or dirt.

DO NOT allow any material to block the cooling slots.

**DO NOT use the engine if:**

- Equipment sparks, smokes or emits flames
- Equipment vibrates excessively

**Fuel Safety****⚠ DANGER**

**GASOLINE AND GASOLINE VAPORS ARE HIGHLY FLAMMABLE AND EXPLOSIVE.**

Fire or explosion can cause severe burns or death.

**Gasoline and gasoline vapors:**

- Gasoline is highly flammable and explosive.
- Gasoline can cause a fire or explosion if ignited.
- Gasoline is a liquid fuel but its vapors can ignite.
- Gasoline is a skin irritant and needs to be cleaned up immediately if spilled on skin or clothes.
- Gasoline has a distinctive odor, this will help detect potential leaks quickly.
- In any petroleum gas fire, flames should not be extinguished unless by doing so the fuel supply valve can be turned OFF. This is because if a fire is extinguished and a supply of fuel is not turned OFF, then an explosion hazard could be created.
- Gasoline expands or contracts with ambient temperatures. Never fill the gasoline tank to full capacity, as gasoline needs room to expand if temperatures rise.

**When adding or removing gasoline:**

Turn the engine off and let it cool for at least two minutes before removing the gasoline cap. Loosen the cap slowly to relieve pressure in the tank.

Only fill or drain gasoline outdoors in a well-ventilated area.

DO NOT pump gasoline directly into the engine at the gas station. Use an approved container to transfer the fuel to the engine.

DO NOT overfill the gasoline tank.

Always keep gasoline away from sparks, open flames, pilot lights, heat and other sources of ignition.

DO NOT light or smoke cigarettes.

**When starting the engine:**

DO NOT attempt to start a damaged engine.

Make certain that the gasoline cap, air filter, spark plug, fuel lines and exhaust system are properly in place.

Allow spilled gasoline to evaporate fully before attempting to start the engine.

Make certain that the log splitter is resting firmly on level ground.

**When operating the log splitter:**

DO NOT move or tip the log splitter during operation.

DO NOT tip the log splitter or allow fuel or oil to spill.

**When transporting or servicing the log splitter:**

Make certain that the fuel valve is in the OFF position, the gasoline tank is empty.

Disconnect the spark plug wire.

**When storing the log splitter:**

Store away from sparks, open flames, pilot lights, heat and other sources of ignition.

Do not store log splitter or gasoline near furnaces, water heaters, or any other appliances that produce heat or have automatic ignitions.

**⚠ WARNING**

NEVER use a gasoline container, gasoline tank, or any other fuel item that is broken, cut, torn or damaged.

**Training**

1. Read the Operator's Manual completely before attempting to use this log splitter.
2. Do not allow anyone to operate your log splitter who has not read the Operator's Manual or has not been instructed on the safe use of the log splitter.
3. Never allow children or untrained adults to operate this machine.
4. Many accidents occur when more than one (1) person operates the log splitter. If a helper is assisting in loading logs to be split, never actuate controls until helper is clear of the area.
5. Never allow anyone to ride on the machine.
6. Never transport cargo on the log splitter.
7. High fluid pressures are developed in hydraulic log splitters. Pressurized hydraulic fluid escaping through a pin hole opening can puncture skin and cause sever blood poisoning. Therefore, the following instructions should be heeded at all times.
  - 7a. Do not operate the unit with frayed, kinked, cracked or damaged hoses, fittings, or tubing.
  - 7b. Stop the engine and relieve hydraulic system pressure before changing or adjusting fittings, hoses, tubing, or other system components.
  - 7c. Do not adjust the pressure settings of the pump or valve.
  - 7d. Do not check for leaks with your hand. Leaks can be detected by passing cardboard or wood over the suspected area. Look for discoloration. If injured by escaping fluid, see a doctor at once. Serious infection or reaction can develop if proper medical treatment is not administered immediately.

8. Keep the operator zone and adjacent area clear for safe, secure footing.
9. If your log splitter is equipped with an internal-combustion engine and intended for use near any unimproved forest, brush, or grass covered land, the engine exhaust should be equipped with a spark arrestor. Make sure you comply with local, state, and federal codes. Take appropriate fire-fighting equipment with you.
10. Log splitters should be used only for splitting wood. Do not use for other purposes unless the manufacturer provides attachments and instructions.
11. Only split wood WITH the grain. NEVER split perpendicular to the grain

**Preparation**

1. Be thoroughly familiar with all controls and with proper use of the equipment.
2. Safety Gear:
  - 2a. Always wear safety shoes or heavy boots when operating the machine.
  - 2b. Always wear safety glasses or goggles when operating the machine.
  - 2c. Never wear jewelry or loose-fitting clothing that might become entangled in moving or rotating parts of the machine.
3. Make sure the splitter is on a level surface. Block tires and ensure support leg is secure to prevent unintended movement of the log splitter during operation.
  - 3a. Always operate the splitter from the manufacturer's indicated operator zone.
4. Logs to be split on ram-type units should be cut as squarely as possible.
5. Fuel:
  - 5a. Use an approved fuel container.
  - 5b. Never add fuel to a running or hot engine.
  - 5c. Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors.
  - 5d. Replace gasoline cap securely and clean up any spilled fuel.

## Operation

1. Before starting this log splitter, review all safety rules. Failure to follow these rules may result in serious injury to the operator or bystanders.
2. Be sure to confirm all hose connections and hose clamps are tight before each use. It is possible for connections to vibrate loose over time.
3. Never leave the machine unattended with the power source operating.
4. Never operate the machine when under the influence of alcohol, drugs or medication.
5. The machine owner should instruct all operators in safe log splitter operation.
6. Always operate the log splitter with all safety equipment in place and all controls properly adjusted for safe operation.
7. Always operate the log splitter at manufacturer's recommended speed.
8. Always keep hands and feet clear of moving parts.
9. When loading a ram-type log splitter, place your hands on the sides of the log, not the ends. Never place your hands or any part of your body between a log and any part of the log splitter.
10. On ram-type log splitters, never attempt to split more than one (1) log at a time unless the ram has been fully extended and a second log is needed to complete the separation of the first log.
11. On ram-type log splitters on which the logs are not cut square, the longest portion of the log should be rotated down and the most square end placed against the ram.
12. Only split logs with the grain of the wood.
13. Use only your hand to operate the log splitter controls.
14. Do not refuel the engine until it has cooled for several minutes.

## Maintenance and Storage

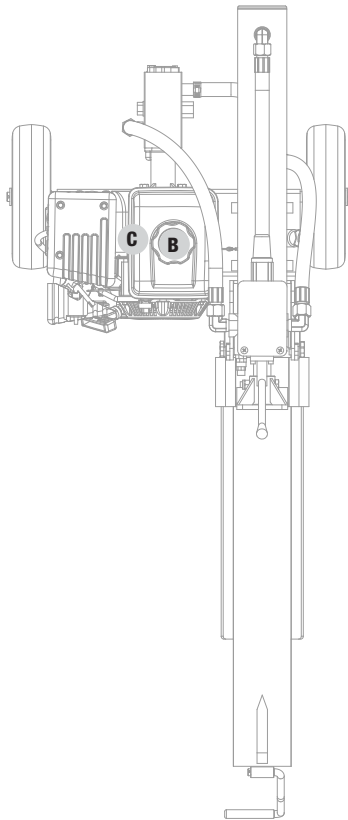
1. Always shut off the power source while repairing or adjusting the splitter except as recommended by the manufacturer.
2. Clean debris and chaff from the engine cylinder, cylinder head fins, recoil starter cover, and muffler areas. If the engine is equipped with a spark arrestor muffler, clean and inspect it regularly (follow manufacturer's service instructions). Replace, if damaged.
3. Never store the unit indoors with fuel in the tank. Fumes might reach an open flame spark. Allow the engine to cool before storing in any enclosure.
4. Clear debris from movable parts, but only when the power source is shut off.
5. Check to be sure all nuts and bolts are tight to assure the equipment is in safe working condition.



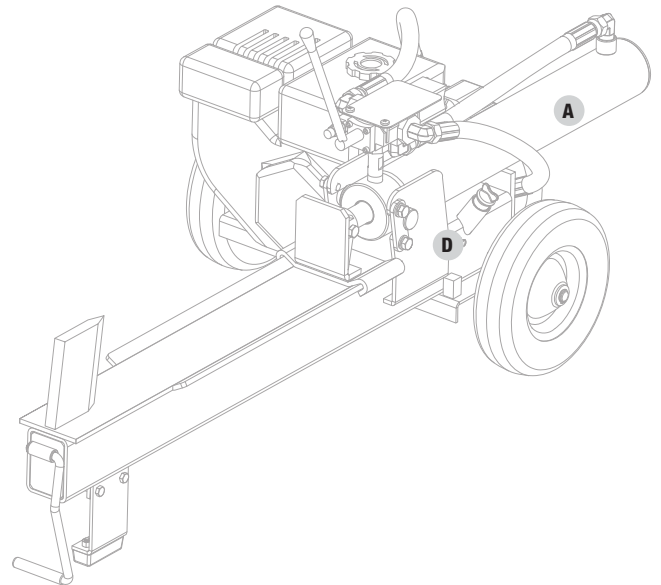
### Safety and Dataplate Labels

These labels warn you of potential hazards that can cause serious injury. Read them carefully.

If a label comes off or becomes hard to read, contact Technical Support Team for possible replacement.



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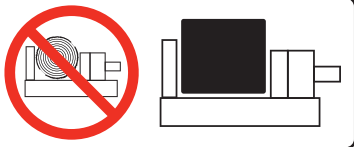

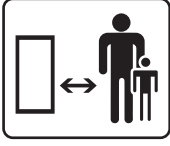

	LABEL	DESCRIPTION
A		Safety Symbols/ CO Danger
B		Fuel
C		Hot Surface
D		Dataplate



## Safety Symbols





Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to more safely operate the product.

SYMBOL	MEANING
	<p><b>Read Operator's Manual.</b> To reduce the risk of injury, user must read and understand operator's manual before using this product.</p>
	<p><b>Eye and Ear Protection.</b> Always wear safety goggles or safety glasses with side shields, and as necessary a full face-shield as well as full ear protection when operating this product.</p>
	<p><b>Footwear.</b> Always wear safety shoes or heavy boots when operating the machine.</p>
	<p><b>Gloves.</b> Always wear nonslip, heavy-duty protective gloves when operating this product.</p>
	<p><b>Safety Alert.</b> Precautions that involve your safety.</p>
	<p><b>Risk of Fire.</b> Fuel and its vapors are extremely flammable and explosive. Fire can cause severe burns or death. Do not add fuel while the product is operating or still hot.</p>
	<p><b>Skin Injection Hazard.</b> High pressure hydraulic oil can inject under your skin. Make sure all fittings are tightly secure before applying pressure. Relieve system pressure before servicing.</p>
	<p>Always keep hands away from the wedge and the ram. Moving parts can crush or cut.</p>

SYMBOL	MEANING
	<p>Always keep feet away from the wedge and the ram. Moving parts can crush or cut.</p>
	<p><b>Hot Surface.</b> To reduce the risk of injury or damage, avoid contact with any hot surface.</p>
	<p><b>Open Flame alert.</b> Fuel and its vapors are extremely flammable and explosive. Keep fuel away from smoking, open flames, sparks, pilot lights, heat, and other ignition sources.</p>
	<p>Hold logs on sides when loading. Keep hands and feet away from cylinder, wedge, and partially split logs.</p>
	<p>Never place hands or any part of the body between a log and any part of the log splitter. Do not split logs against the grain. Split logs end to end in the direction of the grain only.</p>
	<p><b>Toxic Fumes.</b> The engine exhaust from this product contains chemicals known to the state of California to cause cancer and birth defects and other reproductive harm.</p> <p><b>Risk of Asphyxiation.</b> This engine emits carbon monoxide, an odorless, colorless poison gas. Breathing carbon monoxide can cause nausea, fainting or death. Use only in a well ventilated area.</p>
	<p><b>Clearance.</b> Keep all objects including others at least 10 feet (3m) from this machine. Only one person should operate the log splitter and load the logs.</p>
	<p>Never operate on an incline. Make sure the splitter is on a level surface. Block tires and ensure support leg is secure to prevent unintended movement of the log splitter during operation.</p>

## Operation Symbols

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to more safely operate the product.

SYMBOL		MEANING
		ON
		STOP or OFF
		Fuel/Gasoline Valve ON/OFF

## Quickstart Label Symbols

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to more safely operate the product.



## Starting the Engine

### DANGER

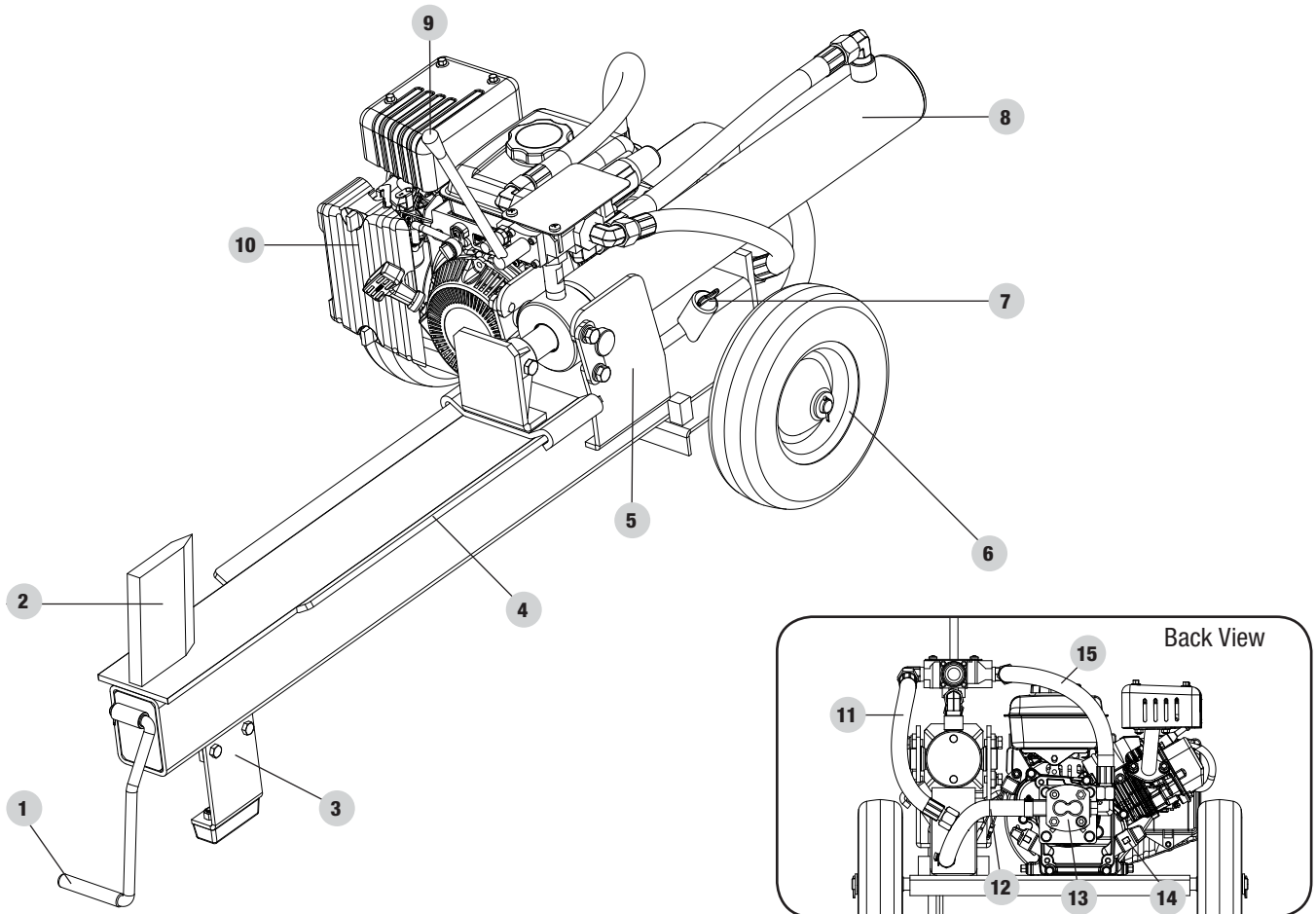
Move log splitter outside and far away from windows, doors and intake ventilation covers.

- Check oil level.**  
Recommended oil is 10W-30.
- Check gasoline level.**  
When adding gasoline, use a minimum octane rating of 85 and an ethanol content of 10% or less by volume.
- Press engine switch to the **"ON"** position.
- Turn the fuel valve to **"ON"** position.
- Move choke lever to **"CHOKE"** position.
- Pull the recoil cord.
- Move the choke lever to **"RUN"** position.

## CONTROLS AND FEATURES

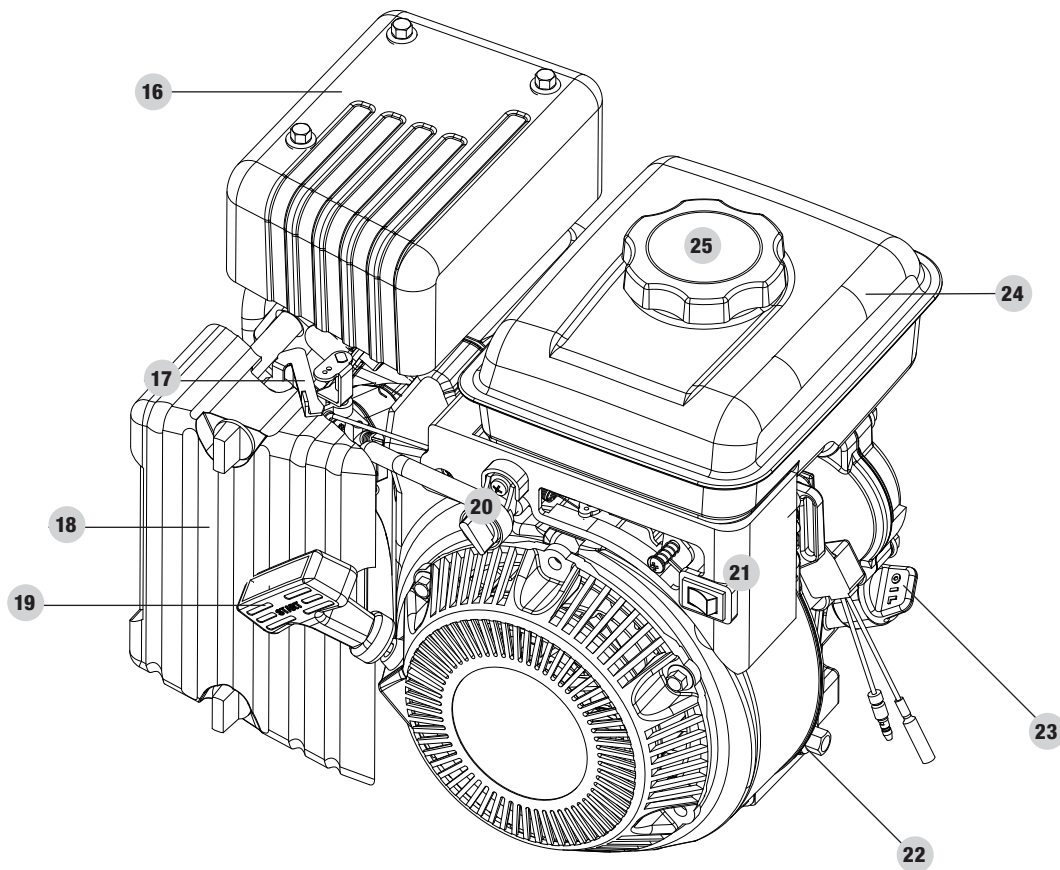
Read this operator's manual before operating your log splitter. Familiarize yourself with the location and function of the controls and features. Save this manual for future reference.

### Log Splitter



1. **Handle**
2. **Wedge**
3. **Support Leg** – Supports log splitter while operating.
4. **Splitting Beam / Log Cradle** – Prevents log from rolling off the beam.
5. **Mounting Plates** – Holds hydraulic cylinder in place.
6. **Wheels**
7. **Hydraulic Oil Dipstick** – Check and add Hydraulic oil.
8. **Hydraulic Cylinder** – Converts hydraulic pressure into linear force.
9. **Control Valve Handle** – Controls the movement of the thrust plate.
10. **Engine** – 80cc, OHV, 4-stroke, air cooled.
11. **Oil Return (Low pressure) Hose** – Feed hydraulic oil back into the hydraulic tank.
12. **Suction Hose** – Pulls hydraulic oil from the tank into the pump.
13. **Hydraulic Pump** – Pumps hydraulic oil through the system.
14. **Engine Oil Fill Cap / Dipstick** – Add or check the engine oil.
15. **Oil Inlet (High Pressure) Hose** – Feeds hydraulic oil into the hydraulic cylinder.

## Engine



16. Muffler

17. Choke

18. Air Filter

19. Recoil Starter

20. Fuel Valve

21. Engine On / Off Switch

22. Oil Drain Bolt (on each side)

23. Engine Oil Fill Cap / Dipstick (on each side)

24. Gasoline Tank

25. Gasoline Tank Cap

## Parts Included

Part	Part Qty.	Hardware Needed	Hardware Qty.	Tool Needed
Wheels	2	Cotter Pin $\varnothing 2.5 \times 25$	2	Needle nose pliers
		Washer $\varnothing 16$	2	
Support Leg	1	Bolt M8 $\times$ 25	2	2 $\times$ 14mm wrench or socket
		Washer $\varnothing 8$	2	
		Lock washer $\varnothing 8$	2	
		Nut M8	2	
Handle	1	Cotter Pin $\varnothing 2 \times 20$	1	Needle nose pliers
Engine	1	Bolt M8 $\times$ 20	4	1 $\times$ 13 mm wrench or socket
		Washer $\varnothing 8$	4	
		Lock washer $\varnothing 8$	4	
Engine Funnel	1			
Beam	1	Bolt M10 $\times$ 20	4	1 $\times$ 8mm allen wrench
		Lock Washer $\varnothing 10$	4	
Ram Bracket	1	Bolt M10 $\times$ 60	1	1 $\times$ 16mm wrench or socket
		Lock nut M10	1	1 $\times$ 17mm wrench
Cylinder	1	Bolt M10 $\times$ 20	4	1 $\times$ 17mm wrench or socket
		Washer $\varnothing 10$	4	
		Lock washer $\varnothing 10$	4	
		Cylinder Fixing Plate	2	
Oil Return (Low Pressure) Hose	1			27mm open-end wrench
Oil Inlet (High Pressure) Hose	1			27mm open-end wrench
Suction Hose	1	C-Clamp	2	1 $\times$ Cross head screw driver or 6mm socket

## Parts Not Included

- Engine Oil (10W-30) 13.5 fl. oz (0.4 L)
- Hydraulic Oil (ISO 32) 115 fl. oz (3.4 L)

## ASSEMBLY

If your log splitter is already assembled, skip the assembly instructions in this manual.

If unassembled, please read and follow these instructions.

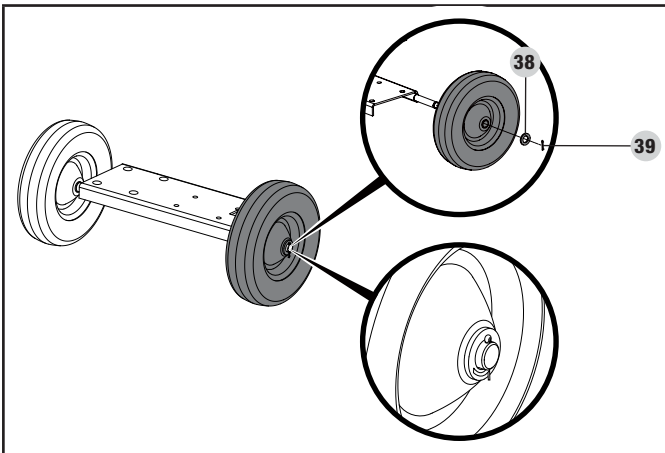
If you have any questions regarding the assembly of your log splitter, call our Technical Support Team at 1-877-338-0999. Please have your serial number and model number available.

### Open Shipping Crate

1. Set the shipping crate on a solid, flat surface.
2. Carefully cut the shipping bands and remove lid of shipping crate.
3. Locate all hardware before beginning assembly.

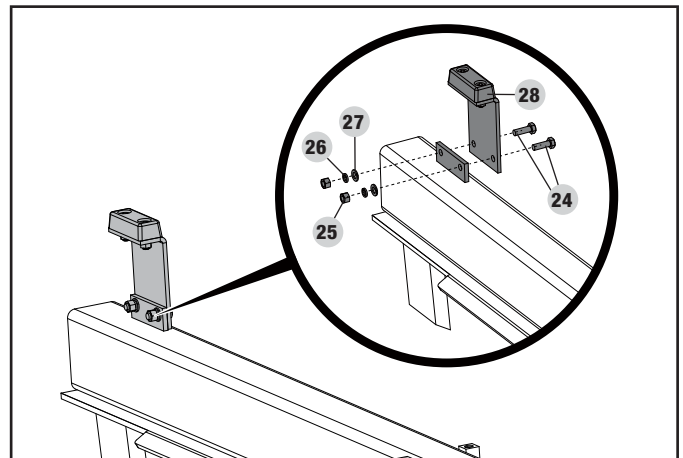
### Install the Wheels

1. Slide the wheel onto the axle.
2. Install the washer (38) and cotter pin (39) through the axle.



### Install the Support Leg

1. Place the beam on a flat, level surface resting on the wedge and cylinder brackets.
2. Align the support leg (28) with the mounting holes on the beam bracket.
3. Place the M8×25 bolt (24) through the hole.
4. Place a Ø8 washer (27) and Ø8 lock washer (26) on the end of the bolt.
5. Install the M8 nut (25) on the bolt and tighten. Do not over tighten.



### Install the Beam

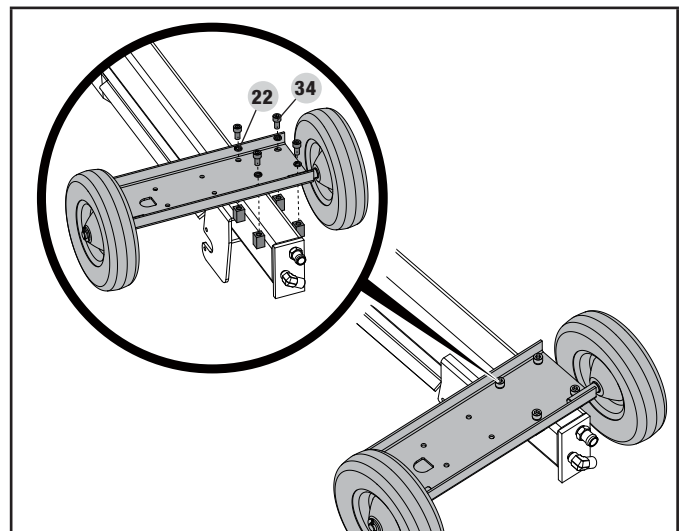
1. With the beam still resting on the wedge and cylinder brackets, align the 4 larger holes on the wheel mount base plate with the threaded blocks on the beam.
2. Thread an M10×20 bolt (34) through a Ø10 washer (22).
3. Thread the bolt and washer through the hole on the base plate and into the threaded blocks on the beam and tighten.
4. Repeat steps 1-3 for the remaining 3 bolt and washer sets to complete the mounting of the beam to the wheel mount.
5. Once all bolts are tightened, flip the assembly over to rest on the wheels and support leg.

#### NOTICE

The beam should extend to the opposite side of the wheel mounts as shown.

#### WARNING

The beam is extremely heavy and should only be handled with 2 or more people. DO NOT try and lift or handle the beam without assistance.



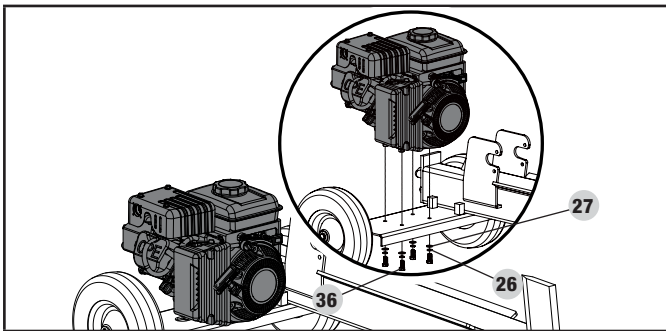


## Install the Engine

1. Align the 4 holes on the base of the engine with the 4 smaller holes on the wheel mount.
2. Thread an M8×20 bolt (36) through an Ø8 Lock Washer (26) and Ø8 Washer (27).
3. Thread a bolt and washers set through a hole on the bottom of the wheel mount into the engine and tighten.
4. Repeat steps 1-3 for the remaining 3 bolt and washer sets to complete mounting of the engine to the wheel mount.

### NOTICE

The recoil side of the engine should point the same direction as the beam as shown.

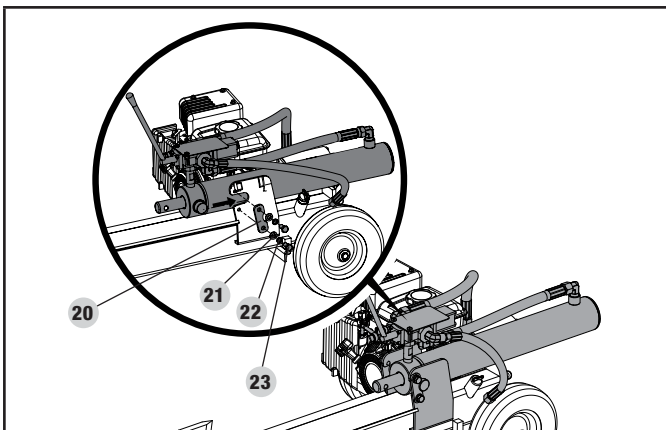


## Install the Cylinder

1. Slide the cylinder pegs into the cylinder mounting slots on the top of the beam.
2. Secure the cylinder retention plates (20) with M10×20 bolts (23), Ø10 Lock Washers (22) and Ø10 Washers (21).

### NOTICE

The recoil side of the engine should point the same direction as the beam as shown.

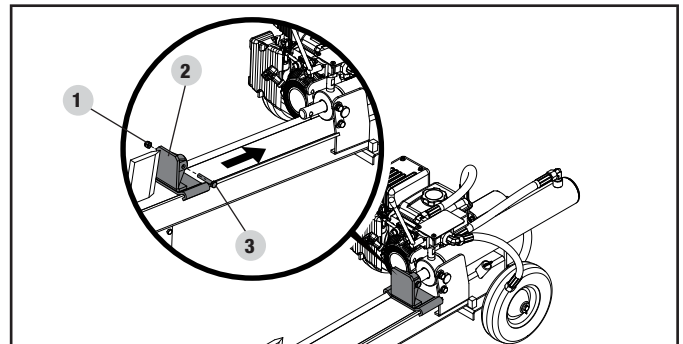


## Install the Bracket

1. Slide the ram bracket (2) over the rod on the cylinder being sure to align the bolt holes.
2. Insert the M10×60 bolt (3) through the ram bracket and cylinder rod.
3. Secure the bolt with M10 lock nut (1). Do not over tighten.

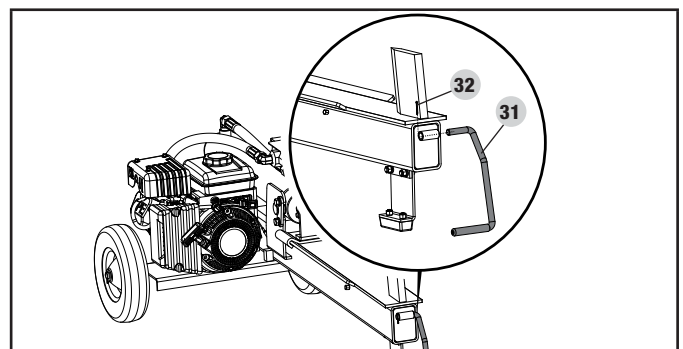
### NOTICE

A screwdriver can be inserted into the cylinder rod's bolt hole to rotate to proper position prior to installing the ram bracket.



## Install the Handle

1. Slide the handle (31) into the tube bracket on the end of the beam.
2. Secure with cotter pin (32).



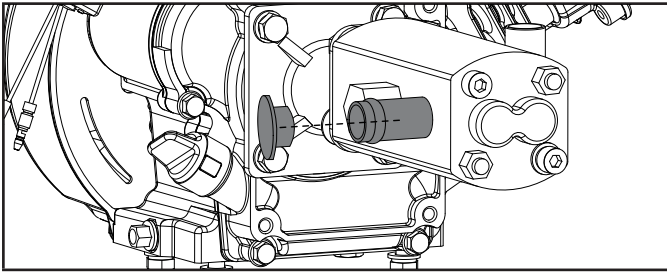
## Install the Hoses

### CAUTION

Red shipping plugs must be removed from hydraulic pump prior to installing hoses.

### NOTICE

Hydraulic pump may contain residual oil from testing procedures during production. We recommend using an oil tray under the pump before removing the shipping plugs.



### NOTICE

Some hoses may be preassembled by the factory, check your hoses per below instructions to ensure proper assembly.

#### Oil Inlet (High Pressure) and Oil Return Hoses

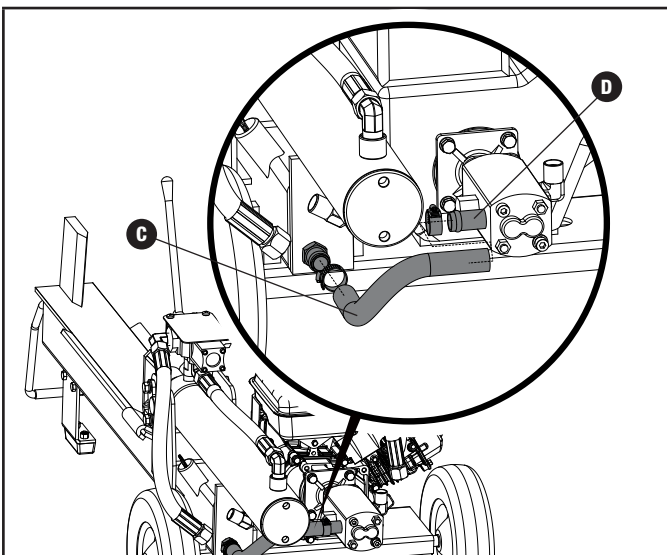
- These hoses are black and have swivel nuts on both ends.
- The oil inlet hose sends hydraulic oil from the pump to the control valve/cylinder.
- The oil return hose returns hydraulic oil from the control valve/cylinder to the tank.
- Hose connections do NOT require thread seal tape.

#### Suction Hose

- This is the clear hose that connects the hydraulic tank to the pump inlet.
- Secure both ends of hose with hose clamps.

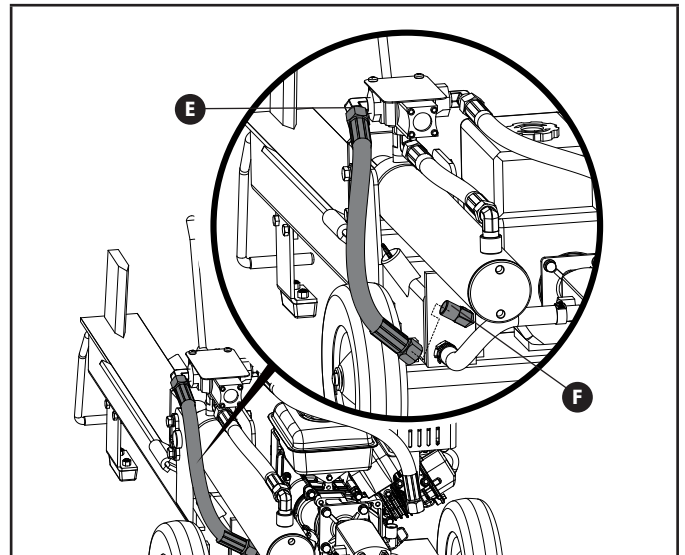
#### Suction Hose

1. Using the provided hose clamps, connect one end of the clear oil hose to the hydraulic oil tank (C) just beneath the beam and the other end to the pump inlet on the side of the pump (D). Securely tighten the clamps on both ends of the clear hydraulic hose with either a flat head screw driver or 6mm socket (Torque to 2.9-4.4 ft lbs.).



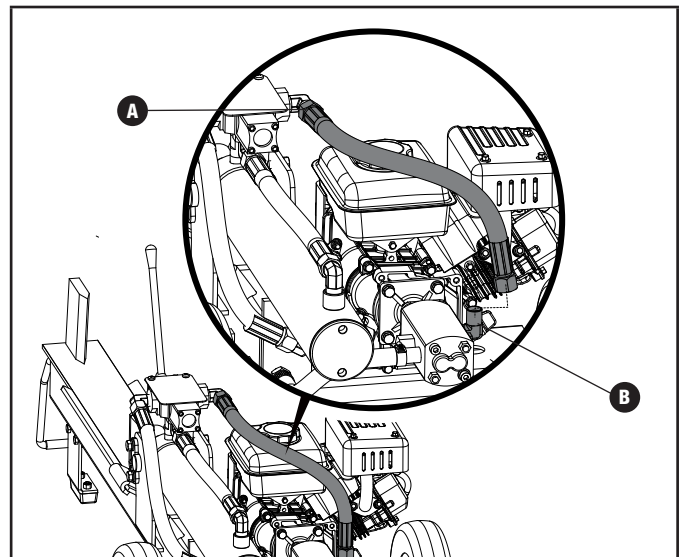
#### Oil Return (Low Pressure) Hose

2. Connect one end of hose to the control valve outlet (E). Connect the other end of the hose to the oil filter inlet (F). Securely tighten both ends of the hydraulic hose with a 27mm wrench (Torque to 44 - 52 ft lbs.).



#### Oil Inlet (High Pressure) Hose

3. Connect one end of high pressure hose to the control valve inlet (A). Connect the other end of the hose to the pump outlet (B). Securely tighten both ends of the hydraulic hose with a 27mm wrench (Torque to 44 - 52 ft lbs.).



## Add Engine Oil

### CAUTION

DO NOT attempt to crank or start the engine before it has been properly filled with the recommended type and amount of oil. Damage to the engine as a result of failure to follow these instructions will void your warranty.

### NOTICE

The recommended oil type is **10W-30 automotive oil**.

### NOTICE

Once oil has been added, a visual check should show oil about 1-2 threads from running out of the fill hole.

If using the dipstick to check oil level, DO NOT screw in the dipstick while checking.

### NOTICE

Check oil often during the break-in period. Refer to the Maintenance section for recommended service intervals.

### NOTICE

We consider the first 5 hours of run time to be the break-in period for the engine. During the break in period we recommend using standard automotive non-synthetic blended oils. After the break in period synthetic lubricant can be used but is not required. Adjusting throttle setting will increase/decrease engine speed helping to seat piston rings. Avoid bogging or lugging the engine down and avoid prolonged running at constant RPM. After the 5 hour break-in period, change the oil. Using synthetic lubricants does not increase the recommended oil change interval.

### NOTICE

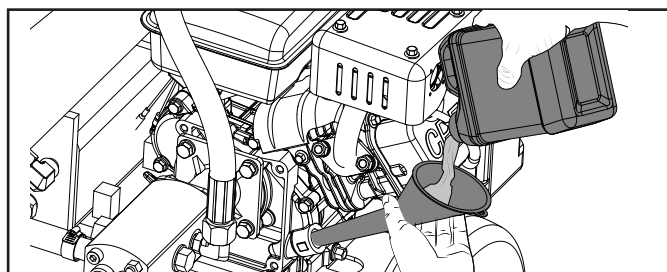
Weather will affect engine oil and engine performance. Change the type of engine oil used based on weather conditions to suit the engine needs.

### NOTICE

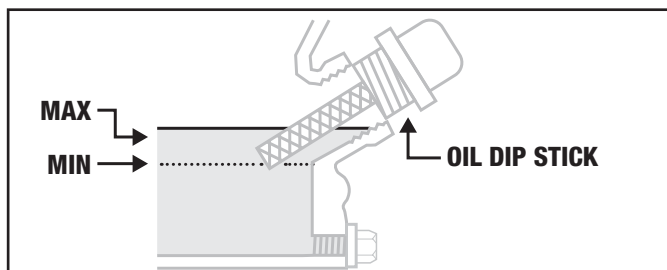
Synthetic oil may be used after the 5 hour initial break-in period. Using synthetic oil does not increase the recommended oil change interval. Full synthetic 5W-30 oil will aid in starting in cold ambient < 41°F (5°C).

Recommended Engine Oil Type								
			10W-30					
	5W-30				10W-40			
	5W-30 Synthetic							
°F	-20	0	20	40	60	80	100	120
°C	-28.9	-17.8	-6.7	4.4	15.6	26.7	37.8	48.9
Ambient temperature								

1. Place the log splitter on a flat, level surface.
2. Remove oil fill cap/dipstick to add oil.
3. Using a funnel, add up to 13.5 fl. oz (0.4L) of oil and replace oil fill cap/dipstick. DO NOT OVERFILL.



4. Check engine oil level daily and add as needed.



## Add Fuel

### ⚠ WARNING

Pouring gasoline too fast through the fuel screen may result in blow back of gasoline at the operator while filling.

### ⚠ CAUTION

Use regular unleaded gasoline with a minimum octane rating of 85 and an ethanol content of less than 10% by volume.

DO NOT mix oil and gasoline.

Fill tank to approximately ¼ in. (6.4 mm) below the top of the tank to allow for gasoline expansion.

DO NOT pump gasoline directly into the log splitter at the pump. Use an approved container to transfer the gasoline to the log splitter.

DO NOT fill tank indoors.

DO NOT fill tank when the engine is running or hot.

DO NOT overfill the tank.




DO NOT light cigarettes or smoke when filling the tank.

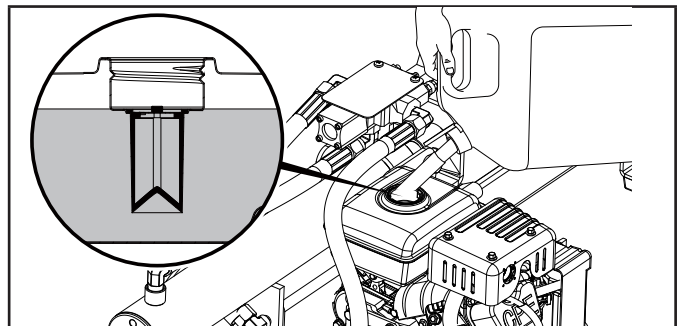
### 🗨 NOTICE

Our engines work well with 10% or less ethanol blend gasoline. When using ethanol-gasoline blends there are some issues worth noting:

- Ethanol-gasoline blends can absorb more water than gasoline alone.
- These blends can eventually separate, leaving water or a watery goo in the tank, fuel valve and carburetor.
- With gravity-fed supplies, the compromised gasoline can be drawn into the carburetor and cause damage to the engine and/or potential hazards.
- There are only a few suppliers of fuel stabilizer that are formulated to work with ethanol-gasoline blends.
- Any damages or hazards caused by using improper gasoline, improperly stored gasoline, and/or improperly formulated stabilizers, are not covered by manufacturer's warranty.

It is advisable to always shut off the gasoline supply, run the engine to starvation and drain the tank when the equipment is not in use for more than 30 days.

1. Use clean, fresh, regular unleaded gasoline with a minimum octane rating of 85 and an ethanol content of less than 10% by volume.   
2. DO NOT mix oil with gasoline.
3. Remove the gasoline cap.
4. Slowly add gasoline to the tank. DO NOT OVERFILL.
5. Gasoline can expand after filling. A minimum of ¼ in. (6.4 mm) of space left in the tank is required for gasoline expansion, although more than ¼ in. (6.4 mm) is recommended. Gasoline can be forced out of the tank as a result of expansion if overfilled, and can affect the stable running condition of the log splitter.
6. Screw on the gasoline cap and wipe away any spilled fuel.



## Add Hydraulic Oil

### ⚠ WARNING

DO NOT remove the hydraulic oil fill cap when the engine is running or hot. Hot oil can escape causing severe burns. Always allow the log splitter to cool completely before removing the hydraulic oil cap.

High fluid pressure and temperatures are created in the hydraulic log splitters. Hydraulic fluid will escape through a pin-size hole opening and can puncture skin and cause severe blood poisoning.

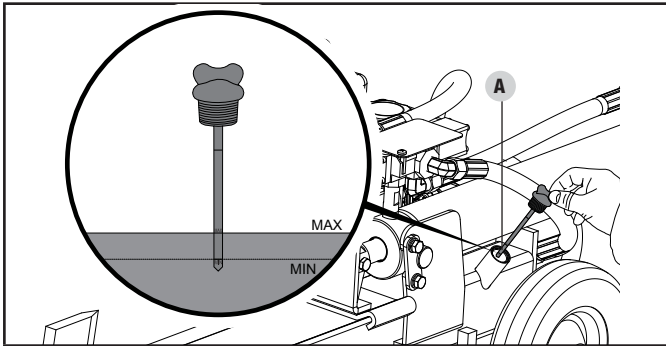
Inspect hydraulic system regularly for possible leaks. Never check for leaks with your hand while the system is pressurized. Seek medical attention immediately if injured by escaping fluid.

### 🗨 NOTICE

To check oil level, insert the dipstick into fill neck until it stops. Remove and read level. Do not thread dipstick into fill neck when checking oil.

When the outdoor temperature is below 32°F (0°C), Dexron III transmission fluid can be used.

1. Make sure the log splitter is on a flat, level surface.
2. Remove the dipstick (A) from the oil tank.
3. Add 192.7 fl. oz (5.7 L) of hydraulic oil - ISO 32.
4. Check the hydraulic oil level using dipstick. Oil level should be between the two marks on the dipstick. (A)



5. Replace and tighten the dipstick.
6. Start engine (see Starting the Engine in the Operation section).
7. Extend and retract the cylinder to purge air from the hydraulic system. Cylinder motion should be smooth and continuous.
8. Shut-off engine (see Stopping the Engine in the Operation section).
9. Check the hydraulic oil tank dipstick. Add additional hydraulic oil if needed.
10. Check oil level daily and add as needed.

## OPERATION

### ⚠ WARNING

ALWAYS use the log splitter for its intended use. The log splitter should only be used to split wood logs, length wise with the grain.

NEVER modify, alter or change the log splitter in anyway. Modifications will void the warranty.

NEVER attach a rope, cable or other device to the control lever on the log splitter.

DO NOT modify or change the engine and operating speeds or pressure settings. These changes can cause safety issues.

ONLY operate the log splitter in daylight.

NEVER operate, or let anyone else operate, the log splitter while under the influence of alcohol, drugs, or medication.

NEVER leave the log splitter unattended while the engine is running.

DO NOT change the splitting position with the engine running. Contact with the muffler can cause serious burns.

DO NOT let the beam drop as it could crush fingers or cause damage to the log splitter.

## Before Each Use Inspect the Log Splitter

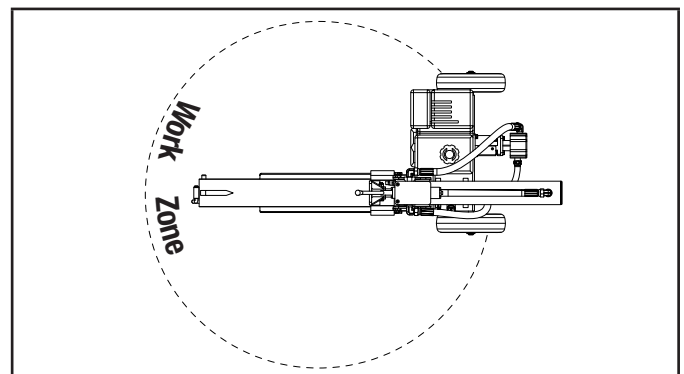
1. Check the hydraulic oil level and visually inspect all hoses, attachments and cylinder for loose fittings, leaks, cracks, fraying or other damage.
2. DO NOT operate the log splitter if there is any indication of damage.
3. Inspect the engine and make sure the oil level is correct before operating. If the engine is equipped with a spark arrestor, clean and inspect it regularly (follow spark arrestor maintenance schedule).

## Log Splitter Location

This log splitter must have at least seven feet of clearance from combustible material. Leave at least three feet of clearance on all sides of the log splitter to allow for adequate cooling, maintenance and servicing. DO NOT place the log splitter near vents or intakes where engine exhaust fumes could be drawn into occupied or confined spaces. **ONLY operate the log splitter outdoors.**

The log splitter needs to be on a dry level surface with good footing. DO NOT work on mud, ice, tall grass, brush or snow.

Only operate log splitter from work zone shown below.



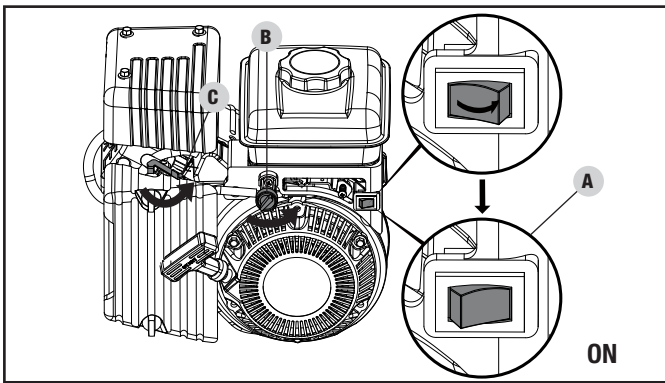
## Starting the Engine

### 🗨 NOTICE

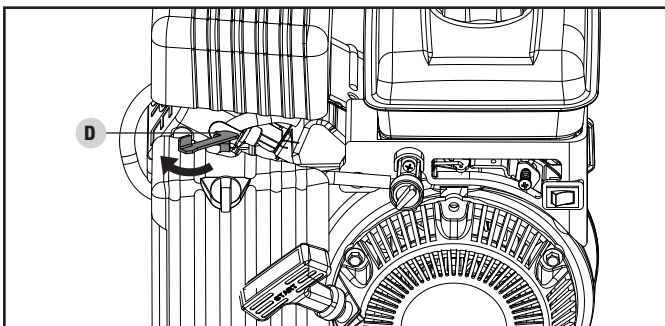
If the engine starts but does not run make certain that the log splitter is on a flat, level surface. The engine is equipped with a low oil sensor that will prevent the engine from running when the oil level falls below a critical threshold.

1. Make certain the log splitter is on a flat, level surface.
2. Flip engine switch (A) to the "ON" position.
3. Rotate the fuel valve (B) to the "ON" position.
4. Move the choke lever (C) to the "CHOKE" position.





5. Pull the starter cord slowly until resistance is felt and then pull rapidly.
6. Keep choke lever in "CHOKE" position for 2 pulls of the recoil starter. After second pull, move choke lever to the "RUN" position for up to the next 3 pulls of the recoil starter. Too much choke leads to spark plug fouling/engine flooding due to the lack of incoming air. This will cause the engine not to start.
7. As engine warms up, move the choke lever (D) to the "RUN" position.



## Stopping the Engine

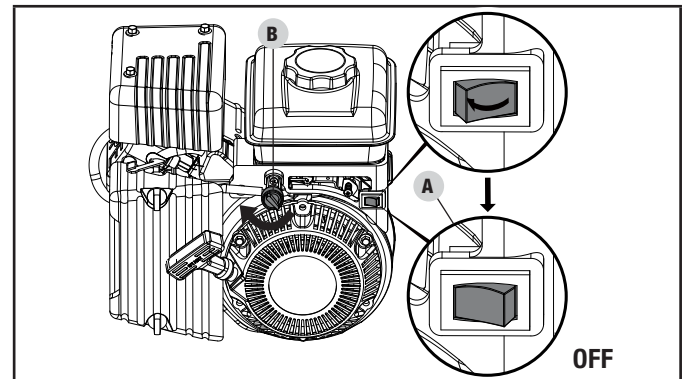
### NOTICE

Always ensure that the fuel valve and the engine switch are in the "OFF" position when the engine is not in use.

If the engine will not be used for a period of two (2) weeks or longer, please see the Storage section for proper engine and fuel storage.

1. Turn the fuel valve (B) to the "OFF" position.
2. Let the engine run until fuel starvation has stopped the engine. This usually takes a few minutes.

3. Turn the engine switch (A) to the "OFF" position.



## Log Splitter Operation

### NOTICE

Back injury can result from lifting logs onto the log splitter if proper lifting techniques are not used.

It is normal for the hydraulic fluid to appear foamy/frothy during operation. This can be caused by agitated oil in the tank collecting air.

If a log gets stuck, embedded or will not split completely, push the control handle in the reverse direction and allow the splitter to strip the log from the wedge.

ALWAYS keep hands clear of the log and wedge while it is retracting.

The cylinder stroke is designed so the wedge stops approximately 1.5 in. (3.8 cm) from the end plate.

Always wear safety goggles or safety glasses with side shields, and as necessary a full face-shield as well as full ear protection when operating this product.

Always wear safety shoes or heavy boots when operating the machine.

Always wear nonslip, heavy-duty protective gloves when operating this product.

1. Block tires and ensure support leg is secure to prevent unintended movement of the log splitter during operation.
2. Load a log onto the beam against the end plate.
3. Make sure all limbs are clear of crush zones.
4. Push the control valve handle forward (towards the endplate) to split the log.
5. Push the auto control valve handle backward to return the wedge to its original position.
6. Clear the split wood from the work zone.

## MAINTENANCE

### ⚠ WARNING

Never operate a damaged or defective log splitter.

### ⚠ WARNING

Improper maintenance will void your warranty.

### 🗨 NOTICE

For Emission control devices and systems, read and understand your responsibilities for service as stated in the Emission Control Warranty Statement of this manual.

Make certain that the log splitter is kept clean and stored properly. Only operate the unit on a flat, level surface in a clean, dry operating environment. DO NOT expose the unit to extreme conditions, excessive dust, dirt, moisture or corrosive vapors. Inspect all air vents and cooling slots to ensure that they are clean and unobstructed.

Clean spark arrester every 100 hours.

Check and tighten all bolts and nuts before operating the log splitter.

The owner/operator is responsible for all periodic maintenance.

Complete all scheduled maintenance in a timely manner.

Correct any issue before operating the log splitter.

For service or parts assistance, contact our Technical Support Team at 1-877-338-0999.

## Cleaning the Log Splitter

### ⚠ CAUTION

DO NOT spray engine with water.

Water can contaminate the fuel system and can enter the engine through the cooling slots and damage the engine.

Clear the debris from the beam, wedge and endplate.

Use a damp cloth to clean exterior surfaces of the engine and log splitter.

Use a soft bristle brush to remove excess dirt and oil.  
Use an air compressor (25 PSI) to clear dirt and small debris.

Wipe all metal parts with an oily rag to help prevent rust and corrosion.

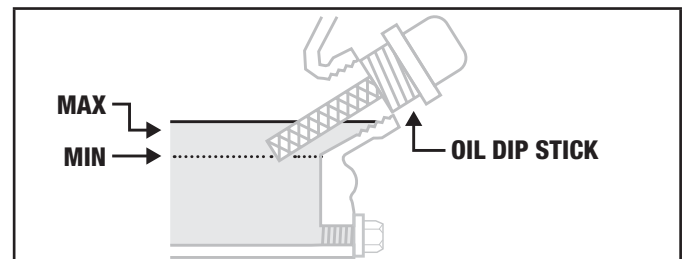
## Changing the Engine Oil

### 🗨 NOTICE

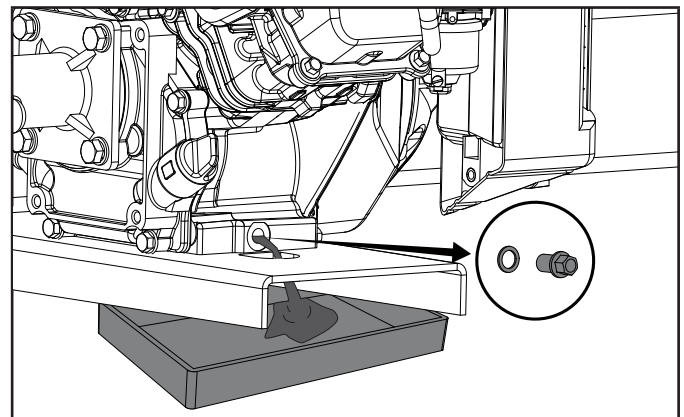
Once oil has been added, a visual check should show oil about 1-2 threads from running out of the fill hole. If using the dipstick to check oil level, DO NOT screw in the dipstick while checking.

Change oil when the engine is warm. Refer to the oil specification to select the proper grade for your operating environment.

1. Remove the oil drain plug with a 12 mm socket (not included) and extension.
2. Allow the oil to drain completely into an appropriate container.
3. Replace the oil drain plug.
4. Remove the oil fill cap/dipstick to add oil.



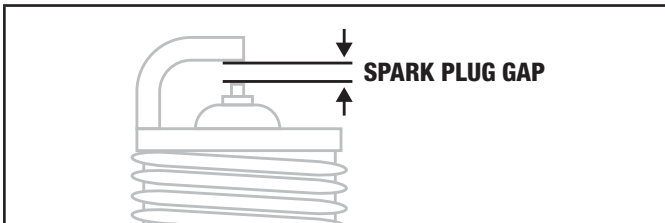
5. Using a funnel, add up to 13.5 fl. oz (0.4L) of oil (not included) and replace oil fill cap/dipstick. DO NOT OVERFILL.
6. Dispose of used oil at an approved waste management facility.



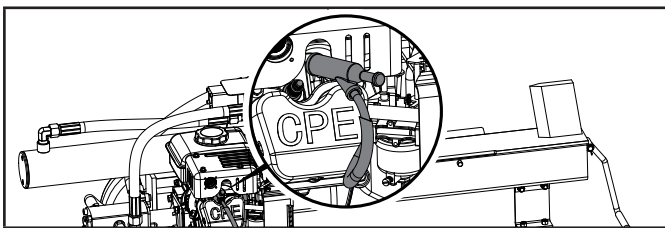


## Cleaning and Adjusting the Spark Plug(s)

1. Remove the spark plug cable from the spark plug.
2. Use a spark plug socket tool (not included), or a 13/16 in. (21 mm) socket (not included) to remove the plug.
3. Inspect the electrode on the plug. It must be clean and not worn to produce the spark required for ignition.
4. Make certain the spark plug gap is 0.028-0.031 in. (0.7-0.8 mm).

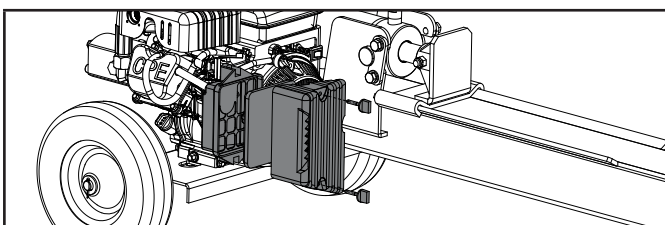


5. Refer to the spark plug types in Specifications when replacing the plug.
6. Firmly re-install the plug.
7. Attach the spark plug cable to the spark plug.



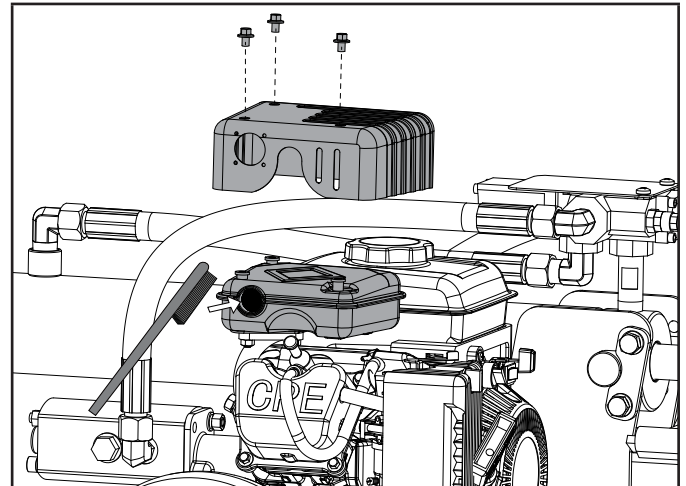
## Cleaning the Air Filter

1. Remove the plastic cover by turn the 2 thumb screws holding the cover on.
2. Remove the foam element.
3. Wash in liquid detergent and water. Squeeze thoroughly dry in a clean cloth.
4. Saturate in clean engine oil.
5. Squeeze in a clean, absorbent cloth to remove all excess oil.
6. Place the filter in the assembly.
7. Reattach the air filter cover and using your fingers, insert the thumb screws into the top and bottom holes of the air filter cover. Screw until tight. Be sure not to over tighten.



## Cleaning the Spark Arrestor

1. Allow the engine to cool completely before servicing the spark arrestor.
2. Remove the top of the muffler cover to expose the spark arrestor.
3. Carefully remove the carbon deposits from the spark arrestor screen with a wire brush.



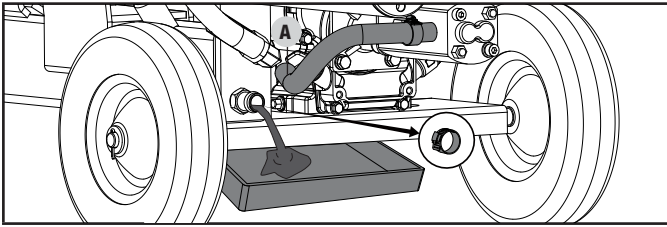
## Changing the Hydraulic Oil

### NOTICE

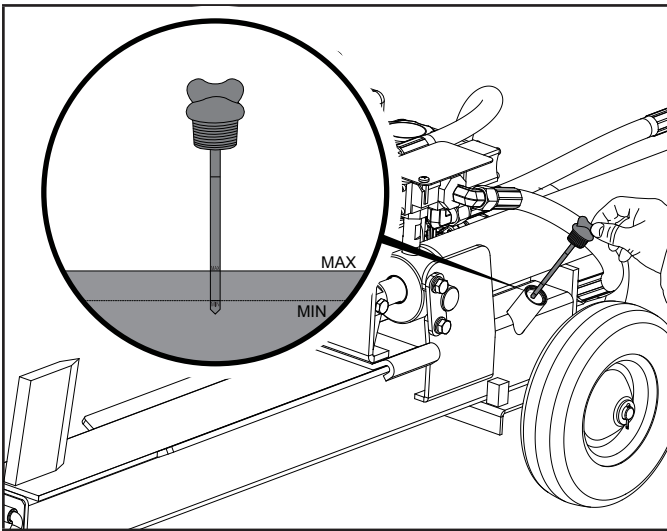
When log splitters are not used for extended periods of time and they are exposed to changing temperature conditions, moisture through condensation can build up inside the tank.

Always shut off the engine, disconnect the spark plug.

1. Begin with the cylinder retracted and the engine switch in the "OFF" position.
2. Turn the fuel valve to the "OFF" position.
3. Release any stored pressure by moving the valve lever forward and backward several times.
4. Place a container under the hydraulic tank. Make sure it is large enough to hold the contents of the tank. See model specification section of this manual for hydraulic oil capacities.
5. Disconnect the clear suction hose from the pump inlet. (A)
6. Drain oil into a collection pan or proper container.
7. Reattach the clear suction hose to the pump. (A) Securely tighten the clamp of the clear hydraulic hose with either a flat head screw driver or 6mm socket (Torque to 2.9-4.4 ft lbs.).



8. Remove dipstick and add up to 192.7 fl. oz. (5.7 L) of hydraulic oil - ISO 32. Check the hydraulic oil level using dipstick. Oil level should be between the two marks on the dipstick.



9. Start engine and purge air from hydraulic system. Extend and retract the cylinder to purge air from the hydraulic system. Cylinder motion should be smooth and continuous.

**Maintenance Schedule**

Follow the service intervals indicated in the following maintenance schedule.

Service your log splitter more frequently when operating in adverse conditions.

Contact our Technical Support Team at 1-877-338-0999 to locate the nearest CPE certified service dealer for your log splitter or engine maintenance needs.

**EVERY 8 HOURS OR DAILY**

- Check engine and hydraulic oil levels
- Clean around air intake and muffler

**FIRST 5 HOURS**

- Change engine oil

**EVERY 50 HOURS OR EVERY SEASON**

- Clean air filter
- Change engine oil and hydraulic oil if operating under heavy load or in hot environments

**EVERY 100 HOURS OR EVERY SEASON**

- Change oil
- Clean/adjust spark plug
- Check/adjust valve clearance\*
- Clean spark arrestor
- Clean fuel tank and filter\*
- Change hydraulic oil

**EVERY 250 HOURS**

- Clean combustion chamber\*

**EVERY YEAR**

- Inspect wheel bearings and repack bearing grease as needed.

**EVERY 3 YEARS**

- Replace fuel line\*

*\*To be performed by knowledgeable, experienced owners or CPE certified service centers.*

## STORAGE

Refer to the Maintenance section for proper cleaning instructions.

### **⚠ WARNING**

Never store the log splitter inside next to appliances where there is a source of heat or open flame, spark or pilot light because they can ignite gasoline vapors.

DO NOT store a log splitter near fertilizer or any corrosive material. Even with an empty gas tank, gasoline vapors could ignite.

### Log Splitter Storage

1. The log splitter needs to be cool for at least 5 minutes before storing.
2. Clean the log splitter before storage according to the Maintenance section.
3. Retract the wedge to protect the rod from corrosion.
4. Wipe the beam and wedge with an oily rag to prevent rust and corrosion.

### Engine Stored for Less than 30 Days

1. Allow the engine to cool completely before storage.
2. Clean engine according to the Maintenance section.
3. To extend the fuel storage life add a properly formulated fuel stabilizer to the tank.
4. Ensure the fuel valve is in the "OFF" position.

### Engines Stored for Over 30 Days

1. Add a properly formulated fuel stabilizer to the tank.
2. Run the engine for a few minutes so the treated fuel cycles through the fuel system and carburetor.
3. Turn the fuel valve to the "Off" position.
4. Let the engine run until fuel starvation has stopped the engine. This usually takes a few minutes.
5. The engine needs to cool completely before cleaning and storage.
6. Clean the engine according to the maintenance section.
7. Change the oil.
8. Remove the spark plug and pour about 14.8 mL (½ ounce) of oil into the cylinder. Using the Recoil, crank the engine slowly to distribute the oil and lubricate the cylinder.
9. Reattach the spark plug.

# SPECIFICATIONS

## Log Splitter Specifications

Ram Force .....	7 US Tons
Cycle Time .....	20 seconds
Hydraulic Tank Capacity .....	128.5 fl. oz.(3.8 L)
Max Log Length .....	19.3 in. (49 cm)
Max Log Weight .....	50 lb. (22.7 kg)
Tire Size .....	10 in. (25.4 cm)
Cylinder Size .....	3 in. × 17.7 in. (7.5 cm × 45 cm)
Cylinder Rod Size .....	1.2 in. (3 cm)
Gear Pump .....	2-stage
Max Pressure .....	3000 psi
Max Flow Capacity .....	3 GPM
Control Valve .....	Detent (auto-return)
Gross Weight .....	156.5 lb. (71 kg)
Net Weight .....	143.3 lb. (65 kg)
Height .....	18.1 in. (46 cm)
Height - Includes control valve handle .....	24.75 in. (62.87 cm)
Width .....	23.6 in. (60 cm)
Length .....	53.1 in. (135 cm)

## Engine Specifications

Model .....	YF152F-2-000
Displacement .....	80 cc
Type .....	4-Stroke OHV
Start Type .....	Manual

## Engine Oil Specifications

DO NOT OVERFILL.

Type .....	See Engine oil chart
Capacity .....	13.5 fl. oz (0.4L)

### NOTICE

Weather will affect engine oil and engine performance. Change the type of engine oil used based on weather conditions to suit the engine needs.

Recommended Engine Oil Type									
			10W-30						
	5W-30				10W-40				
	5W-30 Synthetic								
°F	-20	0	20	40	60	80	100	120	
°C	-28.9	-17.8	-6.7	4.4	15.6	26.7	37.8	48.9	
Ambient temperature									

## Hydraulic Oil Specifications

Type .....	See Hydraulic Oil chart
Total System Capacity .....	192.7 fl. oz. (5.7 L)

### NOTICE

Weather will affect hydraulic oil and log splitter performance. Change the type of hydraulic oil used based on weather conditions to suit the engine needs.

Recommended Hydraulic Oil Type									
			ISO 32 / SAE 10W / SAE 32 / ISO 46						
	Automatic Transmission Fluid								
°F	-20	0	20	40	60	80	100	120	
°C	-28.9	-17.8	-6.7	4.4	15.6	26.7	37.8	48.9	
Ambient temperature									

## Fuel Specifications

Use regular unleaded gasoline with a minimum octane rating of 85 and an ethanol content of less than 10% by volume. DO NOT USE E15 or E85. DO NOT OVERFILL.

Gasoline Capacity .....	0.4 gal. (1.5 L)
-------------------------	------------------

## Spark Plug Specifications

OEM Type .....	NHSP E6RTC
Replacement Type .....	NGK BPR6HS or equivalent
Gap .....	0.028-0.031 in. (0.7-0.8 mm)

## Valve Specifications

Intake Clearance .....	0.005-0.007 in. (0.13-0.17 mm)
Exhaust Clearance .....	0.007-0.009 in. (0.18-0.22 mm)

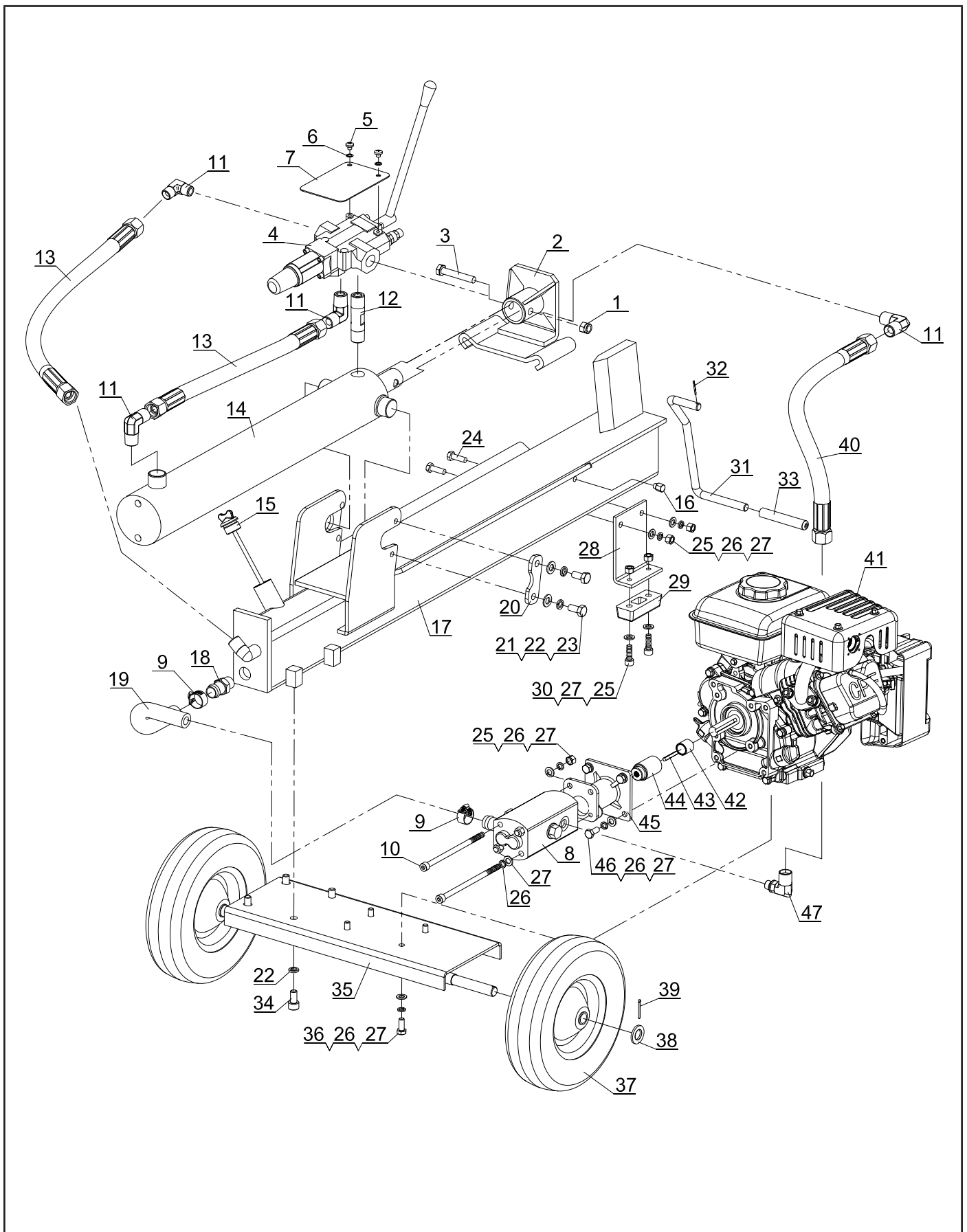
### NOTICE

A technical bulletin regarding valve adjustment procedures is available at [www.championpowerequipment.com](http://www.championpowerequipment.com).

## Important Message About Temperature

Your product is designed and rated for continuous operation at ambient temperatures up to 104°F (40°C). When your product is needed it may be operated at temperatures ranging from 2°F (-10°C) to 122°F (50°C) for short periods of time. If exposed to temperatures outside this range during storage, it should be brought back within this range before operation. In any event, the product must always be operated outdoors, in a well-ventilated area and away from doors, windows and vents.

### Parts Diagram

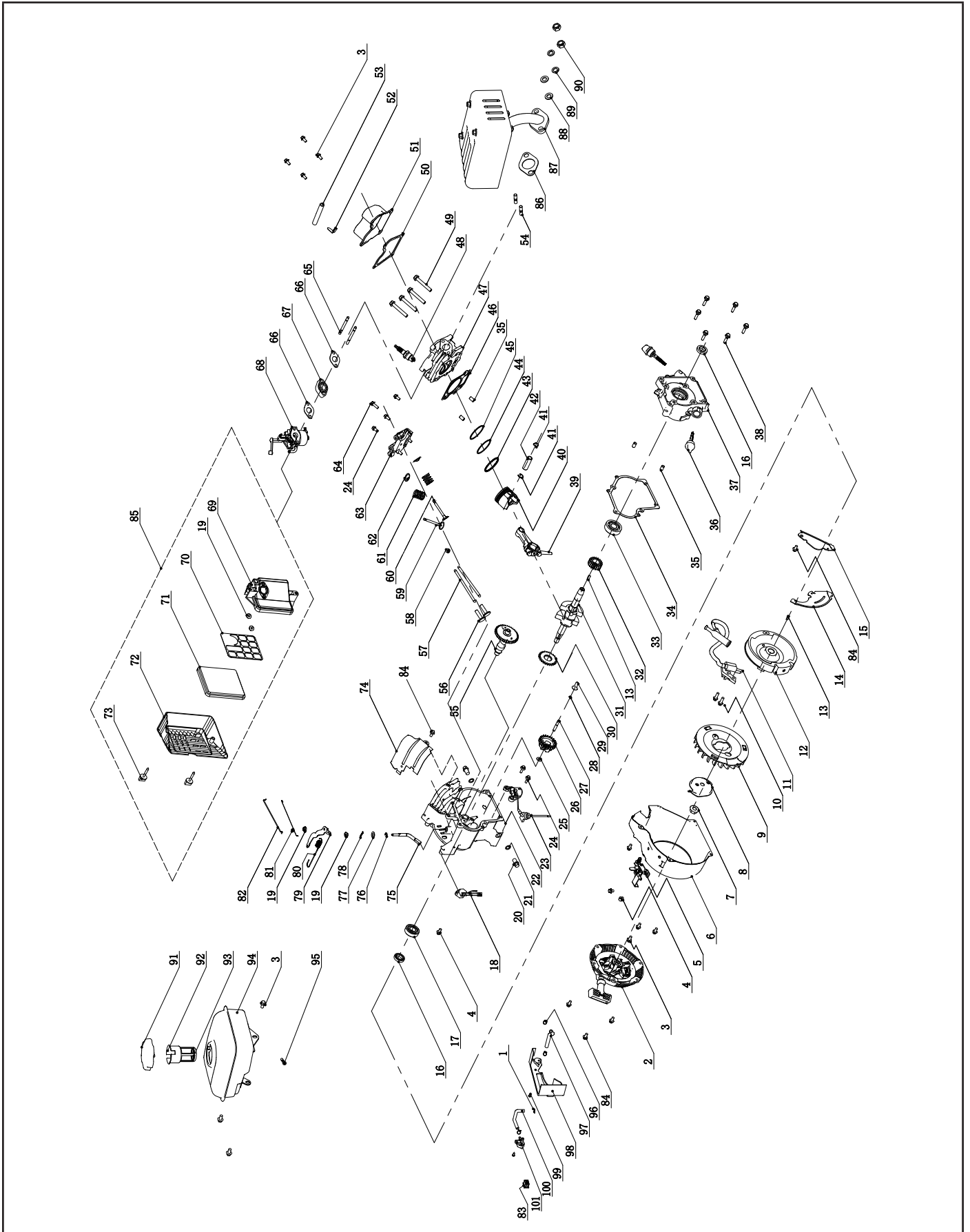


## Parts List

#	Part Number	Description	Qty.
1	G889.1-2000-M10	Lock Nut M10	1
2	PMJ7-02	Bracket	1
3	G5782-2000-M10-60	Bolt M10 × 60	1
4	PMJ7-21	Control Valve	1
5	G818-2000-M6-10	Bolt M6 × 10	2
6	G93-1987-6	Lock Washer Ø6	2
7	PMJ7-23	Plate	1
8	PMJ7-32	Gear Pump	1
9	J8870-1999-d25	Clamp d25	2
10	G70.1-2000-M8-148	Bolt M8 × 148	2
11	PMJ7-15	Right Angle Joiner 2	4
12	PMJ7-22	Through Joiner 2	1
13	PMJ7-25	Hydraulic Hose, Valve - Cylinder	2
14	PMJ7-08	Cylinder	1
15	PMJ7-05	Dipstick	1
16	PMJ7-24	Breather bolt	1
	S/N: <R19050264		
	PMJ7-24B		
	S/N: >R190790001		
17	PMJ7-01A	Beam	1
18	PMJ7-18	Through Joiner 1	1
19	PMJ7-19	Oil Pipe	1
20	PMJ15-05	Cylinder Fixing Plate	2
21	G95-2000-10	Washer Ø10	4
22	G93-1987-10	Lock washer Ø10	8
23	G5781-2000-M10-20	Bolt M10 × 20	4
24	G5780-2000-M8-25	Bolt M8 × 25	2

#	Part Number	Description	Qty.
25	G41-2000-M8	Nut M8	5
26	G93-1987-8	Lock washer Ø8	12
27	G95-2000-8	Washer Ø8	14
28	PMJ7-04	Support Leg	1
29	PMJ7-07	Rubber Damping Pad	1
30	G70.1-2000-M8-25	Bolt M8 × 25	2
31	PMJ7-06	Handle	1
32	G91-2000-2-20	Cotter Pin Ø2 × 20	1
33	PMJ7-20	Handle Sheath	1
34	G70.1-2000-M10-20	Bolt M10 × 20	4
35	PMJ7-03	Engine & Wheel Fixed Mount	1
36	G5783-2000-M8-20	Bolt M8 × 20	4
37	PMJ7-10	10 in. Solid Wheel	2
38	G95-2000-16	Washer Ø16	2
39	G91-2000-2.5-25	Cotter Pin Ø2.5 × 25	2
40	PMJ22Q-21	Hydraulic Hose (Valve-Pump)	1
41	12.101	Engine, 79.8 cc	1
42	PMJ7-12	Engine Bushing	1
43	PMJ7-13	Flat Key	1
44	PMJ7-30	Engine Connector	1
45	PMJ7-31	Gear Pump Stand	1
46	ASME-B18.2.1-1996-516-24-34	Bolt 5/16 in. - 24 × 3/4 in.	4
47	PMJ7-33	Right Angle Connector	1

# Engine Parts Diagram





## Engine Parts List

#	Part Number	Description	Qty.
1	2.06.004	Clamp Ø10.5 × Ø1	3
2	12.061000.02	Recoil Assembly	1
3	1.16674.0612	Flange Bolt M6 × 12	11
4	1.5789.0608	Flange Bolt M6 × 8	3
5	12.111000.01	Control Assembly	1
6	12.080100.02.48	Fan Cover, Yellow	1
7	1.6177.2.12	Flange Nut M12	1
8	12.060001.00	Pulley Starter	1
9	12.080001.00	Cooling Fan	1
10	1.16674.0620	Flange Bolt M6 × 20	2
11	12.123000.02	Ignition Coil, Silicon Rubber	1
12	12.120100.01	Flywheel	1
13	2.14.016	Woodruff Key 5 × 6.5 × 16	2
14	12.080014.00	Air Guide Board, Back	1
15	12.080014.01	Air Guide Board, Front	1
16	2.11.009	Oil Seal Ø17 × Ø30 × 6	2
17	1.276.6203	Bearing 6203	1
18	21.120400.01	Diode Assembly	1
19	1.6177.06	Flange Nut M6	4
20	2.08.037	Drain Bolt M10 × 1.25 × 25	2
21	2.03.016	Washer Ø10 × Ø16 × 1.5, Drain Bolt	2
22	12.030100.01(V1)	Crankcase	1
23	12.127000.02	Oil Level Sensor	1
24	1.16674.0616	Flange Bolt M6 × 16	5
25	2.03.020.1	Washer Ø6.2 × Ø15 × 0.5, Black	1
26	12.110100.00	Gear, Governor	1
27	12.110013.00	Shaft, Governor Gear	1
28	21.110011.00	Clip, Governor Gear	1
29	12.110012.00	Bushing, Governor Gear	1
30	12.050103.00	Crankshaft Gear	1
31	12.050101.05	Crankshaft	1
32	12.050102.00	Timing Gear	1
33	1.276.6303	Bearing 6303	1
34	12.030008.01	Gasket, Crankcase Cover	1
35	2.04.002	Dowel Pin Ø8 × 14	4
36	12.031000.00.48	Oil Dipstick Assembly, Yellow	2
37	12.030007.00	Cover, Crankcase	1
38	1.5789.0625.0.8	Flange Bolt M6 × 25	6
39	12.050200.00	Connecting Rod	1
40	12.050005.02	Piston	1
41	2.09.005	Circlip Ø16 × Ø1	2
42	12.050003.01	Pin, Piston	1
43	11.050303.00	Ring, Oil	1
44	11.050302.00	Ring, Second Piston	1
45	11.050301.00	Ring, First Piston	1

#	Part Number	Description	Qty.
46	12.030009.01(V2)	Gasket, Cylinder Head	1
47	12.010100.01(V2)	Cylinder Head	1
48	2.15.005 (E6RTC)	Spark Plug E6RTC	1
49	1.5789.0855	Flange Bolt M8 × 55	4
50	12.020002.00	Gasket, Cylinder Head Cover	1
51	12.021100.01	Cover, Cylinder Head	1
52	12.020007.00	Baffle, Line	1
53	21.020001.00	Breather Tube	1
54	2.01.010	Stud Bolt M8 × 35	2
55	12.041000.01	Camshaft	1
56	12.040013.00	Lifter, Valve	2
57	12.040005.00	Push Rod	2
58	12.040017.00	Oil Seal, Valve	1
59	12.040002.00	Valve, Intake	1
60	12.040006.00	Valve, Exhaust	1
61	12.040003.00	Spring, Valve	2
62	12.040014.00	Retainer, Valve Spring	2
63	12.040200.00	Rocker Arm Component	1
64	1.16674.0618	Flange Bolt M6 × 18	1
65	2.01.019	Stud Bolt M6 × 89	2
66	12.130002.01	Gasket, Insulator	2
67	12.130001.00	Insulator, Carburetor	1
68	12.131000.01 12.131000.02	Carburetor	1
69	12.091100.00	Base, Air Cleaner	1
70	12.091001.00	Separator, Air Cleaner	1
71	12.091003.00	Element, Air Cleaner	1
72	12.091200.00	Cover, Air Cleaner	1
73	12.091500.00	Bolt, Air Cleaner	2
74	12.080300.00	Air Guide, Upper	1
75	12.110001.00	Shaft, Governor Arm	1
76	1.896.06	Circlip Ø6	1
77	2.03.019	Washer Ø8.2 × Ø17 × 0.8	1
78	12.110008.00	Pin, Shaft	1
79	12.110003.00	Arm, Governor	1
80	12.110007.21	Spring, Governor	1

#	Part Number	Description	Qty.
81	12.110005.00	Spring, Throttle Return	1
82	12.110006.00	Rod, Governor	1
83	5.1010.003.3	Ignition Switch, Red	1
84	1.5789.0612	Flange Bolt M6 × 12	5
85	12.091000.01	Air Cleaner Assembly	1
86	12.100001.02	Gasket, Exhaust Pipe	1
87	12.101000.00	Muffler Assembly	1
88	1.848.08	Washer Ø8	2
89	1.859.08	Lock Washer Ø8	2
90	1.6175.08	Nut M8	2
91	12.070100.00	Cap, Fuel Tank, 1.8 mm	1
92	23.070303.00	Support Filter	1
93	23.070301.00	Fuel Filter, Fuel Tank	1
94	12.071000.00.1	Fuel Tank, 1.5 L	1
95	111.070300.01	Fuel Filter, Fuel Pipe	1
96	2.06.018	Clamp Ø10.5 × b8	1
97	12.070011.03	Fuel Pipe Ø4.5 × Ø8.5 × 125	1
98	12.070010.00	Veil, Fuel Tank	1
99	1.845.4213	Bolt M4.2 × 13	2
100	12.070011.01	Fuel Pipe Ø4.5 × Ø8.5 × 95	1
101	12.070400.00	Fuel Valve	1

## TROUBLESHOOTING

Problem	Cause	Solution
Engine will not start.	No fuel.	Add fuel.
	Faulty spark plug.	Replace spark plug.
	Unit loaded during start up.	Remove load from unit.
Engine will not start; Engine starts but runs roughly.	Low oil level.	Fill crankcase to the proper level. Place log splitter on a flat, level surface.
	Choke in the wrong position.	Adjust choke.
	Spark plug wire loose.	Attach wire to spark plug.
Engine shuts down during operation.	Out of fuel.	Fill fuel tank.
	Low oil level.	Fill crankcase to the proper level. Place log splitter on a flat, level surface.
Engine cannot supply enough power or overheating.	Insufficient ventilation.	Check for air restriction. Move to a well ventilated area.
Wedge movement is slow or erratic.	Air in the hydraulic oil system.	Purge air by extending and retracting the wedge several times until motion is smooth.
	Debris lodged in beam guides.	Clear debris from beam.
	Low hydraulic oil.	Check oil level and add as needed.
Oil leak from cylinder.	Faulty cylinder rod seal.	Contact Customer Service.
	Scored or bent cylinder rod.	Contact Customer Service.
	Loose hydraulic fitting.	Tighten hydraulic fitting.
	Faulty combination washer seal on cylinder hydraulic fitting.	Contact Customer Service.
Wedge will not extend or retract.	Faulty control valve.	Contact Customer Service.
	Faulty hydraulic pump.	Contact Customer Service.
	Low hydraulic oil.	Check oil level and add as needed.
Excessive bouncing while towing.	Under-inflated tires.	Inflate tires to proper pressure. Refer to tire sidewall.

### For further technical support:

Technical Support Team  
 Mon-Fri 8:30 AM-5:00 PM (PST/PDT)  
 Toll Free 1-877-338-0999  
[support@championpowerequipment.com](mailto:support@championpowerequipment.com)

## WARRANTY\*

CHAMPION POWER EQUIPMENT

2 YEAR LIMITED WARRANTY

### Warranty Qualifications

To register your product for warranty and FREE lifetime call center technical support please visit:

<https://www.championpowerequipment.com/register>

To complete registration you will need to include a copy of the purchase receipt as proof of original purchase. Proof of purchase is required for warranty service. Please register within ten (10) days from date of purchase.

### Repair/Replacement Warranty

CPE warrants to the original purchaser that the mechanical and electrical components will be free of defects in material and workmanship for a period of two years (parts and labor) from the original date of purchase and 180 days (parts and labor) for commercial and industrial use. Transportation charges on product submitted for repair or replacement under this warranty are the sole responsibility of the purchaser. This warranty only applies to the original purchaser and is not transferable.

### Do Not Return The Unit To The Place Of Purchase

Contact CPE's Technical Service and CPE will troubleshoot any issue via phone or e-mail. If the problem is not corrected by this method, CPE will, at its option, authorize evaluation, repair or replacement of the defective part or component at a CPE Service Center. CPE will provide you with a case number for warranty service. Please keep it for future reference. Repairs or replacements without prior authorization, or at an unauthorized repair facility, will not be covered by this warranty.

### Warranty Exclusions

This warranty does not cover the following repairs and equipment:

#### Normal Wear

Products with mechanical and electrical components need periodic parts and service to perform well. This warranty does not cover repair when normal use has exhausted the life of a part or the equipment.

#### Installation, Use and Maintenance

This warranty will not apply to parts and/or labor if the product is deemed to have been misused, neglected, involved in an accident, abused, loaded beyond the product's limits, modified, installed improperly or connected incorrectly to any electrical component. Normal maintenance is not covered by this warranty and is not required to be performed at a facility or by a person authorized by CPE.

### Other Exclusions

This warranty excludes:

- Cosmetic defects such as paint, decals, etc.
- Wear items such as filter elements, o-rings, etc.
- Accessory parts such as hoses, storage covers, etc.
- Failures due to acts of God and other force majeure events beyond the manufacturer's control.
- Problems caused by parts that are not original Champion Power Equipment parts.

### Limits of Implied Warranty and Consequential Damage

Champion Power Equipment disclaims any obligation to cover any loss of time, use of this product, freight, or any incidental or consequential claim by anyone from using this product. THIS WARRANTY AND THE ATTACHED U.S. EPA and/or CARB EMISSION CONTROL SYSTEM WARRANTIES (WHEN APPLICABLE) ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

This warranty gives you certain legal rights which may change from state to state or province to province. Your state or province may also have other rights you may be entitled to that are not listed within this warranty.

### Contact Information

#### Address

Champion Power Equipment, Inc.  
12039 Smith Ave.  
Santa Fe Springs, CA 90670 USA  
[www.championpowerequipment.com](http://www.championpowerequipment.com)

#### Customer Service

Mon – Fri 8:30 AM – 5:00 PM (PST/PDT)  
Toll Free: 1-877-338-0999  
[info@championpowerequipment.com](mailto:info@championpowerequipment.com)  
Fax no.: 1-562-236-9429

#### Technical Service

Mon – Fri 8:30 AM – 5:00 PM (PST/PDT)  
Toll Free: 1-877-338-0999  
[tech@championpowerequipment.com](mailto:tech@championpowerequipment.com)  
24/7 Tech Support: 1-562-204-1188

**CHAMPION POWER EQUIPMENT, INC. (CPE),  
THE UNITED STATES ENVIRONMENT PROTECTION AGENCY (U.S. EPA)  
AND THE CALIFORNIA AIR RESOURCES BOARD (CARB) EMISSION CONTROL SYSTEM WARRANTY**

**Your Champion Power Equipment (CPE) engine complies with both the U.S. EPA and state of California Air Resources Board (CARB) Exhaust and Evaporative emissions regulations.**

**YOUR WARRANTY RIGHTS AND OBLIGATIONS:**

The US EPA, California Air Resources Board, and CPE are pleased to explain the Federal and California Exhaust and Evaporative Emission Control Systems Warranty on your 2019 small off-road engine (SORE) and engine powered equipment. In California, new equipment that use small off-road engines (SORE) must be designed, built and equipped to meet the State's stringent anti smog standards. In the other states, new engines and equipment must be designed, built and equipped, at the time of sale, to meet U.S. EPA regulations for small off-road engines (SORE). CPE must warrant the exhaust and evaporative emission control system on your small off-road engine (SORE) for the period listed below, provided there has been no abuse, neglect, unapproved modification, or improper maintenance of your equipment leading to the failure of the exhaust and evaporative emission control systems.

Your evaporative emission control system may include parts such as: carburetors, fuel tanks, fuel lines, (for liquid fuel and fuel vapors), fuel caps, valves, canisters, filters, clamps, connectors, and other associated components. Also included for your exhaust emission control system may be fuel-injection system, the ignition system, catalytic converter and other exhaust emission related assemblies. Where a warrantable condition exists, CPE will repair your small off-road engine (SORE) at no cost to you including diagnosis, parts and labor.

**MANUFACTURER'S WARRANTY COVERAGE:**

This exhaust and evaporative emission control system is warranted for two years. If any exhaust and evaporative, emission related part on your engine or equipment is defective in, the part will be repaired or replaced by CPE.

**OWNER WARRANTY RESPONSIBILITIES:**

As the small off-road engine (SORE) owner, you are responsible for the performance of the required maintenance listed in your Owner's Manual. CPE recommends that you retain all your receipts covering maintenance on your small off-road engine (SORE), but CPE cannot deny warranty coverage solely for the lack of receipts.

As the small off-road engine (SORE) owner, you should be aware that CPE may deny you warranty coverage if your small, off-road engine (SORE) or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

You are responsible for presenting your small off-road engine to an Authorized CPE distribution center, service center or alternative service outlet as described in (3)(f.) below or CPE dealer or CPE, Santa Fe Springs, Ca. as soon as the problem exists. The warranty repairs shall be completed in a reasonable amount of time, not to exceed 30 days.

If you have any questions regarding your warranty coverage, you should contact:

Champion Power Equipment, Inc.  
Customer Service  
12039 Smith Ave.  
Santa Fe Springs, CA 90670  
1-877-338-0999  
tech@championpowerequipment.com

## **EXHAUST AND EVAPORATIVE EMISSION CONTROL SYSTEM WARRANTY**

The following are specific provisions relative to your Exhaust and Evaporative Emission Control System (ECS) Warranty Coverage.

- 1. APPLICABILITY:** This warranty shall apply to 1995 and later model year California small off-road engines (SORE) (for other states, 1997 and later model year engines). The ECS Warranty Period shall begin on the date the new engine or equipment is delivered to its original, end-use purchaser, and shall continue for 24 consecutive months thereafter.
- 2. GENERAL EMISSIONS WARRANTY COVERAGE**

CPE warrants to the original, end-use purchaser of the new engine or equipment and to each subsequent purchaser that each of its small off-road engines (SORE) is:

  - 2a. Designed, built and equipped to conform to U.S. EPA emissions standards for spark-ignited engines at or below 19 kilowatts and all applicable regulations adopted by the California Air Resources Board, and
  - 2b. Free from defects in materials and workmanship that cause the failure of a warranted part to be identical in all material respects to the part as described in the engine manufacturer's application for certification for a period of two years.
- 3. THE WARRANTY ON EXHAUST AND EVAPORATIVE EMISSION-RELATED PARTS WILL BE INTERPRETED AS FOLLOWS:**
  - 3a. Any warranted part that is not scheduled for replacement as required maintenance in the Owners Manual shall be warranted for the ECS Warranty Period. If any such part fails during the ECS Warranty Period, it shall be repaired or replaced by CPE according to Subsection "d" below. Any such part repaired or replaced under the ECS Warranty shall be warranted for any remainder of the ECS Warranty Period.
  - 3b. Any warranted, exhaust and evaporative emissions-related part which is scheduled only for regular inspection as specified in the Owners Manual shall be warranted for the ECS Warranty Period. A statement in such written instructions to the effect of "repair or replace as necessary", shall not reduce the ECS Warranty Period. Any such part repaired or replaced under the ECS Warranty shall be warranted for the remainder of the ECS Warranty Period.
  - 3c. Any warranted, exhaust and evaporative emissions-related part which is scheduled for replacement as required maintenance in the Owner's Manual shall be warranted for the period of time prior to the first scheduled replacement point for that part. If the part fails prior to the first scheduled replacement, the part shall be repaired or replaced by CPE according to Subsection "d" below. Any such exhaust and evaporative emissions-related part repaired or replaced under the ECS Warranty, shall be warranted for the remainder of the ECS Warranty Period prior to the first scheduled replacement point for such emissions-related part.
  - 3d. Repair or replacement of any warranted, exhaust and evaporative emissions-related part under this ECS Warranty shall be performed at no charge to the owner at a CPE Authorized Service Outlet.
  - 3e. The owner shall not be charged for diagnostic labor which leads to the determination that a part covered by the ECS Warranty is in fact defective, provided that such diagnostic work is performed at a CPE Authorized Service Outlet.
  - 3f. CPE shall pay for covered exhaust and evaporative emissions warranty repairs at non-authorized service outlets under the following circumstances:
    - i. The service is required in a population center with a population over 100,000 according to U.S. Census 2000 without a CPE Authorized Service Outlet AND
    - ii. The service is required more than 100 miles from a CPE Authorized Service Outlet. The 100 mile limitation does not apply in the following states: Alaska, Arizona, Colorado, Hawaii, Idaho, Montana, Nebraska, Nevada, New Mexico, Oregon, Texas, Utah and Wyoming.
  - 3g. CPE shall be liable for damages to other original engine components or approved modifications proximately caused by a failure under warranty of an emission-related part covered by the ECS Warranty.
  - 3h. Throughout the ECS Warranty Period, CPE shall maintain a supply of warranted exhaust and evaporative emission-related parts sufficient to meet the expected demand for such exhaust and evaporative emission-related parts.
  - 3i. Any CPE Authorized and approved exhaust and evaporative emission-related replacement part may be used in the performance of any ECS Warranty maintenance or repair and will be provided without charge to the owner. Such use shall not reduce CPE's warranty obligation.
  - 3j. Unapproved add-on or modified parts may not be used to modify or repair a CPE engine. Such use voids this ECS Warranty and shall be sufficient grounds for disallowing an ECS Warranty claim. CPE shall not be liable hereunder for failures of any warranted parts of a CPE engine caused by the use of such an unapproved add-on or modified part.

**EMISSION-RELATED PARTS INCLUDE THE FOLLOWING: (using those portions of the list applicable to the engine)**

<b>Systems covered by this warranty</b>	<b>Parts Description</b>
Fuel Metering System	Fuel regulator, Carburetor and internal parts
Air Induction System	Air cleaner, Intake manifold
Ignition System	Spark plug and parts, Magneto ignition system
Exhaust System	Exhaust manifold, catalytic converter
Miscellaneous Parts	Tubing, Fittings, Seals, Gaskets, and Clamps associated with these listed systems.
Evaporative Emissions	Fuel Tank, Fuel Cap, Fuel Lines (for liquid fuel and fuel vapors), Fuel Line Fittings, Clamps, Pressure Relief Valves, Control Valves, Control Solenoids, Electronic Controls, Vacuum Control Diaphragms, Control Cables, Control Linkages, Purge Valves, Gaskets, Liquid/Vapor Separator, Carbon Canister, Canister Mounting Brackets, Carburetor Purge Port Connector

**TO OBTAIN WARRANTY SERVICE:**

You must take your CPE engine or the product on which it is installed, along with your warranty registration card or other proof of original purchase date, at your expense, to any Champion Power Equipment dealer who is authorized by Champion Power Equipment, Inc. to sell and service that CPE product during his normal business hours. Alternate service locations defined in Section (3)(f.) above must be approved by CPE prior to service. Claims for repair or adjustment found to be caused solely by defects in material or workmanship will not be denied because the engine was not properly maintained and used.

**If you have any questions regarding your warranty rights and responsibilities, or to obtain warranty service, please write or call Customer Service at Champion Power Equipment, Inc.**

**Champion Power Equipment, Inc.**  
12039 Smith Ave.  
Santa Fe Springs, CA 90670  
1-877-338-0999  
Attn.: Customer Service  
tech@championpowerequipment.com