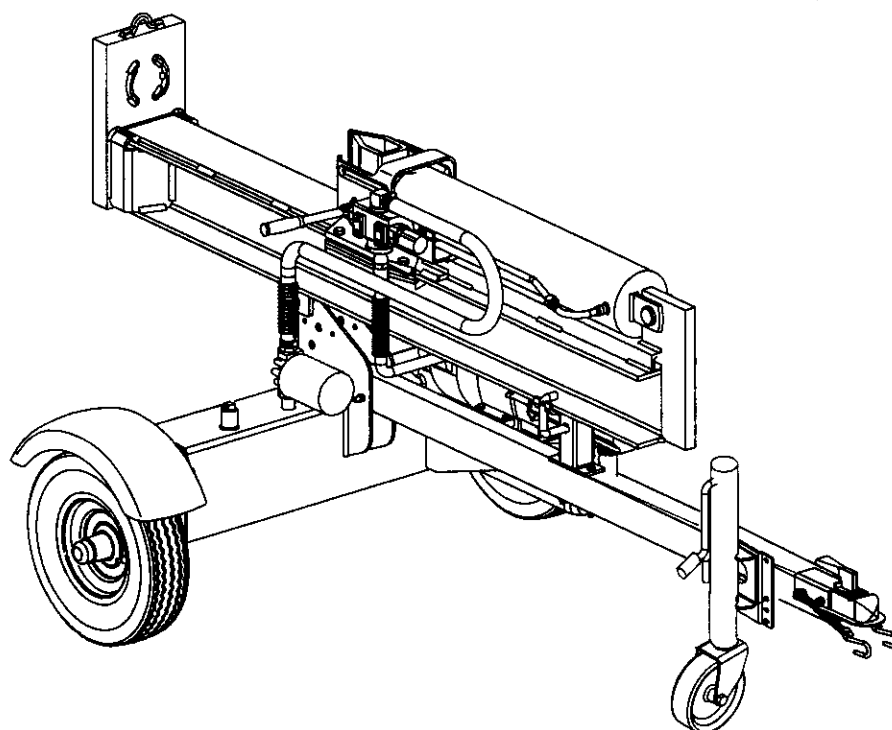


# Owner's Manual



## 33 Ton Hydraulic Log Splitter

Model Nos.  
**247.794520**



**CAUTION:** Before using this product, read this manual and follow all safety rules and operating instructions.

- Safety
- Assembly
- Operation
- Service
- Maintenance
- Español

**Sears, Roebuck And Co., Hoffman Estates, IL 60179, U.S.A.**

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# WARRANTY INFORMATION

## ONE-YEAR WARRANTY ON CRAFTSMAN LOG SPLITTER

For one year from the date of purchase, when this Craftsman log splitter is maintained, lubricated, and tuned up according to the operating and maintenance instructions in the operator's manual, Sears will repair, free of charge, any defect in material or workmanship.

This warranty excludes the tires, spark plug, oil filter and air cleaner, which are expendable parts and become worn during normal use.

If this log splitter is used for commercial or rental purposes, this warranty applies for only 30 days from the date of purchase.

Warranty service is available by contacting the nearest Sears service center in the United States. This warranty applies only while this product is in use in the United States.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Sears, Roebuck And Co., DEPT. 817WA, Hoffman Estates, IL 60179

# PRODUCT SPECIFICATIONS

<p>Horsepower: ..... 9            Engine Oil..... SAE 30/26 ounces            Fuel Capacity: ..... Unleaded/1 gallon            Hydraulic Fluid ..... Dexron III /7 gallons            Tire Pressure..... 30 p.s.i. max.            Spark Plug (Gap .030")..... Champion RJ19LM</p>	<p>Model Number . 247.794520            Serial Number.....            Date of Purchase .....</p> <p>Record model number, serial number and date of purchase of the log splitter and keep in a safe place for future reference.</p>
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# SAFE OPERATION PRACTICES



This symbol points out important safety instructions which, if not followed, could endanger the personal safety and/or property of yourself and others. Read and follow all instructions in this manual before attempting to operate your log splitter. Failure to comply with these instructions may result in personal injury. When you see this symbol—heed its warning.



## DANGER:

Your log splitter was built to be operated **according to the rules for safe operation in this manual**. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. **If you violate any of these rules, you may cause serious injury to yourself or others.**



The engine exhaust from this product contains chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

## Towing

- This unit should not be towed on any street, highway or public road without checking the existing federal, local or state requirements. Such information may be obtained by calling your state or local bureau of motor vehicles. Any licensing or modifications needed to comply with federal, local or state vehicle requirements is the sole responsibility of the purchaser.\*
- Make sure you follow the wiring diagram color codes when installing the light kit on the log splitter. (e.g. ground to ground, left turn to left turn, etc.). Failure to wire unit correctly may cause the tow vehicle wiring to overheat and/or the log splitter lights to operate incorrectly. It may be necessary to replace the turn signal flasher unit in your tow vehicle if it is not capable of operating the additional lights on the log splitter.
- Before towing the log splitter on a street, highway or public road, verify that all lights are functioning properly and the yellow side reflectors are in position. Replace bulbs if they are burnt out.
- Before towing, always check to be certain the log splitter is correctly and securely attached to the tow vehicle, and safety chains are in place. Leave slack in chains for turning allowance.
- Use a class I or higher hitch with a 1-7/8" ball. Keep ball socket and clamp face lubricated with chassis grease.
- Be sure the coupler is secured to the hitch ball and the lock lever is down tight and locked.
- Check vehicle hitch, ball and coupler for signs of wear or damage. Replace any parts that are worn or damaged before towing.
- The coupler must be secured to the log splitter tongue tube with the original equipment bolts and nuts. See your authorized service dealer for replacement parts. Coupler nuts should be tightened securely (20 foot pounds).
- Make sure beam assembly is securely latched in

the horizontal position and jack stand (if provided) is pivoted and secured in the up position before towing log splitter. Never tow with the beam in vertical position.

- Do not tow the log splitter faster than 45 MPH. Higher speeds may damage log splitter. Excessive high speeds may cause the log splitter to "fishtail" or otherwise become unstable.
- Check the tire pressure on the log splitter tires. It should not exceed 30 p.s.i. for highway travel.
- When parking, storing or using your log splitter, keep the coupler off the ground so dirt will not build up in the ball socket.
- Do not allow anyone to sit or ride on your log splitter. They can easily fall off and be seriously injured.

## Training

- Before operating this log splitter, read and understand this operator's manual completely. Become familiar with it for your own safety. To fail to do so may cause serious injury. Do not allow anyone to operate your log splitter who has not read this manual. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
- Never use your splitter for any other purpose than splitting wood. It is designed for this use and any other use may cause an injury. Your log splitter is a precision piece of power equipment, not a toy. Therefore, exercise extreme caution at all times.
- Never allow children to operate your log splitter. Do not allow adults to operate it without proper instruction. Only persons well acquainted with these rules of safe operation should be allowed to use your log splitter.
- Only the operator is to be near your log splitter during use. Keep all others, including pets and children, a minimum of 20 feet away from your work zone. Flying wood can be hazardous. If a helper is assisting in loading logs, never activate

the control until the helper is clear of the area. More accidents occur when more than one person operates the log splitter than at any other time.

- No one should operate this unit while intoxicated or while taking medication that impairs the senses or reactions. A clear mind is essential for safety. Never allow a person who is tired or otherwise not alert to use your log splitter.

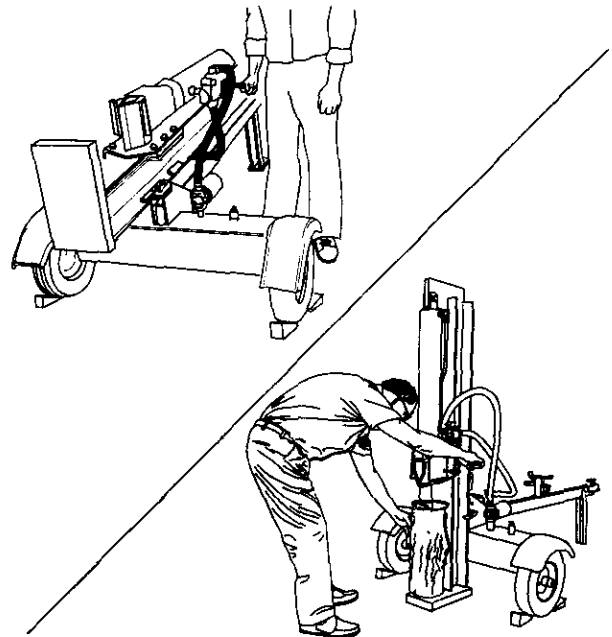
### Preparation

- Never wear loose clothing or jewelry that can be caught by moving parts of your log splitter and pull you into it. Keep clothing away from all moving parts of your log splitter.
- Wear proper head gear to keep hair away from moving parts. Always wear protective hearing devices as needed.
- Always wear safety shoes. A dropped log can seriously injure your foot.
- Always wear safety glasses or goggles while operating your splitter. A piece of splitting log could fly off and hit your eyes.
- Wear leather work gloves. Be sure they are tight fitting without loose cuffs or draw strings.
- Use your log splitter in daylight, or under good artificial light.
- Never operate your splitter on slippery, wet, muddy or icy surfaces. Safe footing is essential in preventing accidents.
- Never operate your splitter while attached to a towing vehicle.
- Only operate your splitter on level ground and not on the side of a hill. It could tip, or rolling logs or poor footing could cause an accident. Operating the splitter on level ground also prevents the spillage of gasoline from the fuel tank.
- Never attempt to move the log splitter over hilly or uneven terrain without a tow vehicle or adequate help.
- Always block the wheels to prevent movement of log splitter while in operation.
- Check the fuel before starting the engine. Gasoline is an extremely flammable fuel. Do not fill the gasoline tank indoors, when the engine is running, or while the engine is still hot. Replace gasoline cap securely and wipe off any spilled gasoline before starting the engine as it may cause a fire or explosion.
- Both ends of each log must be cut as square as possible to help prevent the log from riding out of the splitter during operation.

### Operation

- **Vertical Operating Position:** Stand in front of the log splitter.

**Horizontal Operating Position:** Stand behind the reservoir tank. See illustrations.



- Know how to stop the unit and disengage the controls.
- Never place hands or feet between log and splitting wedge or between log and end plate during forward or reverse stroke. To do so may result in crushed or amputated fingers or toes, or worse, you may lose an arm or foot.
- Do not straddle the splitter when using it. A slip in any position could result in a serious injury.
- Do not step over your log splitter when the engine is running. You may trip or accidentally activate the splitting wedge if you step over. If you need to get to the other side, walk around.
- Never try to split two logs on top of each other. One may fly out and injure you.
- When loading the log splitter, place your hands on the side of the log, not at the ends. Never attempt to load your splitter while the splitting wedge is in motion. You may get caught by the wedge and injured.
- Only use your hand to operate the splitting wedge or control lever. Never use your foot or a rope or any other extension device. This could result in your inability to stop your splitter quickly enough to avoid injury.
- Always keep fingers away from any cracks that open in the log during splitting operation. They can quickly close and pinch or amputate your fingers.
- Never attempt to split woods across the grain. Some types of wood may burst or fly out of your splitter and result in injury to you or a bystander.

- For logs that are not cut square, the longest portion of the log should be rotated down and the most square end placed against the splitting wedge.
- Keep your work area clean. Immediately remove split wood around your splitter so that you do not stumble over it. Clean chips and dirt off end plate (wood platform) after each log is split, or whenever necessary to maintain flat contact between wood and end plate (platform).
- Never move the log splitter while the engine is running.
- Never leave your log splitter unattended with the engine running. Shut off the engine if you are leaving your splitter, even for a short period of time. Someone could accidentally activate the splitting wedge and be injured.
- Do not run engine in an enclosed area. Exhaust gases contain carbon monoxide. This odorless gas can be deadly when inhaled.
- Be careful not to touch the muffler after the engine has been running. It will be HOT!
- If the equipment should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
- When cleaning, repairing or inspecting, make certain all moving parts have stopped. Disconnect the spark plug wire and keep the wire away from the plug to prevent accidental starting.
- Perform all recommended maintenance procedures before you use your splitter.
- Do not service or repair your log splitter without disconnecting the spark plug wire and moving it away from the spark plug.
- Never store the equipment with gasoline in the tank inside of a building where ignition sources are present, such as hot water and space heaters, clothes dryers and the like. Allow the engine to cool before storing in any enclosure.
- Always store gasoline in an approved, tightly sealed container. Store the container in a cool, dry place. Do not store in a building where ignition sources are present.
- To reduce fire hazard, keep engine free of grass, leaves, wood chips, and excessive grease and oil.
- The hydraulic system of your log splitter requires careful inspection, along with the mechanical parts. Be sure to replace frayed, kinked, or otherwise damaged hydraulic components.
- Fluid escaping from a very small hole can be almost invisible. Do not check for leaks with your hand. Escaping fluid under pressure can have sufficient force to penetrate skin, causing serious personal injury. Leaks can be located by passing a piece of cardboard or wood over the suspected leak and looking for discoloration.
- Should it become necessary to loosen or remove any hydraulic fitting or line, be sure to relieve all pressure by shutting off the engine and moving the control handle back and forth several times.
- Do not remove the cap from the hydraulic tank or reservoir while your log splitter is running. Hot oil under pressure could cause injury.
- The pressure relief valve on your splitter is preset at the factory. Do not adjust the valve. Only a qualified service technician should perform this adjustment.
- Completely drain fuel tank prior to storage. This guards against accumulation of fuel fumes which could result in a fire hazard.
- Never store log splitter outside without a waterproof cover. Rain will cause rust on the inside of the cylinder.

### **Customer Responsibilities**

- Do not operate your splitter in poor mechanical condition or when in need of repair.
- Periodically check that all nuts, bolts, screws, hose clamps and hydraulic fittings are tight to be sure equipment is in safe working condition. Where appropriate, check all safety guards and shields to be sure they are in the proper position. Never operate your splitter with safety guards, shields or other protective features removed. These safety devices are for your protection.
- Replace all damaged or worn parts such as hydraulic hoses and fittings immediately with manufacturer approved replacement parts.
- Do not change the engine governor settings or overspeed the engine. This increases the hazard of personal injury. The maximum engine speed is preset by the manufacturer and is within safety limits.
- Do not alter your log splitter in any manner such as attaching a rope or extension to the control lever or adding to the width or height of the wedge. Such alterations may cause your splitter to be unsafe.

### **Important Information**

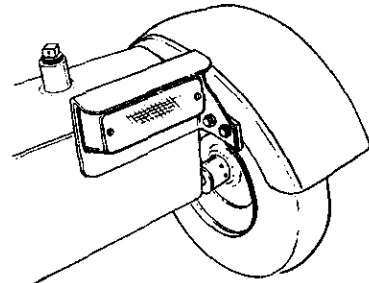
#### **Always:**

- Use clean fluid and check fluid level regularly
- Use Dexron III Automatic Transmission Fluid or 10W non-foaming hydraulic fluid.
- Use a filter (clean or replace regularly)
- Use a breather cap on fluid reservoir

- Make certain pump is mounted and aligned properly
  - Use a flexible "spider" type coupling between engine and pump drive shafts
  - Keep hoses clear and unblocked
  - Bleed air out of hoses before operating
  - Flush and clean hydraulic system before start-up after any malfunction or servicing
  - Use "pipe dope" on all hydraulic fittings
  - Allow time for warm-up before splitting wood
  - Prime the pump before initial start-up by turning over the engine with spark plug disconnected
- Split wood with the grain (lengthwise) only
- Never:**
- Use when fluid is below 20° F, or above 150° F.
  - Use a solid engine/pump coupling
  - Force pump when mounting
  - Operate through relief valve for several seconds
  - Attempt to adjust unloading or relief valve settings without pressure gauges
  - Operate with air in hydraulic system
  - Use Teflon tape on hydraulic fittings
  - Attempt to cut wood across the grain.

## ACCESSORIES

These accessories were available when the log splitter was purchased. These are also available at most Sears retail outlets, catalog and service centers. Most Sears stores can order repair parts for you when you provide the model number of your log splitter.



**Tailight Kit**

# ASSEMBLY

**IMPORTANT:** This unit is shipped **without gasoline** in the engine. After assembly, see OPERATION section of this manual for proper fuel fill-up.

## Tools and Other Items Required

- Crowbar or large screwdriver
- A pair of 9/16" or adjustable wrenches\*
- Screwdriver
- Cutters
- Engine oil
- Unleaded gasoline
- Dexron III automatic transmission fluid or 10W non-foaming hydraulic fluid (approximately 7 gallons)

## Unpacking from Crate



**WARNING:** Exercise extreme caution as parts are very heavy. Mechanical handling equipment or sufficient manpower should be used to prevent injury.

- Pry the top, sides and ends off crate using a crowbar or large screwdriver.
- Set panels aside to avoid tire punctures or personal injury.
- Remove and discard plastic bag that covers unit.

**Note:** Do not remove the banding from around the tank until the log splitter is assembled.

## Disconnecting Spark Plug

- Before you start the assembly procedure, disconnect the spark plug wire from the spark plug on the log splitter engine and move the wire away from the spark plug. This will prevent accidental starting. See Figure 1.

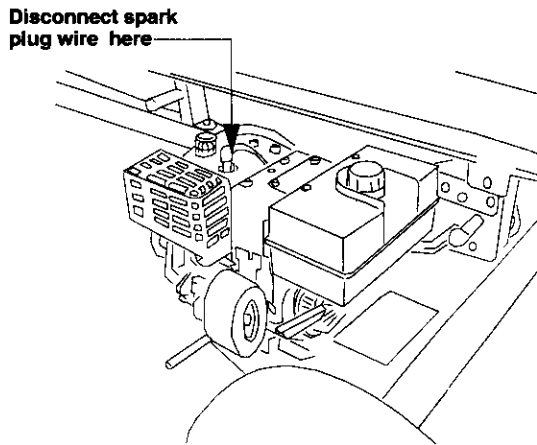


Figure 1

## Setting Up Log Splitter

**NOTE:** All hardware needed for assembling your Craftsman log splitter has been placed in position on the equipment.

- Remove the two bolts, lock washers and hex nuts that secure the tongue assembly to the beam assembly. See Figure 2.
- Unlock the two beam locks by pulling out on the beam locks and pivoting them down. Remove the tongue assembly.

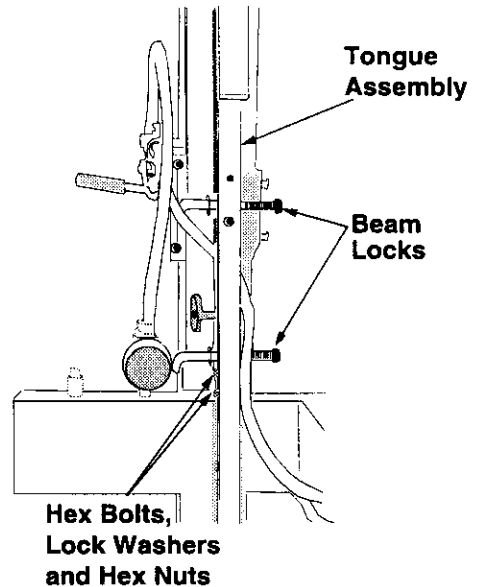


Figure 2

- Place the end of the tongue assembly in between the brackets on the wheel and the reservoir tank assembly. Secure with hardware removed earlier. See Figure 3.

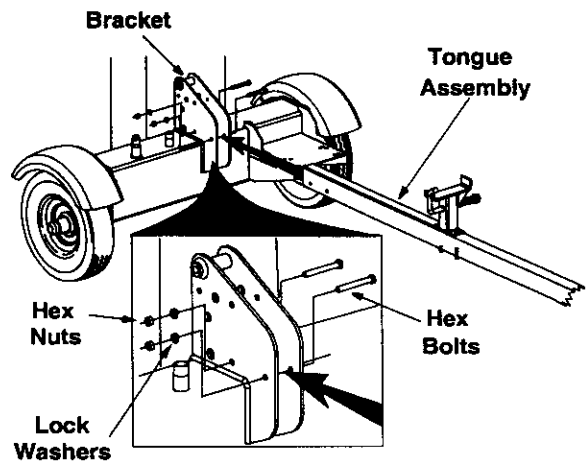


Figure 3

- Pull spring lever outward and rotate the jack stand counter-clockwise till it locks into the

upright position. Release spring lever. See Figure 4.

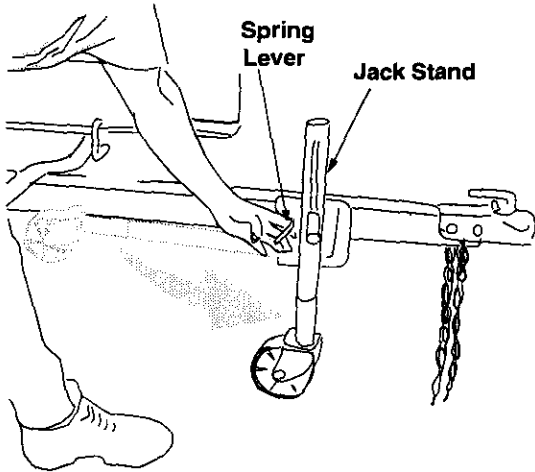


Figure 4

- Cut the two straps from around the reservoir tank assembly.
- Remove the lag screw and washer which secures the beam assembly to the bottom of the crate.

- Lower the beam assembly to its horizontal position. Make certain the beam is locked securely with the horizontal beam lock. See Figure 5.
- Pull the log splitter off the pallet.

## Final Assembly

### Tire Pressure

The tires may have been over-inflated for shipping purposes.

- Check tire pressure regularly. The tire pressure should not exceed 30 p.s.i.

### Preparing Log Splitter

- Place the log splitter on a firm, level surface.
- Lubricate the beam area where the splitting wedge will slide with engine oil (*do not use grease*). Make certain to oil both front and back of the beam face.
- Fill the reservoir with hydraulic fluid following instructions on page 10.
- Check engine oil level and refill, if necessary. Follow instructions for oil fill-up on page 10.

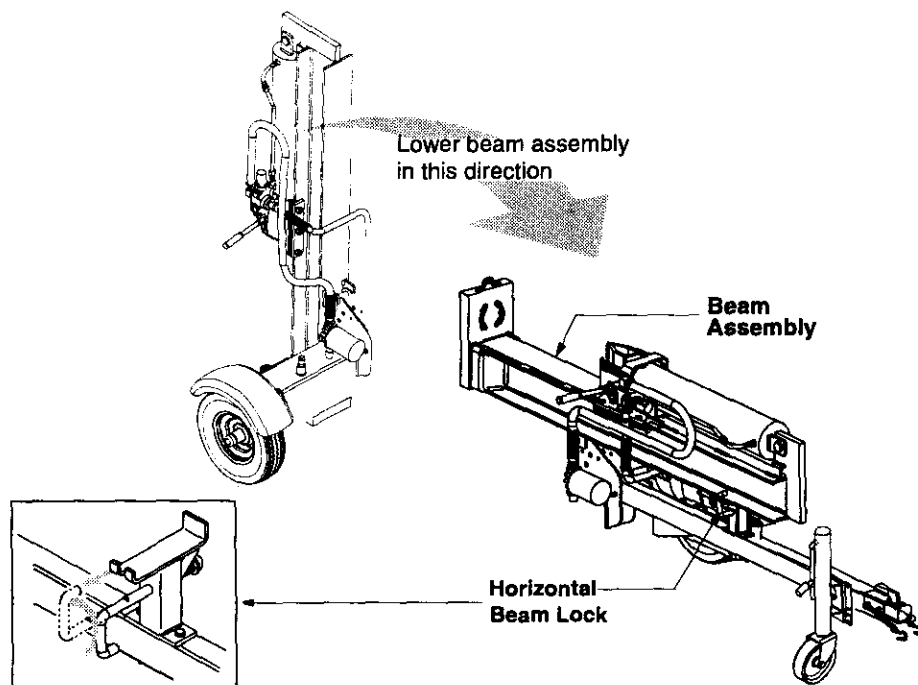


Figure 5



# OPERATIONS

## Know Your Log Splitter



Read this owner's manual and safety rules before operating your log splitter. Compare the illustrations on this page with your equipment to familiarize yourself with the location of various controls and adjustments. Save this manual for future reference. The operation of any log splitter can result in foreign objects being thrown into the eyes, which can result in severe eye damage. **Always wear safety glasses**, for operating your log splitter, or while performing any adjustments or repairs on it.

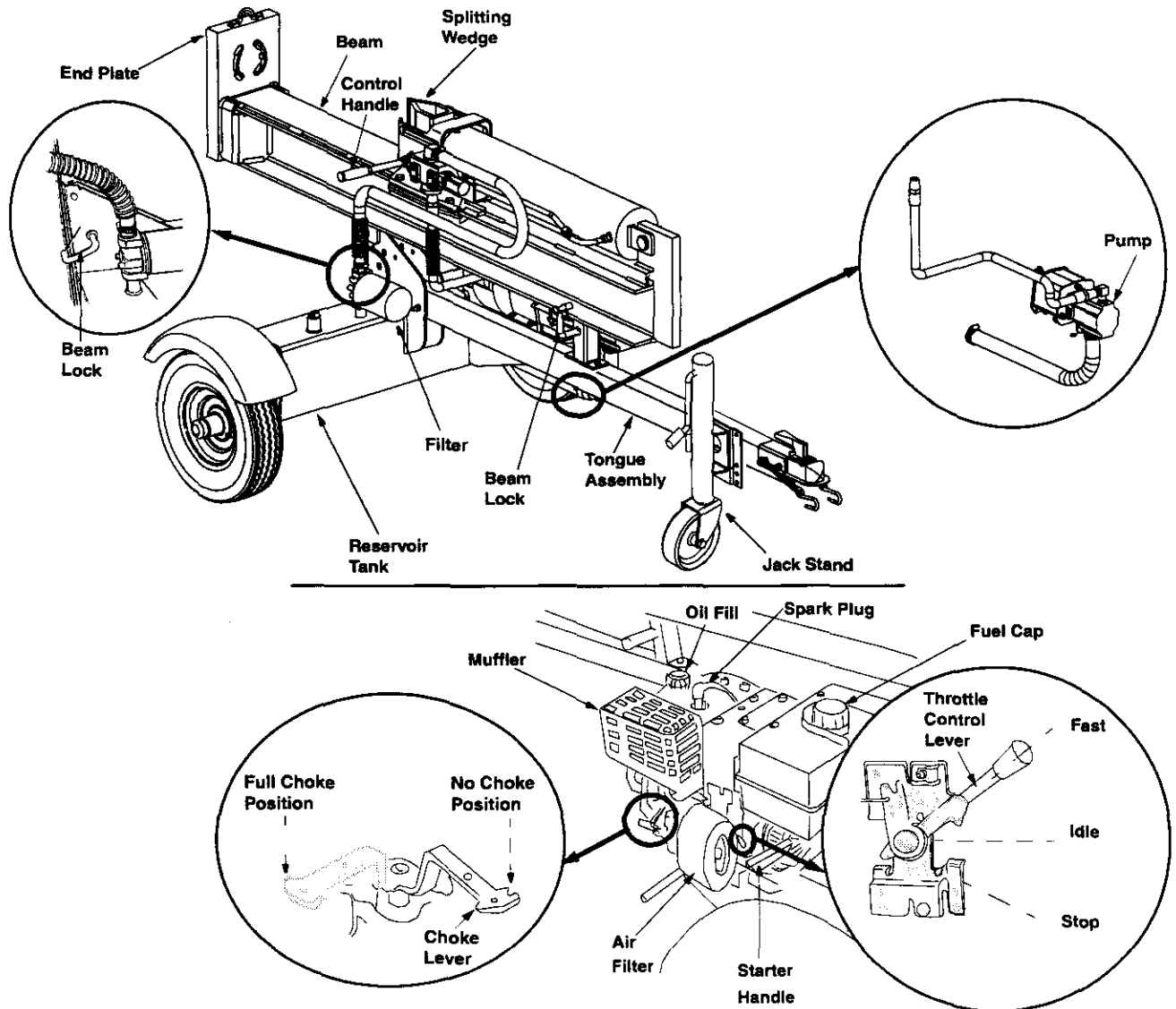


Figure 6

## MEETS ANSI SAFETY REQUIREMENTS

Sears log splitters conform to the safety standards B71.7-1985 of the American National Standards Institute.

## OPERATING CONTROLS

(See Figure 6.)



**WARNING:** Before using your log splitter, again refer to the **safety rules on pages 3-6** of this manual. **Always be careful.**

Do **not** operate the log splitter without the proper amount of hydraulic oil in the reservoir tank. Failure to refill the tank will **void** your warranty.

### Beam Locks

Located on the tongue and reservoir tank assemblies, these are used to secure the beam in the horizontal or the vertical position.

### Choke Lever

Used to enrich the fuel mixture in the carburetor when starting a cold engine.

### Starter Handle

Used to manually start the engine.

### Throttle Control

Permits selection of fast or slow engine speed.

### Control Handle

The control handle has three positions. See Figure 7.

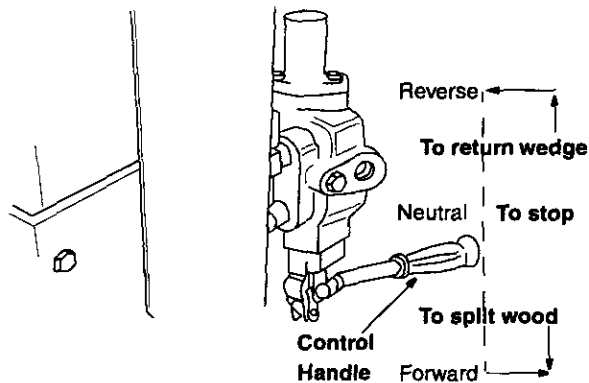


Figure 7

- Move control handle **FORWARD** or **DOWN** to split wood.

**NOTE:** Control handle will return to neutral position from forward position as soon as handle is released.

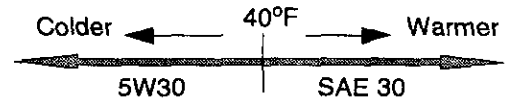
- Release the control handle to stop the wedge movement.
- Move control handle **BACK** or **UP** to return the wedge.

### Before Starting

#### Oil Fill-Up

- Only use high quality detergent oil rated with API service classification SF, SG or SH. Select

the oil's viscosity grade according to the expected operating temperature. Follow the chart below.



**NOTE:** Although multi-viscosity oils (5W30, 10W30, etc.) improve starting in cold weather, these multiviscosity oils will result in increased oil consumption when used above 40°F. Check the oil level more frequently to avoid possible engine damage from running low on oil.



**WARNING:** SAE 30 oil, if used below 40°F, will result in hard starting and possible **engine bore damage** due to inadequate lubrication.

**NOTE:** If the unit was shipped with oil in the engine, check the oil level and refill if necessary.

Fill engine with the appropriate oil as follows:

- Remove oil fill dipstick.
- With log splitter on level ground, use a funnel to fill engine oil to **FULL** mark on dipstick. Capacity is approximately 26 ounces. Be careful not to overfill.
- Replace the dipstick on to the engine and tighten. Then remove the dipstick again and wipe off the oil from the end of the dipstick with a clean cloth.
- Screw the dipstick firmly back to place. Remove to check the oil level.
- Refill oil to **FULL** mark on dipstick if necessary. Replace dipstick and tighten.

### Gasoline Fill-Up

- Remove fuel cap. See Figure 6.
- Make certain the gasoline container is clean and free from rust or foreign particles. Never use gasoline that may be stale from long periods of storage in the container.
- Fill fuel tank with about one gallon of clean, fresh, lead-free grade automotive gasoline. **DO NOT** use Ethyl or high octane gasoline.
- Replace fuel cap.



**WARNING:** Do not fill closer than 1/2 inch of top of fuel tank to prevent spills and to allow for fuel expansion. If gasoline is accidentally spilled, move log splitter away from area of spill. Avoid creating any source of ignition until gasoline vapors have disappeared.

### Reservoir Fill-Up

- Remove reservoir vent plug. See Figure 8.
- Fill the reservoir tank to about 2" from the top with 7 gallons of Dexron III automatic transmission fluid, or 10W non-foaming hydraulic fluid. Replace vent plug securely.

- Make sure the spark plug wire is disconnected. Prime the pump by pulling the recoil starter as far as it will go. Repeat approximately 10 times.
- Reconnect the spark plug wire and start engine.
- Use the control handle to engage the wedge to the far extended position. Refer to Figure 7.
- Retract the wedge.
- Fill tank to within 1-1/2" to 2" from the top of the tank.

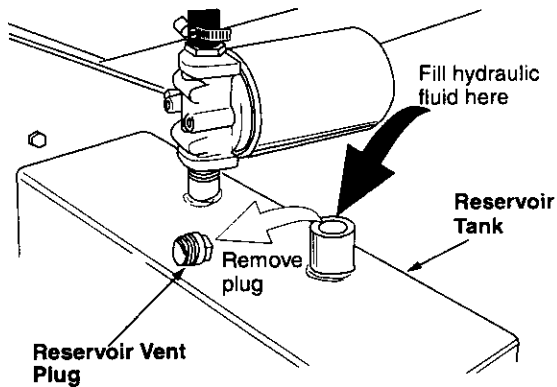


Figure 8

- Extend and retract the wedge 12 complete cycles to remove trapped air in the system (system is "self-bleeding").
- Refill the reservoir to within 1-1/2" to 2" from the top of the tank. Much of the original fluid has been drawn into the cylinder and hoses. Make certain to refill the reservoir to prevent extreme damage to the hydraulic pump.

**NOTE:** Some fluid may overflow from the vent plug as the system builds heat and the fluid expands and seeks a balanced level.

- Move control handle BACK or UP to return the wedge. See Figure 7.

### Starting Engine

- Attach spark plug wire and rubber boot to spark plug. See Figure 9.
- Place the throttle control lever in FAST position. See Figure 6 and Figure 9.
- Move choke lever to FULL CHOKE position.

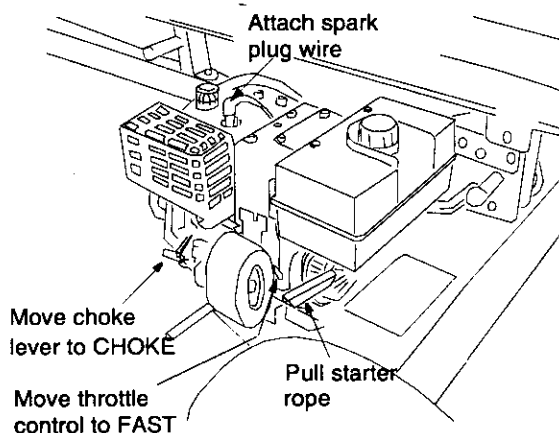


Figure 9

- Grasp starter handle and pull rope out slowly until engine reaches start of compression cycle (rope will pull slightly harder at this point). Let the rope rewind slowly.
- Pull rope with a rapid, continuous, full arm stroke. Keep a firm grip on starter handle. Let rope rewind slowly. Do not let starter handle snap back against starter.
- Repeat preceding two instructions until engine fires. When engine starts, move choke lever on engine halfway to Half Choke position and then gradually to No Choke position.
- If engine falters, move choke lever to Half Choke until engine runs smoothly and then move it to No Choke position.
- Run wedge up and down beam 6 to 8 times to circulate the hydraulic fluid, which will warm and thin the fluid.

### Stopping Engine

- Move throttle control lever to STOP position.
- Disconnect spark plug wire and move away from spark plug to prevent accidental starting while equipment is unattended.

### Raising and Lowering Beam

- Place log splitter on a firm, level surface. To raise the beam for vertical operation, pull out the beam lock on the tongue and pivot it down to release the beam.
- Move the beam to the vertical position. Secure it with the beam lock on the reservoir tank assembly. See Figure 10.

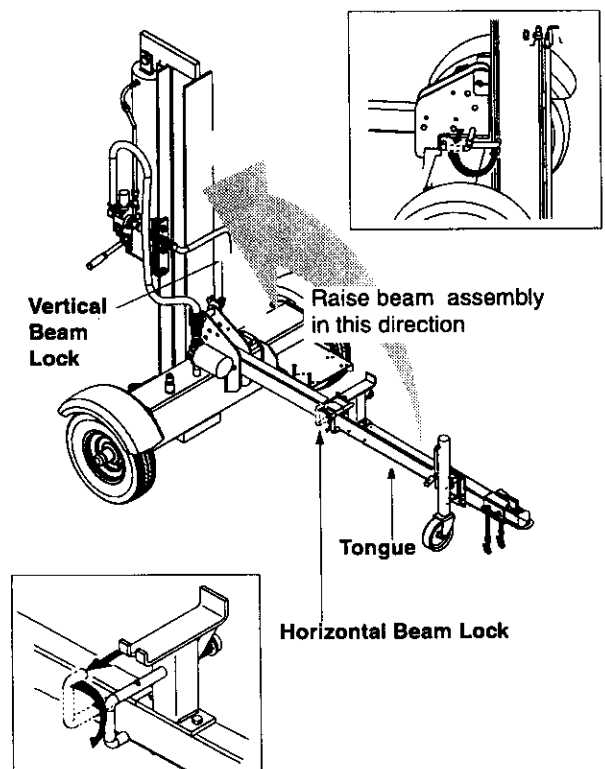


Figure 10

- To lower the beam, pull out the beam lock on the reservoir tank and pivot it down to release the beam. Carefully pull back on beam and lower it to the horizontal position. See Figure 10.
- Pull out the beam lock on the tongue, pivot it upwards and release it to hold the beam. Make certain it is latched securely.



**WARNING:** Always use the log splitter in the vertical position only when **splitting heavy logs**.

### Transporting the Log Splitter

- Lower the beam to its horizontal position. Make certain the beam is locked securely with the horizontal beam lock.
- Raise or lower jack stand to attach the hitch to a towing vehicle. Make certain to latch securely.
- Pull spring lever on jack stand outward and rotate the jack stand clockwise till it is parallel with the tongue assembly. Release the spring lever after it locks into position.
- Attach the safety chains to the towing vehicle.

### Operating Position

#### Vertical

- For vertical operation, pull out the horizontal beam lock and pivot it down to release the beam. Pivot the beam to the vertical position.
- Lock the beam in the vertical position, by pulling out on the vertical beam lock and pivoting it to the left.
- Stand in front of the log splitter. Operate the control handle with your right hand and stabilize the log, if necessary, with your left hand. See Figure 11.

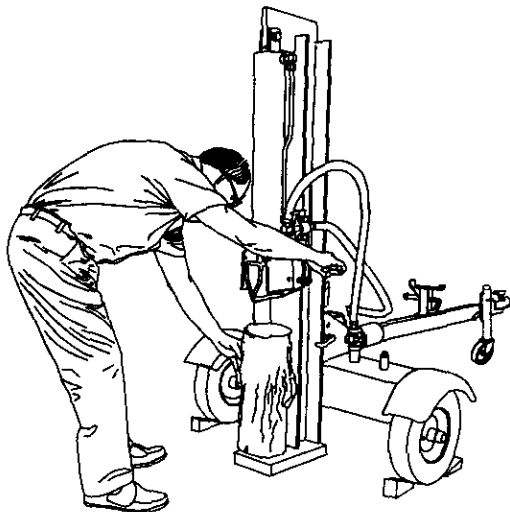


Figure 11

#### Horizontal

- For horizontal operation, pull out the vertical beam lock and pivot it down. Pivot the beam to the horizontal position.
- Lock the beam in the horizontal position, by

pulling out on the horizontal beam lock and pivoting it upwards. Refer to Figure 5 for location of beam locks.

- Stand behind the reservoir tank. See Figure 12. Operate the control handle with your right hand and stabilize the log, if necessary, with your left hand.
- Attach spark plug wire to the spark plug.

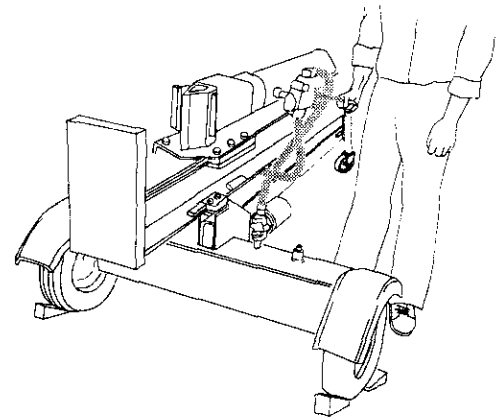


Figure 12

### Before Each Use

- Remove the vent plug and check hydraulic fluid level. Refill if necessary.
- Check engine oil level. Refill if necessary.
- Fill up gasoline if necessary.
- Lubricate with engine oil the beam area where splitting wedge will slide. Do not use grease to lubricate. Make sure to lubricate both the front and the back of the beam face.

### Operating the Log Splitter



**WARNING:** Wear leather work gloves, safety shoes and safety glasses to operate the log splitter. Watch your footing during operation and while handling the log.

- Place the log splitter on a dry, firm, level surface.
- Block the front and back of the wheels when operating (and when storing) to prevent it from moving or rolling away.
- Lock in either the horizontal or the vertical position.
- Set the engine throttle at maximum speed.
- Place the log against the end plate. Only split wood in the direction of the grain.
- Stabilize the log on its sides, **never** on the end between the log and the splitting wedge.
- **Only one adult should stabilize the log and operate the control handle** so that the operator has full control over the log and the wedge.



**WARNING:** If the hydraulic fluid becomes very hot at any time during the operation, stop the unit and **allow the fluid to cool down**. Otherwise the performance of your log splitter will be affected.

# MAINTENANCE

		Maintenance Schedule						Fill in service dates here					
		Before each use	First five hours	Every 25 hours	Every 50 Hours	Every 100 hours							
<b>Product</b>	Check reservoir fluid	✓											
	Change hydraulic fluid					✓							
	Change hydraulic filter				✓								
	Lubricate beam and wedge	✓											
<b>Engine</b>	Check engine oil	✓											
	Change engine oil		✓		✓								
	Service air cleaner foam filter			✓									
	Service air cleaner paper filter					✓							
	Clean engine	✓											
	Service spark plug				✓								
	Remove combustion deposits					✓							
	Service muffler				✓	✓							

## General Recommendations

- Always observe safety rules when performing any maintenance.
- The warranty on this log splitter does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, operator must maintain the log splitter as instructed in this manual.
- Some adjustments will need to be made periodically to maintain your unit properly.
- All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.
- Follow the maintenance schedule given below.
- Periodically check all fasteners and make sure these are tight.



**WARNING:** Always stop the engine and disconnect spark plug wire before performing any maintenance or adjustments.

## Hydraulic Fluid

- Check the hydraulic fluid level in the log splitter reservoir tank before each use. Fluid level should

be 1.5" to 2" from the top of the tank (seven gallons approximately).

- Change the hydraulic fluid in the reservoir every 100 hours of operation. Disconnect the suction hose from the bottom of the reservoir tank, and drain the fluid into a suitable container. Refill using only Dexron III automatic transmission fluid or 10W non-foaming hydraulic fluid. Also, make sure to change the hydraulic filter.

**NOTE:** Drain the fluid and flush the reservoir tank and hoses with kerosene whenever any repair work is performed on the tank, hydraulic pump or valve. Contaminants in the fluid will damage the hydraulic components. Any repair to the hydraulic components should be performed by Sears service center.

## Hydraulic Filter

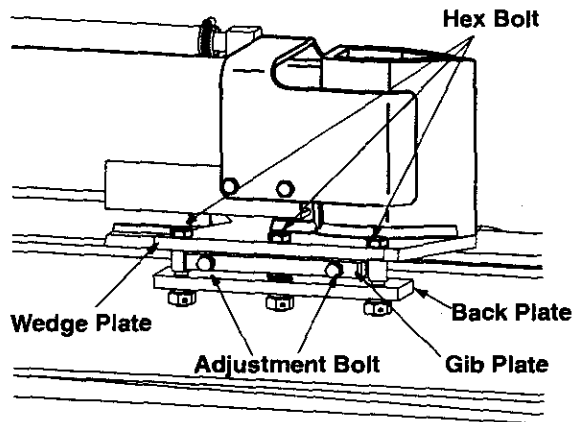
- Change the hydraulic filter every 50 hours of operation. Use only a 10 micron hydraulic filter.

## Beam And Splitting Wedge

- Lubricate both sides of the beam (where it contacts the splitting wedge) with engine oil before each use.

However, normal wear will occur. Periodically adjust the bolts on the side of the wedge plate as follows to eliminate excess space between the wedge plate and the beam.

- Loosen the lock nuts on the two adjustment bolts on the side of the gib plate, located beneath the splitting wedge. See Figure 13. Turn the adjustment bolts in until snug, then back them off **slowly** until the wedge assembly will slide on the beam.
- Tighten the lock nuts securely against the gib plate to hold the adjustment bolts in this position.



**Figure 13**

Periodically remove and replace the “gibs” (spacers) between the wedge plate and the back plate as follows.

**NOTE:** *If desired, the gibs may be rotated and/or turned over for even wear.*

- Remove the center bolt on top of the wedge plate. Slide the gib plate out. See Figure 13.
- Remove and replace the gibs. Reassemble the gib plate, making certain flat washer is in place above the gib plate.
- Readjust the bolts on the side of the wedge plate as instructed previously.

## Engine Maintenance

### Changing engine oil

- Only use high quality detergent oil rated with API service classification SF, SG or SH. Select the oil's viscosity grade according to the expected operating temperature. Refer to page 10 of this manual for viscosity chart.
- Stop engine and wait several minutes before checking oil level. With engine on level ground, the oil must be to FULL mark on dipstick.
- Change engine oil after the first five hours of operation, and every 50 hours thereafter. Change oil every 25 hours of operation if the engine is operated under heavy load, or in high ambient temperatures.

### To drain oil

Drain oil while engine is warm. Follow the instructions given below.

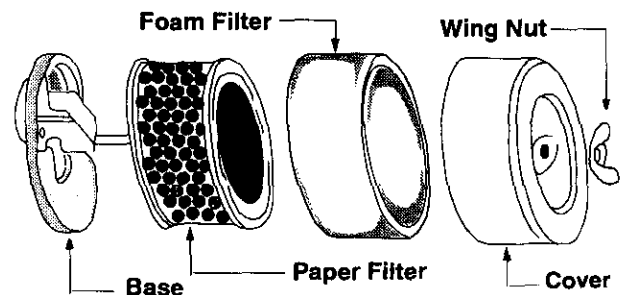
- Remove oil drain plug and dipstick. Catch oil in a suitable container.
- When engine is drained of all oil, replace drain plug securely.
- Refill with fresh oil. Refer to GAS AND OIL FILL-UP section of this manual.
- Replace dipstick.

### Air Cleaner

The air cleaner prevents damaging dirt, dust, etc., from entering the carburetor and being forced into the engine and is important to engine life and performance. The air cleaner consists of a pre-cleaner or foam filter, and a paper filter.

**Never run** the engine without air cleaner completely assembled.

1. Service pre-cleaner after every 25 hours of use, or at least once a season.
  2. Service filter every 100 hours of use, or at least once a season.
  3. Service pre-cleaner and filter more often under dusty conditions.
- Remove wing nut and cover.
  - Slide pre-cleaner off filter. Clean the inside of base and cover thoroughly.
  - Clean pre-cleaner as follows: (See Figure 14.)
    - a. Wash in water and detergent solution, and squeeze (do not twist) until all dirt is removed.
    - b. Rinse thoroughly in clear water. Wrap in a clean cloth and squeeze (do not twist) until completely dry, or allow it to air dry.
    - c. Saturate with engine oil and squeeze (don't twist) to distribute oil and remove excess oil.



**Figure 14**

**NOTE:** *If the pre-cleaner is torn or damaged in any way, replace it.*

- If necessary, replace paper filter (do not attempt to clean). Install new filter on base.
- Slide pre-cleaner over filter.
- Install cover and wing nut.

- Tighten wing nut securely.

### Clean engine

- Clean engine periodically. Remove dirt and debris with a cloth or brush. *Cleaning with a forceful spray of water is not recommended as water could contaminate the fuel system.*
- Frequently remove grass clippings, dirt and debris from cooling fins, air intake screen and levers and linkages. See Figure 15. This will ensure adequate cooling and correct engine speed.

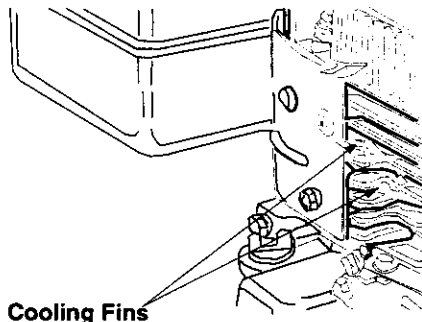


Figure 15

### Spark Plug

- Clean spark plug and reset the gap to .030" at

least once a season or every 50 hours of operation. See Figure 16. Spark plug replacement is recommended at the start of each season. Refer to engine parts list for correct spark plug type.

**NOTE:** Do not sandblast spark plug. Spark plug should be cleaned by scraping or wire brushing and washing with a commercial solvent.

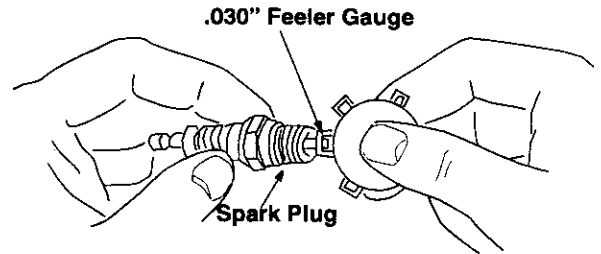


Figure 16

### Muffler



**WARNING:** Do not operate the log splitter without a muffler, or tamper with the exhaust system. Damaged mufflers or spark arresters could create a fire hazard.

## SERVICE & ADJUSTMENTS



**WARNING:** Always stop engine, disconnect spark plug wire, and move it away from spark plug before performing any adjustments or repairs.

### Tires

- See sidewall of tire for recommended pressure. Maximum tire pressure under any circumstances is 30 p.s.i. Equal tire pressure should be maintained on all tires.



**WARNING:** Excessive pressure (over 30 p.s.i.) when seating beads may cause tire/rim assembly to burst with force sufficient to cause serious injury.

### Carburetor

If you think the carburetor on your log splitter engine needs to be adjusted, contact Sears service center. Engine performance may be affected in altitudes above 4,000 feet. To improve engine performance,

install a High Altitude Adjustment Kit which is available at any authorized Tecumseh service outlet.

### Engine Speed

The engine speed on your log splitter has been set at the factory. Do not attempt to increase engine speed or it may result in personal injury. If you believe the engine is running too fast or too slow, take the equipment to the nearest Sears service center for repair and adjustment.

**Important:** Changing of engine governed speed will void engine warranty.

### Flexible Pump Coupling

The flexible pump coupling has a "spider" which is a nylon insert located between the pump and engine shaft. Over a period of time, this insert will harden and deteriorate. Replace the spider insert and/or the coupling halves if you detect vibration or noise coming from the area between the engine and the pump. If the

spider fails completely, you will experience a loss of power.



**WARNING:** Never hit the engine shaft in any manner, as a blow will cause permanent damage to the engine or the pump.

Follow the instructions carefully as the alignment of the couplings is critical.

- Disconnect the spark plug wire from the spark plug, and keep it away from the spark plug.
- Using a 1/2 inch wrench, remove three nuts and lock washers which secure the pump to the coupling shield. Two nuts are at the bottom corners and one is in the top center. See Figure 17. Remove the pump.
- Remove the nylon spider insert from the coupling and inspect for wear. Replace if necessary.
- Inspect the engine coupling half jaws for signs of wear. Replace if necessary.

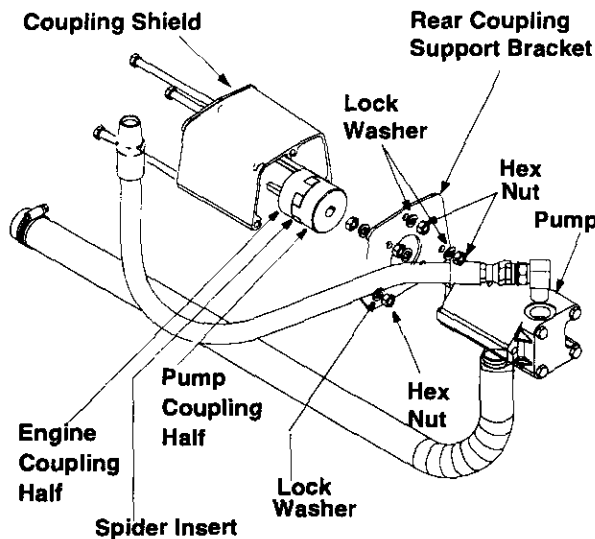


Figure 17

- **To replace engine coupling half:** Rotate the engine by pulling starter handle until engine coupling half set screw is at bottom. Loosen set screw using 1/8 inch allen wrench. Slide coupling half off engine shaft. See Figure 17.
- Install new coupling half on engine shaft making sure to align key way in coupling half with key in the engine shaft.
- Slide coupler half along engine shaft until the end of the shaft is flush with the inner portion of the coupling half. (There must be space

between end of the engine support bracket and the coupling half.) Apply Loctite™ to threads of set screw and torque to 78 inch-pounds.

- Inspect the pump coupling half jaws for signs of wear. Replace if necessary.
- **To replace pump coupling half:** Loosen set screw using 1/8 inch allen wrench. Slide coupling half off pump shaft.
- Install new coupling half on pump shaft making sure to align key way in coupling half with key in pump shaft. Rotate coupling half until set screw faces down. Do not tighten set screw now.
- Install new spider insert on to the engine coupling half.
- Align pump coupling half with nylon "spider" by rotating engine using starter handle.
- Slide coupling half into place while guiding three mounting bolts through holes in pump support bracket.

**Note:** The pump coupling half can be rotated by hand to aid in alignment. If the two parts are not aligned right, the unit will not operate properly and damage could occur.

- Secure with nuts and washers removed earlier.
- Set .035 to .060 inch clearance between the nylon "spider" and the engine coupling half by sliding a matchbox cover between the nylon "spider" and the engine coupling half and moving pump coupling half as needed. See Figure 18.
- Apply Loctite™ to threads of set screw. Tighten set screw to torque 78 inch-lbs. This should secure the pump coupling half.
- Reattach spark plug wire to spark plug.

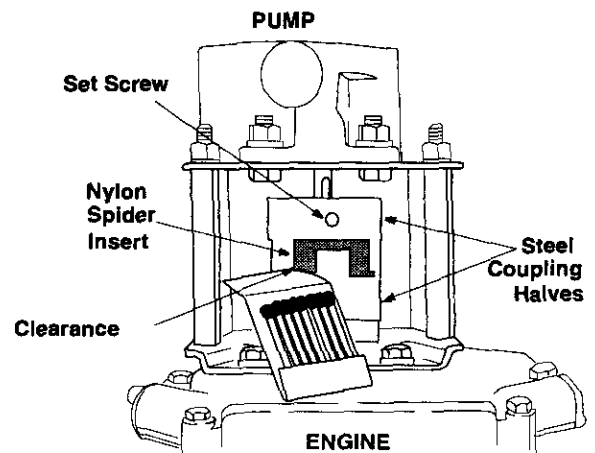


Figure 18



# STORAGE

Prepare your log splitter for storage at the end of the season or if the log splitter will not be used for 30 days or more.



**WARNING:** Never store machine with fuel in the fuel tank inside of building where fumes may reach an open flame or spark, or where ignition sources are present such as hot water and space heaters, furnaces, clothes dryers, stoves, electric motors, etc.

**NOTE:** A yearly check-up by your local Sears service center is a good way to make certain your log splitter will provide maximum performance for the next season.

## LOG SPLITTER

- Clean the log splitter thoroughly.
- Wipe unit with an oiled rag to prevent rust, especially wedge and beam.

## ENGINE

**IMPORTANT:** It is important to prevent gum deposits from forming in essential fuel system parts such as carburetor, fuel filter, fuel hose, or tank during storage. Also, experience indicates that alcohol blended fuels (called gasohol or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage.

- Drain the fuel tank.
- Start the engine and let it run until the fuel lines and carburetor are empty.
- Drain carburetor by pressing upward on bowl drain which is located below the carburetor.

- Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.
- Use fresh fuel next season.

**NOTE:** Fuel stabilizer is an acceptable alternative in minimizing the formation of fuel gum deposits during storage.

- Add stabilizer to gasoline in fuel tank or storage container.
- Always follow the mix ratio found on stabilizer container.
- Run engine at least 10 minutes after adding stabilizer to allow the stabilizer to reach the carburetor.
- Do not drain the gas tank and carburetor if using fuel stabilizer. Drain all the oil from the crankcase (this should be done after the engine has been operated and is still warm) and refill the crankcase with fresh oil.
- If you have drained the fuel tank, protect the inside of the engine as follows.
- Remove spark plug, pour approximately 1/2 ounce (approximately one tablespoon) of engine oil into cylinder and crank slowly to distribute oil.
- Replace spark plug.

## OTHER

- Do not store gasoline from one season to another.
- Replace your gasoline can if it starts to rust. Rust and/or dirt in the gasoline will cause problems. Store unit in a clean, dry area. Do not store next to corrosive materials, such as fertilizer.

**NOTE:** If storing in an unventilated or metal storage shed, be certain to rustproof the equipment by coating with a light oil or silicone.

# TROUBLE-SHOOTING

Problem	Possible Cause	Corrective Action
Cylinder rod will not move	<ol style="list-style-type: none"> <li>1. Broken drive shaft.</li> <li>2. Shipping plugs left in hydraulic hoses.</li> <li>3. Set screws in coupling not adjusted properly.</li> <li>4. Loose shaft coupling.</li> <li>5. Gear sections damaged.</li> <li>6. Damaged relief valve.</li> <li>7. Hydraulic lines blocked.</li> <li>8. Incorrect oil level.</li> <li>9. Damaged or blocked directional valve.</li> </ol>	<ol style="list-style-type: none"> <li>1. Return unit to Sears service center.</li> <li>2. Disconnect hydraulic hose, remove shipping plugs, and reconnect hose.</li> <li>3. Refer to adjustment section of this manual and adjust the couplers</li> <li>4. Correct engine/pump alignment.</li> <li>5. Return unit to Sears service center.</li> <li>6. Return unit to Sears service center.</li> <li>7. Flush and clean hydraulic system.</li> <li>8. Check oil level. Refill if necessary.</li> <li>9. Return unit to Sears service center</li> </ol>
Cylinder shaft speed slow while extending and retracting	<ol style="list-style-type: none"> <li>1. Gear sections damaged.</li> <li>2. Excessive pump inlet vacuum.</li> <li>3. Slow engine speed.</li> <li>4. Damaged relief valve.</li> <li>5. Incorrect oil level.</li> <li>6. Contaminated oil.</li> <li>7. Directional valve leaking internally.</li> <li>8. Internally damaged cylinder.</li> </ol>	<ol style="list-style-type: none"> <li>1. Return unit to Sears service center.</li> <li>2. Make certain that the pump inlet hoses are clear and unblocked. Use short, large diameter inlet hoses.</li> <li>3. Return unit to Sears service center.</li> <li>4. Return unit to Sears service center.</li> <li>5. Check oil level. Refill if necessary.</li> <li>6. Drain oil, clean reservoir, refill, make certain oil return tube is below oil level.</li> <li>7. Return unit to Sears service center.</li> <li>8. Return unit to Sears service center.</li> </ol>
Engine runs but wood will not split, or splits too slowly	<ol style="list-style-type: none"> <li>1. Small gear section damaged.</li> <li>2. Pump check valve leaking.</li> <li>3. Excessive vacuum in pump inlet.</li> <li>4. Incorrect oil level.</li> <li>5. Contaminated oil.</li> <li>6. Directional valve leaking internally.</li> <li>7. Internally damaged cylinder.</li> <li>8. Overloaded cylinder.</li> </ol>	<ol style="list-style-type: none"> <li>1. Return unit to Sears service center.</li> <li>2. Return unit to Sears service center.</li> <li>3. Make certain that the pump inlet hoses are clear and unblocked. Use short, large diameter inlet hoses.</li> <li>4. Check oil level. Refill if necessary.</li> <li>5. Drain oil, clean reservoir, refill, make certain oil return tube is below oil level.</li> <li>6. Return unit to Sears service center.</li> <li>7. Return unit to Sears service center.</li> <li>8. Do not attempt to split wood against the grain.</li> </ol>
Engine stalls during splitting wood	<ol style="list-style-type: none"> <li>1. Low horsepower/weak engine.</li> <li>2. Overloaded cylinder</li> </ol>	<ol style="list-style-type: none"> <li>1. Return unit to Sears service center.</li> <li>2. Do not attempt to split wood against the grain. If engine stalls repeatedly, contact Sears service center.</li> </ol>
Engine will not turn or stalls under low load	<ol style="list-style-type: none"> <li>1. Engine/pump misaligned.</li> <li>2. Frozen or seized pump.</li> <li>3. Weak engine.</li> <li>4. Hydraulic lines blocked.</li> <li>5. Blocked directional valve.</li> </ol>	<ol style="list-style-type: none"> <li>1. Correct alignment.</li> <li>2. Return unit to Sears service center.</li> <li>3. Return unit to Sears service center.</li> <li>4. Flush and clean hydraulic system.</li> <li>5. Return unit to Sears service center</li> </ol>
Leaking pump shaft seal	<ol style="list-style-type: none"> <li>1. Broken drive shaft.</li> <li>2. Engine/pump misaligned.</li> <li>3. Gear sections damaged.</li> <li>4. Poorly positioned shaft seal.</li> <li>5. Oil breather plugged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Return unit to Sears service center.</li> <li>2. Correct alignment.</li> <li>3. Return unit to Sears service center.</li> <li>4. Return unit to Sears service center.</li> <li>5. Make certain reservoir is properly vented.</li> </ol>

## Trouble-Shooting Guide continued

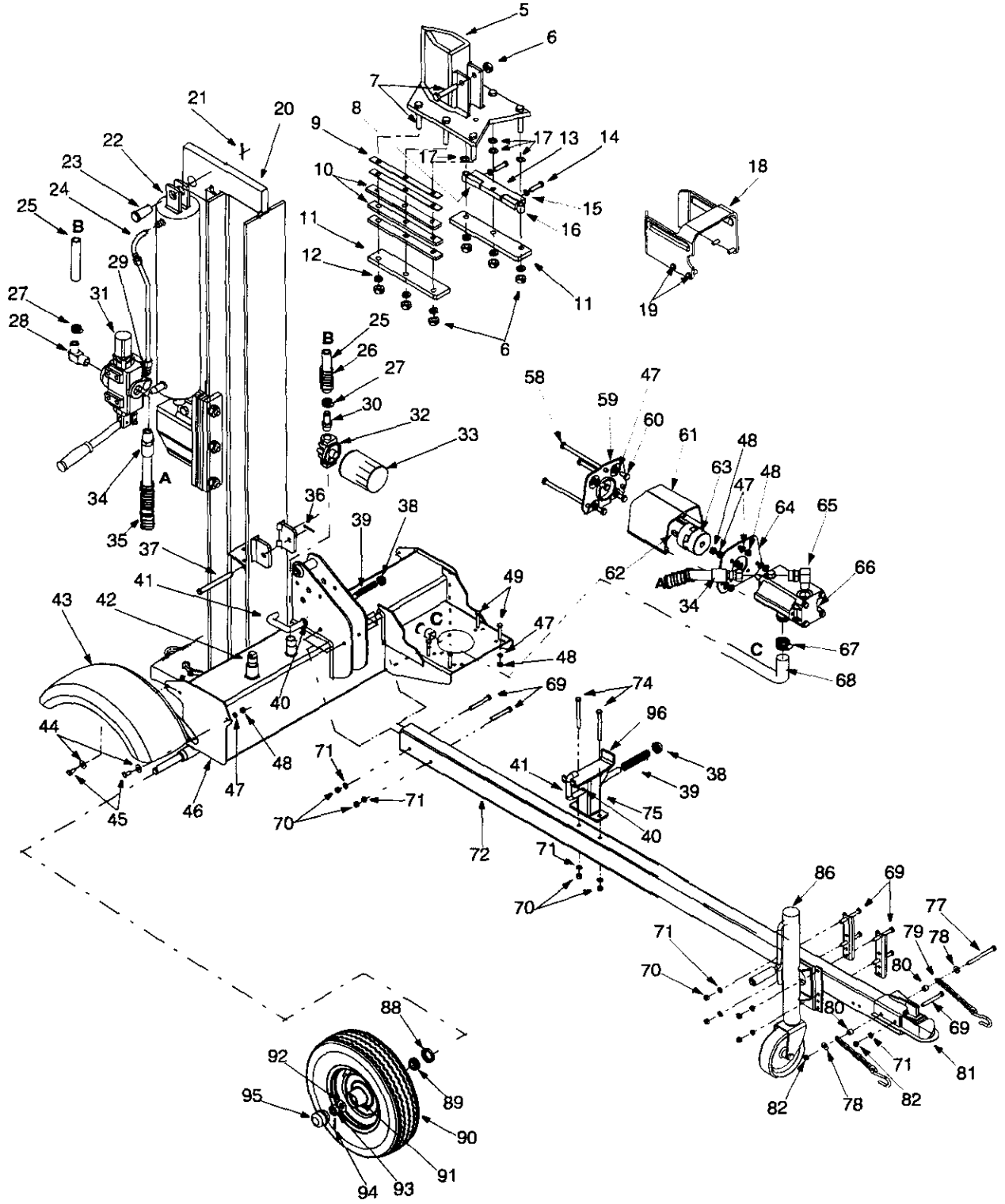
Problem	Possible Causes	Corrective Action
Engine fails to start	<ol style="list-style-type: none"> <li>1. Dirty air cleaner.</li> <li>2. Fuel tank empty, or stale fuel.</li> <li>3. Choke not in ON position.</li> <li>4. Blocked fuel line.</li> <li>5. Spark plug wire disconnected.</li> <li>6. Faulty spark plug.</li> </ol>	<ol style="list-style-type: none"> <li>1. Service air cleaner following instructions on page 14 of this manual.</li> <li>2. Fill tank with fresh fuel.</li> <li>3. Move choke to ON.</li> <li>4. Clean fuel line.</li> <li>5. Connect spark plug wire to spark plug.</li> <li>6. Service spark plug following instructions on page 15.</li> </ol>
Engine runs erratic.	<ol style="list-style-type: none"> <li>1. Unit running on choke.</li> <li>2. Spark plug wire loose.</li> <li>3. Blocked fuel line or stale fuel.</li> <li>4. Dirty air cleaner.</li> <li>5. Carburetor out of adjustment</li> </ol>	<ol style="list-style-type: none"> <li>1. Move choke lever to OFF position.</li> <li>2. Connect and tighten spark plug wire.</li> <li>3. Clean fuel line. Fill tank with fresh fuel.</li> <li>4. Service air cleaner following instructions on page 14.</li> <li>5. Contact Sears service center.</li> </ol>
Engine overheats	<ol style="list-style-type: none"> <li>1. Engine oil level low.</li> <li>2. Dirty air cleaner.</li> <li>3. Carburetor out of adjustment.</li> <li>4. Air flow restricted.</li> </ol>	<ol style="list-style-type: none"> <li>1. Fill crankcase with proper oil.</li> <li>2. Service air cleaner following instructions on page 14.</li> <li>3. Contact Sears service center.</li> <li>4. Stop engine, disconnect spark plug wire, move blower housing, and clean.</li> </ol>
Will not split logs	<ol style="list-style-type: none"> <li>1. Reservoir fluid level low.</li> </ol>	<ol style="list-style-type: none"> <li>1. Refill with Dexron III automatic transmission fluid.</li> </ol>
Leaking cylinder	<ol style="list-style-type: none"> <li>1. Broken seals.</li> <li>2. Scored cylinder</li> </ol>	<ol style="list-style-type: none"> <li>1. Return unit to Sears service center.</li> <li>2. Return unit to Sears service center.</li> </ol>



For repairs beyond the minor adjustments listed above, please contact your nearest SEARS service center.

# PARTS LIST

Craftsman 9 H.P. Log Splitter Model 247.794520



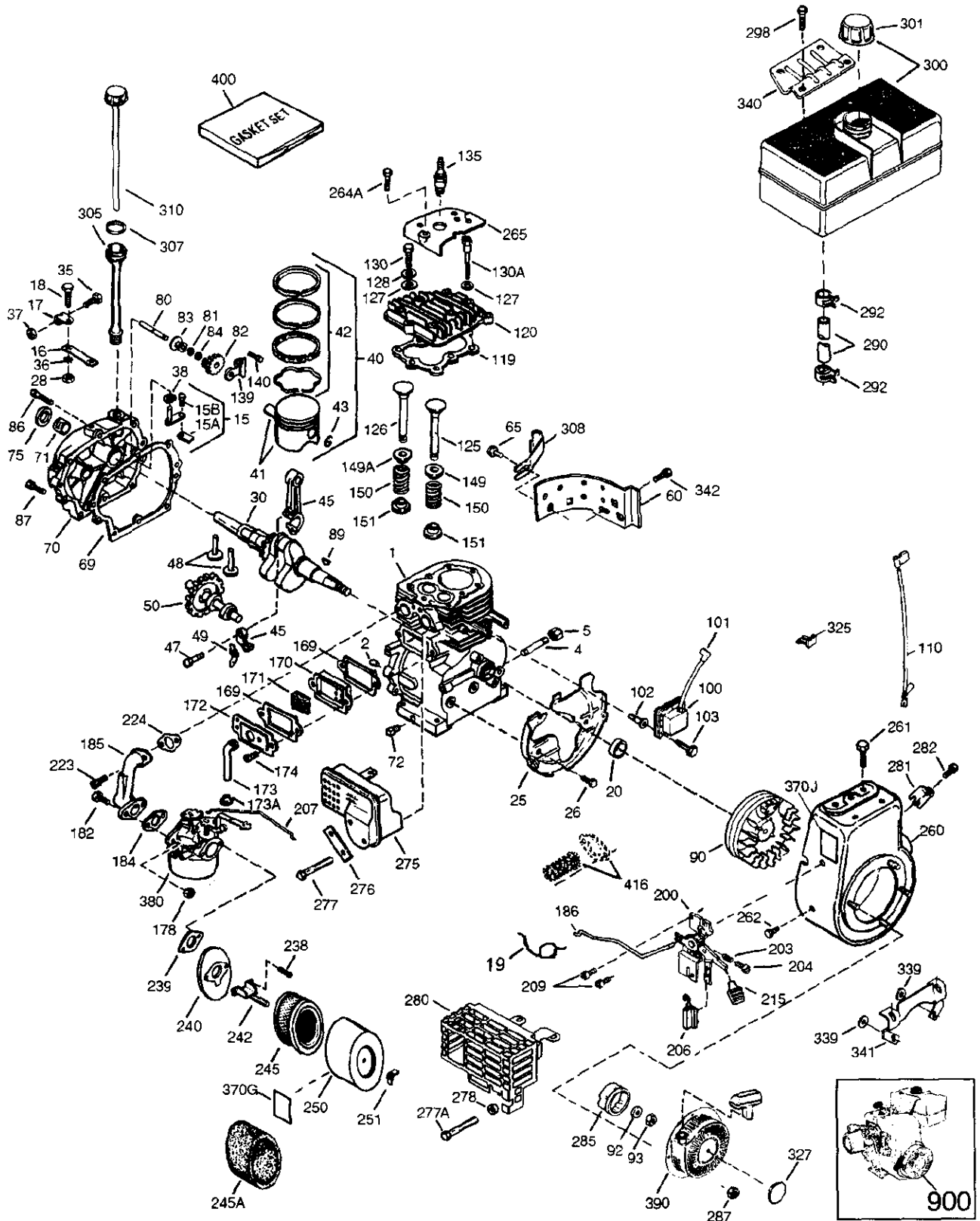
## Craftsman 9 H.P. Log Splitter Model 247.794520

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
5	781-0323B	Wedge Assembly	48	712-0123	Hex Nut 5/16-24
6	712-0239	Lock Nut 1/2-20	49	710-0409	Hex Cap Screw 5/16-24 x 1.75
7	710-1018	Hex Cap Screw 1/2-20 x 2.75	58	710-1253	Hex Screw 5/16-24 x 5.25"
8	781-0351	Adjustable Gib	59	781-0098A	Front Coupling Support Bracket
9	781-0352A	Adjustable Gib Shim	60	710-0237	Hex Cap Screw 5/16-24
10	781-0350A	Fixed Gib	61	719-0315	Coupling Shield
11	781-0537	Back Bracket	62	714-0114	Square Key
12	736-0921	Lock Washer 1/2	63	718-0685	Flexible Coupling
13	781-0356	Floating Gib Plate	64	781-0097	Rear Coupling Support Bracket
14	710-0459A	Hex Cap Screw 3/8-24 x 1.5	65	737-0264	Adapter
15	712-3001	Hex Jam Nut 3/8-24	66	718-0684	Gear Pump (16 gpm)
16	750-0750	Spacer	67	726-0174	Hose Clamp
17	736-0192	Flat Washer.531 x.93 x.090	68	727-0451	Suction Hose
18	781-0525	Dislodger Bracket	69	710-0521	Hex Cap Screw 3/8-16 x 3.0
19	710-0514	Hex Screw 3/8-16 x 1.0" Gr.5	70	712-0798	Hex Nut 3/8-16
20	681-0129	Beam Assembly w/ Tray	71	736-0169	Lock Washer 3/8
21	714-0211	Cotter Pin	72	781-0680A	Tongue Tube
22	718-0313	Hydraulic Cylinder	74	710-0411	Hex Cap Screw 3/8-16 x 4.0
23	711-1135	Clevis Pin	75	781-0398	Support Beam Assembly
24	727-0471	Hydraulic Tube	77	710-0944	Hex Cap Screw 3/8-16 x 4.25
25	727-0443	Return Hose 3/4" ID x 44" Lg	78	736-0262	Flat Washer.385 ID x.870 OD
26	781-0526	Hose Guard	79	713-0433	Chain
27	726-0132	Hose Clamp 5/8"	80	750-0497	Spacer
28	737-0153	Return Elbow	81	727-0311	Hitch Coupler
29	737-0192	90 Degree Solid Male Adapter	82	712-0375	Lock Nut 3/8-16
30	737-0235	3/4" Hose Adapter	86	681-0006	Adjustable Jack Stand
31	718-0481	Control Valve	88	721-0168	Bearing Seal Only
32	737-0306	Filter Housing	89	741-0987	Bearing Cone
33	723-0405	Oil Filter	90	634-0186	Wheel Asm Comp - Gray
34	727-0502	High Pressure Hydraulic Hose		634-0180	Rim Asm - Gray
35	781-0538	Hose Guard		734-0872	Tire 16 x 4.8
36	714-0470	Cotter Pin 1/8" Dia		734-0255	Air Valve
37	738-0805	Hinge Pin 1/2 x 4.8" Lg.	91	741-0988	Bearing Cup
38	726-0214	Push Cap	92	736-0351	Flat Washer.76" ID x 1.5" OD
39	732-0583	Comp. Spring 4" Lg.	93	712-0359	Slotted Nut 3/4-16
40	736-0116	Flat Washer .635 ID x.93 OD	94	714-0162	Cotter Pin 5/32" x 1-1/4" Lg.
41	781-0690	Locking Rod	95	734-0873	Hub Cap
42	737-0236	Pipe Plug	96	681-0110	Beam Support Assembly
43	681-0138	Fender Assembly	97	—	Tecumseh Horiz. Shaft 9 h.p. Engine Model HM90-156017 (not shown)
44	736-0159	5/16 Washer			
45	710-0157	Hex Cap Screw 5/16-24 x.75			
46	681-0103A	Frame Assembly	98	770-10032	Owner's Manual (not shown)
47	736-0119	Lock Washer 5/16			

**NOTE:** For painted parts, please refer to the list of color codes below. Please add the applicable color code, wherever needed, to the part number to order a replacement part. For instance, if a part, numbered 700-xxxx, is painted polo green, the part number to order would be 700-xxxx-0689.

Polo Green: 0689  
 Oyster Grey: 0662  
 Powder Black: 0637

Craftsman 9 H.P. Horizontal Shaft Engine Model No. 143.999003 for Craftsman Log Splitter Model 247.794520



Craftsman 9 H.P. Horizontal Shaft Engine Model No. 143.999003 for Craftsman Log Splitter Model 247.794520

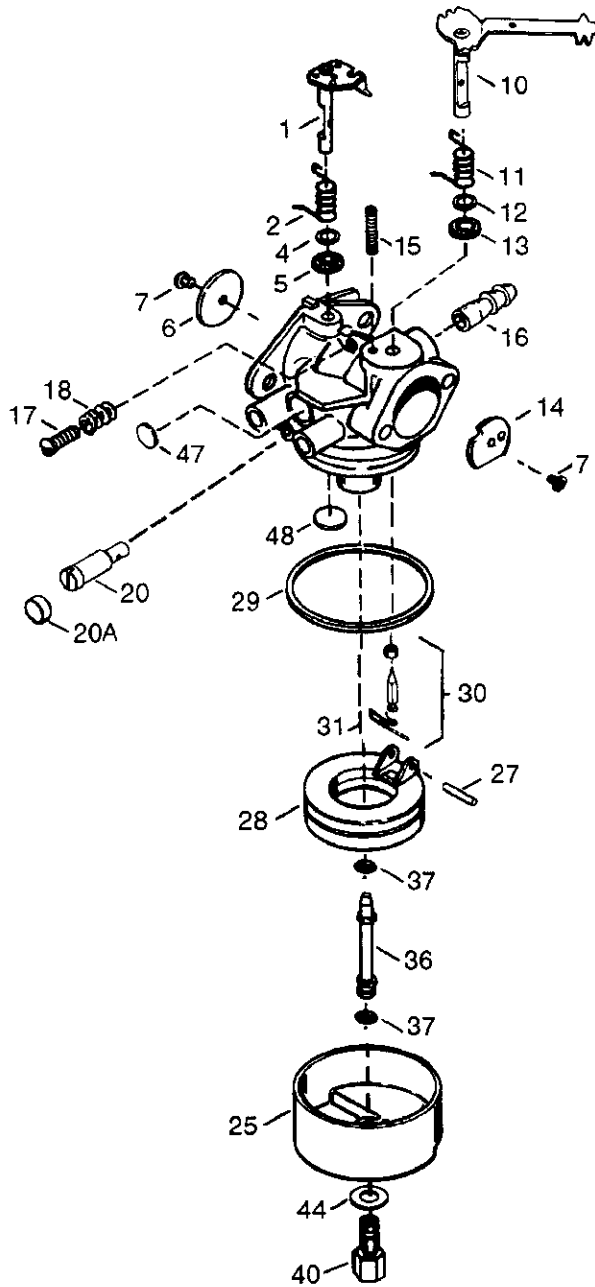
Key No.	Part No.	Description	Qty.	Key No.	Part No.	Description	Qty.
0	RPM	Low 1700		75	35319	Oil Seal	1
0	RPM	High 3450 to 3750		80	31845	Governor Shaft	1
1	35385	Cylinder (Incl. 2, 20 & 72)		81	30590A	Washer	1
2	27652	Dowel Pin		82	35378	Governor Gear Ass'y. (Incl. 81)	1
4	32678	Oil Drain Extension		83	30588A	Governor Spool	1
5	30969	Extension Cap		84	29193	Retaining Ring	1
15	30699C	Governor Rod (Incl. 15A & 15B)	1	86	650833	Screw, 1/4-20 x 1-3/16"	7
15A	30700	Governor Yoke	1	87	650832	Screw, 1/4-20 x 1-11/16"	1
15B	650494	Screw, 6-40 x 5/16"	1	89	32589	Flywheel Key	1
16	33454	Governor Lever	1	90	611090	Flywheel	1
17	29916	Governor Lever Clamp	1	92	650880	Lock Washer	1
18	651028	Screw, Torx T-15, 8-32 x 3/8"	1	93	650881	Flywheel Nut	1
19	34663	Speed Control Spring	1	100	35135	Solid State Ignition	1
20	35319	Oil Seal	1	101	610118	Spark Plug Cover	1
25	36460	Blower Housing Baffle	1	102	651024	Solid State Mounting Stud	2
26	650561	Screw, 1/4-20 x 5/8"	2	103	651007	Screw, Torx T-15, 10-24 x 15/16"	2
28	30322	Lock Nut, 8-32	1	110	35187	Ground Wire	1
30	35372A	Crankshaft	1	119	36448	Cylinder Head Gasket	1
35	29826	Screw, 10-32 x 3/4"	1	120	36449	Cylinder Head	1
36	29918	Lock Washer	1	125	27878A	Exhaust Valve (Std.) (Incl. 151)	1
37	29216	Lock Nut, 10-32	1	125	27880A	Exhaust Valve (1/32" OS) (Incl. 151)	1
38	29642	Retaining Ring	1				
40	40011	Piston, Pin & Ring Set (Std.)	1	126	34035	Intake Valve (Std.) (Incl. 151)	1
40	40012	Piston, Pin & Ring Set (.010" OS)	1	126	34036	Intake Valve (1/32" OS) (Incl. 151)	1
41	40009	Piston & Pin Ass'y. (Std.) (Incl. 43)	1	127	650691	Washer	9
41	40010	Piston & Pin Ass'y. (.010" OS) (Incl. 43)	1	128	650690	Belleville Washer	9
				130	650694A	Screw, 5/16-18 x 2"	9
42	40013	Ring Set (Std.)	1	130A	651031	Screw, 1/4-20 x 9/16"	1
42	40014	Ring Set (.010" OS)	1	135	33636	Resistor Spark Plug (RJ17LM)	1
43	27888	Piston Pin Retaining Ring	2	139	33369	Governor Gear Bracket	1
45	36897	Connecting Rod Ass'y. (Incl. 47 & 49)	1	140	650836	Screw, 10-24 x 1/2"	2
				149	27882	Valve Spring Cap	1
47	651033	Connecting Rod Bolt	2	149A	35862	Valve Spring Cap	1
48	34034	Valve Lifter	2	150	27881	Valve Spring	2
49	36896	Oil Dipper	1	151	32581	Valve Spring Keeper	2
50	35375	Camshaft (MCR)	1	169	27896A	Valve Cover Gasket	2
60	33273A	Blower Housing Extension	1	170	28423	Breather Body	1
65	650128	Screw, 10-24 x 1/2"	1	171	28424	Breather Element	1
69	35262A	Cylinder Cover Gasket	1	172	28425	Valve Cover	1
70	35376	Cylinder Cover (Incl. 71, 75 & 80)	1	173	36675A	Breather Tube	1
71	35377	Crankshaft Bushing	1	173A	32446	Breather Tube Grommet	2
72	28582	Oil Drain Plug	1	174	650128	Screw, 10-24 x 1/2"	2

**Craftsman 9 H.P. Horizontal Shaft Engine Model No. 143.999003 for Craftsman Log Splitter Model 247.794520**

Key No.	Part No.	Description	Qty.	Key No.	Part No.	Description	Qty.
178	29752	Nut & Lock Washer, 1/4-28	2	280	36799A	Heat Shield	1
182	30088A	Screw, 1/4-28 x 1"	2	281	33013	Starter Bubble Cover	1
184	33263	Carburetor To Intake Pipe Gasket	1	282	650760	Screw, 8-32 x 3/8"	1
185	34707	Intake Pipe	1	285	35985B	Starter Cup	1
186	34667	Governor Link	1	287	29752	Nut & Lock Washer, 1/4-28	4
200	34677	Control Bracket (Incl. 19,203,204 & 206)	1	290	30962	Fuel Line	1
203	31342	Compression Spring	1	292	26460	Fuel Line Clamp	2
204	651029	Screw, Torx T-10, 5-40 x 7/16"	1	298	650665	Screw, 1/4-15 x 3/4"	2
206	610973	Terminal	1	300	34186A	Fuel Tank (Incl. 292 & 301)	1
207	33878	Throttle Link	1	301	36246	Fuel Cap	1
209	650821	Screw, 10-32 x 1/2"	2	305	35554	Oil Fill Tube	1
215	35882	Control Knob	1	307	35499	"O" Ring	1
223	650378	Screw, Torx T-30, 5/16-18 x 1-1/8"	2	308	35540	Fill Tube Clip	1
224	27915A	Intake Pipe Gasket	1	310	36205	Dipstick	1
238	28820	Screw, 10-32 x 1/2"	2	325	29443	Wire Clip	1
239	27272A	Air Cleaner Gasket	1	327	35392	Starter Plug	1
240	37104	Air Cleaner Body	1	339	35880	Spacer	2
242	33267	Air Cleaner Bracket	1	340	34259	Fuel Tank Bracket	1
245	33268	Air Cleaner Filter	1	341	34258A	Fuel Tank Bracket	1
245A	35881	Air Cleaner Filter	1	342	650273	Screw, 5/16-18 x 5/8"	2
250	33269A	Air Cleaner Cover	1	370G	35274	Oil Instruction Decal	1
251	650513	Wing Nut, 1/4-20	1	370J	35703	Throttle Decal	1
260	36250	Blower Housing	1	380	640112	Carburetor (Incl. 184)	1
261	650788	Screw, 5/16-18 x 3/4"	2	390	590746	Rewind Starter	1
262	29747B	Screw, Torx T-40, 5/16-24 x 21/32"	2		(NOTE: This engine could have been built with 590704 starter.)		
264A	30063	Screw, Torx T-30, 1/4-20 x 1/2"	1	400	36454	Gasket Set (Incl. Items Marked PK in Notes)	1
265	33272B	Cylinder Head Cover	1		Incl. part #'s 27272A (1), 27896A (2), 27915A (1), 29673 (1), 33263 (1), 33629 (1), 34698A (1), 35262 (1), 36448 (1)		
275	34185B	Muffler	1				
276	31588	Locking Plate	1	416	34479A	Spark Arrestor Kit (Optional)	1
277	650729	Screw, 5/16-18 x 3-3/16"	1	900	0	Rep. Short Block 756321, order from 71-999	0
277A	651036	Screw, 5/16-18 x 3-31/32"	1				
278	36908	Spacer	1	900	0	Replacement Engine None	0

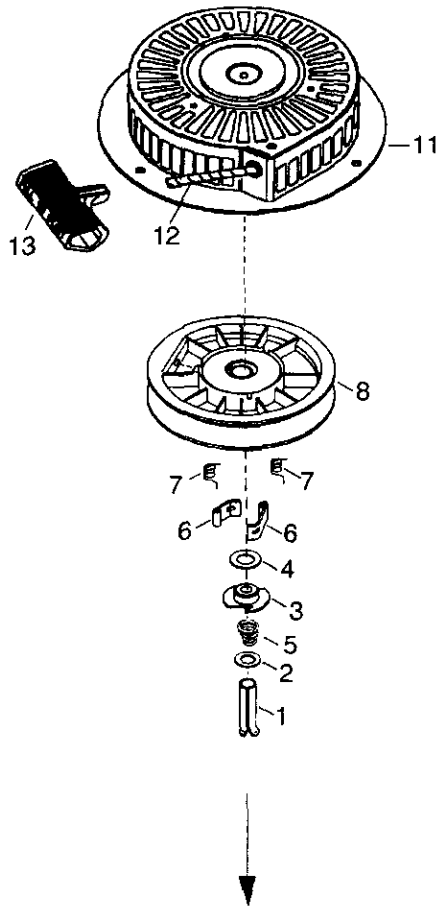


Craftsman 9 H.P. Horizontal Shaft Engine Model No. 143.999003 for Craftsman Log Splitter Model 247.794520

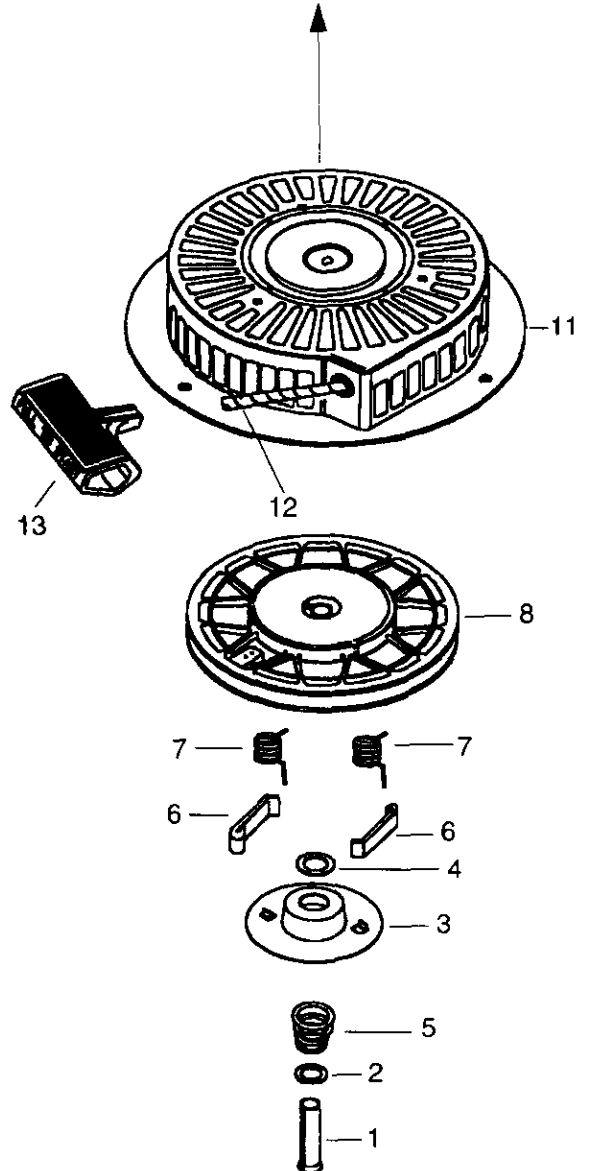


Key No.	Part No.	Description	Qty.
0	640112	Carburetor (Incl. 184 of Engine Parts List)	1
1	631776A	Throttle Shaft & Lever Assembly	1
2	631970	Throttle Return Spring	1
4	631184	Dust Seal Washer	1
5	631183	Dust Seal (Throttle)	1
6	640109	Throttle Shutter	1
10	632740	Choke Shaft & Lever Assembly	1
11	632043	Choke Return Spring	1
12	631184	Dust Seal Washer	1
13	631183	Dust Seal (Choke)	1
14	631753	Choke Shutter	1
15	630735	Choke Positioning Spring	1
16	632164	Fuel Fitting	1
17	651025	Throttle Crack Screw/Idle Speed Screw	1
18	630766	Tension Spring	1
20	640027	Idle Restrictor Screw	1
20A	640053	Idle Restrictor Screw Cap	1
25	631867	Float Bowl	1
27	631024	Float Shaft	1
28	632019	Float	1
29	631028	Float Bowl "O" Ring	1
30	631021	Inlet Needle, Seat & Clip (Incl. 31)	1
31	631022	Spring Clip	1
36	640113	Main Nozzle Tube	1
37	632547	"O" Ring, Main Nozzle Tube	2
40	640114	High Speed Bowl Nut	1
44	27110	Bowl Nut Washer	1
47	630748	Welch Plug, Idle Mixture Well	1
48	631027	Welch Plug, Atmospheric Vent	1

Craftsman 9 H.P. Horizontal Shaft Engine Model No. 143.999003 for Craftsman Log Splitter Model 247.794520



Key No.	Part No.	Description	Qty.
	590704	Recoil Starter	
1	590599A	Spring Pin (Incl. 4)	1
2	590600	Washer	1
3	590696	Retainer	1
4	590601	Washer	1
5	590697	Brake Spring	1
6	590698	Starter Dog	2
7	590699	Dog Spring	2
8	590700	Pulley & Rewind Spring Ass'y.	1
11	590705	Starter Housing Ass'y.	1
12	590535	Starter Rope ( 98" X 9/64" dia.)	1
13	590701	Starter Handle	1



Key No.	Part No.	Description	Qty.
	590746	Recoil Starter	
1	590599A	Spring Pin (Incl. 4)	1
2	590600	Washer	1
3	590679	Retainer	1
4	590601	Washer	1
5	590678	Brake Spring	1
6	590680	Starter Dog	2
7	590412	Dog Spring	2
8	590681	Pulley & Rewind Spring Assembly	1
11	590747	Starter Housing Assembly	1
12	590535	Starter Rope (Length 98" x 9/64" dia.)	1
13	590701	Starter Handle	1

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