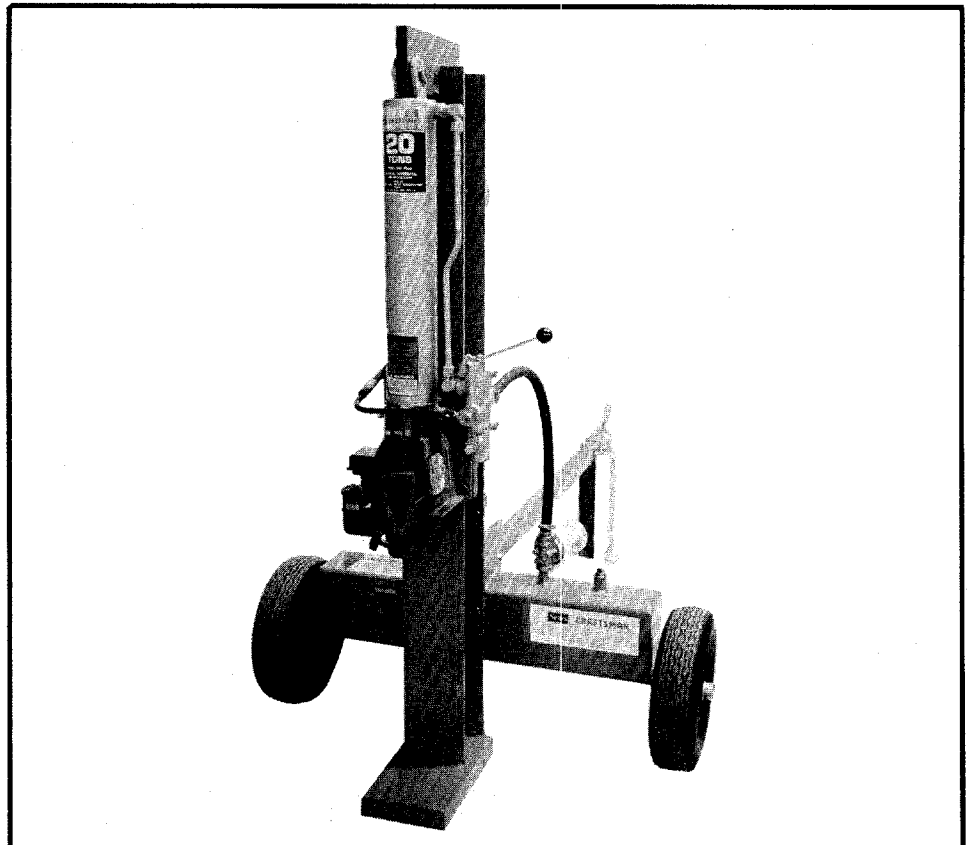


**SEARS**

**OWNER'S  
MANUAL**

**MODEL NO.  
247.287751**

**Caution:  
Read and Follow  
All Safety Rules  
and Instructions  
Before Operating  
This Equipment**



**CRAFTSMAN®**

**5 HORSEPOWER  
20 TON  
HYDRAULIC LOG SPLITTER**

**Assembly  
Operation  
Maintenance  
Service and Adjustment  
Repair Parts**

**SEARS, ROEBUCK AND CO., Chicago, IL 60684 U.S.A.**

# CRAFTSMAN WARRANTY

## LIMITED 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 instructions in the owner's manual, Sears will repair, free of charge, any defect in material and workmanship.

If this **Craftsman Log Splitter** is used for commercial or rental purposes, this warranty applies for only 30 days from the date of purchase.

**This warranty does not cover:** Expendable items which become worn during normal use, such as spark plugs.

Repairs necessary because of operator abuse or negligence, including the failure to maintain the equipment according to the instructions contained in the owner's manual.

WARRANTY SERVICE IS AVAILABLE BY CONTACTING THE NEAREST SERVICE CENTER/DEPARTMENT 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. 731CR-W

SEARS TOWER

CHICAGO, IL 60684

# OWNER'S INFORMATION

Record the following information about your unit so that you will be able to provide it in case of loss or theft.

DATE PURCHASED: \_\_\_\_\_ MODEL NO./CODE: 247.287751/\_\_\_\_\_

STORE WHERE PURCHASED: ADDRESS \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ TELEPHONE: \_\_\_\_\_

# MAINTENANCE AGREEMENT

A SEARS MAINTENANCE AGREEMENT IS AVAILABLE FOR THIS PRODUCT. CONTACT YOUR NEAREST SEARS STORE FOR DETAILS.

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# IMPORTANT

## RULES FOR SAFE OPERATION



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.



### TRAINING

- Before operating this splitter, read and understand this 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 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 playtoy. 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 splitter.



### PREPARATION

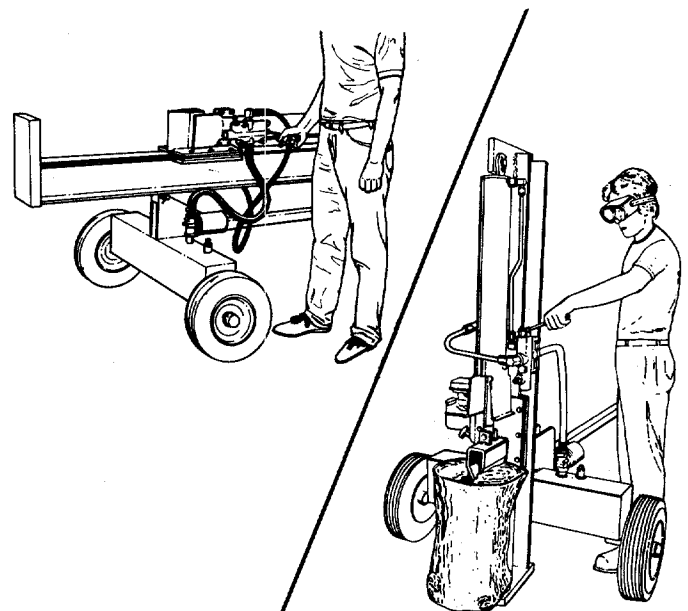
- Never wear loose clothing or jewelry that can be caught by moving parts of your log splitter and pull you into it. Keep clothing away from all moving parts of your log splitter.
- Wear proper head gear to keep hair away from moving parts. Always wear protective hearing devices as needed.
- Always wear 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.
- If you wear 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

- Stand behind the reservoir tank when operating. See illustration.



- 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 ability to stop your splitter quickly enough and cause 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 as it is 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.



#### MAINTENANCE

- 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.

NOTE: This unit is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester for the muffler is available at your Sears Authorized Service Center.

- 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 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.
- Perform all recommended maintenance procedures before you use your splitter.
- Do not service or repair your log splitter without disconnecting the spark plug wire.
- 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.



#### TOWING

- This unit should not be towed on any street, highway or public road without checking the existing federal, local or state vehicle requirements. Any licensing or modifications such as taillights, etc., needed to comply with the existing federal, local or state vehicle requirements is the sole responsibility of the purchaser.
- Before towing, be certain the log splitter is correctly and securely attached to the towing vehicle, and the safety chains are in place. Leave slack in chains for turning allowance.
- Do not allow anyone to sit or ride on your splitter. They can easily fall off and be seriously injured.

# ASSEMBLY

**IMPORTANT:** This unit has been shipped without gasoline or oil in the engine. After assembly, refer to operation section of this manual for proper fuel and engine oil information.

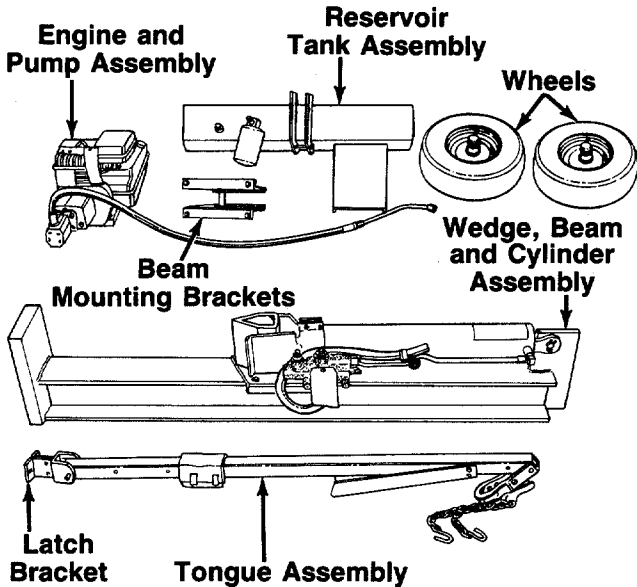


FIGURE 1.

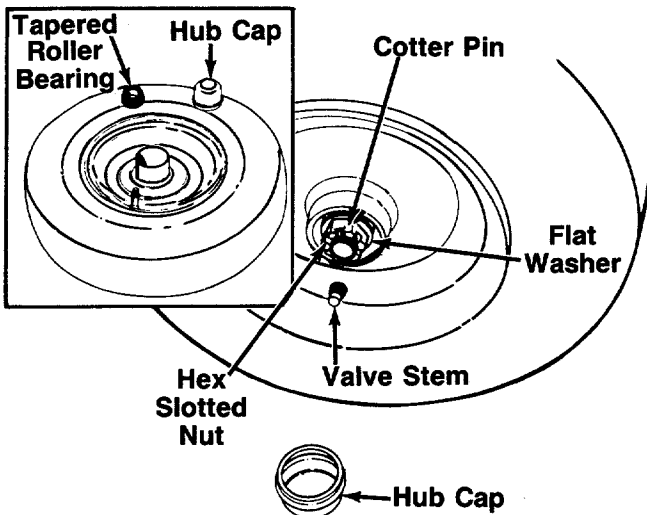


FIGURE 2.

## UNPACKING

Remove the log splitter parts from the carton by cutting the corners of the carton. Make certain all parts and literature have been removed from the carton before the carton is discarded.

All hardware for assembly of the log splitter has been placed in position on the various parts.

### ← PARTS IN CARTON (See figure 1)

- Reservoir Tank Assembly
- Engine and Pump Assembly (Bolted to bottom of carton)
- Tongue Assembly
- Wedge, Beam and Cylinder Assembly

### TOOLS REQUIRED FOR ASSEMBLY

- (2) 9/16" Wrenches\*
- (1) 5/8" Wrench\*
- (1) 11/16" Wrench\*
- (2) 1/2" Wrenches\*
- (1) Adjustable Wrench
- (1) Knife (to remove cable tie)
- (1) Screwdriver

\*Adjustable Wrenches may be used.

### OTHER MATERIALS REQUIRED FOR ASSEMBLY:

- Engine Oil
- Unleaded Gasoline (regular grade gasoline is an acceptable substitute)
- Approximately 7.6 Gallons of Dexron II Automatic Transmission Fluid

## INSTALLATION OF WHEELS

Attach the wheels to the reservoir tank as follows. See figure 2.

- Pry off the hub caps which are attached to the wheels. Remove one tapered roller bearing from inside each wheel. See inset.
- Remove the cotter pin, hex slotted nut and flat washer from each axle.
- Place one wheel on each axle, with the **valve stem facing outward**.
- Pack the tapered roller bearings with wheel bearing grease, and place one on each axle.
- Replace one flat washer on each axle. Secure with hex slotted nut. Tighten slotted nut until snug, then back off approximately 1/3 turn or until one of the slots on the slotted nut lines up with the hole in the axle.
- Check the assembly of the wheels. There should be no side to side play, and the wheel should spin freely.
- Place hub caps in position on wheels and tap on with a rubber mallet or plastic hammer.

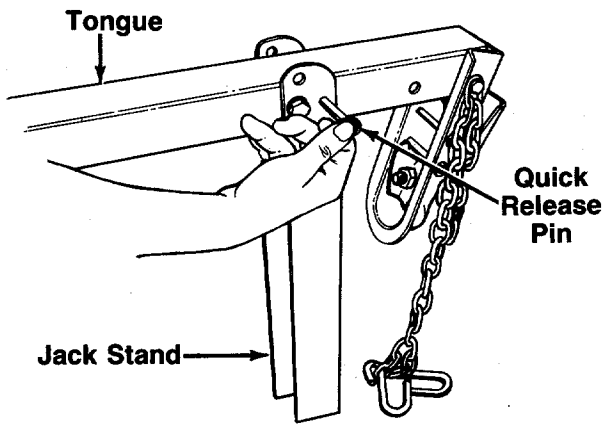


FIGURE 3.

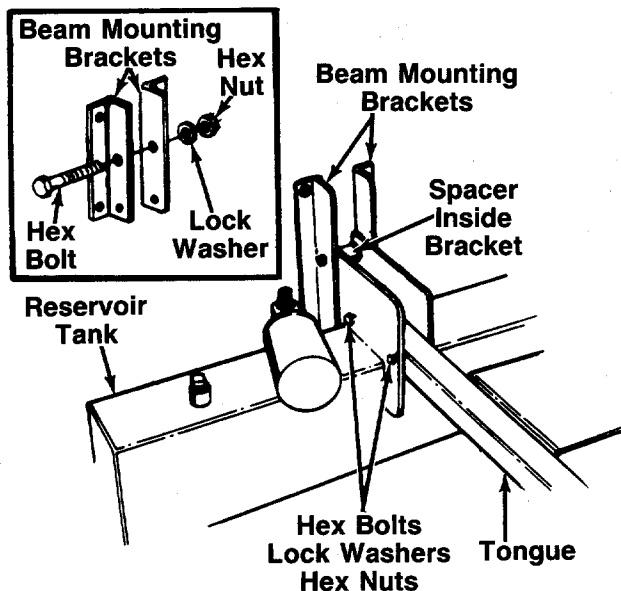


FIGURE 4.

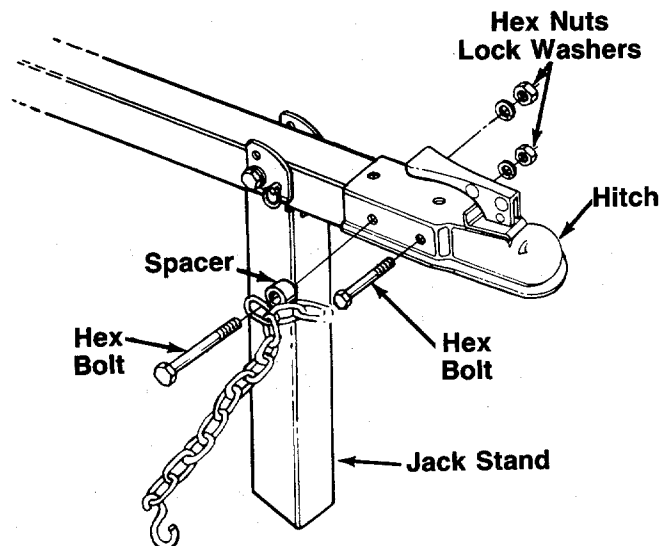


FIGURE 5.

## ATTACHING TONGUE TO RESERVOIR TANK

- The tongue is shipped with the jack stand already attached to the tongue. The jack stand is in the transport position. Remove the quick release pin. Pivot the jack stand to the operating position (90°), and secure with the quick release pin. See figure 3.

**NOTE:** If necessary, loosen the bolt which holds the hitch to the tongue, and pivot hitch out of the way.

- Remove the latch bracket which has been assembled to the other end of the tongue for shipping purposes only by removing another quick release pin. Refer to figure 1. This bracket will be reassembled to the beam on page 7. Replace the quick release pin in the latch bracket.
- Remove the two hex bolts, lock washers and hex nuts on the front of the reservoir tank. Two 9/16" wrenches are required. Place the tongue in position, and secure with hardware just removed. See figure 4.

## ATTACHING THE BEAM MOUNTING BRACKETS

- Using two 3/4" or adjustable wrenches, remove the hex nut, lock washer and hex bolt from the bracket on the reservoir tank. Make certain the spacer remains inside the bracket on the reservoir tank. See figure 4.
- Place one beam mounting bracket against each side of the bracket on the reservoir tank as shown in figure 4. Secure with hardware just removed.

## INSTALLING THE HITCH

- Using two 9/16" wrenches, remove the two long hex bolts, lock washers and hex nuts which are assembled through the sides of the hitch and the tongue. Do not remove the chain and spacer from the one hex bolt.
- Place the hitch in position on the end of the tongue. Secure with hardware just removed. See figure 5.

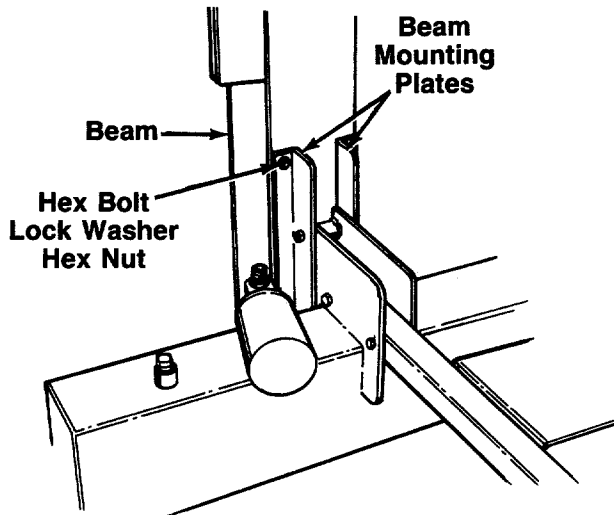


FIGURE 6.

### ATTACHING THE WEDGE, BEAM AND CYLINDER ASSEMBLY

- Stand the wedge, beam and cylinder assembly upright.
- Remove the four hex bolts, lock washers and hex nuts from the beam mounting plates. A 5/8" and an 11/16" wrench are required. See figure 6.
- Roll the reservoir tank assembly in position against the beam. Secure the beam mounting plates to the beam with hardware just removed. Tighten securely.

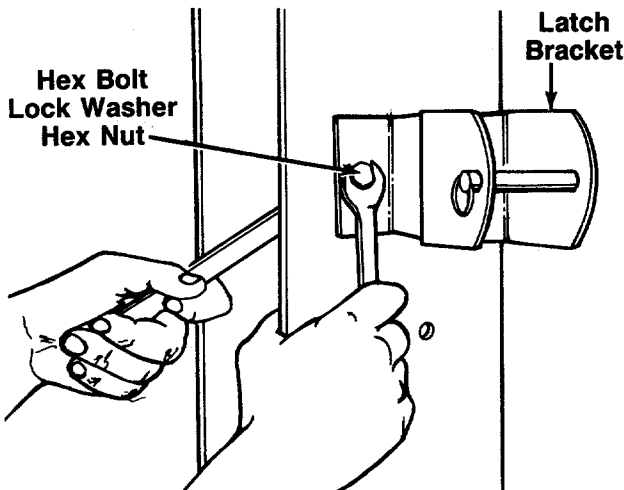


FIGURE 7.

### ATTACHING THE LATCH BRACKET

- Remove the two hex bolts, lock washers and hex nuts from the beam, using two 1/2" wrenches.
- With the beam still in the upright position, place the pivot latch on the beam as shown in figure 7. Secure with hex bolts, lock washers and hex nuts just removed. Tighten securely.

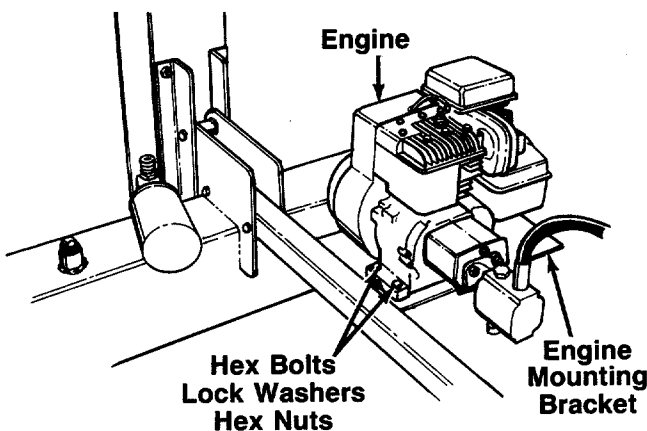


FIGURE 8.

### ATTACHING THE ENGINE AND PUMP ASSEMBLY

- Using two 1/2" wrenches, remove the four hex bolts, lock washers and hex nuts which secure the base of the engine to the bottom of the shipping carton.
- Place the engine and pump assembly in position on the engine mounting bracket as shown in figure 8.
- Secure with hardware just removed. Tighten securely.

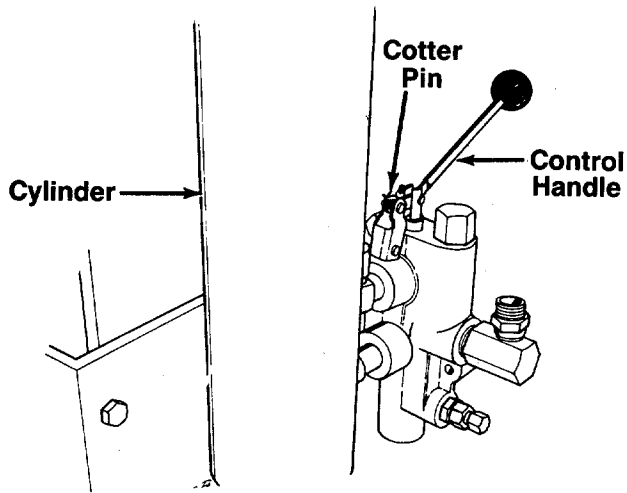


FIGURE 9.

## ATTACHING THE CONTROL HANDLE

- The control handle and the return hose are attached to the metal pressure tube with a cable tie for shipping purposes only. Cut and remove the cable tie.
- The bottom of the control handle is already attached to the valve with a cotter pin and clevis pin. Remove the second cotter pin and clevis pin which is attached to the valve only. Place the handle in position, and secure using the second cotter pin and clevis pin. See figure 9.

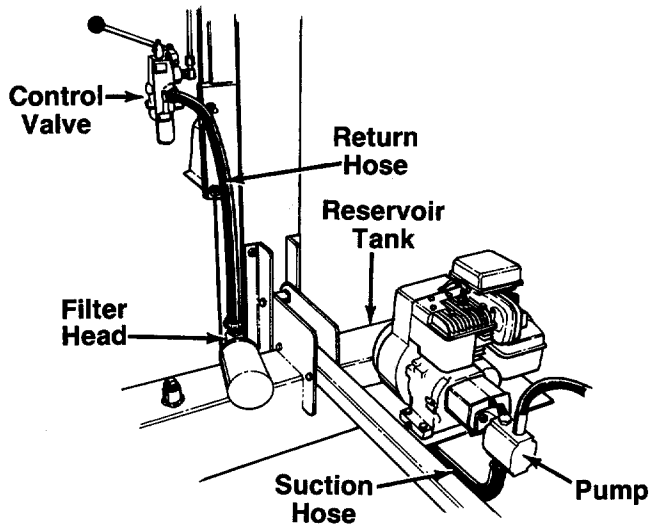


FIGURE 10.

## ATTACHING THE HOSES

### SUCTION HOSE

- The suction hose is attached to the reservoir tank, beneath the engine mounting plate. Loosen the hose clamp on the free end of the hose using a screwdriver.
- Attach the end of the hose to the fitting on the bottom of the pump. See figure 10. Place the hose clamp at the base of the fitting, and tighten securely.



### RETURN HOSE

- The return hose is attached to the bottom of the valve. Loosen the hose clamp on the free end of the hose using a screwdriver.
- Attach the end of the hose to the fitting on top of the filter head. See figure 10. Place the hose clamp at the base of the fitting, and tighten securely.

### PRESSURE HOSE

The pressure hose is attached to the top of the pump. Route the hose as shown in figure 11. Place the metal pressure tube in position on the fitting on top of control valve. Secure with the compression nut on the pressure tube, using an adjustable wrench. Make certain the metal pressure tube is positioned so that the pressure hose is above the slide plate as shown.

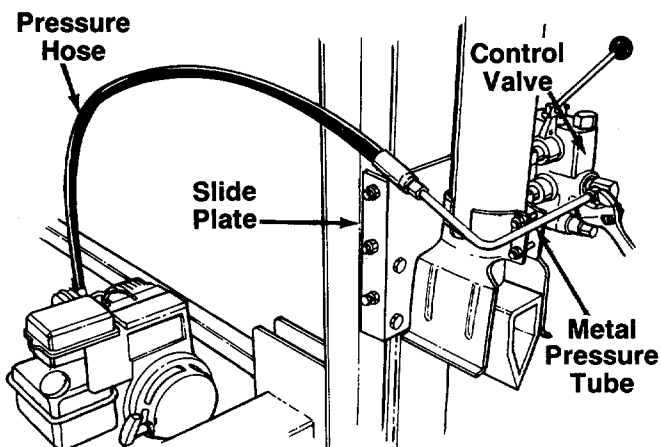


FIGURE 11.

## FINAL ASSEMBLY

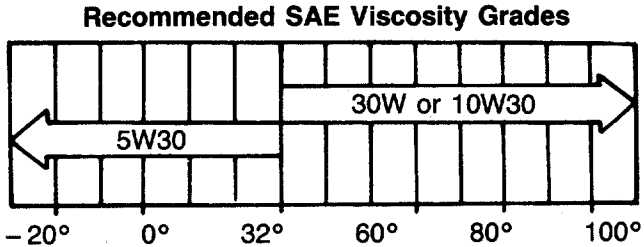
- Make certain all nuts, bolts and hose clamps are tightened securely.
- Before operating the log splitter, make certain to follow the "Initial Preparation" instructions in the Operation Section, page 9.



# OPERATION

## GAS AND OIL FILL-UP

**NOTE:** Engine is shipped without oil. Fill crankcase with oil before starting. Be very careful not to allow dirt to enter the engine when checking or adding oil or fuel.



Temperature range expected before next oil change. All oils must be A.P.I. service classification SD, SE or SF.

- Fill engine with oil by removing oil fill plug. See figure 12. With engine level, fill engine with oil to point of overflowing. Capacity is 1¼ pints. Replace oil fill plug.

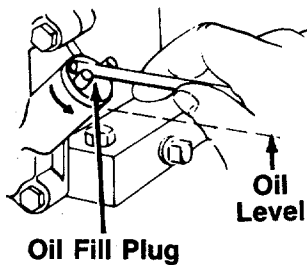



FIGURE 12.

- Fill fuel tank. See figure 13. Use fresh, clean, unleaded automotive gasoline. Capacity is 3 quarts.



**WARNING:** FILL TO WITHIN ½ INCH OF TOP OF FUEL TANK TO PREVENT SPILLS AND TO ALLOW FOR FUEL EXPANSION. IF GASOLINE IS ACCIDENTLY SPILLED, MOVE LOG SPLITTER AWAY FROM AREA OF SPILL. AVOID CREATING ANY SOURCE OF IGNITION UNTIL GASOLINE VAPORS HAVE DISAPPEARED.

**Caution:** 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. To avoid engine problems, the fuel system should be emptied before storage for 30 days or longer. Drain the gas tank, start the engine and let it run until the fuel lines and

carburetor are empty. Use fresh fuel next season. See storage section of this manual for additional information.

Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.

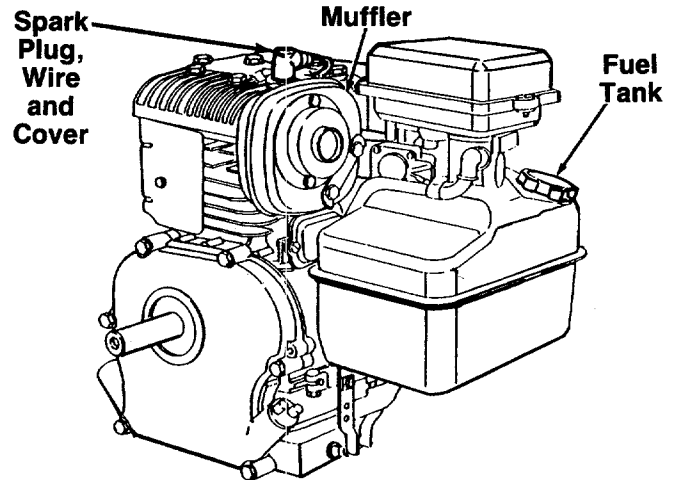


FIGURE 13.

**NOTE:** Use clean oil and fuel. Store in approved, clean, covered containers. Use clean fill funnels.

## INITIAL PREPARATION

- Place log splitter on a firm, level surface. For vertical operation, remove the quick release pin from the latch bracket. Place the beam in the vertical position. Place the quick release pin through the holes in the beam mounting plates and the brackets on the reservoir tank. See figure 14.

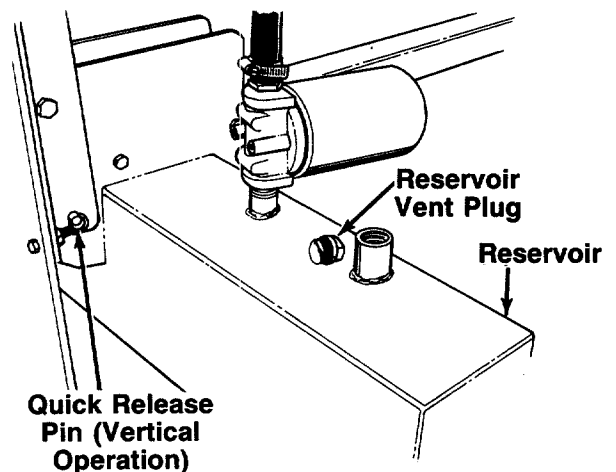



FIGURE 14.

- Lubricate the beam area where beam will slide with engine oil (DO NOT USE GREASE). Make certain to oil both front and back of the beam face.

- Fill the reservoir tank as follows.
  - a. Remove reservoir vent plug. See figure 14. Using Dexron II automatic transmission fluid, fill reservoir to the top. Replace vent plug securely.
  - b. Disconnect the spark plug wire. **Prime the pump by pulling the recoil starter, to turn the engine over, approximately 10 times.** Reconnect the spark plug wire.
  - c. Start engine. Use the control handle to extend the wedge to the far extended position. Leave the wedge in this position (do not retract).
  - d. Refill tank to within 1½" to 2" from the top of the tank. Total capacity of system is approximately 7.6 gallons.
  - e. Now retract the wedge. Extend and retract the wedge fully 10 to 12 complete cycles to remove trapped air in the system (system is "self-bleeding").
  - f. **Refill the reservoir** to within 1½" 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. Failure to refill the tank will **void your warranty.**

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



**WARNING: DO NOT OPERATE THE LOG SPLITTER WITHOUT THE PROPER AMOUNT OF TRANSMISSION FLUID IN THE RESERVOIR TANK.**

## BEFORE STARTING

Before **each use**, check the following:

- Place log splitter on a firm, level surface. For vertical operation, remove the quick release pin from the latch bracket. Place the beam in the vertical position. Place the quick release pin through the holes in the beam mounting plates and the brackets on the reservoir tank. See figure 14.
- Remove the vent plug and check the fluid level. Fluid level should be 1½" to 2" from the top of the tank.

**IMPORTANT:** Reservoir tank must be full as instructed. Low fluid level will damage the pump and **void your warranty.**

- Lubricate the beam area where beam will slide with engine oil (DO NOT USE GREASE). Make certain to oil both front and back of the beam face.
- Fill gasoline tank as instructed on page 9.
- Attach spark plug wire and cover to spark plug. See figure 13.

## TO START ENGINE

- Place throttle control lever on the engine in FAST position. See figure 15.
- Place choke lever in CHOKE position.

**NOTE:** A warm engine may not require choking.

- 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 the starter handle. Let the rope rewind slowly. Do not let starter handle snap back against starter.
- Repeat preceding instructions 3 and 4 until engine fires. When engine starts, move choke lever halfway between CHOKE and RUN.
- Move throttle control lever to IDLE position for a few minutes warm-up. Gradually move choke lever to RUN position as engine warms up.

**NOTE:** In order to idle smoothly, a new engine may require 3 to 5 minutes running above slow idle speed. Idle speed has been adjusted to be correct after this break-in period.

- If weather is cold, run wedge up and down beam 6 to 8 times to circulate the hydraulic fluid, which will warm and thin the fluid.

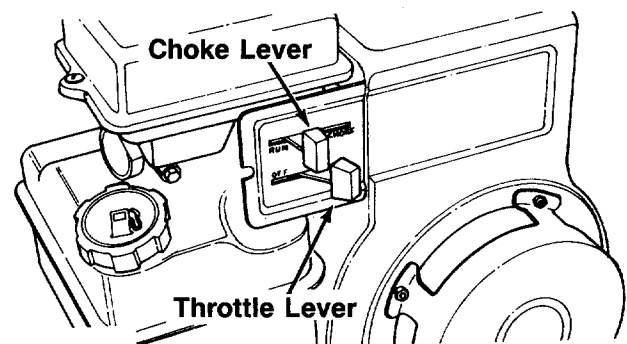


FIGURE 15.

## TO STOP ENGINE

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

## USING THE LOG SPLITTER

**Use the log splitter only on a level, hard surface. Never stand next to the splitting wedge when operating the log splitter. Always stand behind the reservoir tank.** See figures 16 and 17. Never attempt to cut a log in half sideways. Always split the log lengthwise. Maximum length of log to be split is 24".

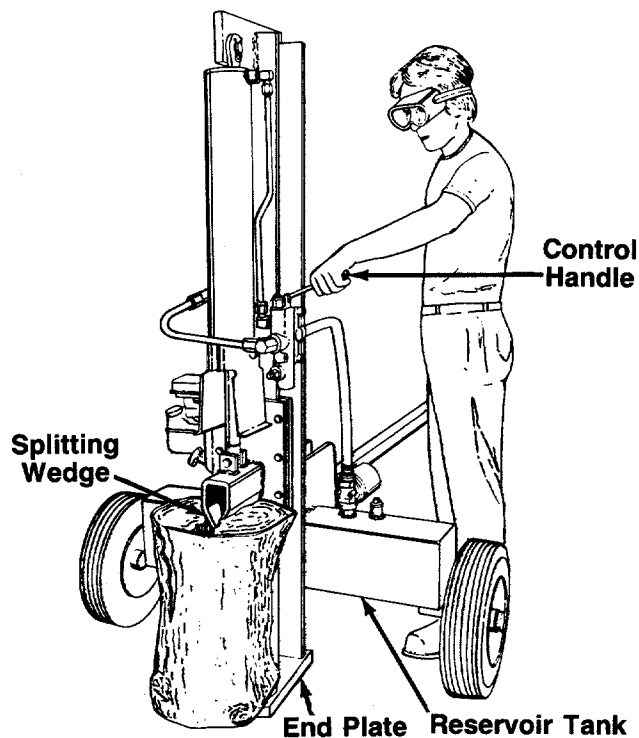


The control handle has three positions:

**FORWARD**—Push the control handle down for vertical operation, push it forward for horizontal operation—Splitting wedge moves toward the end plate. Control handle will return to neutral position as soon as handle is released.

**NEUTRAL** (Middle position)—Splitting wedge stops in place.

**REVERSE**—Push the control handle upward for vertical operation, push it toward the rear for horizontal operation—Splitting wedge returns. The control handle will lock in the reverse position, and will return to neutral automatically when the reverse stroke is complete.

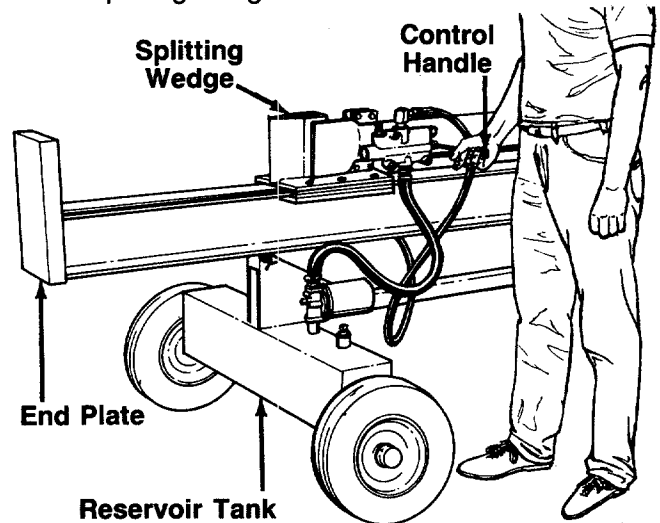


**FIGURE 16.—Vertical Operation**

### TO OPERATE LOG SPLITTER:

- Set throttle at maximum speed (3450-3600 RPM).
- Place the log upright, on top of end plate for vertical operation, and on top of beam for horizontal operation.
- Push the control handle to forward position until the splitting wedge just contacts the log. Release the control handle.
- **Step behind the reservoir tank** (see figures 16 or 17) and push the control handle in forward position until the log is split.

- Move the control handle to reverse position to return the splitting wedge.



**FIGURE 17.—Horizontal Operation**



**WARNING: IF THE FLUID BECOMES EXCESSIVELY HOT AT ANY TIME DURING OPERATION, STOP THE UNIT AND ALLOW THE FLUID TO COOL DOWN. MAXIMUM PERFORMANCE WILL NOT BE OBTAINED FROM OUR LOG SPLITTER IF THE FLUID IS TOO HOT. USE EXTREME CAUTION AS CONTACTING HOT FLUID COULD RESULT IN SERIOUS PERSONAL INJURY.**

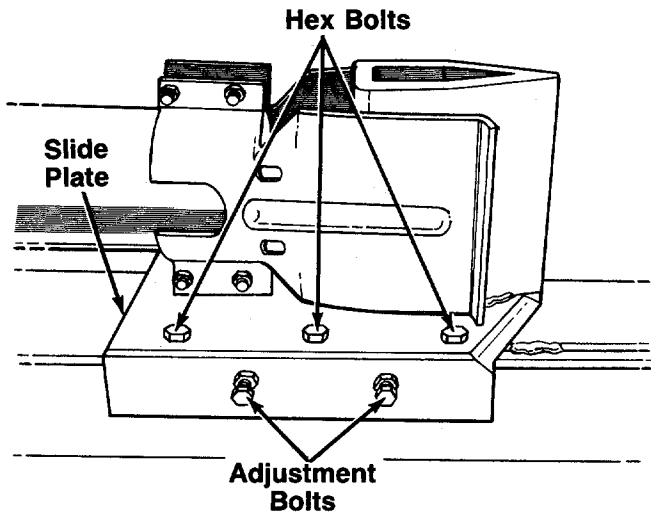
### TO TRANSPORT LOG SPLITTER

- Lower the beam to its horizontal position. Make certain the latch bracket is latched securely around the tongue and secured with the quick release pin.
- Remove the quick release pin which secures the jack stand. Pivot it up against the tongue, and secure with the quick release pin.
- Attach the hitch to a towing vehicle, making certain to latch securely. Attach the safety chains to the towing vehicle.

## ADJUSTMENT

### SPLITTING WEDGE

As normal wear occurs, periodically adjust the bolts on the slide plate (beneath the splitting wedge) as follows to eliminate the excess space between the wedge plate and the beam. See figure 18.



**FIGURE 18.**

- Loosen the three hex bolts on top of the slide plate (beneath the splitting wedge).
- Back the two adjustment bolts on the side of the slide plate out **slowly** until the wedge assembly will slide on the beam. Tighten the lock nuts securely against the base of the slide plate to hold the bolts in this position.
- Retighten the three hex bolts on top of the slide plate.

## CARBURETOR ADJUSTMENT



**WARNING: IF ANY ADJUSTMENTS ARE MADE TO THE ENGINE WHILE THE ENGINE IS RUNNING (e.g. CARBURETOR), KEEP CLEAR OF ALL MOVING PARTS. BE CAREFUL OF HEATED SURFACES AND MUFFLER.**

Minor carburetor adjustment may be required to compensate for differences in fuel, temperature, altitude or load.

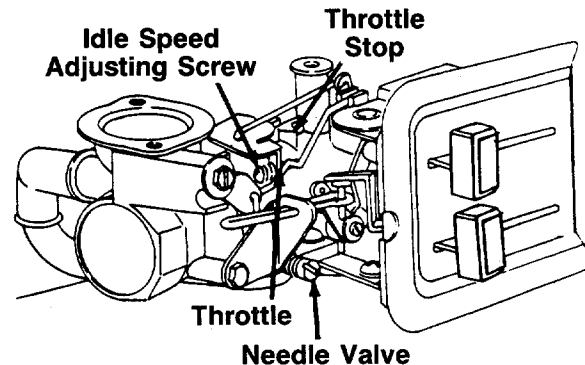
**NOTE: A DIRTY AIR CLEANER WILL CAUSE ENGINE TO RUN ROUGH. BE CERTAIN AIR CLEANER IS CLEAN AND ATTACHED TO THE CARBURETOR BEFORE ADJUSTING CARBURETOR. DO NOT MAKE UNNECESSARY ADJUSTMENTS. FACTORY SETTINGS ARE SATISFACTORY FOR MOST APPLICATIONS AND CONDITIONS.**

Never attempt to change maximum engine speed. It is pre-set at the factory and should be changed only by a qualified service technician who has the necessary equipment.

The carburetor may need re-adjusting if engine lacks power or does not idle properly. If adjustments are needed, proceed as follows.

- Close needle valve (see figure 19) clockwise (↻) finger tight only. Forcing may cause damage. Then open 1½ turns counterclockwise (↺).

- Start engine and allow to warm for five minutes.
- With throttle in FAST position, close needle valve clockwise (↻), until engine starts to lose speed (lean mixture). Then slowly open needle valve counterclockwise (↺) until engine **JUST BEGINS** to run unevenly. This mixture should be rich enough for best performance under load.
- Place throttle control in IDLE position:
  - a. If engine idles, no further adjustment is necessary.
  - b. If engine idles too fast, turn idle speed adjusting screw counterclockwise (↺) until slower speed is obtained.
  - c. If engine dies, turn idle speed adjusting screw ¼ turn clockwise (↻). Place throttle control in FAST position and restart engine.
  - d. Move throttle control to IDLE position. If engine does not idle, repeat step c.
- Test the engine by splitting. If engine tends to stall or die out, it usually indicates that the mixture is slightly lean and it may be necessary to open (↺) the needle valve slightly to provide a richer mixture. This richer mixture may cause a slight unevenness in idling.



**FIGURE 19.**

## MAINTENANCE



**WARNING: ALWAYS STOP THE ENGINE AND DISCONNECT THE SPARK PLUG WIRE BEFORE PERFORMING ANY MAINTENANCE OR ADJUSTMENTS.**

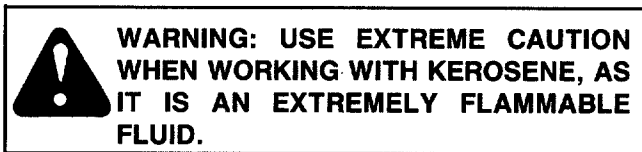
### RESERVOIR FLUID

Check the hydraulic fluid level in the log splitter reservoir tank before each use. Fluid level should be 1-1/2" to 2" from the top of the tank.

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 in-

to a suitable container. Refill using only Dexron II automatic transmission fluid, as instructed in the "Initial Preparation" section of this manual, page 9. Also, make certain 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. (Should be performed by your SEARS Service Center.



## HYDRAULIC FILTER

Change the hydraulic filter every 50 hours of operation. Use only a 10 micron hydraulic filter. Order part number 723-0405.

## BEAM AND SPLITTING WEDGE

Lubricate both sides of the beam where it contacts the splitting wedge with engine oil before each use to obtain years of service. However, normal wear will occur. The wedge plate on the log splitter is designed so the gibs on the side of the wedge plate can be easily removed and rotated and/or turned over for even wear. Make certain to readjust the adjustment bolts so wedge moves freely, but no excess space exists between the wedge plate and beam.

## HOSE CLAMPS

Check the hose clamps on the suction hose (attached to bottom of the pump) for proper tightness before each use. Check the hose clamps on the return hose at least once a season.

## ENGINE LUBRICATION

Your four-cycle engine will normally consume some oil; therefore, check engine oil level regularly—approximately every five hours of operation and before each usage. Stop engine and wait several minutes before checking oil level. With engine level, the oil must be even with the oil fill (refer to figure 12). Change engine oil after the first five hours of operation, and every twenty-five hours thereafter.

- Drain oil while engine is warm.
  - a. Remove oil drain plug. Refer to figure 12. Catch oil in a suitable container.
  - b. When engine is drained of all oil, replace drain plug securely.
- Refill with fresh oil. Above 32°, use oil labeled SAE 30W or 10W30. Below 32°, use oil labeled 5W20.

Capacity is 1¼ pints. Refer to "Gas and Oil Fill-Up" on page 9.

- Replace oil fill plug.

## 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.

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

### TO SERVICE AIR CLEANER:

Clean cartridge at three month intervals or every 25 hours, whichever occurs first. See figure 20. Service more often under dusty conditions.

- Loosen screws and tilt cover as illustrated.
- Carefully remove pre-cleaner and cartridge.
- Clean cartridge by tapping gently on a flat surface. If very dirty, replace cartridge and pre-cleaner or clean as follows:
  - a. Wash in a low or non-sudsing detergent and warm water solution. **CAUTION:** Do not use petroleum solvents such as kerosene to clean cartridge.
  - b. Rinse thoroughly with flowing water from inside out until water is clear.
  - c. Allow cartridge to stand and air dry **thoroughly** before using. **DO NOT OIL CARTRIDGE OR PRE-CLEANER. DO NOT USE PRESSURIZED AIR TO CLEAN OR DRY CARTRIDGE.**
- Install cartridge and pre-cleaner. Then close cover and fasten screws securely.

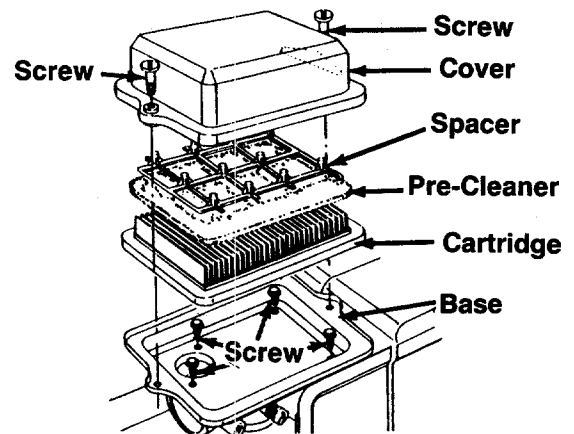


FIGURE 20.

## 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.

Yearly or every 25 hours, whichever occurs first, remove the blower housing and clean the areas shown in figure 21 to avoid overspeeding, overheating and engine damage. Clean more often if necessary.

**WARNING: PERIODICALLY CLEAN MUFFLER AREA TO REMOVE ALL GRASS, DIRT AND COMBUSTIBLE DEBRIS.**

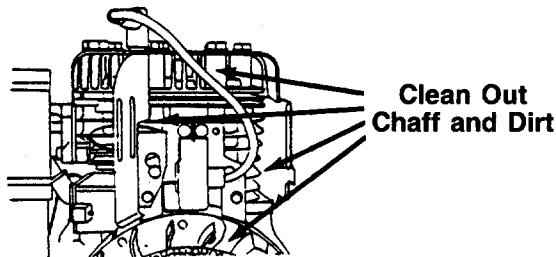


FIGURE 21.

## SPARK PLUG

The spark plug should be cleaned and the gap reset to .030" at least once a season or every 50 hours of operation. See figure 22. Spark plug replacement is recommended at the start of each season. Refer to engine parts list for correct spark plug type.

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

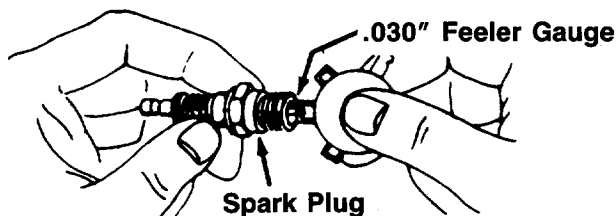


FIGURE 22.

## MUFFLER

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. Inspect periodically, and replace if necessary. If your engine is equipped with a spark arrester screen assembly, remove every 50 hours for cleaning and inspection. Replace if damaged.

## FLEXIBLE PUMP COUPLER

The flexible pump coupler is a nylon "spider" insert, located between the pump and engine shaft. The alignment is very critical. Over a period of time, the coupler will harden and deteriorate. For a replacement flexible pump coupler, order part number 717-0891.



**WARNING: NEVER HIT THE PUMP SHAFT IN ANY MANNER, AS ANY BLOW WILL CAUSE PERMANENT DAMAGE TO THE PUMP.**

When replacing the flexible pump coupler, proceed as follows.

- Place the coupling half onto the engine shaft. Make certain there is clearance between the coupling half and the engine. Tighten the set screw.
- Mount the pump onto the coupling support bracket. Tighten securely.
- Carefully slide coupling half onto pump shaft (make certain set screw is loose). Slide the key into place on the shaft.
- Install the nylon "spider" insert into coupling half on the engine shaft.
- Place the coupling shield in position on the hex bolts. Rotate the keyway on the pump shaft so it is toward the bottom.
- Attach the coupling support bracket to the hex bolts, carefully sliding the coupling half over the "spider" insert. Secure coupling shield and coupling support bracket with lock washers and hex nuts. Tighten securely.
- Adjust the two coupling halves (steel) so there is between .010" and .060" clearance between the two halves (at least the thickness of a matchbook cover, up to 1/16" maximum). See figure 23. Tighten the set screw in the coupling half on the pump shaft.

**NOTE:** Make certain proper clearance is obtained before tightening set screw.

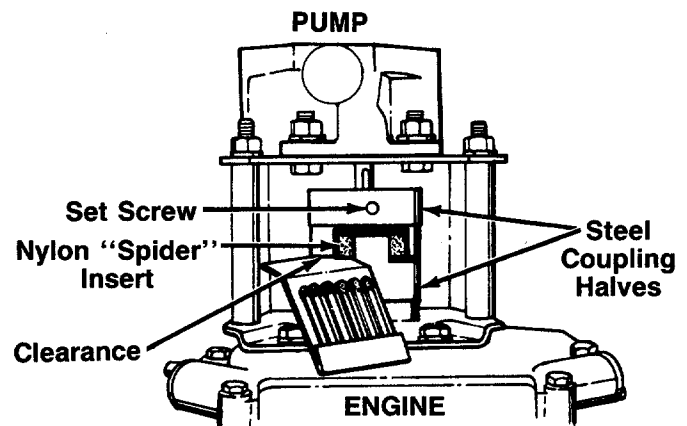


FIGURE 23.—Bottom View

## TIRE PRESSURE

Check sidewall of tire for manufacturer's recommended maximum tire pressure. If this information does not appear on your tire, maximum tire pressure under any circumstances is 30 p.s.i. Equal pressure should be maintained on both tires.

## INSTALLATION OF TIRE TO RIM



**WARNING: THE FOLLOWING PROCEDURE MUST BE FOLLOWED WHEN REMOVING OR INSTALLING A TIRE TO THE RIM.**

- Be certain rim is clean and free of rust.
- Lubricate both the tire and rim generously.
- Never inflate to over 30 p.s.i. to seat beads. Excessive pressure when seating beads may cause tire/rim assembly to burst with force sufficient to cause serious injury.

## OFF-SEASON STORAGE

It is important to prevent gum deposits from forming in essential fuel system parts such as the carburetor, fuel hose or fuel 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.

To avoid engine problems, the fuel system should be emptied before storage of 30 days or longer. Follow these instructions.

- Drain the fuel tank. Start the engine, and let it run until the fuel lines and carburetor are empty.



**WARNING: DO NOT DRAIN FUEL WHILE SMOKING, OR IF NEAR AN OPEN FIRE.**

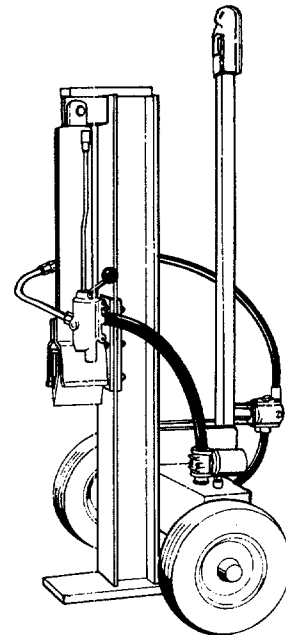
- Drain all the oil from the crankcase (this should be done after the engine has been operated and is still warm) and refill the crankcase with fresh oil.
- Protect the inside of the engine for storage as follows.

Remove spark plug, pour approximately ½ ounce (approximately one tablespoon) of engine oil into cylinder and crank slowly to distribute oil. Replace spark plug.

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

**NOTE:** When storing any type of power equipment in an unventilated or metal storage shed, care should be taken to rustproof the equipment by coating with a light oil or silicone.

- The tongue can be removed and reattached in an upright position as shown in figure 24 to take less space when storing.
- Store unit in a clean, dry area.



**FIGURE 24.**

# TROUBLE SHOOTING GUIDE

Trouble	Possible Cause(s)	Corrective Action
Engine fails to start	<ol style="list-style-type: none"> <li>1. Fuel tank empty, or stale fuel.</li> <li>2. Blocked fuel line.</li> <li>3. Spark plug wire disconnected.</li> <li>4. Faulty spark plug.</li> </ol>	<ol style="list-style-type: none"> <li>*1. Fill tank with clean, fresh gasoline.</li> <li>2. Clean fuel line.</li> <li>3. Connect wire to spark plug.</li> <li>4. Clean, adjust gap or replace.</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. Water or dirt in fuel system.</li> <li>5. Dirty air cleaner.</li> <li>6. 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 clean fresh gasoline.</li> <li>4. Drain fuel tank. Refill with fresh fuel.</li> <li>5. Clean air cleaner as instructed in Maintenance section.</li> <li>6. Adjust carburetor (see Carburetor Adjustment in Adjustment section of this manual).</li> </ol>
Engine overheats	<ol style="list-style-type: none"> <li>1. Engine oil level low.</li> <li>2. Air flow restricted.</li> <li>3. Carburetor not adjusted properly.</li> </ol>	<ol style="list-style-type: none"> <li>1. Fill crankcase with proper oil.</li> <li>2. Remove blower housing and clean as instructed in Maintenance section.</li> <li>3. Adjust carburetor (see Carburetor Adjustment in Adjustment section of this manual).</li> </ol>
Will not split logs	Reservoir fluid level low.	Check and fill reservoir tank as instructed in Operation section of this manual.
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. Replace seals.*</li> <li>2. Replace cylinder.*</li> </ol>

**NOTE: For repairs beyond the minor adjustments listed above, please contact your nearest SEARS Service Center.**

**\*Should be performed by your SEARS Service Center only.**



# **IMPORTANT INFORMATION FOR LOG SPLITTER USERS**

## **ALWAYS:**

- Use clean fluid and check fluid level regularly
- Use Dexron II Automatic Transmission Fluid
- Use a filter (clean or replace regularly)
- Use a breather cap on fluid reservoir
- Keep end of reservoir return tube below fluid level
- Make certain pump is mounted and aligned properly
- Use a flexible "spider" type coupling between engine and pump driveshafts
- Keep hoses clear and unblocked
- Bleed air out of hoses before operating
- Flush and clean hydraulic system before startup after any malfunction or servicing
- Use "pipe dope" on all hydraulic fittings
- Allow time for warmup before splitting wood
- Prime the pump before initial startup by turning over the engine with spark plug disconnected
- Split wood with the grain (lengthwise) only

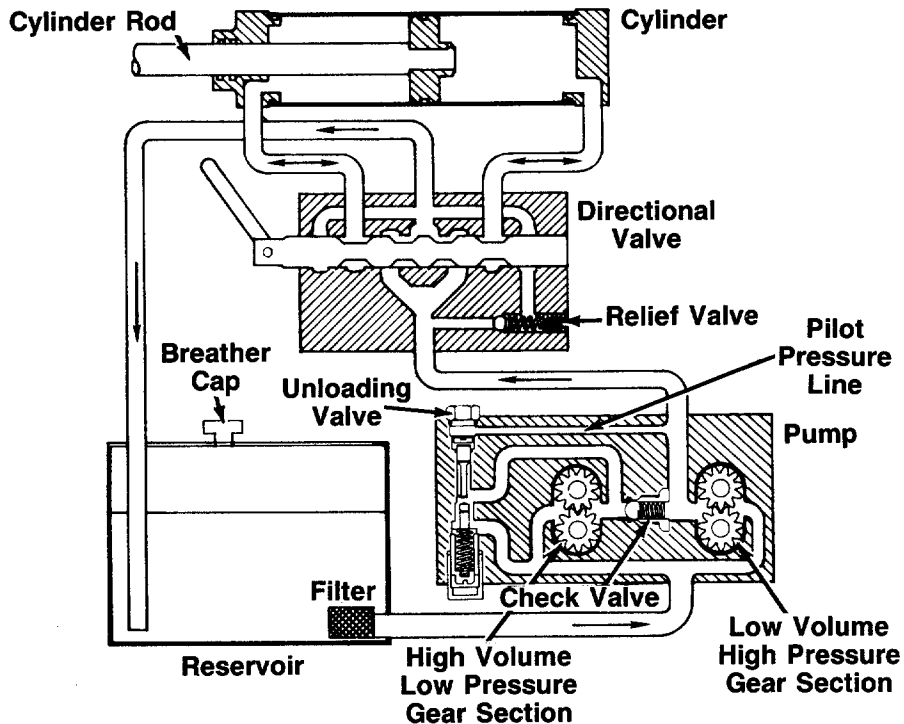
## **NEVER:**

- Use fluid below 0° F., or above 150° F.
- Use a solid engine/pump coupling
- Force pump when mounting
- Operate through relief valve for more than 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
- Warm up engine apart from pump in cold weather
- Attempt to cut wood across the grain

## **CONDITIONS WHICH WILL VOID YOUR WARRANTY**

1. **Failure to maintain proper fluid level in reservoir** will void your warranty, causing permanent damage to pump by allowing air to be drawn into pump. Fluid will become foamy. Refer to "Initial Preparation" in the Operation Section of this manual.
2. **Changing the relief valve setting or pressure adjustment of control valve** without proper knowledge and instruction from the factory will void your warranty. A very minor adjustment could destroy the structural and safety limits for which the unit was designed. The system will produce more power than the structure will withstand. Higher pressure could cause the hoses to burst, cylinder to rupture and intense fluid releases, which could result in serious personal injury.
3. **Disassembling the pump** will void your warranty. If replacement is necessary, merely disconnect and replace. Do not attempt to adjust pump settings, as they are adjusted by the manufacturer at the factory.
4. **Use of incorrect hydraulic fluid** will void your warranty. Use only Dexron II automatic transmission fluid. Any other type of fluid must be approved by a direct factory representative.
5. **The flexible pump coupler must be inspected** regularly. Allowing the coupler to deteriorate will void your warranty. Deterioration of spider insert and prolonged use after deterioration will destroy pump bearings and engine bearings, along with total destruction of coupler hubs.
6. **Improper beam lubrication** will cause premature wear and looseness. Lubricate the beam regularly. Lack of lubrication will void your warranty.
7. **Improper adjustment of splitting wedge** will void your warranty. Become familiar with the proper tolerance required for adjustment of the splitting wedge as instructed in the adjustment section of this manual.
  - a. If wedge is too loose, cylinder beam and wedge wear will result. Allowing the wedge to loosen and be used under operating stress will cause damage which will not be covered under warranty.
  - b. If wedge is too tight, severe beam damage will result which will not be covered under warranty.
8. **Do not overheat the hydraulic system.** Excessive heat will destroy the hydraulic system with hardened O-rings and excessive friction.
9. **Do not attempt to start in temperatures under 20° F.** without pre-heating fluid in reservoir. Excessively cold fluid cannot circulate and draw into pump. Warranty will be void.
10. **Repair any leaks in hydraulic system immediately.** Unattended leaks will cause air to enter system and/or decrease fluid level in reservoir, causing damage to the hydraulic system which will not be covered by warranty.

# HOW YOUR LOG SPLITTER OPERATES



## THE PUMP

A two-stage log splitter pump has one large and one small gear section, using common inlet and outlet ports. Below a preset pressure (called unloading pressure) a check valve between the two gear sections allows both flows to combine. Together, the two gear sections create a large volume flow which produces rapid cylinder movement under low load conditions.

Above unloading pressure, a pilot pressure line (which simulates actual pressure at the cylinder) activates the unloading valve, which causes the flow to bypass the large gear section and return to the pump inlet area. The small gear section is now operating alone, and will generate the higher pressure necessary for the actual log splitting operation.

The original factory setting for the unloading valve is designed to provide maximum flow while remaining below engine stalling load. **Note: Splitting capability is not affected by the setting of the unloading valve. Do not attempt to adjust or reset it without a pressure gauge (should be performed by an authorized SEARS Service Center only).**

## THE DIRECTIONAL VALVE AND CYLINDER

From the pump, oil flows to a four way, three position directional valve. At the neutral position this valve directs the flow back to the oil reservoir, bypassing the cylinder. When the directional valve is directing the flow to the back of the cylinder, the cylinder rod extends quickly until it meets significant resistance. Upon reaching unloading pressure, movement of the shaft

will slow but will continue forward. If the pressure reaches a preset maximum (called relief valve pressure) the relief valve, located within the directional valve, will allow the flow to bypass the cylinder and return to the reservoir. This can happen when the cylinder rod meets excessive resistance, or when it reaches the end of its stroke and can move no farther.

**Note: Never operate at relief valve pressure for more than a few seconds.**

When the directional valve is directing the flow to the front of the cylinder, the rod will retract quickly since it is encountering no resistance. The relief valve will momentarily bypass the flow at the end of the return stroke but the directional valve should then automatically return to the neutral position, directing the flow directly into the reservoir. This serves to protect the pump from possible damage due to prolonged operation at relief valve pressure.

Because of the potential for system damage, the relief valve is carefully and precisely preset by the manufacturer.

**Note: The user should not attempt to adjust or change the setting of the relief valve.**

## OPERATIONAL PROBLEMS

If you have trouble with your log splitter, please refer to the Hydraulic Trouble Shooting Guide on page 19.

**Note: Readjustment of valves or disassembly of pump should be performed by your SEARS Service Center only.**

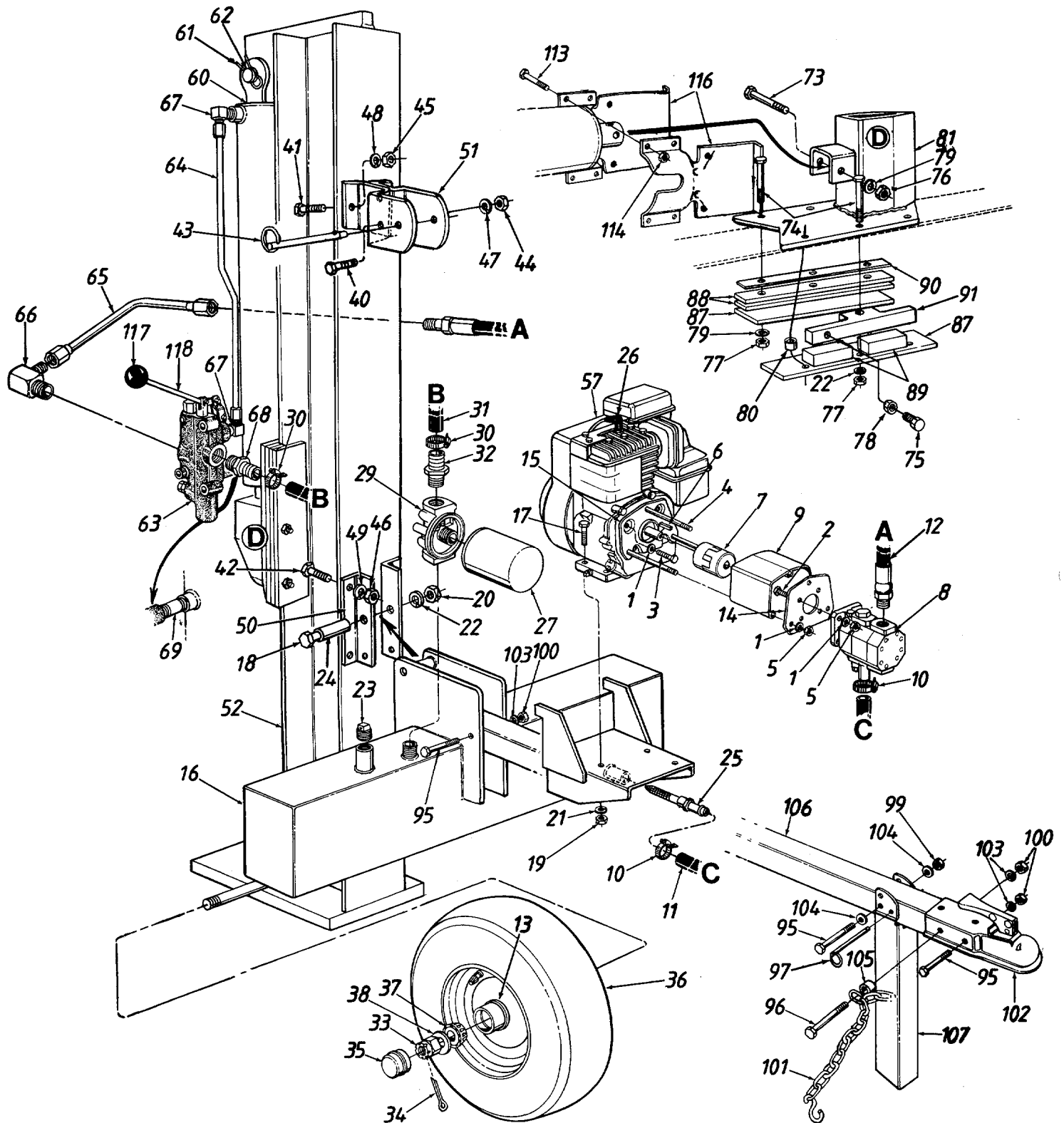
# HYDRAULIC TROUBLE SHOOTING GUIDE

Problem	Probable Cause(s)	Corrective Action
Cylinder rod will not move	A Broken driveshaft B Loose shaft coupling C Gear sections damaged D Damaged relief valve E Hydraulic lines blocked F Too little oil to pump G Damaged directional valve H Blocked directional valve	A Return unit for authorized repair B Correct engine/pump alignment as necessary C Return unit for authorized repair D Return directional valve for authorized repair E Flush and clean hydraulic system F Add oil to reservoir G Return unit for authorized repair H Flush and clean hydraulic system; return unit for authorized repair
Slow cylinder shaft speed while extending and retracting	A Gear sections damaged B Excessive pump inlet vacuum  C Slow engine speed D Damaged relief valve E Too little oil to pump F Air in oil  G Directional valve leaking internally H Internally damaged cylinder	A Return unit for authorized repair B Make certain pump inlet hoses are clear and unblocked—use short, large diameter inlet hoses C Return unit for authorized repair D Return unit for authorized repair E Add oil to reservoir F Add oil, clean reservoir, make certain oil return tube is below oil level G Return unit for authorized repair H Return unit for authorized repair
Engine runs but wood will not split, or wood splits too slowly	A Small gear section damaged B Pump check valve leaking C Excessive pump inlet vacuum  D Low relief valve setting E Too little oil to pump F Air in oil  G Directional valve leaking internally H Overloaded cylinder I Internally damaged cylinder	A Return unit for authorized repair B Return unit for authorized repair C Make certain pump inlet hoses are clear and unblocked; use short, large diameter inlet hoses D Adjust valve while using pressure gauge* E Add oil to reservoir F Add oil, clean reservoir, make certain oil return tube is below oil level G Return unit for authorized repair H Do not attempt to split wood against the grain I Return unit for authorized repair
Engine stalls during splitting	A Low horsepower/weak engine B High relief valve setting C High unloading valve setting D Overloaded cylinder	A Return unit for authorized repair B Adjust valve while using pressure gauge* C Adjust valve while using pressure gauge* D Do not attempt to split wood against the grain
Engine will not turn or stalls under low load conditions	A Engine/pump misalignment B Frozen or seized pump C Low horsepower/weak engine D Hydraulic lines blocked E Blocked directional valve	A Correct alignment as necessary B Return unit for authorized repair C Return unit for authorized repair D Flush and clean hydraulic system E Flush and clean hydraulic system; return unit for authorized repair
Leaking pump shaft seal	A Broken driveshaft B Engine/pump misalignment C Gear sections damaged D Poorly positioned shaft seal E Plugged oil breather	A Return unit for authorized repair B Correct alignment as necessary C Return unit for authorized repair D Return unit for authorized repair E Make certain reservoir is properly vented

\*Should be performed by an authorized SEARS Service Center only.

# SEARS CRAFTSMAN 5 H.P. LOG SPLITTER MODEL NO. 247.287751

## Repair Parts



# SEARS CRAFTSMAN 5 H.P. LOG SPLITTER MODEL NO. 247.287751

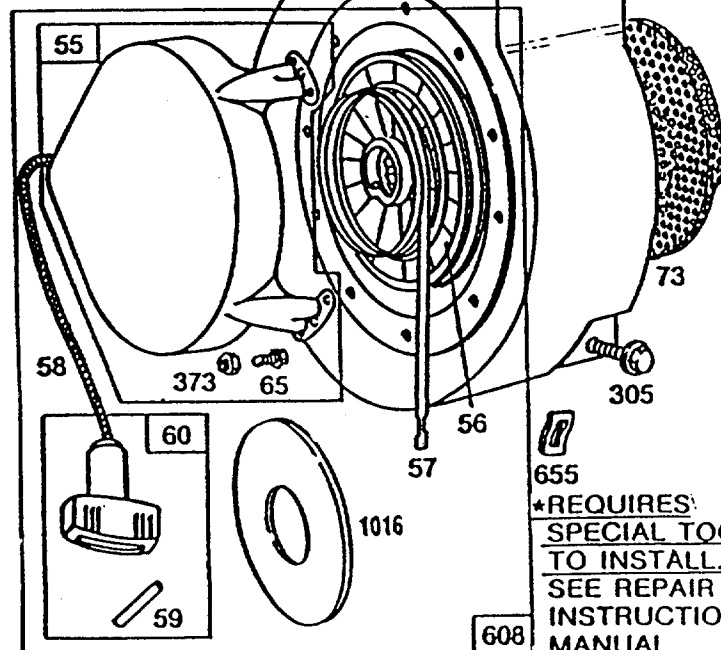
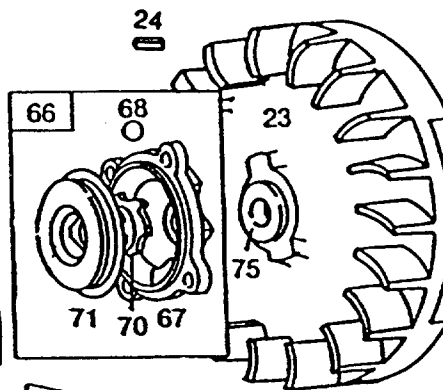
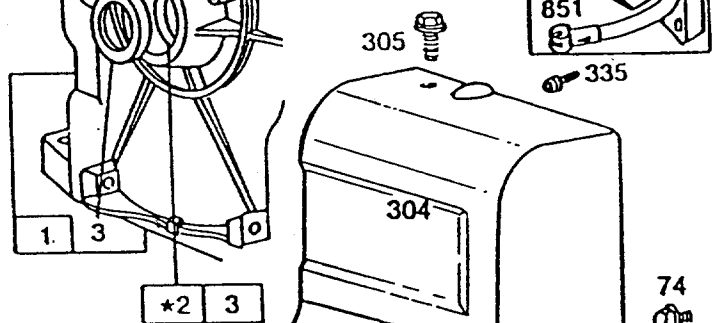
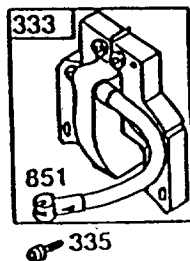
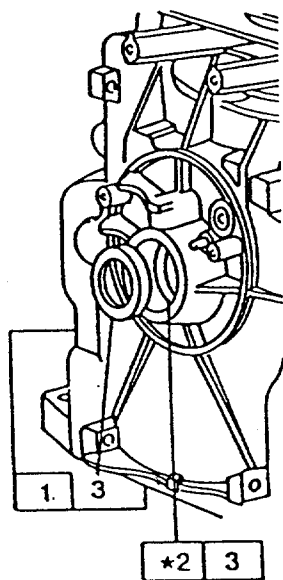
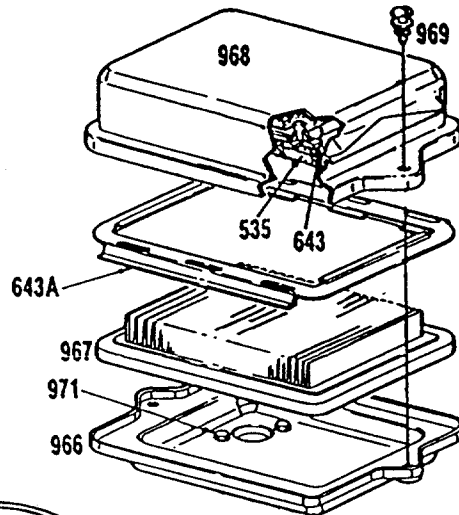
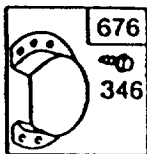
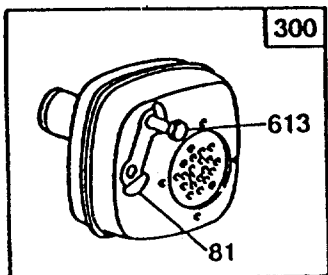
## Repair Parts

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	736-0119	L-Wash. 5/16" I.D.*	49	736-0171	L-Wash. 7/16" I.D.*
2	710-0117	Hex Bolt 5/16-24 x 1" Lg.	50	781-0315	Beam Mtg. Plate
3	710-0237	Hex Bolt 5/16-24 x .62" Lg.	51	781-0334	Beam Latch Bracket
4	710-0363	Hex Bolt 5/16-24 x 4" Lg.	52	781-0340	Vertical Beam Ass'y.
5	712-0123	Hex Nut 5/16-24 Thd.	57	130202-3116-01	Engine—Briggs & Stratton 5 H.P. No. 130202-3116-01
6	714-0122	Sq.-Key 3/16 x .75	60	717-0885B	Hydraulic Cylinder 4" Dia.
7	717-0891	Flexible Coupling	61	714-0203	External Cotter Pin
8	717-0936	Two Volume Pump	62	715-0206	Cylinder Mtg. Pin
9	719-0278	Coupling Shield	63	717-0942	Control Valve—3200 PSI
10	726-0132	Hose Clamp 5/8"	64	727-0307	Metal Pressure Tube 1/2" O.D.
11	727-0427	Suction Hose 1" I.D.	65	727-0440	Pressure Tube 1/2" Dia.
12	727-0432	High Pressure Hydraulic Hose 56"	66	737-0171	90° Solid Male Adapter
13	721-0168	Bearing Seal	67	737-0192	90° Solid Male Adapter
14	781-0097	Rear Coupling Support Brkt.	68	737-0235	3/4" Dia. Hose Barb
15	781-0098	Front Coupling Support Brkt.	69	737-0238	Pipe Nipple 1/2 NPT
16	781-0337A	Tank Ass'y. Complete	73	710-1010	Hex Bolt 1/2-20 x 3" Lg. (Gr. 8)
17	710-0409	Hex Bolt 5/16-24 x 1.75" Lg.*	74	710-1018	Hex Bolt 1/2-20 x 2.75" Lg.— Gr. 8
18	710-3160	Hex Bolt 1/2-20 x 4" Lg.—Gr. 5	75	710-1032	Hex Bolt 3/8-24 x 1.5" Lg.
19	712-0123	Hex Nut 5/16-24 Thd.*	76	712-0239	Hex L-Nut 1/2-20 Thd.
20	712-0333	Nut 1/2 BL NF-20	77	712-0333	Nut 1/2 BL NF-20 Thd.
21	736-0119	L-Wash. 5/16" I.D.*	78	712-3001	Hex Jam Nut 3/8-24 Thd.—Gr. 5
22	736-0921	L-Wash. 1/2" I.D.*	79	736-0921	L-Wash. 1/2" I.D.
23	737-0236	Pipe Plug	80	750-0743	Spacer 3/8" I.D. x 3/4" O.D.
24	750-0739	Pivot Bushing .75" O.D.	81	781-0323B	Wedge Mtg. Ass'y.
25	781-0312	Strainer Ass'y.	87	781-0345A	Pusher Back Plate
26	735-0639	Spark Plug Cover	88	781-0350A	Fixed Side Gib
27	723-0405	Filter Element	89	781-0351	Adj. Gib 2" Lg.
29	723-0406	Filter Head	90	781-0352A	Adj. Gib Shim 10" Lg.
30	726-0146	Adjustable Hose Clamp	91	781-0356	Floating Gib Plate
31	727-0309	Return Hose 3/4" I.D. x 30" Lg.	95	710-0521	Hex Bolt 3/8-16 x 3" Lg.—Gr. 8
32	737-0235	3/4" Dia. Hose Barb	96	710-3130	Hex Bolt 3/8-16 x 3.25" Lg.— Gr. 8
33	712-0359	Slotted Nut 3/4-16 Thd.	97	711-0820	Quick Release Pin
34	714-0162	Cotter Pin 5/32"	99	712-0375	Hex L-Nut 3/8-16 Thd.
35	734-0873	Hub Cap	100	712-0798	Hex Nut 3/8-16 Thd.*
36	734-1016	Wheel Ass'y. Comp.	101	713-0338	Chain—Tow Hitch
	734-0872	Tire Only	102	727-0311	Hitch Coupler
	734-1017	Rim Only	103	736-0169	L-Wash. 3/8
	734-0255	Air Valve	104	736-0185	FI-Wash. .406" I.D. x .75
37	741-0107	Roller Bearing w/Race	105	750-0507	Spacer .38" I.D. x .625" O.D.
38	736-0351	FI-Wash. .760" I.D. x 1.5" O.D.	106	781-0316	Tongue Tube
40	710-0117	Hex Bolt 5/16-24 x 1" Lg.*	107	781-0358	Jack Stand Ass'y.
41	710-0514	Hex Bolt 3/8-16 x 1" Lg.—Gr. 5	113	710-3144	Hex Bolt 3/8-16 x 2" Lg.—Gr. 5
42	710-3029	Hex Bolt 7/16-20 x 1.25" Lg.— Gr. 5	114	712-0430	Hex Insert L-Nut 3/8-16 Thd.
43	711-0820	Quick Release Pin	116	781-0168A	Stripper Half
44	712-0123	Hex Nut 5/16-24 Thd.*	117	720-0231	Ball Knob
45	712-3017	Hex Nut 3/8-16 Thd.—Gr. 5	118	747-0709	Control Handle
46	712-3067	Hex Patch L-Nut 7/16-20 Thd.	—	770-6741F	Owner's Manual
47	736-0119	L-Wash. 5/16" I.D.*			
48	736-0169	L-Wash. 3/8" I.D.*			

\*Common Hardware—May be Purchased Locally.

# BRIGGS AND STRATTON 5 H.P. ENGINE MODEL NO. 130202-3116-01

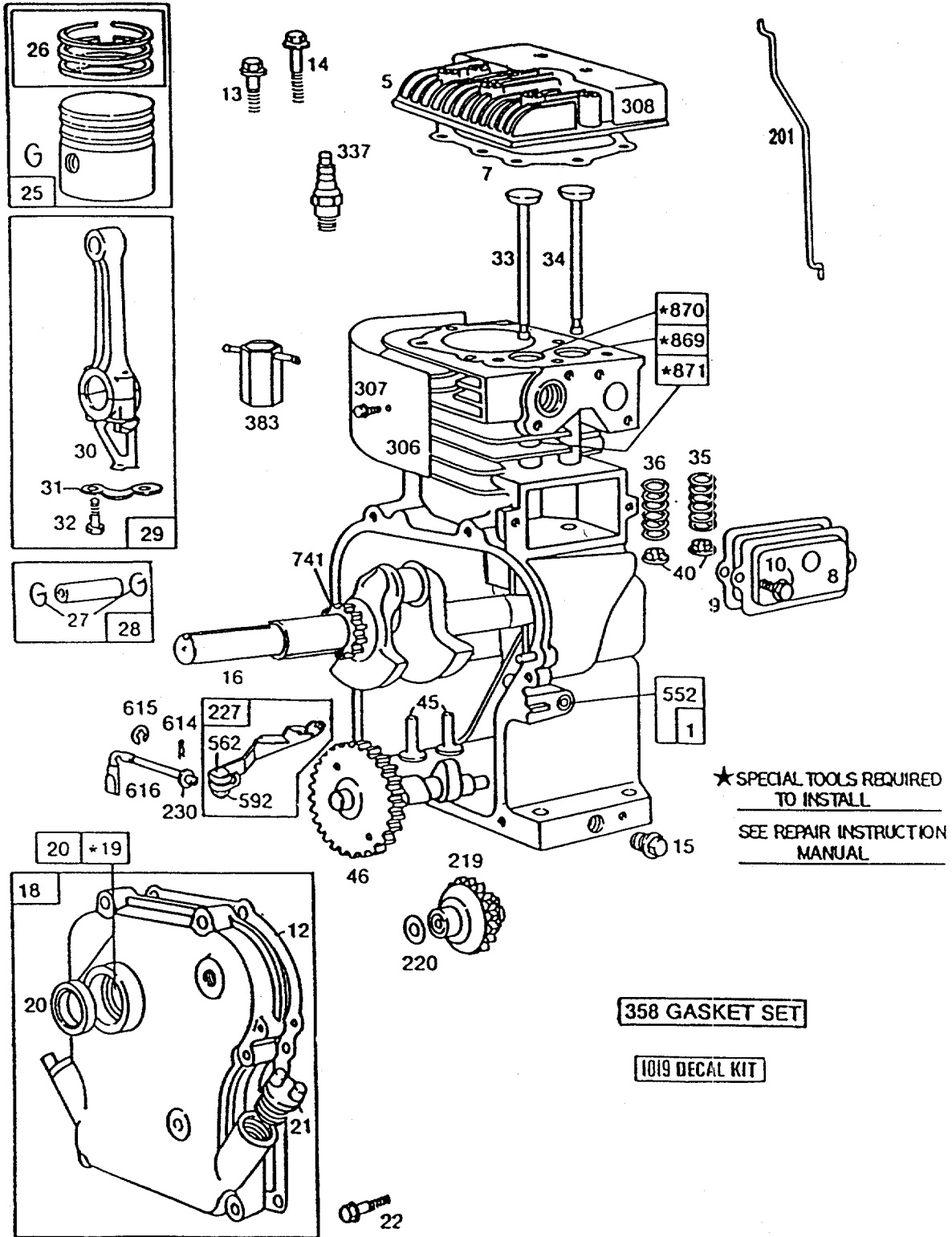
## Repair Parts



**\*REQUIRES SPECIAL TOOLS TO INSTALL. SEE REPAIR INSTRUCTION MANUAL.**

**BRIGGS AND STRATTON 5 H.P. ENGINE MODEL NO. 130202-3116-01**

**Repair Parts**



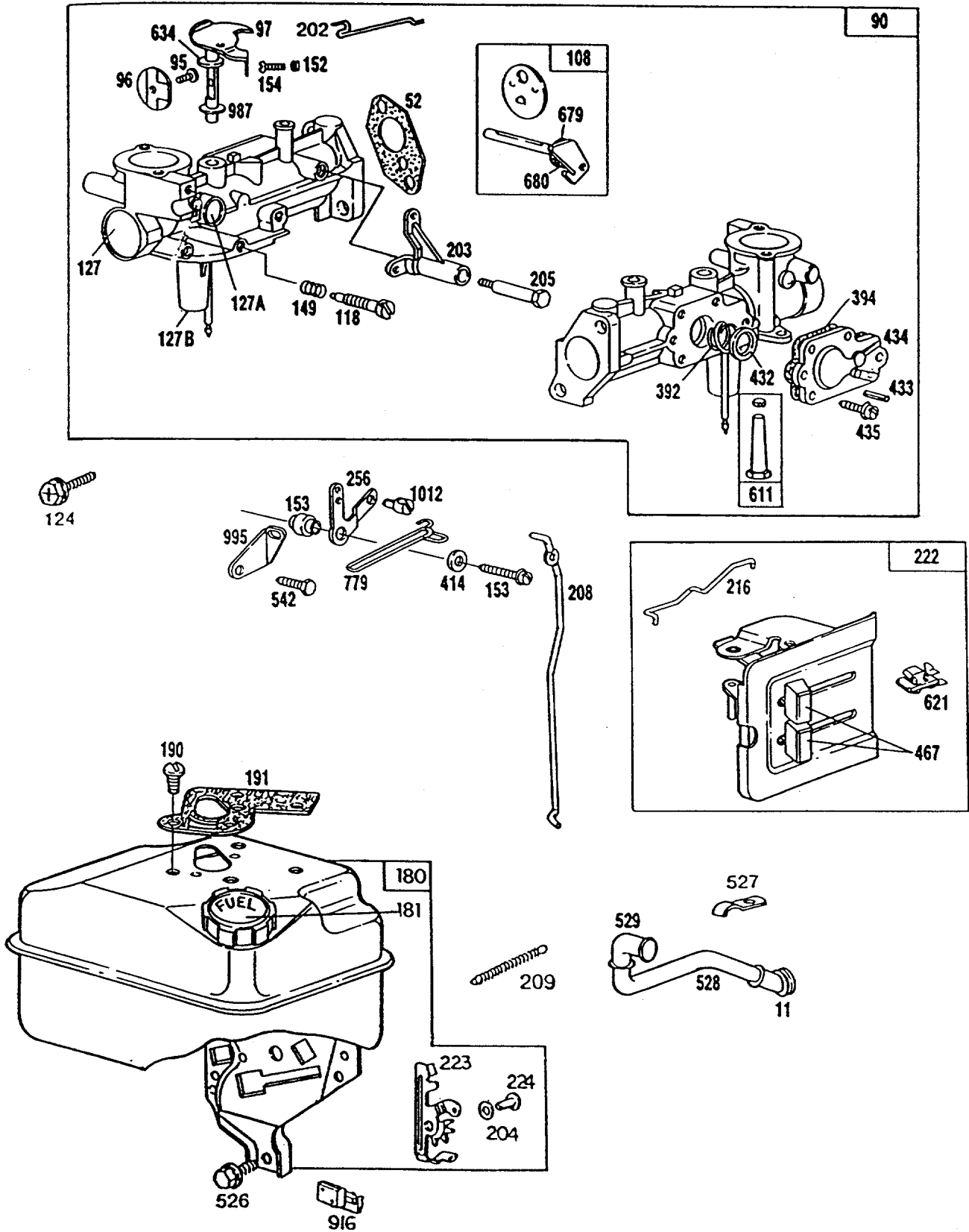
★ SPECIAL TOOLS REQUIRED TO INSTALL  
SEE REPAIR INSTRUCTION MANUAL

**358 GASKET SET**

**1019 DECAL KIT**

# BRIGGS AND STRATTON 5 H.P. ENGINE MODEL NO. 130202-3116-01

## Repair Parts





**BRIGGS AND STRATTON 5 H.P. ENGINE MODEL NO. 130202-3116-01**

**Repair Parts**

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	395990	Cylinder Assembly	34	261044	Valve—Intake
2	297565	Bushing—Cylinder <b>Note:</b> Requires special tools for installation.	35	260552	Spring—Intake Valve
3	299819	Seal—Oil	36	26478	Spring—Exhaust Valve
5	211542	Head—Cylinder	37	222443	Guard—Flywheel
7	*270383	Gasket—Cylinder Head	40	93312	Retainer—Valve Spring
8	294178	Breather—Valve Chamber	45	260642	Tappet—Valve
9	*27549	Gasket—Valve Cover	46	212733	Gear—Cam
10	93394	Screw—Breather Mtg. Sem	52	*271936	Gasket—Carburetor Mounting (2)
11	66578	Grommet—Breather Tube	55	299431	Housing—Rewind Starter
12	*270080	Gasket—Crankcase—.015" Thick (Standard)	56	295871	Pulley—Rewind Starter
	*270125	Gasket—Crankcase—.005" Thick	57	490179	Spring—Rewind Starter
	*270126	Gasket—Crankcase—.009" Thick	58	66884	Rope—Rewind Starter—63" Long If longer rope is required, order rope No. 66894 and cut to length.
13	93368	Screw—Cylinder Head (2-3/32" Long)	59	230228	Pin—Starter Grip
14	93369	Screw—Cylinder Head (2-15/32" Long)	60	66728	Grip—Starter Rope
15	91249	Plug—Pipe, 1/4" Std. Square Head <b>To Replace Crankshaft Gear Pin, Order Part No. 230978</b>	65	94128	Screw—Stamped Steel Housing Mtg. Sem
16	397103	Crankshaft	66	399671	Clutch Ass'y.—Rewind Starter
18	398078	Cover Ass'y.—Crankcase	67	394897	Housing—Starter Clutch
19	297603	Bushing—Crankcase Cover <b>Note:</b> Requires special tools for installation.	68	63770	Ball—Clutch
20	294606	Seal—Oil	70	298799	Ratchet—Rewind Starter
21	66768	Plug—Oil Filler	71	394506	Washer—Clutch Retainer
22	93032	Screw—Crankcase Cover Mounting Sem	73	221923	Screen—Starter Pulley
23	297229	Flywheel—Magneto	74	93490	Screw—Sem
24	222698	Key—Flywheel	75	224061	Washer—Spring
25	298904	Piston Ass'y.—Standard	81	222263	Lock—Screw (3/8" Dia. Bolt Holes)
	298905	Piston Ass'y.—.010" O.S.	90	490533	Carburetor Assembly
	298906	Piston Ass'y.—.020" O.S.	95	93499	Screw—Throttle Valve to Shaft Sem
	298907	Piston Ass'y.—.030" O.S. <b>PISTON RING SETS:</b> <b>Note:</b> For Chrome Piston Ring Set—Standard Size—Order Part No. 299742.	96	223793	Throttle—Carburetor
26	298982	Ring Set—Standard Piston	97	490048	Shaft and Lever—Throttle
	298983	Ring Set—.010" O.S. Piston	108	491177	Valve Group—Choke
	298984	Ring Set—.020" O.S. Piston	118	231533	Valve—Needle
	298985	Ring Set—.030" O.S. Piston	124	93357	Screw—Hex. Head
27	26026	Lock—Piston Pin	127	220352	Plug—Welch
28	298909	Pin Ass'y.—Piston—Standard	127A	223789	Plug—Welch (Mixing Chamber)
	298908	Pin Ass'y.—Piston—.005" O.S.	127B	223472	Plug—Welch (Well)
29	299430	Rod Ass'y.—Connecting <b>Note:</b> For Connecting Rod with .020" undersize Crankpin Bore—Order No. 390459.	149	26336	Spring—Needle Valve
30	221890	Dipper—Connecting Rod	152	260575	Spring—Throttle Adjustment
31	221876	Lock—Conn. Rod Screw	153	490589	Screw Ass'y.
32	92296	Screw—Connecting Rod	154	93527	Screw—Machine, Rd. Hd.—5-40 x 5/8"
33	211119	Valve—Exhaust	163	271935	Gasket—Air Cleaner Mounting
			180	490554	Tank Assembly—Fuel
			181	490075	Cap—Fuel Tank
			190	94094	Screw—Fuel Tank Mounting Sem
			191	*271928	Gasket—Fuel Tank Mounting
			200	223886	Guide—Air
			201	262280	Link—Governor
			202	262270	Link—Throttle
			203	280720	Crank—Bell
			204	222962	Bushing—Governor Lever (Flat)

**BRIGGS AND STRATTON 5 H.P. ENGINE MODEL NO. 130202-3116-01**

**Repair Parts**

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
205	231520	Screw—Shoulder	535	491435	Element—Air Cleaner
208	262279	Rod—Control	542	93572	Screw
209	262283	Spring—Governor	552	231079	Bushing—Governor Crank (1/4" I.D.)
216	262359	Link—Choke			
219	391737	Gear—Governor	562	92613	Bolt—Governor Lever
220	221551	Washer—Thrust	592	231082	Nut—Hex.—10-24
222	490649	Bracket—Control	608	390463	Starter Ass'y.—Rewind
223	223455	Lever—Governor Control	611	391813	Fuel Pipe and Clip Assembly
224	93491	Rivet—Governor Control Lever Mounting	613	93935	Screw—Hex. Hd. Shoulder
			614	93306	Cotter—Hairpin
227	490374	Lever Ass'y.—Governor	615	93307	Retainer—E-Ring
230	222450	Washer—Governor Lever	616	231077	Crank—Governor (1/4" Dia.)
256	223813	Crank—Bell	621	396847	Switch—Stop
300	393615	Muffler—Exhaust	634	271853	Washer—Throttle Shaft (Foam)
304	490169	Housing—Blower	643	280737	Retainer—Foam Element
305	93158	Screw—Blower Housing Mounting	643A	280726	Retainer—Air Filter
			655	222598	Anchor Spring
306	221511	Shield—Cylinder	676	393757	Deflector—Exhaust
307	93490	Screw—Cylinder Shield Mounting Sem	679	270382	Washer Choke Shaft (Foam)
			680	221839	Washer Choke Shaft (Brass)
308	221512	Cover—Cylinder Head	741	261696	Gear—Timing
333	397358	Armature Assembly	779	262276	Link—Bell Crank
335	93414	Screw—Armature Mtg. Sem	851	221798	Cable Terminal—Ignition
337	298809	Plug—Spark 1 1/2" High— 37-42 M.M.	869	211787	Seat—Intake Valve (Standard)
			870	211172	Seat—Exhaust Valve (Standard)
346	93705	Screw—Sem			<b>Note:</b> For Options see Repair Manual.
356	398808	Wire—Ground			
358	397145	Gasket Set			
373	92987	Nut—Hex	871	262001	Guide—Exhaust Valve
383	89838	Wrench—Spark Plug			<b>Note:</b> 63709 Guide—Intake Valve. See Repair Instruction Manual.
392	262328	Spring—Fuel Pump Diaphragm			
394	270026	Diaphragm			
414	220982	Washer	916	280321	Gear Rack—Governor
432	221377	Cap—Spring	966	490074	Base—Air Cleaner
433	93265	Pin—Diaphragm Cover	967	491588	Filter—Air
434	210959	Cover—Diaphragm	968	223765	Cover—Air Cleaner
435	93141	Screw—Diaphragm Cover	969	490073	Screw—Cover Mtg.
467	280715	Knob—Control	971	94018	Screw—Air Cleaner
526	94409	Screw—Tank Bracket Mounting Sem	987	398970	Seal—Throttle Shaft
			995	223887	Link Bracket
527	223786	Clamp—Breather Tube	1012	490507	Link—Retainer
528	231526	Tube—Breather	1016	490817	Spacer
529	67838	Grommet—Breather Tube	1019	491100	Decal (Label) Kit

\*Included in Gasket Set—  
Part No. 397145.

# **SEARS**

## **OWNER'S MANUAL**

**MODEL NO.  
247.287751**

## **HOW TO ORDER REPAIR PARTS**

# **CRAFTSMAN®**

## **5 HORSEPOWER 20 TON HYDRAULIC LOG SPLITTER**

Each log splitter has its own model number. Each engine has its own model number.

The model number for your log splitter will be found on a label attached to the frame.

The model number for the engine will be found on the blower housing of the engine adjacent to the spark plug.

All parts listed herein may be ordered through Sears, Roebuck and Co. Service Centers and most Retail Stores.

### **WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION:**

- \* **PRODUCT - "20 Ton Hydraulic Log Splitter"**
- \* **MODEL NUMBER - 247.287751**
- \* **ENGINE MODEL NO. - 130202-3116-01**
- \* **PART NUMBER**
- \* **PART DESCRIPTION**

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