

Owner's Manual

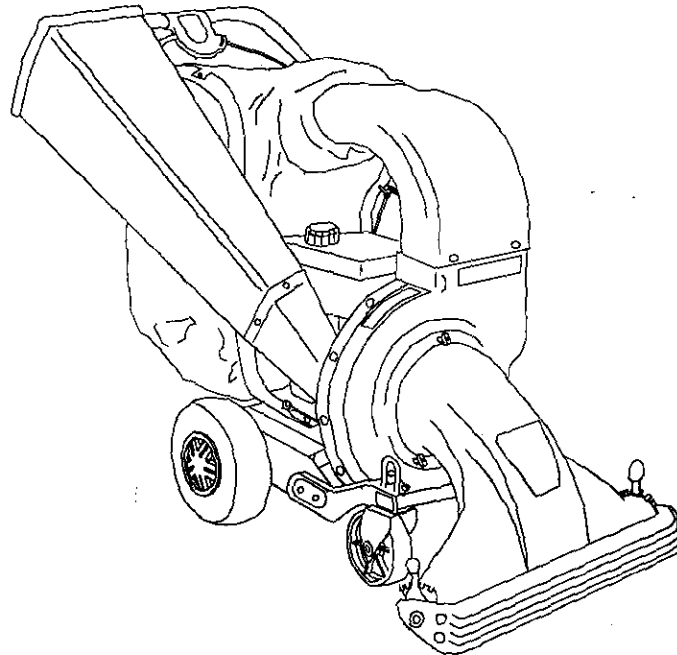
CRAFTSMAN

6.5 Horse Power
Self-Propelled

CHIPPER-SHREDDER VACUUM

Model No.

247.77763



CAUTION: Before using this product, read this manual and follow all Safety Rules and Operating Instructions.

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

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WARRANTY INFORMATION

One-Year Warranty on Craftsman Chipper-Shredder Vacuum

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

This warranty excludes blades, chipper blades, flails, air cleaners, spark plugs, catcher bags and tires which are expendable parts and become worn during normal use.

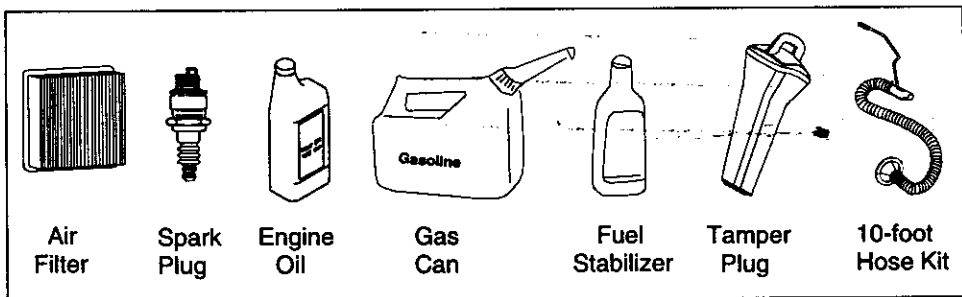
If this chipper-shredder vacuum is used for commercial or rental purposes, this warranty applies for only 30 days from the date of purchase.

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., D/817WA, Hoffman Estates, IL 60179

ACCESSORIES

These accessories are available where the unit was purchased. They are also available at most Sears retail outlets, and service centers. Most Sears stores can order repair parts for you when you provide the model number of your Craftsman chipper-shredder vacuum.



PRODUCT SPECIFICATION

Horsepower:	6.5 Horse Power	Model Number 247.77763
Engine Oil Type	SAE 30	Serial Number.....
Engine Oil Capacity	20 Ounces	Date of Purchase
Fuel Capacity:	Approx. 3 Quarts	Record both serial number and date of purchase and keep in a safe place for future reference.
Spark Plug	Champion RN4C	
Spark Plug Gap	.030"	
Tire Pressure	24 P.S.I.	



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 chipper-shredder vacuum. Failure to comply with these instructions may result in personal injury. When you see this symbol—heed its warning.



DANGER:

Your chipper-shredder vacuum 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.



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 through your nearest Sears Authorized Service Center (See the REPAIR PARTS section of this manual.)

General Operation

- Read this owner's guide carefully in its entirety before attempting to assemble this machine. Read, understand, and follow all instructions on the machine and in the manual(s) before operation. Be completely familiar with the controls and the proper use of the machine before operating it. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
- Your chipper-shredder vacuum is a powerful tool, not a plaything. Therefore, exercise extreme caution at all times. Your unit has been designed to perform two jobs; to chip and vacuum vegetation found in a normal yard. Do not use it for any other purpose.
- Never allow children under 16 to operate the unit. Children 16 years and older should only operate under close parental supervision. Only responsible individuals who are familiar with these rules of safe operation should be allowed to use your unit.
- Keep the area of operation clear of all persons, particularly small children and pets. Stop the engine when they are in the vicinity of the unit.
- When feeding material into this equipment, be extremely careful that pieces of metal, rocks, bottles, cans or other foreign objects are not included. Personal injury or damage to the machine could result.
- Always wear safety glasses or safety goggles, during operation and while performing an adjustment or repair, to protect eyes from foreign objects that may be thrown from the machine.
- Wear sturdy, rough-soled work shoes and close fitting slacks and shirt. Shirt and slacks that cover the arms and legs and steel-toed shoes are recommended. Do not wear loose fitting clothes or jewelry, and secure hair above shoulder length. They can be caught in moving parts. Never operate a unit in bare feet, sandals or sneakers. Wear gloves when feeding material in the chipper chute.
- Do not operate the unit while under the influence of alcohol or drugs.
- Do not over-reach. Keep proper footing and balance at all times.
- Never place your hands or any part of your body or clothing near or under rotating parts. Keep clear of the discharge opening at all times. Never insert your hands or any part of your body or clothing into the nozzle, chipper chute or discharge opening as the rotating impeller can cause serious injury.
- If it is necessary for any reason to unclog the feed intake or discharge openings or to inspect or repair any part of the machine where a moving part can come in contact with your body or clothing, stop the machine, allow it to cool, disconnect the spark plug wire from the spark plug and move it away from the spark plug before attempting to unclog, inspect or repair.
- Never operate unit without vacuum bag and discharge chute properly affixed to unit. Large zippered end of bag must be closed to prevent objects from being blown out.
- Never operate unit without either the inlet nozzle or optional hose attachment properly affixed to unit. These devices shield the operator from accidental contact with the rotating impeller. Never attempt to convert the unit from nozzle to hose mode or vice versa with the engine running.
- Never attempt to remove or empty vacuum bag when engine is running. Shut the engine off and wait for the impeller to come to a complete stop before removing the bag. The impeller continues to rotate for a few

- seconds after the engine is shut off. Never place any part of the body in the impeller area until you are sure the impeller has stopped rotating.
- Keep all guards and safety devices in place and operating properly.
- Do not allow an accumulation of processed material to build up in the discharge area as this will prevent proper discharge and can result in kick-back from the chipper chute.
- Keep your face and body back from chipper chute to avoid accidental bounce back of any material.
- If the cutting mechanism strikes a foreign object or if your machine should start making an unusual noise or vibration, immediately stop the engine, disconnect the spark plug wire and move the wire away from the spark plug. Allow the machine to stop and take the following steps:
 - a. Inspect for damage
 - b. Repair or replace any damaged parts.
 - c. Check for any loose parts and tighten to assure continued safe operation.
- Muffler and engine become hot and can cause a burn. Do not touch.
- Do not allow leaves or other debris to build up on engine's muffler. The debris could ignite and cause a fire.
- Do not operate engine if air cleaner or cover over carburetor air-intake is removed, except for adjustment. Removal of such parts could create a fire hazard.

Children

Tragic accidents can occur if the operator is not alert to the presence of small children. Children are often attracted to the chipping and vacuuming activity. Never assume that children will remain where you last saw them.

- Keep children out of the work area and under the watchful eye of a responsible adult other than the operator.
- Be alert and turn the unit off if a child enters the area.
- Never allow children under the age of 16 to operate the chipper-shredder vacuum.

Service

- Use extreme care in handling gasoline and other fuels. They are extremely flammable and the vapors are explosive.
- Store fuel and oil in approved containers, away from heat and open flame, and out of the reach of children.

- Check and add fuel before starting the engine. Never remove gas cap or add fuel while the engine is running. Allow engine to cool at least two minutes before refueling.
- Replace gasoline cap securely and wipe off any spilled gasoline before starting the engine as it may cause a fire or explosion.
- Extinguish all cigarettes, cigars, pipes and other sources of ignition.
- Never refuel unit indoors because flammable vapors will accumulate in the area.
- Never store the machine or fuel container inside where there is an open flame or spark such as a gas hot water heater, clothes dryer or furnace.
- Never run your machine in an enclosed area as the exhaust from the engine contains carbon monoxide, which is a odorless, tasteless and deadly poisonous gas.
- To reduce fire hazard, keep engine and muffler free of leaves, grass, and other debris build-up. Clean up fuel and oil spillage. Allow unit to cool at least 5 minutes before storing.
- Before cleaning, repairing, or inspecting, make certain the impeller and all moving parts have stopped. Disconnect the spark plug wire and keep wire away from spark plug to prevent accidental starting. Do not use flammable solutions to clean air filter.
- Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
- Never tamper with safety devices. Check their proper operation regularly.
- After striking a foreign object, immediately stop the engine, disconnect the spark plug wire from the spark plug, and thoroughly inspect the unit for any damage. Repair damage before starting and operating unit.
- Do not alter or tamper with the engine's governor setting. The governor controls the maximum safe operating speed of the engine. Over-speeding the engine is dangerous and will cause damage to the engine and to other moving parts of the machine.
- Check the vacuum bag frequently for wear. Replace if worn or damaged.
- Keep vacuum bag free of debris when not in use.

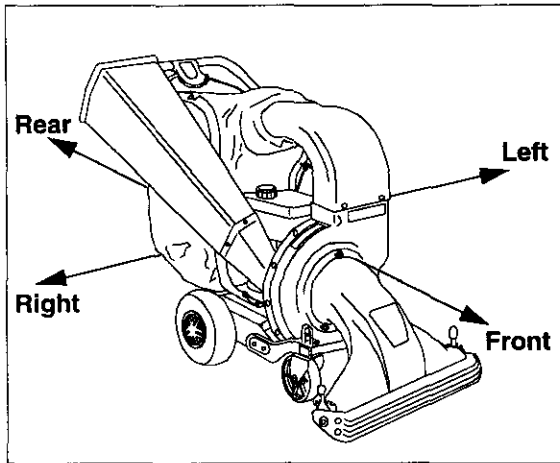
Your Responsibility



Restrict the use of this power machine to persons who read, understand and follow the warnings and instructions in this manual and on the machine.

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

ASSEMBLY



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

NOTE: To determine right and left hand sides of your chipper-shredder vacuum, stand behind the unit with the engine farthest away from you.

Your chipper-shredder vacuum has been completely assembled at the factory, except for the nozzle, the chipper chute with support bracket and the catcher bag. These parts are shipped loose in the carton. A pair of safety glasses and a 20-oz. bottle of engine oil are also included in the carton.

Removing From Carton

- Cut the corners of the carton.
- Remove all packing inserts.
- Remove all loose parts. See Figure 1.
- Push down on handle to lift front of chipper-shredder vacuum and roll unit out of the carton.
- Make certain all parts and literature have been removed before the carton is discarded.

Loose Parts

(See Figure 1.)

1. Nozzle
2. Chipper Chute with Support Bracket
3. Catcher Bag
4. Safety Glasses (Not Shown in Figure 1)
5. A 20-oz. Bottle of Engine Oil

Tools Required

1. 1/2" or adjustable wrenches
2. 7/16" or adjustable wrenches
3. Funnel (Recommended)
4. Pliers

Disconnecting Spark Plug

(See Figure 2.)

- Before proceeding with assembly of your new chipper-shredder vacuum unit, disconnect the spark plug wire from the spark plug on the engine and move it away. This will prevent accidental starting of the engine in any way.

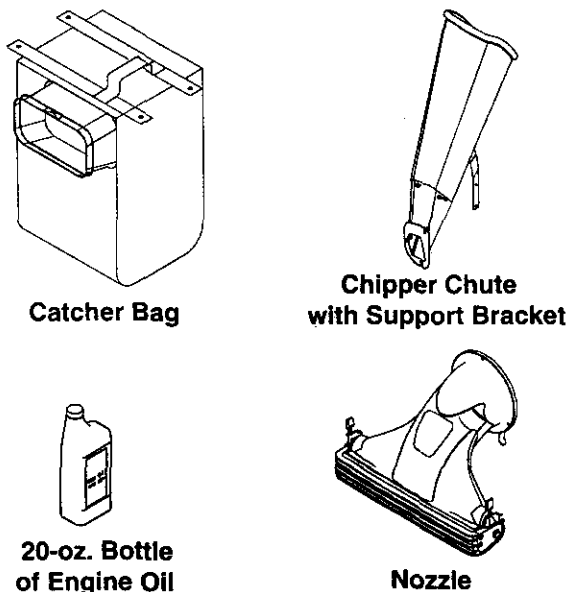


Figure 1

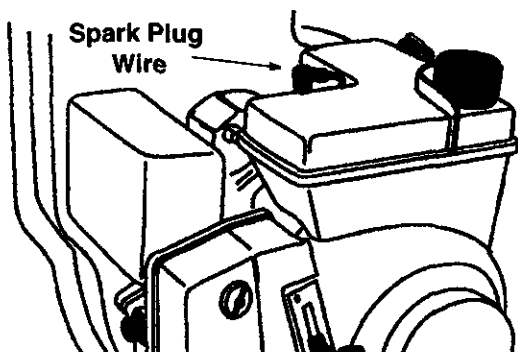


Figure 2

Attaching the Nozzle

(See Figure 3.)

- Remove the three plastic wing nuts from the front of the chipper-shredder vacuum.
- Place the nozzle over the three weld studs.
- Secure with the plastic wing nuts just removed.

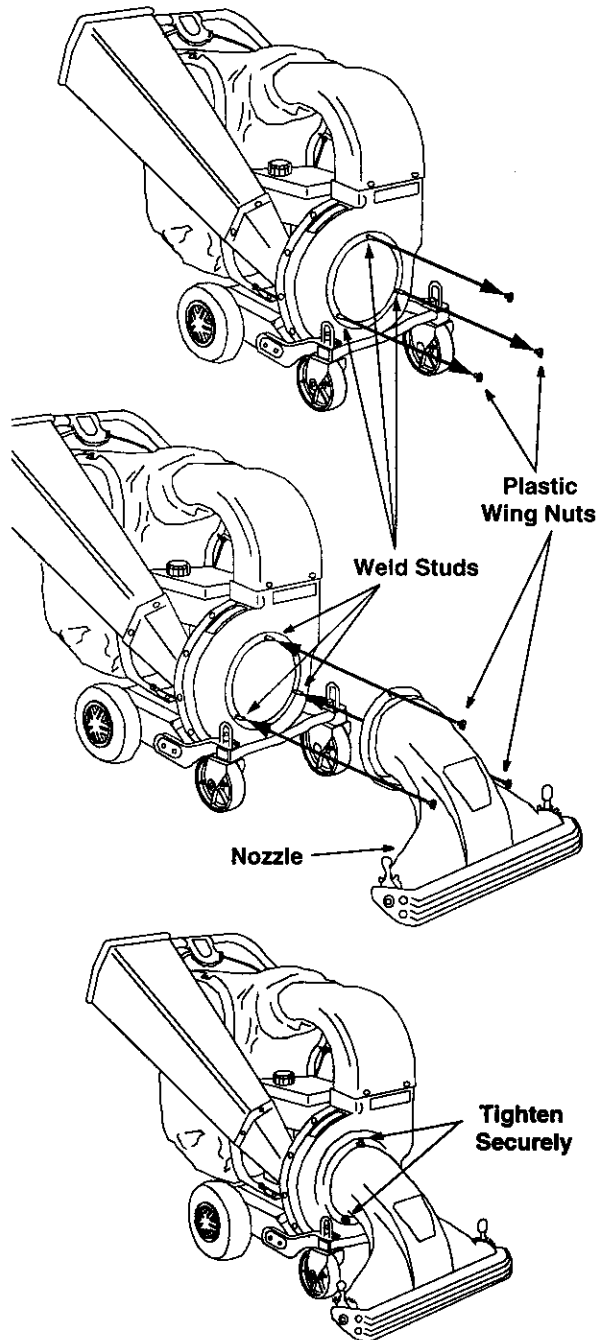


Figure 3

NOTE: The metal tab in the nozzle must depress the safety switch on the front of the chipper-shredder vacuum or the engine will not start. See Figure 4.

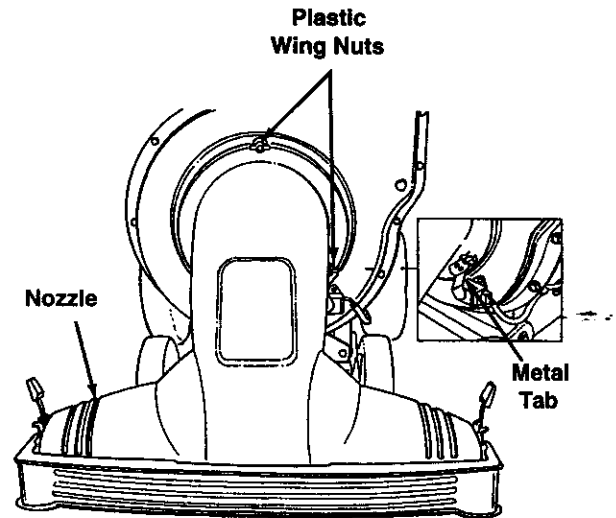


Figure 4

Attaching the Chipper Chute

- Loosen, but do NOT remove, the two hex bolts, flat washers, and flange nuts which are secured to the support bracket. See Figure 5.

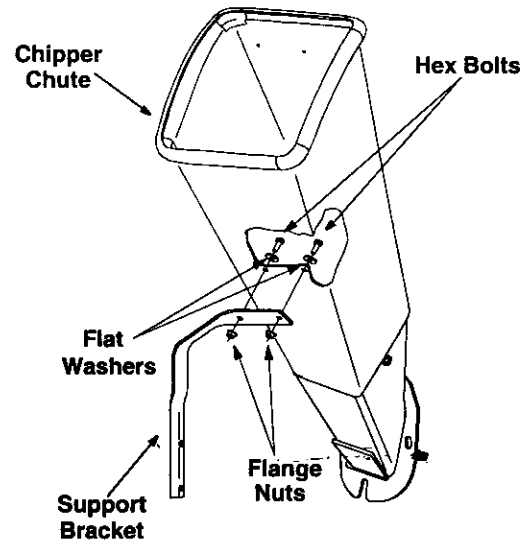


Figure 5

- Remove the two flange nuts, hex bolts and saddle washers which secure the right side of the upper handle to the right side of the lower handle. See Figure 6.
- Next, remove the three hex nuts and bell washers from the weld studs found beside the opening on the right side of the chipper-shredder vacuum. See Figure 6.

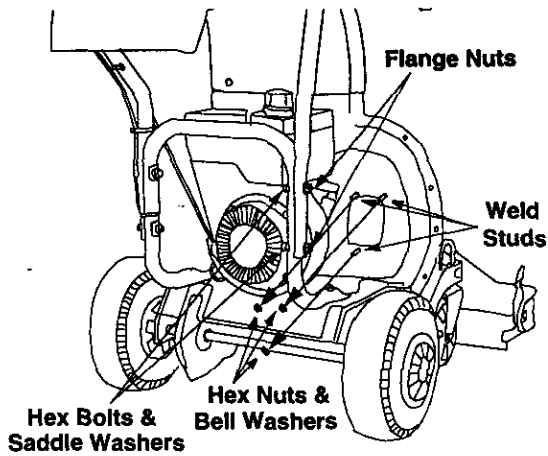


Figure 6

- Place the chipper chute over the weld studs keeping the slotted side towards the bottom. Loosely secure with the three hex nuts and bell washers that were removed earlier. Do not fully tighten the hex nuts at this point in the assembly. See Figure 7.

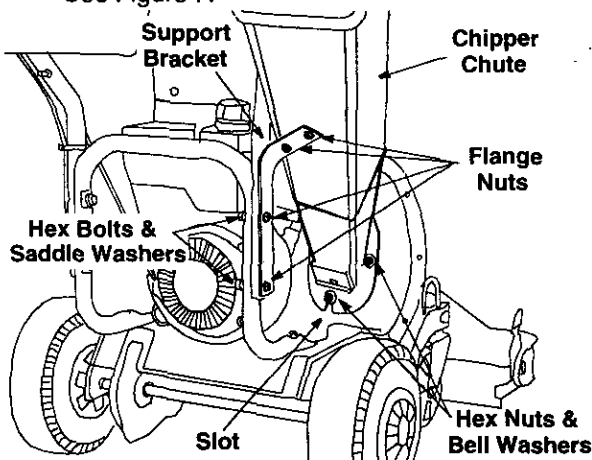


Figure 7

- Align the support bracket with the holes in the right side of the upper and lower handles where the hex bolts were just removed. Push up slightly on the chipper chute in order to better align the holes in the support bracket with the holes in the handles.
- Replace the hex bolts, saddle washers and flange nuts to affix the support bracket to the handle assemblies. See Figure 7.
- Follow by tightening all hardware securely first on the chipper chute, then on the support bracket, and finally on the handle.

Attaching the Catcher Bag

- Place the catcher bag inside of handle assembly. Slip the opening on the bag over the discharge chute, making certain it is over the rib on the discharge chute.
- Place the four straps on the top of the bag over the upper handle, hooking them on the studs.
- Squeeze the clamp on the drawstring and pull the drawstring tight. Release the clamp. See Figure 8.

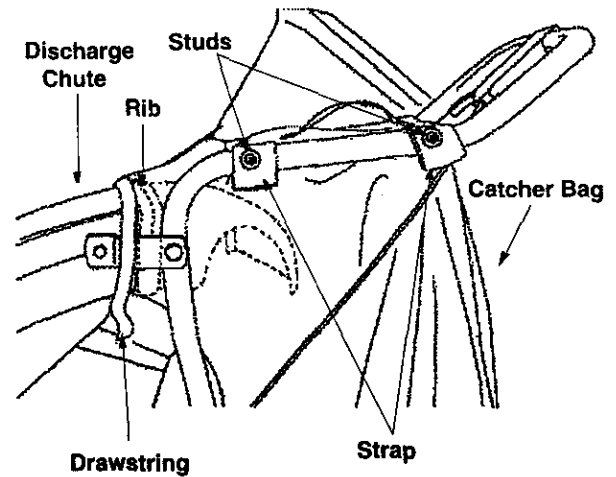


Figure 8

OPERATION

Know Your Chipper-Shredder Vacuum

Read this owner's manual and safety rules before operating your chipper-shredder vacuum. Compare the illustrations below with your equipment to familiarize yourself with the location of various controls and adjustments. Save this manual for future reference.



The operation of any chipper-shredder vacuum can result in foreign objects being thrown into the eyes, which can result in severe eye damage. **Always wear safety glasses**, provided with the Craftsman chipper-shredder vacuum, for operating this equipment or while performing any adjustments or repairs on it.

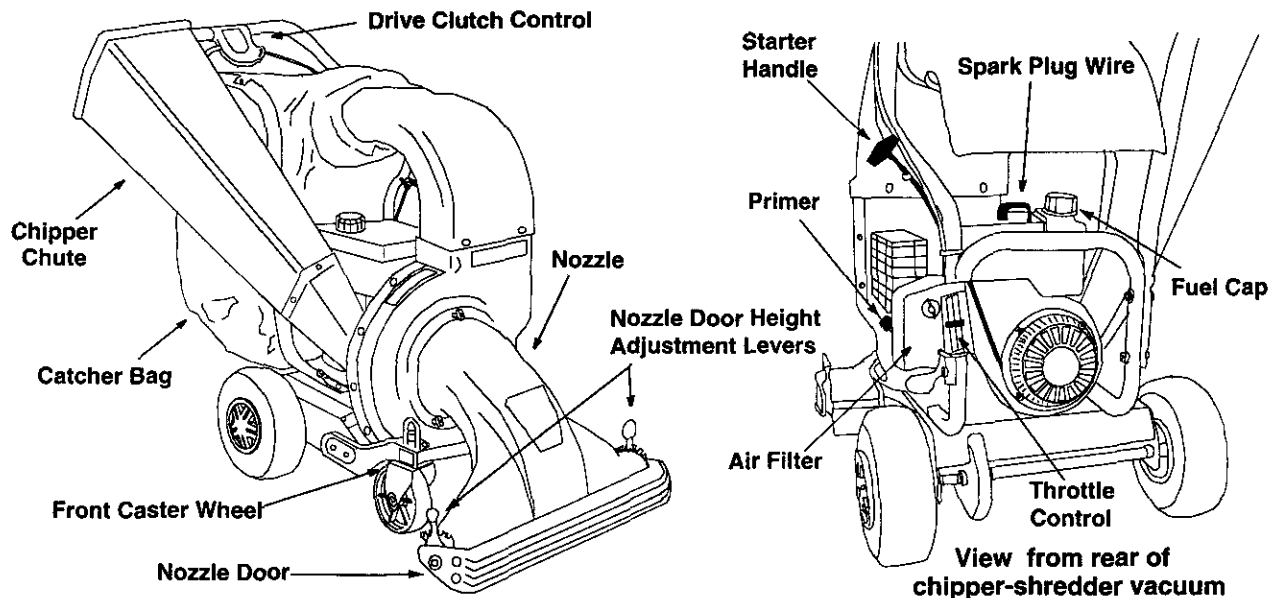


Figure 9

Operating Controls

Chipper Chute

Allows twigs and small branches up to three inches in diameter to be fed into the impeller for shredding.

Nozzle

Yard waste such as leaves and pine needles can be vacuumed up through the nozzle.

Catcher Bag

Collects shredded material fed in through the chipper chute or vacuumed in through the nozzle.

Drive Clutch Control

Squeezing the drive clutch control causes the chipper-shredder vacuum to self-propel.

Nozzle Door

Nozzle ground clearance can be adjusted with the nozzle door.

Front Caster Wheels

Allows for a choice in the maneuverability of the chipper-shredder vacuum.

Primer

The primer is used to assist in starting a cold engine or restarting of an engine after a short shutdown.

Starter Handle

This is used to start the engine.

Throttle Control

Controls the engine speed and stops the engine.

Stopping the Engine

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

Meets ANSI safety standards

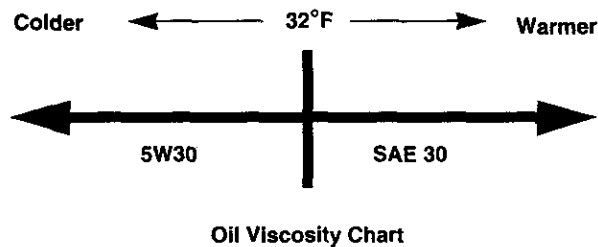
Craftsman chipper-shredder vacuums conform to the safety standard of the American National Standards Institute (ANSI)

Gas And Oil Fill-up

Oil (one 20-oz. bottle shipped with unit)

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 32°F. Check engine oil level more frequently to avoid possible engine damage from running low on oil.



- Remove oil fill dipstick.
- With the chipper-shredder vacuum on level ground, use a funnel to fill engine with oil to FULL mark on dipstick. Capacity is approximately 20 oz. Be careful not to overfill. Overfilling will cause the engine to smoke profusely and will result in poor engine performance. The oil bottle packaged with your chipper-shredder vacuum contains 20 oz. of oil.
- Tilt chipper-shredder vacuum toward the left, then re-level. Check the oil level making certain not to rub the dipstick along the inside walls of the oil fill tube. This would result in a false dipstick reading. Refill to FULL mark on dipstick, if necessary. Replace dipstick and tighten.
- Check oil level three times prior to starting engine to be certain you've gotten an accurate dipstick reading. Running the engine with too little oil can result in permanent engine damage.

Gasoline

- Remove fuel cap from the fuel tank.
- Make sure the container from which you will pour the gasoline is clean and free from rust or foreign particles. Never use gasoline that may be stale from long periods of storage in its container. Gasoline that has been sitting for any period longer than four weeks should be considered stale.
- Fill fuel tank with approximately 3 quarts of clean, fresh, lead-free grade automotive gasoline. DO NOT use Ethyl or high octane gasoline. Replace fuel cap.



WARNING: Never fill the fuel tank indoors. Gasoline produces noxious fumes. Always be certain to fill the fuel tank in a well ventilated area to avoid inhalation of gasoline fumes.



WARNING: Never smoke while fueling your chipper-shredder vacuum. Gasoline produces combustible fumes which can ignite and cause personal injury.



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

- Check the fuel level periodically to avoid running out of gasoline while operating the chipper-shredder vacuum. If the unit runs out of gas as it is chipping, it may be necessary to unclog the unit before it can be restarted. Refer to **Removing the Flail Screen** on page 15.

Starting The Engine

IMPORTANT: If your unit shows any sign of motion with the drive clutch control in the disengaged position, shut the engine off immediately. Readjust following the instructions on page 16.



WARNING: Make sure that no one other than the operator is standing near the chipper-shredder vacuum unit while starting or operating.



Do not operate this unit unless the nozzle, discharge chute, and the bag have been properly installed.

- Attach spark plug wire and rubber boot to spark plug if not already attached.
- Place the throttle control lever in FAST position.
- Depress the primer three to four times slowly. Wait about two seconds between each push. When temperature is at or below 50°F/10°C, it may be necessary to depress the primer five to six times. You may have to use the primer to restart a warm engine after a short shutdown.
- Place one foot on the left rear wheel to prevent the unit from skidding while starting.
- Grasp starter handle and pull rope out slowly until engine reaches start of compression cycle. The rope will pull slightly harder at this point. Let the rope rewind slowly.

NOTE: While the engine is reaching the compression cycle, you may hear a "clanking" noise. This noise is caused by the impeller flails pivoting and falling into place and is normal. This noise will continue until the impeller reaches full speed.

- Pull the rope with a rapid, continuous, full arm stroke while keeping a firm grip on the starter handle.
- Continuing to keep a firm grip on the starter handle, let the rope rewind slowly. Do not let the starter handle snap back against the eye bolt on the handle. Repeat, if necessary, until engine starts. Additional priming may be necessary.
- Move throttle control to IDLE position for a few minutes to warm up the engine. Move it back to fast when running.
- ALWAYS keep the throttle control in the Fast position when operating the chipper-shredder vacuum.

NOTE: Engine may run very slowly for the first five to ten seconds after it has been started until the impeller gains momentum and allows the engine to reach its top RPM.

NOTE: To idle smoothly, a new engine may require 3 to 5 minutes of running at above the slow idle speed. The idle speed has been adjusted for proper running after this break-in period.

Stopping the Engine

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

Adjusting Nozzle Height

- The nozzle door height adjustment levers have five position settings and are found each side of the nozzle door. See Figure 10. The nozzle door height should be adjusted according to the conditions.
- Slide the height adjustment lever forward or backward for adjusting the nozzle door upwards or downwards. See Figure 10.



WARNING: Keep your hands, feet and any loose clothing clear of the nozzle any time the engine is running. When the engine is running, a vacuum is being created in the nozzle which can draw in loose clothing.



WARNING: Never make any adjustments on the nozzle while the engine is running.

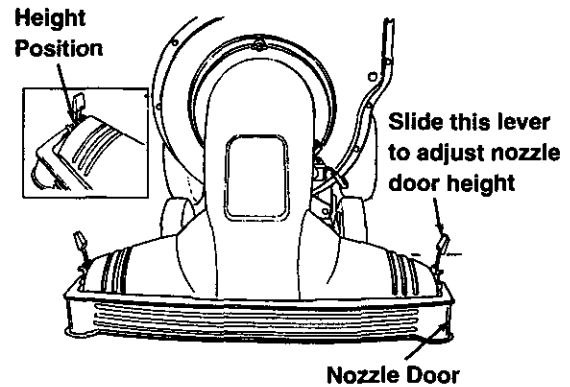


Figure 10

NOTE: Raise the nozzle height to vacuum a thick layer of leaves; lower the nozzle height for smoother lawns.

Operation of your Chipper-Shredder Vacuum

Your chipper-shredder vacuum is designed to chip small tree branches and twigs, shred leaves and vacuum foliage and other lawn debris. For convenience in operation, your Craftsman chipper-shredder vacuum is equipped with a drive clutch control allowing it to "self-propel."



WARNING: The impeller (chipping/shredding mechanism) is rotating at all times when the engine is running.



WARNING: Keep your hands away from the nozzle opening and NEVER place your hands or arms inside of the chipper chute when the engine is running. Doing so could result in serious personal injury.

IMPORTANT: Your chipper-shredder vacuum is equipped with a safety switch at the front left portion of the impeller housing. The metal tab on the nozzle must depress this switch for the engine to start. Be certain the nozzle is properly in place before attempting to start the unit. See Figure 4 on page 6.



WARNING: Always survey the area to be vacuumed thoroughly before operating the chipper-shredder vacuum. Clear the area of any obstructions such as toys, dog chains, etc. Running over such an obstruction can result in personal injury as well as damage to the chipper-shredder vacuum.

- Do not vacuum up anything other than normal yard waste such as leaves or pine needles.