OWNER'S GUIDE

- ASSEMBLY - OPERATION - MAINTENANCE - PARTS -

5 and 8 H.P. SHREDDERS

103-675-0000
103-675-0001
103-678-0000
103-678-0001

IMPORTANT!
Record the Model No. and Serial No. which appear on your unit in the space below. You must have these numbers, along with the date of purchase, in order to receive warranty or service.

MODEL NO.                SERIAL NO.

Important:
Read Safety Rules
and Instructions Carefully

WARNING: This unit is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush 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 authorized engine service dealer.
SAFETY RULES

**WARNING**

To reduce the potential for injury, observe the following safety instructions. Failure to comply may result in personal injury.

TRAINING

- Become familiar with the owner's guide before attempting to operate this equipment.
- Children shall not be allowed to operate this equipment.
- This equipment shall not be operated in the vicinity of bystanders.
- Carbon monoxide can be extremely dangerous in enclosed areas; operators shall not run the machine in an enclosed area since the exhaust from the engine contains carbon monoxide, which is colorless, odorless, and tasteless.
- Operators shall not allow hands or any other part of the body or clothing inside the feeding chamber, discharge chute, or near any moving part.
- Before inspecting or servicing any part of the machine, the operator shall shut off the power source, disconnect the spark plug wire from the spark plug, and make sure that all moving parts have come to a complete stop.

PREPARATION

- Operators shall wear safety glasses at all times while operating the machine.
- Operators shall avoid wearing loose fitting clothing.
- Operators shall operate the machine on a level surface.
- Operators shall not operate the machine on a paved or gravel surface.
- Before starting the machine, operators shall check that all screws, nuts, bolts, and other fasteners are properly secured. Damaged or unreadable warning and operating decals shall be replaced.
- Operators shall use extra care in handling gasoline and other fuels. These fuels are flammable, and their vapors are explosive.
  - Only an approved container shall be used;
  - Gas cap shall never be removed or fuel added with the engine running. Engine shall be allowed to cool before refueling. Operators shall not smoke;
  - The machine shall not be fueled indoors;
  - The machine or fuel containers shall not be stored inside where there is an open flame, such as a water heater or gas furnace.

OPERATION

- Before starting the machine, operators shall make certain that the shredding chamber is empty.
- Before starting the machine, operators shall make certain that the collection bag is properly attached.
- When feeding shreddable material into the machine, operators shall be extremely careful that pieces of metal, rocks, bottles, cans, or other foreign objects are not included.
- If the cutting mechanism strikes any foreign objects or if the machine should start making any unusual noise or vibration, operators shall shut off the engine immediately and allow the machine to stop. Operators shall disconnect the spark plug wire from the spark plug and take the following steps:
  a) Inspect for damage;
  b) Replace or repair any damaged parts;
  c) Check for and tighten any loose parts.
- The engine shall be kept clean of debris and other accumulations.
- Processed material shall not be allowed to build up in the discharge area; this can prevent proper discharge and result in kickback of material through the feed opening.
- The unit shall be shut off before removing the collection bag.
- Do not allow hands or any other part of the body or clothing inside the feeding chamber or discharge chute, or near any moving part.
- All guards and deflectors shall be kept in place and in good working condition.
- Operators shall keep their faces and bodies back from the feeding opening.
- Operators shall not overreach. They shall keep proper balance and footing at all times.
- Operators shall not tamper with the engine-governor settings on the machine; the governor controls the maximum safe operating speed and protects the engine and all moving parts from damage caused by overspeed. Authorized service shall be sought if a problem exists.
- This machine shall not be transported while the engine is running.
- If the machine becomes clogged, operators shall shut off the engine and disconnect the spark plug wire before clearing debris.

MAINTENANCE AND STORAGE

- When this equipment is stopped for service, inspection, or storage, or to change an accessory, operators shall make sure the spark plug wire is disconnected from the spark plug. Operators shall allow the machine to cool before making any inspections, adjustments, etc. The machine shall be maintained with care and kept clean.
- Store the machine out of the reach of children and where gasoline vapors will not reach an open flame or spark. For extended storage periods, run the unit dry of gas. Always allow the machine to cool before storing.
IMPORTANT: This unit is shipped WITHOUT GASOLINE or OIL. After assembly, see separate engine manual for proper fuel and engine oil recommendations.

NOTE: To determine right and left hand sides of your shredder, stand behind and face the engine (the engine is at the back of the unit). The right and left hand sides of the machine corresponds to your right and left hand sides.

Your shredder has been completely assembled at the factory, except for the wheels, collection bag, and vacuum attachment (if included).

TOOLS REQUIRED
(1) Phillips Screwdriver
(1) Flat-nose Screwdriver
(1) 7/16" Wrench
(1) 1/2" Wrench
(1) Hammer (preferably rubber)

WARNING: Make certain the spark plug wire is disconnected and moved away from the spark plug before assembling the shredder.

ATTACHING THE WHEELS
1. With the shredder still attached to the pallet, remove a stand from one side of the shredder axle.
2. Slide one wheel on the shredder axle. Make sure the valve stem is facing out.
3. Lightly tap the push cap onto the axle. Do not use excess force. The push cap is plastic and can break easily.
4. Repeat steps 1 through 3 for other side.
5. Remove 5/16 - 18 nut from front foot to release machine from pallet. A 1/2" wrench is required.

ATTACHING THE COLLECTION BAG
Your shredder is equipped with a collection bag to catch the shredded material.
To attach the bag, place the opening of the bag over the discharge chute so it completely covers the opening. Depress the plunger on the drawstring, pull on the drawstring until the bag is tight around the chute opening. Release plunger to lock into position.

ASSEMBLING THE VACUUM HOSE
NOTE: The vacuum attachment is an optional accessory. If you did not receive one with your machine, please contact your dealer for further information.

1. Slide one hose clamp over the end of the hose.
2. Insert the black hose adaptor inside the hose.
3. Tighten the hose clamp securely around the adaptor. A flat nose screwdriver is required.
4. Attach the vacuum hose to the machine. See the section on HOW TO USE YOUR VACUUM in this manual.
5. Stretch the hose strait.
6. Slide the other hose clamp over the other end of the hose.
7. Insert the vacuum nozzle into the hose.
8. Tighten the hose clamp securely around the nozzle. A flat nose screwdriver is required.

NOTE: Make certain that the holes for the handle are pointing strait up. If they are not, the hose may detach from the machine while in use.

9. Attach the vacuum handle to the vacuum nozzle using the two screws located in the nozzle. A 7/16" wrench is required.

NOTE: To prevent material from catching while vacuuming, make certain that the heads of the screws are to the inside of the nozzle.

FIGURE 1.
ATTACHING THE COLLECTION BAG

FIGURE 2.
KNOW YOUR SHREDDER
READ THIS OWNER'S GUIDE AND SAFETY RULES BEFORE OPERATING YOUR SHREDDER. Compare the illustrations with your shredder to familiarize yourself with the location of various controls and adjustments. Save this guide for future reference.

![Diagram of shredder parts]

Hopper
Chipper Chute
Cavitator Handle
Vacuum Cover Lid
Choke Lever Throttle Control Starter Handle
Collection Bag (Not Shown)

FIGURE 3.--Model 678 Shown

OPERATION CONTROLS (See figure 3)

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

STARTER HANDLE—Used to manually start the engine.

THROTTLE CONTROL—Controls engine speed and stops the engine.

The operation of any shredder can result in foreign objects being thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields. We recommend a wide vision safety mask for over spectacles or standard safety glasses.
BEFORE STARTING

1. Place the shredder on a firm, level surface.
2. Attach spark plug wire to spark plug.
3. Service engine with gasoline and oil as instructed in the separate engine manual packed with your shredder.

NOTE: Check the fuel level periodically to avoid running out of gasoline while operating the chipper/shredder. If the unit runs out of gas as it is shredding or chipping, it may be necessary to unclog the unit before it can be restarted.

TO START ENGINE

WARNING: Be sure no one other than the operator is standing near the shredder while starting or operating.

1. Place the throttle control lever in FAST position. See figure.
2. Move choke lever to CHOKE position (a warm engine may not require choking). See figure.
3. Grasp starter handle (see figure 4) 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.
4. Pull rope with a rapid, continuous, full arm stroke. Keep a firm grip on starter handle. Let rope rewind slowly. Do not let starter handle snap back against starter.
5. Repeat preceding instructions 3 and 4 until engine fires. When engine starts, move choke lever on engine halfway between CHOKE and RUN.

![Full Choke Position Diagram](image)

FIGURE 4. -- Model 678 Shown

6. Move throttle control to IDLE position for a few minutes warm-up. 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.

TO STOP ENGINE

1. Move throttle control lever to STOP position (See figure 4).

2. Disconnect spark plug wire and move away from spark plug to prevent accidental starting while equipment is unattended.

HOW TO USE YOUR SHREDDER

Do not attempt to shred or chip any material other than vegetation found in a normal yard (i.e., branches, leaves, twigs, etc.).

WARNING: The shredder discharges material with considerable velocity. Keep away from the area around the chute deflector. Always stop the engine and disconnect the spark plug wire when removing or attaching the bag, when changing containers or when removing the shredded material, wear safety glasses and gloves whenever using your shredder.

1. Leaves and small branches up to $\frac{1}{2}$" diameter can be fed into the hopper. If it becomes necessary to push material into the shredder, use a small diameter stick—NOT YOUR HANDS. The stick cannot exceed $\frac{1}{2}$" in diameter so it will be ground up if it gets into the rotor assembly.

WARNING: Do not put material larger than $\frac{3}{4}$" in diameter into the hopper. Material up to a maximum of 3" in diameter may be fed into the chipper chute. Do not attempt to shred or chip any material larger than 3" in diameter. Personal injury or damage to the machine could result.

2. Bulky material, such as stalks or heavy branches, up to 3" in diameter should be fed into the chipper chute.

NOTE: For best performance, it is important to keep shredder hammers and chipper blades sharp (Refer to Maintenance section). If the composition of the material being discharged changes, or if the rate at which the material is discharged slows down considerably, it is likely that the shredding hammers and/or chipper blades are dull and need to be sharpened, rotated, or replaced.

HOW TO USE YOUR VACUUM

(OPTIONAL ACCESSORY)

WARNING: Do not attempt to connect or remove your vacuum hose from the machine while it is running. Shut off the engine and allow all moving parts to come to a complete stop before opening the vacuum cover.
1. With the engine off and the spark plug wire disconnected, attach the vacuum hose to the machine by lifting up on the vacuum cover door and then pull it open. Then, slide the hose onto the vacuum housing by lining up the nipples in the adaptor with the ones on the housing. Finally, twist the hose into the locked position.

2. The main function of the vacuum hose is to vacuum leaves into the machine for shredding. For best results, do not bury the nozzle into a pile of leaves. Instead, sweep the vacuum nozzle back and forth across the leaves.

3. If the hose becomes clogged while vacuuming, turn off the machine and disconnect the spark plug wire. Remove the hose from the machine and clean it out with a hard stream of water.

**MAINTENANCE**

**WARNING:** Always stop engine and disconnect spark plug wire before cleaning, lubricating or performing any repairs or maintenance.

**LUBRICATION**
Lubricate the vacuum cover door, cavitator, and the chipper chute door (if so equipped) once a season using a light oil.

**ENGINE**
Refer to the separate engine manual for engine maintenance instructions.

Maintain engine oil as instructed in the separate engine manual packed with your unit. Read and follow instructions carefully.

Service air cleaner every 25 hours under normal conditions. Clean every few hours under extremely dusty conditions. Poor engine performance and flooding usually indicates that the air cleaner should be serviced. To service the air cleaner, refer to the separate engine manual packed with your unit.

The spark plug should be cleaned and the gap reset once a season. Spark plug replacement is recommended at the start of each season; check engine manual for correct plug type and gap specifications.

Clean the engine regularly with a cloth or brush. Keep the cooling system clean to permit proper air circulation which is essential to engine performance and life. Be certain to remove all dirt and combustible debris from muffler area.

**CLEANING**
The shredder may be cleaned by running water from a hose through the hopper assembly and chipper chute with the engine running. Allow the shredder to dry thoroughly.

Wash the bag periodically with water. Allow to dry thoroughly in the shade. Do not use heat.

**REPLACING CHIPPER BLADES**

1. Disconnect spark plug wire and move it away from the spark plug.

2. Remove the chipper chute by removing the three hex nuts and washers. A 1/2" wrench is required.

**NOTE:** When reassembling, the cupped washers are to be placed with the cupped side against the chute.

3. Rotate the rotor assembly by hand until you locate one of the chipper blades in the chipper chute opening. Remove the blade using a 3/16" allen wrench on the outside of the blade (See figure 5).

4. Remove the other blade in the same manner. Replace blades. Reassemble in reverse order.

Make certain that the blades are reassembled with the sharp edge facing the direction shown in figure (sharp edge is assembled toward the slotted opening in the rotor assembly).
ROTATING/REPLACING SHREDDER HAMMERS

1. Disconnect spark plug wire and move it away from the spark plug.
2. Remove the front panel from the machine by removing the 21 nuts holding the panel in place. A 1/2" and a 7/16" wrench are required.
3. Remove the bolt from the center of the rotor assembly (See figure 6). A 9/16" wrench is required.

![FIGURE 6.](image)

4. Pull the rotor assembly off of the shaft using even force on both sides (See figure 7).

![FIGURE 7.](image)

NOTE: Be sure to wear heavy gloves when working with the rotor assembly. The shredder hammers and chipper knives are very sharp.

5. Lay the rotor assembly on a bench with the chipper knives facing down.
6. Use a small punch or nail to remove the roll pin located in the middle of the hammer pin.
7. Rotate hammers to any unused corner, or replace if necessary.

NOTE: Be sure to reassemble shredder hammers and hammer spacers in the exact same sequence (sequence is the same as opposing side or rotor). Improper assembly can cause the rotor to become unbalanced.

IMPORTANT: WHEN REASSEMBLING ROTOR, TIGHTEN TO BETWEEN 45 AND 55 FOOT POUNDS OF TORQUE. USE A GRADE 8 BOLT WITH LOCTITE RC 609 OR LOCTITE THREADLOCKER 222.

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. If adjustment is needed, refer to the separate engine manual packed with your shredder.

OFF-SEASON STORAGE

The following steps should be taken to prepare your shredder for storage.

1. Clean and lubricate the shredder thoroughly as described in the lubrication instructions.
2. Refer to engine manual for correct engine storage instructions.
3. If storing in an unventilated or metal storage shed, coat metal parts with a light oil or silicone to prevent rust.
4. Store in a dry, clean area. Do not store next to corrosive materials, such as fertilizer.
## MODELS 675 and 678

### PARTS LIST FOR SHREDDERS

<table>
<thead>
<tr>
<th>REF NO</th>
<th>PART NO</th>
<th>DESCRIPTION</th>
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<th>PART NO</th>
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<th>PART NO</th>
<th>DESCRIPTION</th>
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<tr>
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<td>670-6711</td>
<td>Front Panel</td>
<td>17</td>
<td>670-6712</td>
<td>Rear panel</td>
<td>35</td>
<td>670-6761</td>
<td>Rotor (with out shredder hammers, and chipper knives)</td>
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<td></td>
<td>770-0041</td>
<td>Decal: DUERR YARD CLEAN UP</td>
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<td>770-0043</td>
<td>Decal: 1/2&quot; MAX DIAMETER</td>
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<td>600-0004</td>
<td>Rotor assembly (complete with shredder hammers, and chipper knives)</td>
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<tr>
<td></td>
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<td>CLEAN UP</td>
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<td>770-0050</td>
<td>Decal: DO NOT USE HANDS</td>
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<td>Decal: MODEL # 675</td>
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<td>770-0094</td>
<td>Decal: Handle bar wraps</td>
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<td>770-0048</td>
<td>Decal: SAFETY GLASSES SHOULD BE WORN</td>
<td>18</td>
<td>770-0014</td>
<td>Push plug 1&quot;</td>
<td>36</td>
<td>770-0025</td>
<td>Chipper knife 1/4&quot; x 4-1/4&quot; Lg.</td>
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<td>770-0080</td>
<td>Vacuum housing (plastic only)</td>
<td>19</td>
<td>600-0009</td>
<td>Chip chute, complete</td>
<td>37</td>
<td>770-0018</td>
<td>Flat head screw 5/16 - 24 x 1&quot; Lg.</td>
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<td>600-0002</td>
<td>Vacuum housing assembly</td>
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<td>770-0008</td>
<td>Pop Rivets 3/16&quot; x 3/8&quot; shank</td>
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<td>770-0049</td>
<td>Decal: KEEP HANDS AND FEET OUT</td>
<td>38</td>
<td>670-6755</td>
<td>Shredder hammer</td>
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<td>3</td>
<td>670-6771</td>
<td>Vacuum cover door</td>
<td>20</td>
<td>770-0038</td>
<td>Hex bolt 5/16 - 18 x 1&quot; Lg.*</td>
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<td>770-0111</td>
<td>Hammer spacer 3/16&quot;</td>
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<td>770-0042</td>
<td>Decal: DO NOT OPEN THIS FLAP</td>
<td>21</td>
<td>770-0020</td>
<td>Flat washer 5/16&quot; I.D.*</td>
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<td>770-0017</td>
<td>Hammer spacer 7/16&quot; with hole</td>
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<td>670-6772</td>
<td>Vacuum cover door bracket</td>
<td>22</td>
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<td>Nyloc nut 5/16 - 18 Thd.*</td>
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<td>670-6788</td>
<td>Vacuum cover door pin 1/4 x 3-3/4&quot; Lg.</td>
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<td>770-0059</td>
<td>Spring washer 5/16&quot; I.D.</td>
<td>42</td>
<td>770-0024</td>
<td>Hammer rod 1/2&quot; dia.</td>
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<td>Spring</td>
<td>24</td>
<td>670-6754</td>
<td>Chipper chute lid</td>
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<td>770-0022</td>
<td>Roll pin 1/8&quot; x 1&quot; Lg.*</td>
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<td>770-0012</td>
<td>Push cap 1/4&quot;</td>
<td>25</td>
<td>670-6784</td>
<td>Chipper chute lid pin 1/4 x 6&quot; Lg.*</td>
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<td>770-0023</td>
<td>Hex bolt 3/8 - 24 x 1&quot; Lg. (Gr. 8)</td>
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<td>Left hopper panel</td>
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<td>770-0011</td>
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<td>770-0028</td>
<td>Split lock washer 3/8&quot; I.D.*</td>
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<td>Right hopper panel</td>
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<td>Push cap 1/4&quot;</td>
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<td>Square key 1/4 x 2&quot; Lg.</td>
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<td>9</td>
<td>770-0006</td>
<td>Pan head philip 1/4 - 20 x 1/2&quot; Lg.</td>
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<td>600-0039</td>
<td>Engine tray (10&quot; Tire)</td>
<td>47</td>
<td>770-0052</td>
<td>Engine 5 H.P. Briggs and Stratton</td>
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<td>670-6714</td>
<td>Cavitator</td>
<td>29</td>
<td>600-0030</td>
<td>Engine tray (12&quot; Tire)</td>
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<td>770-0053</td>
<td>Engine 5. H.P. Briggs and Stratton w/oil dipstick</td>
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<td>770-0077</td>
<td>Engine 8 H.P. Tecumseh</td>
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<td>Hex bolt 5/16 - 18 x 1-1/2&quot; Lg.*</td>
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<td>770-0071</td>
<td>Push cap 3/4&quot;</td>
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*For faster service obtain standard nuts, bolts and washers locally. If these sizes cannot be obtained locally, order by part number and size as shown on parts list.
**NOTE**
This instruction manual covers various models, and all specifications shown do not necessarily apply to your model. For more information on the vacuum accessory please contact your local dealer.

### PARTS LIST FOR OPTIONAL VACUUM ACCESSORY

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<thead>
<tr>
<th>REF NO</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
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<th>PART NO.</th>
<th>DESCRIPTION</th>
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<td>770-0061</td>
<td>Vacuum hose adaptor 5&quot;</td>
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<td>770-0069</td>
<td>Grab-on grips 3/4&quot; I.D. x 4&quot; Lg.</td>
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<td>Hose clap 4&quot;</td>
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<td>Vacuum hose 5&quot; x 10' Lg.</td>
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<td>770-0086</td>
<td>Hose clap 5&quot;</td>
</tr>
<tr>
<td>3</td>
<td>670-6773</td>
<td>Vacuum nozzle 4&quot; x 18&quot; Lg.</td>
<td>8</td>
<td>770-0090</td>
<td>Pan head KEP screw 1/4 - 20 x 1/4&quot; Lg.</td>
</tr>
<tr>
<td></td>
<td>670-6774</td>
<td>Vacuum nozzle 5&quot; x 18&quot; Lg.</td>
<td></td>
<td></td>
<td>Hex nut 1/4 - 20 Thd.</td>
</tr>
</tbody>
</table>
## TROUBLE SHOOTING

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>POSSIBLE CAUSE(S)</th>
<th>CORRECTIVE ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine fails to start</td>
<td>1. Spark plug wire disconnected.</td>
<td>1. Connect wire to spark plug.</td>
</tr>
<tr>
<td></td>
<td>2. Fuel tank empty, or stale fuel.</td>
<td>2. Fill tank with clean, fresh fuel.</td>
</tr>
<tr>
<td></td>
<td>4. Faulty spark plug.</td>
<td>4. Clean, adjust gap or replace.</td>
</tr>
<tr>
<td>Loss of power; operation erratic</td>
<td>1. Spark plug wire loose.</td>
<td>1. Connect and tighten spark plug wire.</td>
</tr>
<tr>
<td></td>
<td>2. Unit running on CHOKE.</td>
<td>2. Move choke lever to OFF position.</td>
</tr>
<tr>
<td></td>
<td>3. Blocked fuel line or stale fuel.</td>
<td>3. Clean fuel line; fill tank with clean fresh gasoline.</td>
</tr>
<tr>
<td></td>
<td>4. Water or dirt in fuel system.</td>
<td>4. Disconnect fuel line at carburetor to drain fuel tank. Refill with fresh fuel.</td>
</tr>
<tr>
<td></td>
<td>5. Carburetor out of adjustment.</td>
<td>5. Adjust carburetor.*</td>
</tr>
<tr>
<td></td>
<td>2. Engine oil level low.</td>
<td>2. Fill crankcase with proper oil.</td>
</tr>
<tr>
<td>Too much vibration</td>
<td>1. Loose parts or damaged rotor.</td>
<td>1. Stop engine immediately and disconnect spark plug wire. Tighten all bolts and nuts. Make all necessary repairs. If vibration continues, have unit serviced by an authorized service dealer.</td>
</tr>
<tr>
<td>Unit does not discharge</td>
<td>1. Discharge chute clogged.</td>
<td>1. Stop engine immediately and disconnect spark plug wire. Clean inside of housing. See Maintenance section of this manual.</td>
</tr>
<tr>
<td></td>
<td>2. Foreign object lodged in rotor.</td>
<td>2. Stop engine immediately and disconnect spark plug wire. Remove lodged object.</td>
</tr>
<tr>
<td>Rate of discharge slows considerably or composition of discharged material changes</td>
<td>1. Shredding hammers and/or chipper knives dull.</td>
<td>1. Sharpen or replace shredding hammers and chipping knives.</td>
</tr>
</tbody>
</table>

*Refer to the engine manual packed with your unit.

NOTE: For repairs beyond minor adjustments listed above, please contact your nearest authorized service dealer.

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**LOOK FOR THIS SYMBOL TO POINT OUT IMPORTANT SAFETY PRECAUTIONS. IT MEANS—ATTENTION!!! BECOME ALERT!!! YOUR SAFETY IS INVOLVED.**

For Replacement Parts, Contact:
OUTDOOR POWER PRODUCTS • NORTH 207 CRESTLINE • SPOKANE, WA 99202
IMPORTANT
Record the Model No. and Serial No. which appear on your unit in the spaces below and on the warranty card. You must have these numbers, along with the date of purchase, in order to receive warranty or service.

MODEL NO.  SERIAL NO.

LIMITED WARRANTY
OUTDOOR POWER PRODUCTS, INC., without charge for parts or labor only, will at its option, repair or replace any part or parts found, upon examination by an Outdoor Power Products Authorized Service Center, to be defective in material or workmanship within ONE (1) YEAR from the date of retail purchase, to the original owner, within the United States of America, its possessions and territories, except as noted below.
The warranty administration procedure described above also shall apply to the DUERR Chipper/Shredder Model 678 except that the warranty period shall be TWO (2) YEARS from the date of retail purchase, to the original owner, within the United States of America, its possessions and territories.

This Warranty Does not Cover:
1. Any part which has become inoperative due to misuse, commercial use, abuse, neglect, accident, improper maintenance or alteration; or
2. The unit if it has not been operated and/or maintained in accordance with the owner's instructions furnished with the unit; or
3. The engine or component parts thereof which carry separate warranties from their manufacturer. Please refer to the applicable manufacturer's warranty on these items; or
4. Normal wear parts except as noted below. Log splitter pumps, valves and cylinders or component parts thereof are covered by a one year warranty; or
5. Routine maintenance items such as lubricants, filters, blade sharpening and tune-ups, or adjustments clutch; or
6. Normal deterioration of the exterior finish due to use or exposure.

Units Exported Out of the United States:
OUTDOOR POWER PRODUCTS INC. does not extend any warranty for products sold or exported outside of the United States of America, its possessions and territories, except through OUTDOOR POWER PRODUCTS INC. authorized channels of export distribution which are subject to a one year warranty. Please contact your retail dealer or distributor for details.

Full Thirty Day Warranty on Normal Wear Parts:
Normal wear parts are defined as belts, blades, bags, tires and wheels. These parts are warranted to the original purchaser to be free from defects in material and workmanship for a period of thirty (30) days from the date of retail purchase.

How to Obtain Service:
Warranty service is available, with proof of purchase, through your local authorized service dealer or distributor. If you do not know the dealer or distributor in your area, please write to the Customer Service Department of OUTDOOR POWER PRODUCTS INC., North 207 Crestline, Spokane, Washington 99202, or call at (509) 536-0261. The return of a complete unit will not be accepted by the factory unless prior written permission has been extended by the Service Department of OUTDOOR POWER PRODUCTS INC.

Transportation Charges:
Transportation charges for the movement of any power equipment unit or attachment are the responsibility of the purchaser. Transportation charges for any part submitted for replacement under this warranty must be paid by the purchaser unless such request is in writing by OUTDOOR POWER PRODUCTS INC.

Other Warranties:
All other warranties, expressed or implied, including any implied warranty of merchantability is limited in its duration to that set forth in this express limited warranty. The provisions as set forth in this express limited warranty. The provisions as set forth in this warranty provide the sole and exclusive remedy of OUTDOOR POWER PRODUCTS INC. will not be liable for incidental or consequential loss or damage.

How State Law Relates to This Warranty:
1. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.
2. Some states do not allow the exclusions or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.
3. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.
TOW BAR ACCESSORY KIT

Model Number 103-620-0000

ASSEMBLY INSTRUCTIONS

TOOLS REQUIRED
(1) 1/4" Wrench
(1) 1/4" Deep Socket or standard 1/2" socket with extension.

ATTACHING THE TOW BAR
1. Remove the four 5/16 x 24" cap screws and NYLOC nuts from the mounting brackets on the Tow Bar.
2. Position the Tow Bar, on the back of the engine tray, with the bump in the tongue facing the front of the machine.
3. Insert the four screws and start the nuts, then tighten securely.

NOTE: Only one of the two holes in each of the back of the mounting brackets. Use whichever fits your machine.

OPERATION

HITCHING TO GARDEN TRACTOR
1. Pull out on the tongue just below half way on the straight of the Tow Bar.
2. Lock, cam in the next showroom.
3. Tip the machine back and line-up the clevis with the hole on the back of the tractor.
4. Insert a pin through the holes.

USING THE SHREDDER WHILE IT'S ATTACHED TO THE TRACTOR
1. While pulling on to the shredder, pull out on the tongue just below half way on the straight of the Tow Bar.
2. Gently let the shredder tip forward until the front face is securely on the ground.

TOWING AFTER USE
1. Shut off the engine and allow the machine to cool to a complete stop.
2. Tip the machine back until the Tow Bar is in horizontal position.

WARNING: Do not tow the Chipper/Shredder while the engine is running. Doing so may not allow the engine to receive the proper amount of oil, causing damage to the engine. May result.

STORAGE AND MANUAL MOVING

For storage and for moving the Chipper/Shredder around by hand, keep the Tow Bar locked in the full up right position.

SAFETY RULES

PREPARATION
* Before using the machine, operators shall check that all screws and nuts are properly tightened.
* Before using the machine, operators shall make certain that the tongue is properly locked into position.

OPERATION
* The machine shall not be transported while the engine is running.
* The machine shall not be towed at speeds exceeding 5 MPH.