

# The Green Machine®

## 3000M / 3040M SERIES OWNERS MANUAL (UT26021) (UT26201)

MODEL:	PG. NO.	SERIAL NO.	PG. NO.	SERIAL NO.
3000M ENGINE	1	<input type="text"/>	2861 BLOWER TOOL	9 <input type="text"/>
3000M SHAFT	1	<input type="text"/>	2871 CULTIVATOR TOOL	10 <input type="text"/>
3040M POWER UNIT	2	<input type="text"/>	2851 EDGER TOOL	12 <input type="text"/>
INCLUDES	6	<input type="text"/>	2381 SNOW THROWER TOOL	15 <input type="text"/>
3041 STRING TRIMMER/ BRUSH CUTTER TOOL				

**IMPORTANT NOTE:** USE THE ABOVE BOXES TO FILL IN YOUR MODEL'S SERIAL NUMBER FOR YOUR RECORDS.

## ASSEMBLY AND OPERATING INSTRUCTIONS

To insure maximum performance read this manual before putting into operation.

### WARRANTY CERTIFICATE

#### TWO (2) YEARS CONSUMER — LIMITED WARRANTY — ONE (1) YEAR COMMERCIAL

HMC warrants THE GREEN MACHINE® to be free from defects in material and workmanship under normal use for a period of two (2) years from date of purchase when used by the consumer for residential home use, or one (1) year from date of purchase when used commercially.

Should THE GREEN MACHINE® product fail within the warranty period due to defective parts or workmanship, just return the unit transportation prepaid to either (1) the retailer who sold it to you or (2) to your regional distributor, whose address is available from your retailer or (3) directly to HMC Factory Service Center, 20710 South Alameda Street, Long Beach, California 90810, U.S.A. HMC will, at its option, repair or replace the unit at no charge. HMC assumes no obligation to pay the registered owner a cash refund under any circumstances.

Please return the enclosed warranty card within ten (10) days after purchase. If we do not have the warranty card on file we will require other proof of purchase before completing the repairs. This warranty only extends to the original purchaser of the product.

This warranty does not apply if the product has been misused or used contrary to the instruction manual, or if it has been repaired or altered by anyone other than an HMC authorized service center.

This warranty applies only to parts or components which are defective and does not cover repairs necessary due to normal wear, misuse,

accidents, or lack of proper maintenance. Regular, routine maintenance of the unit to keep it in proper operating condition is the responsibility of the owner.

HMC IS NOT LIABLE FOR INDIRECT OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH THE USE OF THE PRODUCT INCLUDING ANY COST OF PROVIDING SUBSTITUTE EQUIPMENT DURING PERIODS OF MALFUNCTION.

Some states of the U.S.A. do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you.

THE GREEN MACHINE® will perform as indicated in the instruction manual and in the accompanying literature. Your retailer may have sold you the machine with a promise that it would handle a particular task. You may return the machine to him if it does not perform that specific task, but we cannot be responsible for promises which are beyond the scope of the above instruction manual or literature.

THERE ARE NO EXPRESS WARRANTIES OTHER THAN AS CONTAINED IN THIS STATEMENT, AND ANY IMPLIED WARRANTIES SHALL EXPIRE 90 DAYS AFTER DATE OF PURCHASE. Some states of the U.S.A. do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

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

### WARNING

**ALWAYS WEAR SAFETY GOGGLES.  
NEVER OPERATE UNIT WITHOUT SHIELDS AND GUARDS IN PLACE.  
USE ONLY SPECIFIED GREEN MACHINE BLADES.  
KEEP BYSTANDERS AWAY FROM WORK AREA AT ALL TIMES.**



P.O. BOX 560, LONG BEACH, CALIFORNIA 90801-0560  
20710 S. ALAMEDA ST., LONG BEACH, CALIFORNIA 90810 • (213) 603-9888 • TELEX 696396

## FORWARD

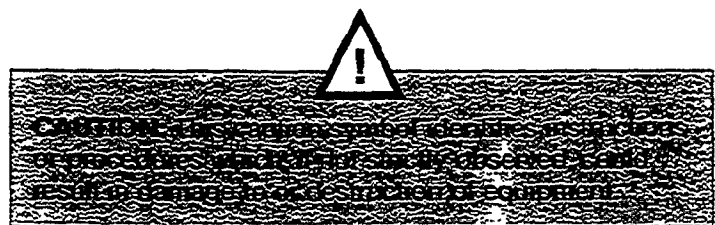
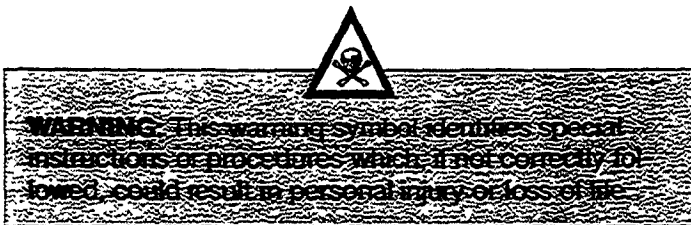
We are pleased that you have chosen a Green Machine product to assist you with your work. Your Green Machine product was assembled using the latest manufacturing methods and materials to bring you a product of the highest quality.

This Owner's Manual is provided to aid you in the proper assembly and the safe, reliable operation of your new Green Machine. Read it and become thoroughly familiar with the proper operating procedures **before you first use this product**. Make sure anyone who operates your Green Machine product is fully acquainted with the proper operating procedures. Careful assembly, safe operation and proper maintenance in accordance with this Owner's Manual will provide you with maximum performance and product life.

## SAFETY AWARENESS

Read the Operator's Manual and follow all warnings and safety instructions. Failure to do so can result in serious injury.

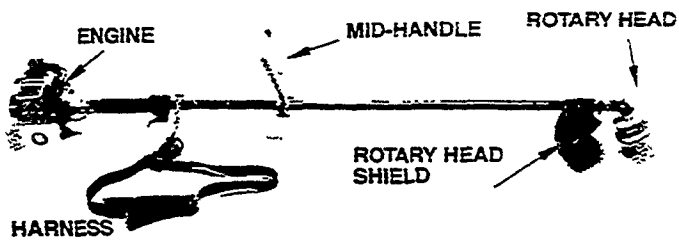
Whenever you see the symbols shown below, be sure to read and understand their instructions! Always follow safe operating and proper maintenance practices.



**NOTE:** Indicates points of particular interest for more efficient and convenient operation.

**IMPORTANT:** Each Power Unit and all attachments are labeled with a serial number. During use of the unit there's a possibility of these numbers being scratched, destroyed or in some other means made illegible. For your convenience HMC has provided a space on the front page of this manual in which to record your serial numbers. Please record your numbers in the spaces provided; this will speed up ordering parts for your unit and/or reordering a new attachment from your retailer, distributor, or HMC Factory Service Center.

All information contained in this manual is based on the latest product information available at the time of publication. The right is reserved to make changes at any time without prior notice and without incurring an obligation to make such changes to products manufactured previously. See your authorized Green Machine Dealer for the latest information on product improvements incorporated after this manual was issued.



### 3000M STRING TRIMMER/BRUSH CUTTER TREE PRUNER

Model 3000M Commercial string trimmer/brush cutter/tree pruner THE GREEN MACHINE's 3000 series has set the standard for the industry. The 3000M "Panther" is a continuation of this quality product line.

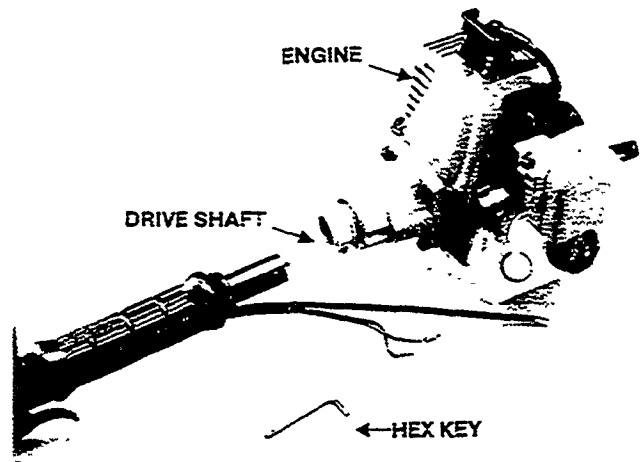


Figure 1A

#### 1. ASSEMBLY

##### Mounting Engine To The Driveshaft

- Insert drive shaft tube into clutch housing as far as it will go (1 1/4 inches) and align gear box with engine. You may have to rotate gear box spindle to engage the drive shaft.
- Tighten the clamp screw securely with the hex key supplied (Figure 1A).
- Install the blade guard/head shield using the four (4) screws supplied (Figure 14, page 6).

#### 2. INSTALLING MID-HANDLE (Figure 2A)

- Snap mid-handle over shaft tube below harness hanger (top of handle should angle back toward engine).
- Install bolt, washer and wing knob (Figure 2A).
- **Note:** Handle may be repositioned for best balance and comfort.

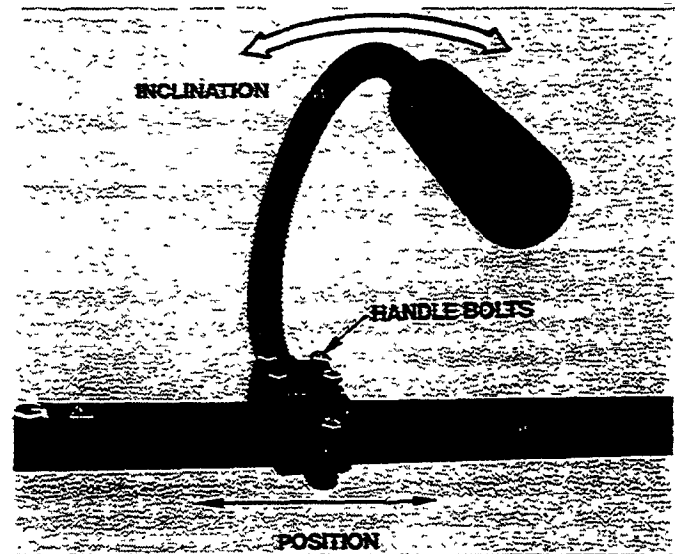


Figure 2A

#### 3. INSTALLING THROTTLE CABLE (Figure 3A)

- Open throttle as shown and hook the end of the throttle cable to the carburetor.
- Connect switch wires to engine wires on right side of engine next to the carburetor.

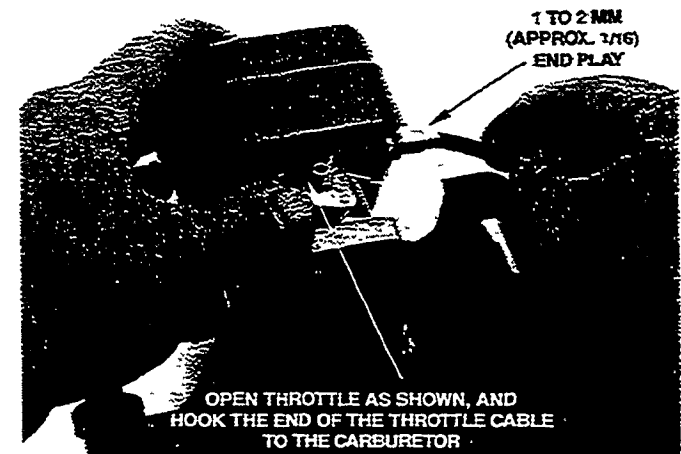
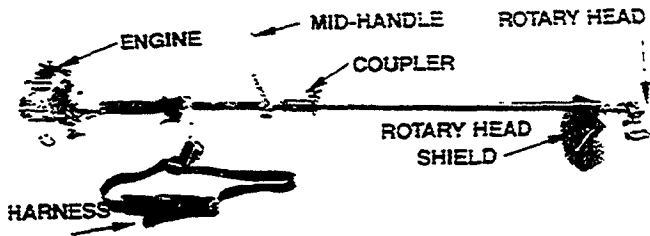


Figure 3A

## WARNING

<p>BLADE COASTS AFTER THROTTLE RELEASE. WITH PROPER RPM ADJUSTMENT, BLADE COULD COAST UP TO 15 SECONDS.</p> <p><b>WARNING: THE COASTING BLADE COULD INJURE YOU OR OTHERS.</b></p>	<p>HAZARD ZONE FOR THROWN OBJECTS IS 90 FEET. BLADE AND/OR TRIMMER LINE CAN THROW OBJECTS VIOLENTLY.</p> <p>YOU OR OTHERS CAN BE BLINDED OR INJURED.</p> <p>WEAR EYE AND LEG PROTECTION.</p>	<p>BLADE CAN THRUST VIOLENTLY AWAY FROM MATERIAL IT CAN NOT CUT.</p> <p>BLADE THRUST CAN CAUSE AMPUTATION OF ARMS OR LEGS.</p> <p>KEEP PEOPLE AND ANIMALS 50 FEET AWAY.</p>
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### 3040M EXPAND-IT® SYSTEM

Model 3040M Expand-It® Commercial "Panther" maintenance system. It's a string trimmer/brush cutter/tree pruner, edger, weeder/cultivator, power blower and snow thrower all available with a single twist of a knob. Another great Expand-It® system that professionals have come to trust for performance, durability, and serviceability.

#### 1. ASSEMBLY

- Snap mid-handle over shaft tube adjacent to tube coupler (top of handle should angle back toward engine) (Figure 2).
- Install bolt, washer and knob (Figure 1).
- Position handle approximately 1-1½ inches above coupler and tighten wing knob.
- **Note:** Handle may be repositioned for best balance and comfort after lower unit is attached.

#### 2. ATTACHING LOWER UNIT

- The lower units connect to the power unit by means of the drive shaft coupler device attached to the power unit drive shaft tube.
- First, loosen the knob near the open end of the coupler. It is not necessary to loosen the other three (3) screws.
- Position the slot of the lower tubes as shown in (Figure 2) and slide the lower unit into the coupler until the tubes of the power unit and the lower unit solidly meet within the coupler. By looking in the slot (Figure 3) on the top, you should see both tube ends are butted together before retightening the knob. The inner drive shafts will align themselves.
- For changing lower units or breaking down for storage, follow the sequence in reverse.

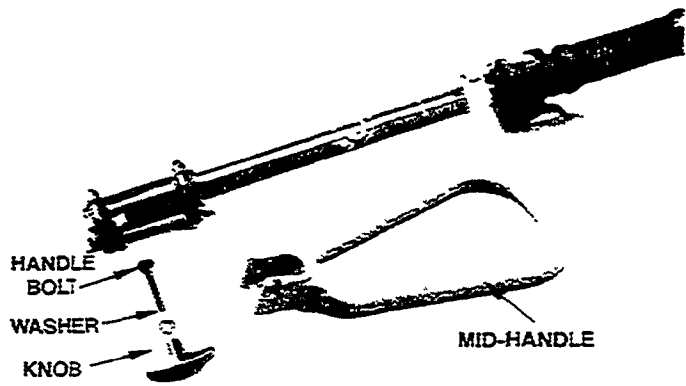


Figure 1

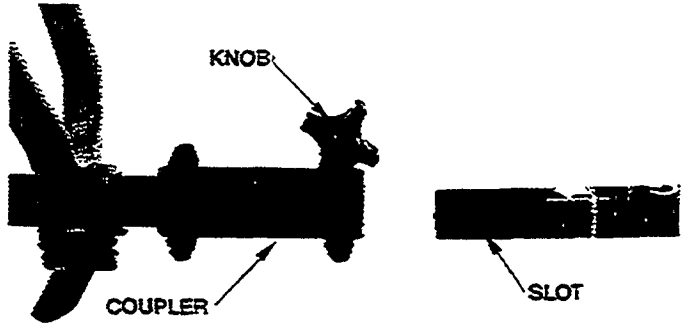


Figure 2

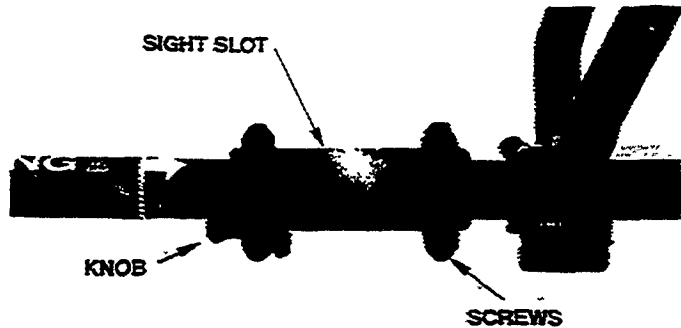


Figure 3



**CAUTION:** Be certain the knob is fully tightened before operating equipment. It should be periodically checked for tightness during use.

#### 3. SUPPLYING FUEL (Models 3000M-3010M)

- Fill the fuel tank with fuel to ¾ full, using a mixed fuel of gasoline and 2 cycle air cooled engine oil.
- HMC recommends using **One-Mix®** in its Green Machine products. When using **One-Mix®**, it is not necessary to figure fuel mixture (oil to gasoline) ratio. Simply mix one packet of **One-Mix®** to one U.S. gallon of regular leaded or unleaded gasoline.

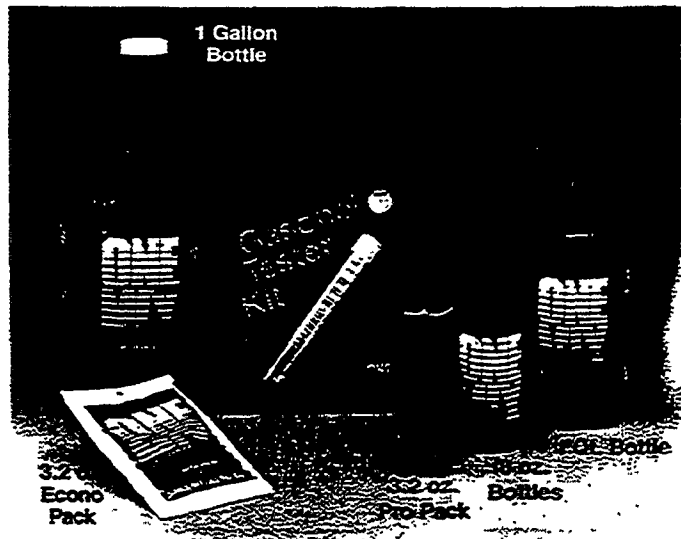


Figure 4

- **Special Note: Never use gasohol. If gasohol is used, engine warranty will be voided. To test for alcohol content in gasoline, an inexpensive gasohol tester kit is available, order part #27339.**
- **If you do not wish to use One-Mix®**, you must then make certain of a proper oil to gasoline ratio.
- When any oil other than **One-Mix®** is used, you must use a ratio of 25:1 (25 parts of gasoline to one part of oil); i.e., 5.12 oz. of oil mixed in one U.S. gallon of gasoline.
- Always thoroughly mix the oil and the gasoline by mixing vigorously to insure thorough blending. There are countless small 2 cycle engines destroyed each year because of improperly mixed oil and gasoline.

**(Figure 4)**

Econo Pack	Mixes 1 Gallon of Fuel
Pro Tube	Mixes 1 Gallon of Fuel
8 oz. bottle	Mixes 2½ Gallons of Fuel
32 oz. bottle	Mixes 10 Gallons of Fuel
128 oz. bottle	Mixes 40 Gallons of Fuel

**4. INSPECTION (Models 3000M-3010M)**

- Always inspect all fasteners for tightness and/or missing parts. Tighten or replace before use.
- Read and understand all safety and operating instructions before use.
- Check for any fuel leaks. If any, correct before use.
- Make sure all air passages are free of dirt, dust or any other foreign material.
- Inspect air cleaner for cleanliness.

**5. STARTING THE ENGINE WHEN COLD**

**(Initial Engine Starting)**

- Slide stop switch (on top of trigger) to run position (towards engine) **(Figure 6)**.
- Push the primer pump until fuel flows through the clear plastic return line **(Figure 5)**.
- Place choke lever in the closed position **(Figure 5)**.
- Lock throttle lever in the start position as shown in **(Figure 6)**.
- Pull starter rope slowly, until engine compression is felt **(Figure 6)**. Pull the starter in short rapid strokes until engine starts.
- Avoid pulling the rope to its full extension as starter failure could result.
- Once the engine has started, slowly return the choke lever to its open position.
- Return the throttle lever to its idle position.
- Always allow the engine to run 1 to 2 minutes at idle for warm up before starting work.
- **Special Note: Never start unit on the ground by using your foot, knee or hand to push down while pulling up on the rope (Figure 7, page 4). This will cause the tube and cable to become bent and then break. Never allow the starter rope to snap back.**



**WARNING:**

1. Never smoke when refueling or refuel in an area with open flame (such as water heater pilot light). Gasoline vapors spread rapidly and are highly explosive.
2. Always stop engine and wait for it to cool before refueling.
3. Clean up any spills and dispose of clean-up materials.
4. After refueling, move to another area for starting.
5. Never over fill. Fill tank only ¾ full to avoid spillage.

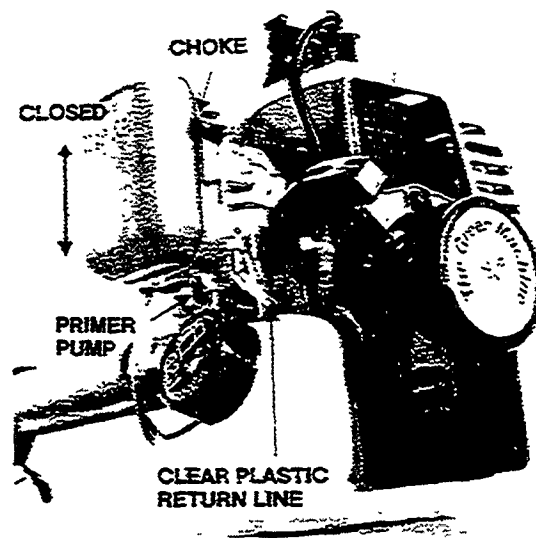


Figure 5

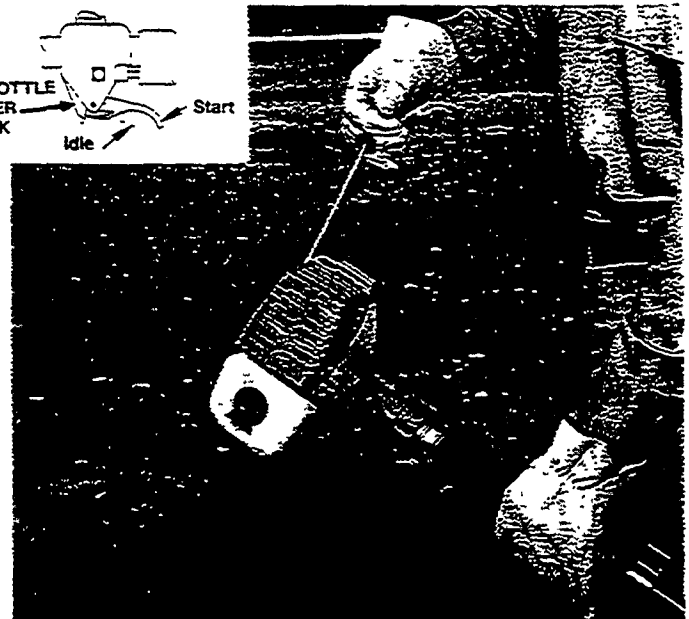
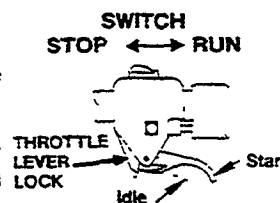


Figure 6

**When Warm (Restarting Engine)**

- Be sure stop switch has been returned to run position (Figure 6, page 3).
- Hold throttle lever in the open position.
- Place choke lever in its open position.
- Pull starter rope as outlined in "Starting When Cold."
  - **Note:** If engine fails to start, push primer until fuel appears in clear plastic return line.

**6. STOPPING ENGINE (Models 3000M-3010M)**

- Return throttle lever to its idle position and allow the engine to idle for a short period (approx. 30 sec.). This allows the engine to cool down.
- Push stop switch to "Stop" position (toward the cutting head). Be sure to return the stop switch to the run position before trying to start unit (Figure 6, page 3).
- **Note:** Except for emergencies, avoid stopping engine while it is running at high speed. This avoids overheating the engine.

**7. ADJUSTING ENGINE (Models 3000M-3010M)**

- Your Green Machine engine has been adjusted at the factory for optimum performance and fuel consumption. No further adjustment should be required. However, because of varying atmospheric and climatic conditions, a minor adjustment may be needed for your area.
- Condition of the air cleaner is very important to the operation and life of the engine, and also has a major effect on carburetor adjustments. The air cleaner should be checked for cleanliness before each use and before making any carburetor adjustment.
- Adjusting idle speed should always be done with a tachometer to insure proper idle speed (2,800 to 3,300 rpm). If a tachometer is not available, the idle speed may be adjusted as follows (Figure 8):
  1. Turn idle speed screw clockwise until cutting head or lower drive begins to move.
  2. Turn idle speed screw counterclockwise until lower drive stops.
  3. Turn idle speed screw approximately ¼" to ¾" turn further counterclockwise.
- If the engine does not idle properly after this adjustment, contact your nearest Green Machine dealer for service.

**8. MAINTENANCE (Models 3000M-3010M)**

**Daily**

- Carefully inspect complete unit for damaged, loose or missing parts. Correct before use.
- Carefully inspect for any fuel leaks. Correct immediately.
- Check air cleaner for cleanliness.
- Remove all dust, dirt and grass from the entire unit after each use.



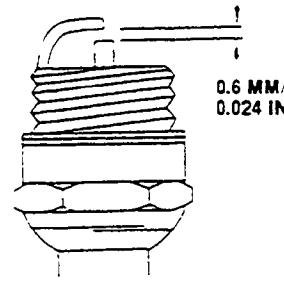
Figure 7



Figure 8

**30-Hour Service or Once a Week for Commercial Use**

- All items under daily service plus:
- Remove, clean and regap spark plug (0.6mm/0.024 inches) (Figure 9).
- Clean and service air filter (after cleaning put small amount of engine oil on sponge and squeeze out excess) (Figure 10).
- Check fuel filter inside of fuel tank and clean if needed (Figure 10).
- Remove cylinder cover and clean out all dust, dirt and foreign material. (Figure 10)



	CHAMPION	NGK
Hot Type	CJ8	BM6A
STD	CJ6	BM7A
Cold Type	CJ4	BM7A

FOR BEST PERFORMANCE  
USE ONLY N G K BM7A

Figure 9



**WARNING:**

- Always wear approved eye protection (safety goggles).
- Never operate unit while barefoot or wearing sandals.
- Never operate unit without shields or guards in place and in good working order.
- Use only genuine Green Machine blades and rotary heads.
- Never touch engine or muffler during operation, or immediately after shutdown.
- Never touch spark plug, ignition plug cap, or high tension wire while engine is running.
- Clear the area to be cut before each use. Remove all objects such as rocks, broken glass, nails, wire or string which can be thrown or become entangled in the cutting attachment.
- Clear the area of children, bystanders and pets. Keep all children, bystanders and helpers outside a 50-foot (15m) radius. If you are approached, stop the engine and cutting attachment immediately.
- Keep firm footing and balance. Do not overreach.
- Keep cutting attachment below waist level.
- Use only for tasks explained in this manual.
- Before storing the unit, allow the engine to cool and empty the fuel tank.
- Secure the unit and empty the fuel tank before transporting in a vehicle.
- Store the unit so that sharp objects will not accidentally cause injury.
- Use recommended proper cutting techniques.
- Always wear heavy, long pants, boots and gloves.
- Do not wear loose clothing, jewelry, short pants, sandals, or go barefoot.
- Secure hair so it is above shoulder length.
- Do not operate this tool when you are tired, ill or under the influence of alcohol, drugs or medication.
- Never start or run the engine inside a closed room or building. Breathing exhaust fumes can kill.

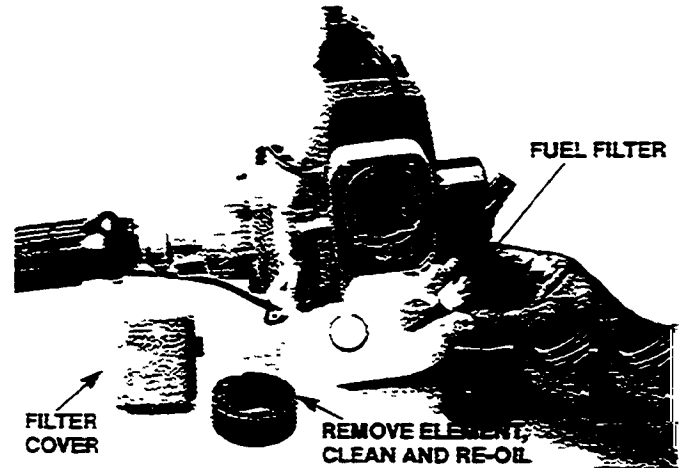


Figure 10



Figure 11



**WARNING:**

- Inspect unit before each use. Replace damaged parts. Check for fuel leaks. Make sure all fasteners are in place and secure.
- Replace trimmer head parts that are cracked, chipped or damaged in any way.
- Use only flexible, non-metallic line recommended by the manufacturer. Never use, for example, wire or wire-rope which can break off and become a dangerous missile.
- Be sure the shield is properly attached and in the position recommended by the manufacturer.
- Make sure the cutting attachment is properly installed and securely fastened.
- When the unit is turned off, make sure the cutting attachment has stopped before the unit is set down.
- Be sure the cutting attachment stops turning when the engine idles.
- The cutting attachment may be spinning during carburetor adjustments. Wear your protective equipment and observe all safety instructions.
- Mix and pour fuel outdoors where there are no sparks or flames. Slowly remove the fuel cap after stopping the engine. Do not smoke while refueling or mixing fuel.
- Wipe spilled fuel from the unit. Move at least 10 feet (3m) away from fueling site before starting engine.

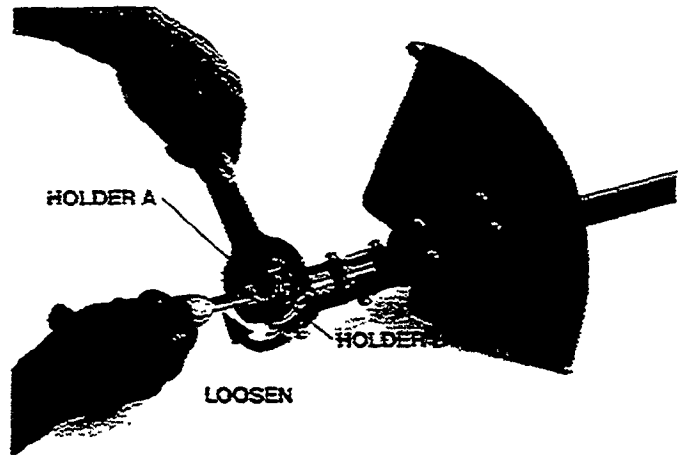


Figure 12

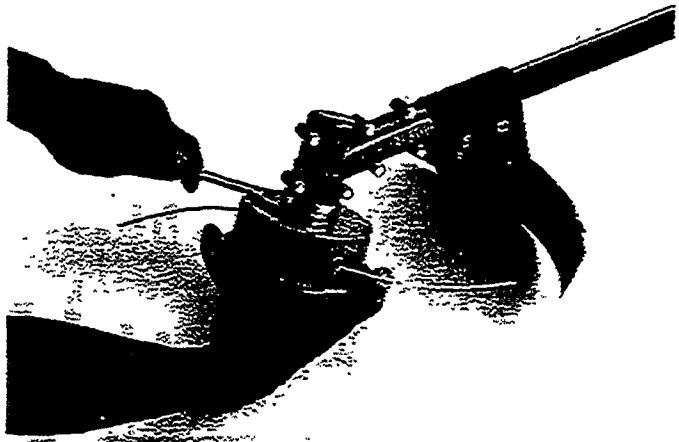


Figure 13

**3041 STRING TRIMMER/BRUSH CUTTER**

(For Models 3000M-3010M)

**1. ASSEMBLY**

- Using the tools shown in (Figures 11 & 12), remove the bolt (left-hand thread), star washer and flat washer at the bottom of the gear case.  
**Note:** Save bolt and washers as they are needed when using brush or saw blades.
- While holding holder (B) with large spanner wrench, thread rotary head onto gear case as shown in (Figure 13). Tighten rotary head as tight as possible by hand.
- Install the blade guard/head shield using the four (4) screws supplied (Figure 14).



**CAUTION:** Never operate without blade guard/head shield in place and keep bystanders at least 50 ft. away.



Figure 14

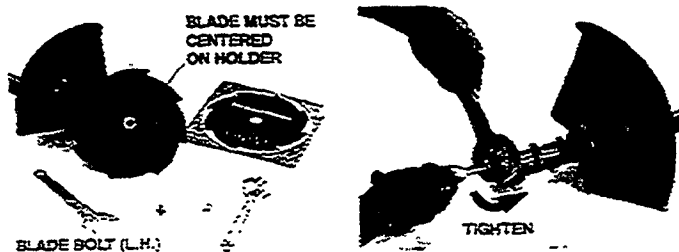


Figure 15

## WARNING

BLADE COASTS AFTER "HOT" RELEASE  
WITH PROPER RPM  
ADJUSTMENT, BLADE COULD  
COAST UP TO 15 SECONDS  
**WARNING:** THE COASTING  
BLADE COULD INJURE YOU  
OR OTHERS

HAZARD ZONE FOR "THROWN"  
OBJECTS IS 50 FEET  
BLADE AND OR TRIMMER LINE  
CAN THROW OBJECTS  
VIOLENTLY  
YOU OR OTHERS CAN BE  
BLINDED OR INJURED  
WEAR EYE AND LEG PROTECTION

BLADE CAN THRUST VIOLENTLY  
AWAY FROM MATERIAL, IT CAN  
NOT CUT  
BLADE THRUST CAN CAUSE  
AMPLIFICATION OF ARMS OR LEGS  
KEEP PEOPLE AND ANIMALS  
50 FEET AWAY



- To install brush or saw blades:  
Remove bolt (LH), star washer and small flat washer at the bottom of gear case (**Figure 15**).
- Remove holder (B) and place blade on holder (A) making sure that arbor hole in blade is centered on the arbor embossment on holder (A).
- Install holder (B) making sure that the splines line up and holder is completely seated.
- Re-install small flat washer, star washer and bolt (left-hand thread). Bolt is turned counterclockwise to tighten (**Figure 15**).
- **Special Note: Take special care when installing blades, as the cutting edge and/or points of the blade are very sharp. Make sure tools used are properly seated on their respective bolt or holder, and you have a firm grip on the tools.**
- The blade rotation is clockwise (when viewing from below) so cutting edge of blades must face in that direction.
- Connect the string trimmer/brush cutter lower unit to the power unit as outlined under "Attaching Lower Unit" (Page 2).



**WARNING:**  
**Blade Use**

- Extreme care must be taken when using brush or saw blades to insure safe operation.
- When the blades hit a hard object a serious sideward kickback could occur.
- Never attempt blade work without first inspecting and clearing the area of unseen objects such as concrete, fencing, wire, wood, metal, etc.
- Never use blades near sidewalks, fencing, posts, buildings or other immovable objects.
- Use the brush and saw blades only for that cutting which is recommended. Brush blade—brush up to 3/8 in. diameter. Saw blade—tree limbs up to 3 in. diameter.
- Never use a blade after hitting a hard object without first inspecting it for bent cutters and cracks. Do not use if either condition is found.
- Use only Green Machine saw No. 92130 or No. 92140 blade. Do not use crosscut blade.
- Always use shoulder harness whenever blades are used, No. 257601.
- **Have a professional re-sharpen your blade or saw.**
- Discard blades that are bent, warped, cracked, broken or damaged in any way.
- Do not attach any blade to a unit without proper installation of all required parts. Failure to use the proper parts can cause the blade to fly off and seriously injure the operator and/or bystanders.
- The assist handle must be mounted according to the manufacturer's instructions. The assist handle is a barrier to assist keeping the blade away from the operator's feet.
- A coasting blade can injure while it continues to spin after the engine is stopped or throttle trigger is released.
- To reduce the risk of injury, stop engine and blade before removing material wrapped around the blade shaft.



**WARNING:**  
**Blade Use**

- Use assist handle and harness.
- Use a sharp blade. A dull blade is more likely to snag and thrust.
- Cut at full throttle and recommended direction. The blade has maximum cutting power at full throttle and is less likely to bind or stall.
- Keep hands, feet and unit in proper position.
- Blade thrust is a reaction that only occurs when using a bladed tool.
- This reaction can cause serious injury, such as amputation.

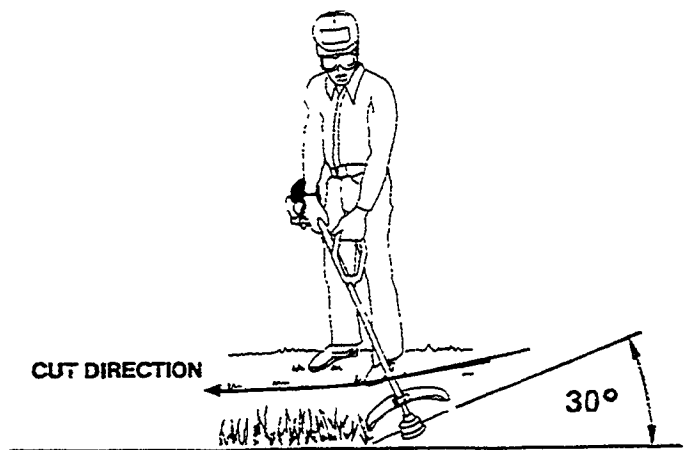


Figure 16

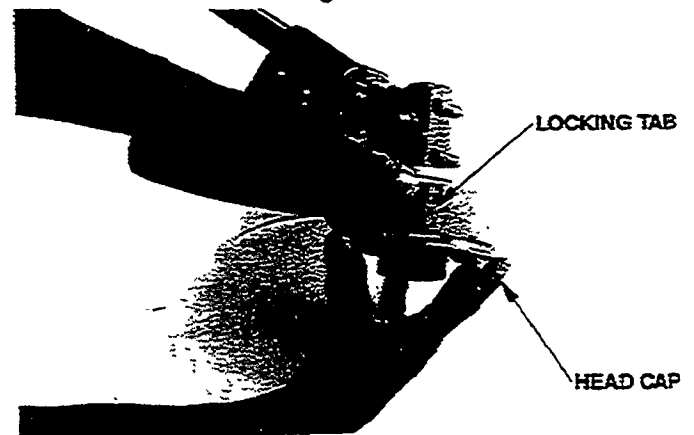


Figure 17



**WARNING:**

- It is important that you understand what causes blade thrust, how you can reduce the chance of its occurrence and how you can remain in control of the unit if blade thrust occurs.
- Blade thrust may occur when the spinning blade contacts an object that it does not cut. This contact may cause the blade to stop for an instant and suddenly “thrust” the unit away from the object that was hit. The “thrusting” reaction can be violent enough to cause the operator to be propelled in any direction, and possibly lose control of the unit.
- Blade thrust can occur without warning if the blade snags, stalls or binds. This is more likely to occur in areas where it is difficult to see the material being cut.
- By using the unit properly, the occurrence of blade thrust will be reduced, and the operator will be less likely to lose control.
- Cut only material recommended by the manufacturer. Do not let blade contact material it cannot cut, such as stumps, rocks or metal.

FEED LINE ON NEATLY  
TRY NOT TO TWIST OR  
OVERLAP LINES

ROTATE SPOOL  
COUNTERCLOCKWISE

LINE LOOPED THROUGH  
SPOOL HOLES

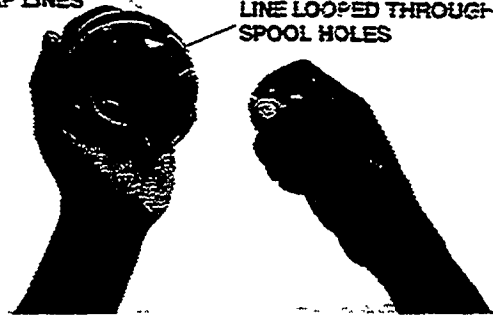


Figure 18

LINE SAVER

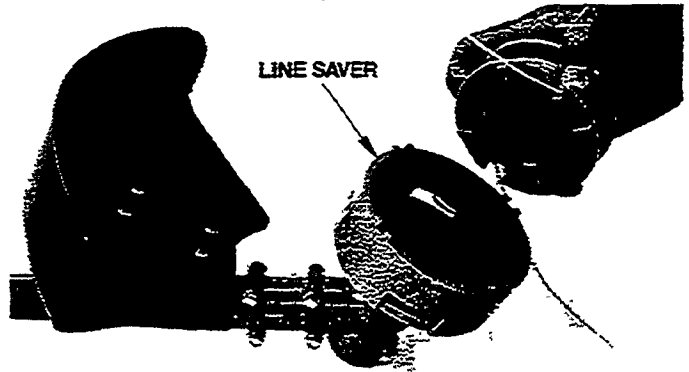
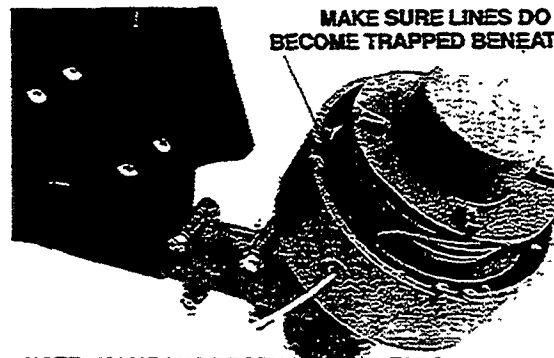


Figure 19

MAKE SURE LINES DO NOT  
BECOME TRAPPED BENEATH SPOOL



NOTE: MAKE SURE BOTH LOCKING TABS  
ARE SECURELY LOCKED.

Figure 20

LOCKING  
TAB

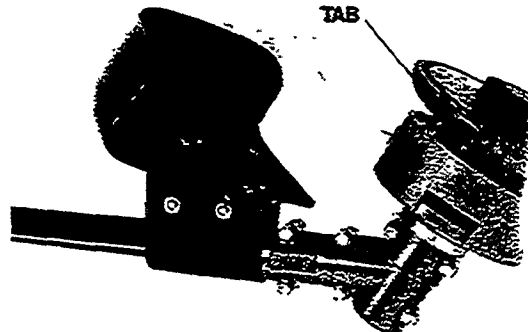


Figure 21

**2. CUTTING TECHNIQUE (Models 3000M-3040M)**

- Hold unit so the rotary head is at an approx. 30° angle to the ground (Figure 16, page 7).
- Allow the very tip of the line to do the cutting.
- Always operate unit with the correct line size (.080 dia.).
- Always use correct line length (max. 6.0/min. 3.0 inches).
- **Note:** As the cutting line wears down, engine speed (RPM) will increase. Allowing engine to run at high RPM (3 inch cutting line or less) for a prolonged period will shorten engine life.
- Cut from left to right with the engine at full throttle, so that clippings will be thrown away from you (Figure 16, page 7).

**3. EXTENDING LINE (Models 3000M-3040M)**

- As you perform your trimming tasks, the cutting line will wear shorter. It may be extended automatically, with engine running, or manually, with engine stopped.
- **Engine running:** (At full speed) lightly tap, do not pound, the rotary head on the ground. Line will advance approximately 1/2 inch per tap.
- When tapping for line, it should be done on bare ground or a hard surface.
- **Note:** The cutting line will not extend automatically if the line is worn too short. You should extend the line before it is worn to 3-inch length.

- **Engine stopped:** Line can be advanced manually by turning the unit over so you are facing the bottom of the rotary head. While pulling outward on one of the cutting lines, push in the spool. When the line stops, release the spool and continue pulling the line. Keep repeating this procedure until the desired amount of line is extended.
- **Note:** Never operate trimmer with more than six (6) inches of line extended outside the rotary head. Excessive line length can often be identified by low engine RPM when throttle lever is in the full throttle position.

#### 4. TO REPLENISH LINE SUPPLY (Models 3000M-3040M)

- Push in one of the locking tabs, releasing it from its notch (Figure 17, page 7) and pull on the rotary head cap.
- Once both locking tabs have released, lift rotary head cap off and remove spool.
- Cut a length of cutting line that is .095 diameter and approximately 30 ft. long.
- Loop line through holes in spool and make certain that both lines are even (Figure 18).
- Hold spool as shown (Figure 18) and feed line on neatly by rotating the spool counterclockwise.
- **Note:** Do not wind the line on, rotate the spool.
- **Note:** Clean all dirt, dust and grass out of rotary head, spool and head cap before reassembling.
- Once the line is on the spool, hold spool as shown in (Figure 19) and insert lines in their respective linesavers and place spool back into the rotary head.
- **Note:** Be certain that lines do not become trapped under the spool (Figure 20).
- Re-install rotary head cap by aligning locking tabs with their notches and pushing cap down until both locking tabs are securely locked (Figure 21).
- Before operating unit, check it by advancing the line manually, making sure lines are not trapped and rotary head is assembled correctly.

#### 5. MAINTENANCE (Models 3000M-3040M)

- After each 10 hours of use, the gear case must be greased by adding one (1) to two (2) pumps with a grease gun. If excessive grease is pumped into the gearbox, the hydraulic pressure will move the liner in the tube. To avoid this, remove the gearbox from the tube by loosening the two (2) clamp screws and backing out of the anti-rotation screw. Next, pump in the grease until it is forced out of the pinion gear inside the tube cavity (Figure 22). Reassemble the tube and gearbox in reverse order.

### 2861 POWER BLOWER

#### 1. ASSEMBLY

- This lower unit (Figure 23) is fully assembled at the factory and requires no further assembly.
- Connect the power blower lower unit to power unit as outlined under "Attaching Lower Unit" (Page 2).

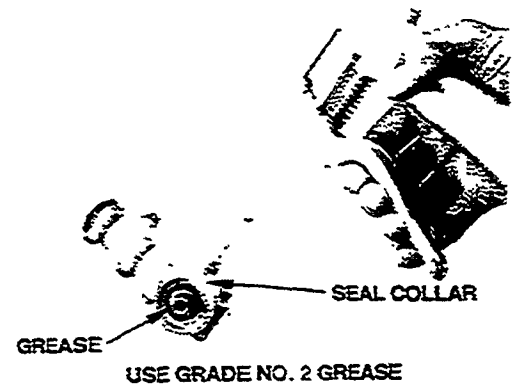


Figure 22

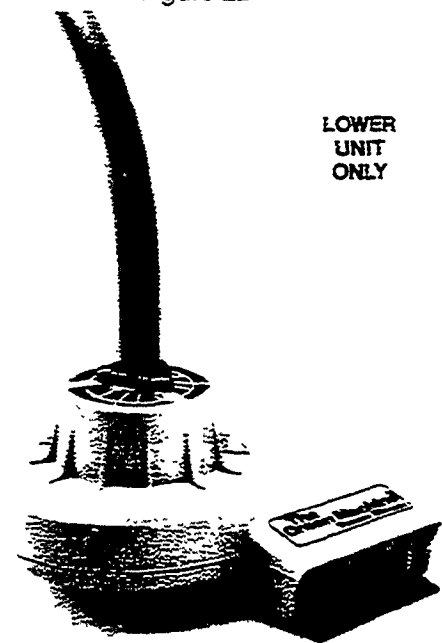


Figure 23



#### WARNING:

- Before each use inspect your GREEN MACHINE for loose, damaged, broken or missing parts. Correct before use.
- Always wear approved safety goggles.
- Do not wear loose fitting clothes.
- Always wear long pants.
- Never operate unit while barefoot or wearing sandals.
- Always cut from left to right.
- Always keep bystanders a minimum of 50 feet away at all times.
- When using brush or saw blades, always use genuine GREEN MACHINE blades.
- Always use blade guard/head shield.
- Never use any type of wire in place of the nylon string.

## 2. OPERATION

- Your power blower produces a strong air blast when operated at full speed. The amount of "air power" is directly controlled by the engine speed.
- So that you may become accustomed to the blower operation, start the engine (see "Starting The Engine") and let it warm up. At idle you will find that no air is moving because the clutch is disengaged. As you gradually increase the engine speed to full, you will find that the "air power" increases also. You have a fully variable and controlled blast of air at your disposal.
- In many uses it is not necessary to use all the "air power" of your blower and, in fact, is not advisable in some applications.
- When using the blower in tight quarters such as corners of patios and garages, full speed is not usually required. A somewhat slower speed will do the same job effectively without the turbulence created by full speed operation. This turbulence only carries the blown material back into the corner and produces floating dust.
- The efficient use of the variable speed of your blower will allow you to perform many sweeping tasks that were once very difficult and time consuming using conventional brooms and sweeping devices.
- You will find that it is no longer necessary to move objects to effectively clean around them. A simple blast from your blower will move debris from those difficult to reach, and often impossible to clean, areas.
- The correct handling of your blower is shown in (Figure 24, page 9).
- The ground level air blast is ideal for practically all sweeping jobs. The many uses for your power blower can be left to your own imagination.
- **Note:** Do not drag or push it on the ground as the housings will wear quickly. Carry it slightly above ground level.



Figure 24

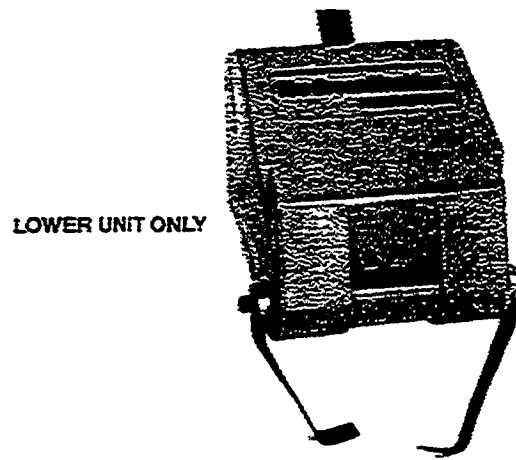


Figure 25

## 3. MAINTENANCE

- This lower unit is maintenance free except for an occasional check for debris that may have accumulated on top of the fan. A vibration during use is a sure sign that something has become lodged in the fan. Stop the engine and remove it.
- **Note:** Do not remove the cable at any time as the blower must be completely disassembled to install it.



### WARNING:

- Before each use, inspect complete unit for loose, damaged or missing parts. Correct before use.
- Always wear approved eye protection (safety goggles) when operating unit.
- When operating unit, do not wear loose fitting clothes. Always wear long pants.

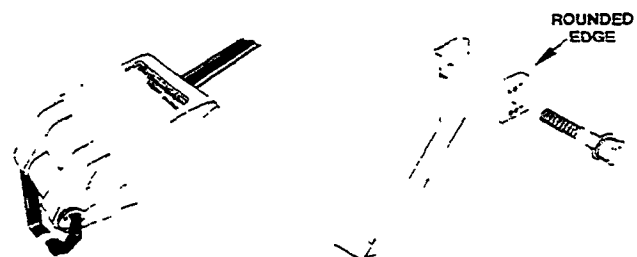


Figure 26

Figure 27



**CAUTION:** Blades must be checked periodically for tightness. A loose blade will cause internal damage.



**WARNING:**

- Never operate unit while barefoot or wearing open sandals.
- Keep bystanders at least 50 feet away and never direct air blast towards any persons, animals or delicate objects.
- Keep air intake clear of debris.
- Always stay clear of air intake while blower is running.

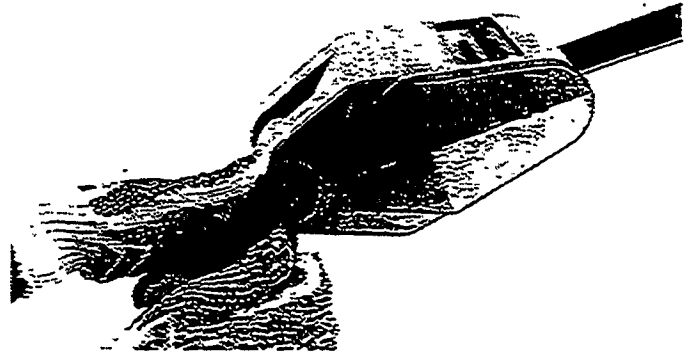


Figure 28

## 2871 WEEDER/CULTIVATOR

### 1. ASSEMBLY

- Install the blades exactly as shown in (Figures 25-28). Incorrect assembly will cause the blades to loosen during use.
- **Note:** The blade plates must be assembled with the rounded edges facing into the blade and the word "out" facing away from the blade (Figure 27).
- Tighten the blade bolts as tight as possible using method shown in (Figure 28).
- A locking feature has been added to assure that the tool will not pull out of the coupler. Install the cultivator as shown in (Figure 2, page 2). Before tightening the knob, but after the tubes are butted together, give the cultivator a **slight twist clockwise** to lock. Then tighten the knob. The cultivator should be aligned with the engine.
- To remove the cultivator, loosen the knob, twist the cultivator counterclockwise, then pull out of coupler.

### 2. OPERATION

The weeder/cultivator will weed, cultivate and mix soil in difficult and hard-to-reach places with surprising accuracy and control. This tool provides a totally new time-saving method of weeding and cultivating that will enable you to work closely under and around trees, shrubs, flowers, sidewalks and garden plants that once required the most careful manual work. As you learn the techniques of this new and versatile tool, more and more uses for it will arise.

- Always wet the soil (preferably the night before) when using your weeder/cultivator, as this will loosen the soil and make the job easier. **Remember, this tool is not a tiller for rock hard soil, but a cultivator intended for soil maintenance use.**
- The more water you apply to the work area, the looser and easier the soil will be to work. The blades of your weeder/cultivator will not become clogged, even in the wettest soil conditions.
- Your weeder/cultivator should be used much like you would use a gardening hoe except that this tool does the work for you. With the least amount of pressure on the mid-handle, the blades will dig themselves into the soil.
- Then pull the unit toward you while it is digging beneath the soil's surface (Figure 29).



Figure 29

- At the end of the pulling stroke, lift it slightly out of the soil and reach forward to begin another stroke with the unit still running. It is not necessary to idle the engine after each pass.
- After each pass, move to the right or left to begin your next pass. Continue making passes in the same direction until you have covered the area you wish to work.
- Usually it takes two passes in the same path to thoroughly mix the soil and cut the weed roots, so your first pass may look as if you haven't mixed the soil at all. However, your first pass has cut the soil cleanly beneath the surface, including all the weed roots.
- For best cultivating results, your second pass over the soil should be at a perpendicular angle to your first pass. When you have made two passes over your work area in a crisscross pattern (**Figure 29, page 11**) you have effectively mixed every inch of soil and removed all the weeds at the same time.
- Your weeder/cultivator will effectively cultivate to a depth of 4½" (120.6 mm). The action of the blades will bring any cut off weeds (and their roots) to the surface to be raked away, leaving a professionally manicured look to your flower beds or garden.
- Soil not cultivated for a period of time will be harder to work the first time. Regularly maintained soil will be much easier to cultivate and will give you the timesaving benefits of your weeder/cultivator.
- Allow your weeder/cultivator to do the work for you. Forcing it will only wear out the operator and shorten life expectancy of the unit.
- In nearly all types of soil, it is not necessary to use full engine throttle since the cutting action is so efficient. It is not recommended to operate full throttle as engine and drive train life will be shortened. Partial throttle will usually be sufficient.
- Your weeder/cultivator may also be used to dig holes for transplanting flowers or small trees. Simply hold the unit vertically and rotate the tool clockwise and counterclockwise while applying downward force. The tines act as a mini post hole digger.
- Another use for your weeder/cultivator is a mini sod remover when making or enlarging flower beds or garden areas. After wetting the sod to be removed, place the unit into the sod, hold down firmly and pull the unit toward you like you would a hoe.
- You may also use the weeder/cultivator to maintain a neat edge along flower beds and gardens. In addition, the tool is ideal for mixing fertilizer, mulch or compost into the soil.



**WARNING:**

Never allow children to operate the weeder/cultivator. It is not a toy. Never allow adults to operate unit without first reading the Operator's Manual.

- Keep the work area clear of all persons, particularly small children and pets.
- Dress properly—do not wear loose clothes or jewelry, as they can be caught in moving parts. Always wear substantial footwear and long pants.
- Always be sure of your footing. Keep a firm hold on the handles and walk, never run.
- Stop the motor whenever you leave the weeder/cultivator, or when making any repairs or inspections.
- When not in use, store your weeder/cultivator in a dry place out of the reach of children.
- Keep all fasteners tight to be sure the weeder/cultivator is in safe working condition. Follow maintenance instructions provided in this manual.
- If the weeder/cultivator should start to vibrate abnormally or become noisy, stop the motor and check immediately for the cause. Abnormal noise is generally a warning of trouble.
- Do not operate your GREEN MACHINE after it has been dropped or damaged. Return it to your nearest authorized service dealer for inspection and repair.
- Check the blade bolts for tightness before each usage.

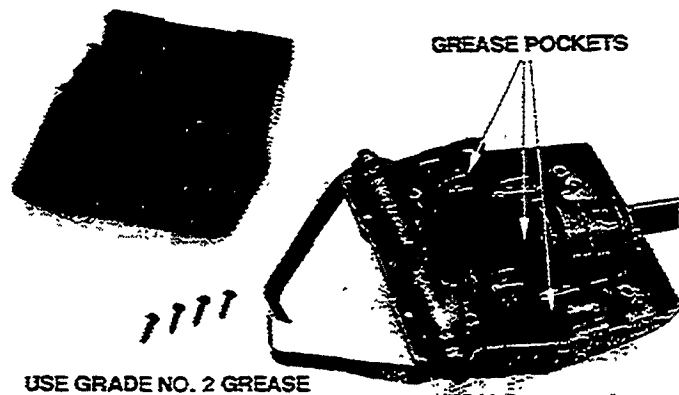


Figure 30

### 3. MAINTENANCE

- The weeder/cultivator is internally lubricated at the factory and should not need service. However, if it is used daily or in extremely hard or dusty soil, it is recommended that new grease be supplied by first removing the four (4) upper cover screws, removing the cover and applying grease to the gears and other moving parts (Figure 30).
- Before and during each use the blades should be checked for tightness. Loose blades will result in damage to internal parts. Check all fasteners.

## 2851 EDGER

### 1. ASSEMBLY

- The edger lower unit is fully assembled at the factory when the unit is shipped with an engine. When the edger lower unit is shipped as an attachment, some assembly is required. Refer to assembly instructions included.
- Connect edger lower unit to power unit as outlined under "Attaching Lower Unit" (Page 2).

### 2. OPERATION

- Before using your edger you should adjust the depth of cut by rotating the blade shield to which the guide/depth wheel is attached (Figure 31).



#### WARNING:

Never adjust blade height with motor running.

- To adjust the blade's depth of cut, first loosen the wing knob as shown in (Figure 31).
- Rotating blade shield back (toward the operator) will reduce the cutting depth.
- Rotating forward, will increase the blade's depth of cut (Figures 31-32).
- The best depth setting is that which produces a fine cut line between sidewalk and grass with a minimum of blade depth. (Usually 1/2 inch of blade in the ground.)
- Blade depth may have to be adjusted for each edging job due to different concrete to grass heights.
- It is not recommended to adjust the depth to its maximum where not needed. This will only make the edging work more difficult and shorten blade life.
- To begin edging, first determine which direction you wish to travel so that you will not be walking on the grass. Always operate from left-hand side.
- Always survey the area of edging for obstacles and items that may be thrown. Remove both of these dangers before beginning.
- Start the engine and run at half throttle before putting blade into the ground. Gently lower the blade into the ground at the point you wish to start edging. Be careful not to hit the concrete (Figure 33).

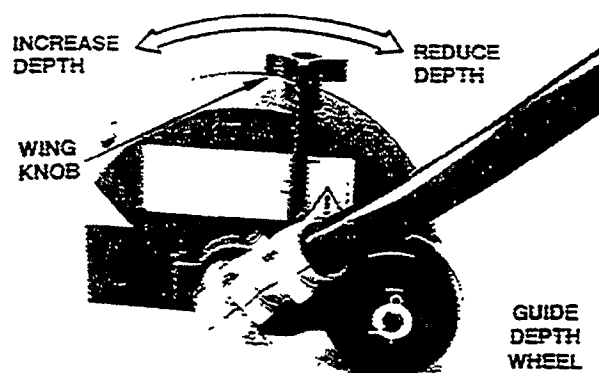


Figure 31

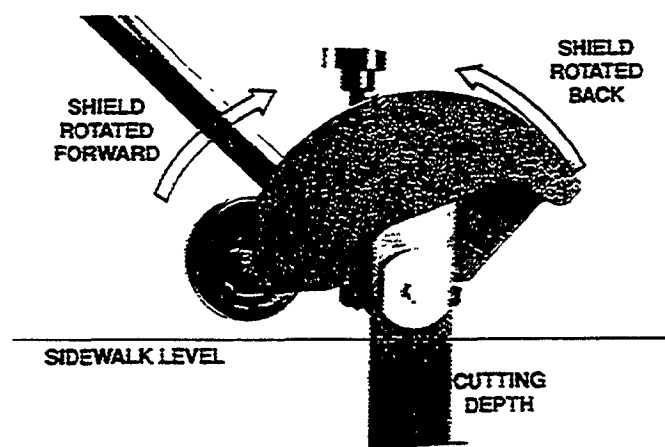


Figure 32

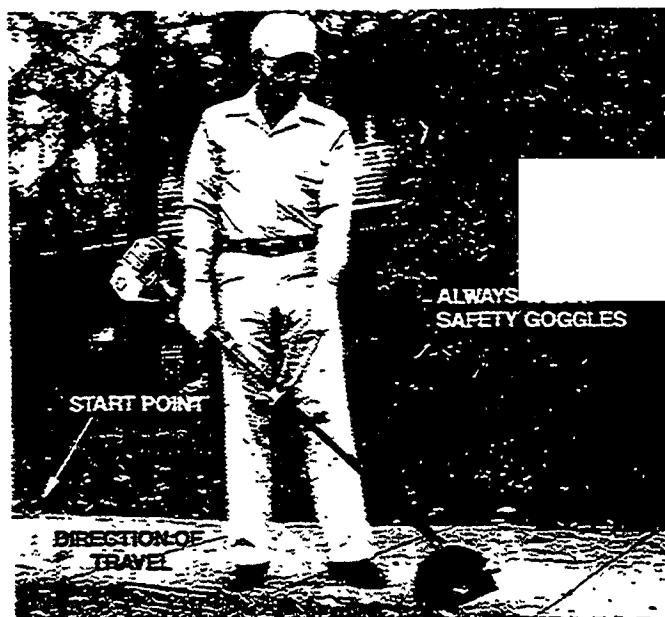


Figure 33



**WARNING:**

Always use eye protection (safety goggles) when edging. Always remove obstacles and throwable objects.

- Move forward as quickly as the blade and its cutting will allow. Don't force it. Let the blade do the work.
- Use only as much engine speed as is needed to do the job. Overspeed will only shorten blade life.
- While edging, try not to allow blade to touch the concrete.
- The correct handling of your edger is shown in (Figure 33, page 13).
- **Note:** Sidewalk edges that have not been maintained may require more than one pass to obtain a clean cut. Periodic edging will keep the edge neat and make the job easier.
- It is recommended that a watering of the edge area be done to soften the ground sometime before edging.

**3. MAINTENANCE**

- Before each use, inspect complete unit for loose or missing fasteners or parts. If found, correct before using.
- Replace blades as needed. Never wear blade shorter than three (3) inches.
- After each ten (10) hours of use, the gear case should be regreased. Follow the instructions for greasing the 2845 gear case (Page 9).
- To replace blade, first make certain engine is stopped. Fit spanner wrench supplied onto flats of holder B (Figure 34).
- Using suitable wrench, loosen blade bolt by turning clockwise. (**Note:** left-hand thread.)
- Remove only holder B and old blade.
- Install new blade onto holder A. Install holder B and bolt.
- Make certain blade is properly centered before tightening blade bolt.
- Turn counterclockwise to tighten blade bolt.
- Tighten securely.
- Rotate blade to see that blade tips don't touch blade shield at any point.



**WARNING:**

In addition to the warnings given for blade use (Page 7), observe the following:

- Never allow children to operate edger. It is not a toy.
- Always read and understand Owner's Manual before operation.
- Keep area of operation clear of all persons. Inspect area for obstacles and throwable objects.
- Dress properly—do not wear loose clothes or jewelry. They can be caught in moving parts.
- Never wear sandals or operate barefoot.
- Wear long pants.
- Make certain engine is stopped whenever adjusting blade height or making repairs.
- Always wear safety goggles.
- Keep all fasteners tight to insure the edger is in safe working condition.
- Never operate without guard in place.
- Keep bystanders at least 50 feet away.
- Never operate near gravel or in especially rocky soil.
- Never operate from right-hand side.
- Use only approved GREEN MACHINE® blades (P/N 237001).

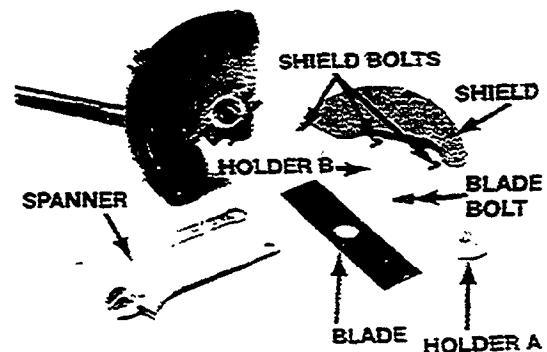


Figure 34



## 2381 SNOW THROWER

### 1. ASSEMBLY

- Using a Phillips screwdriver, remove the two (2) screws holding the top cover (Figure 35). Remove the cover.
- Slide the flex cable **partially** out of the non-slotted end of the tube and insert its square end into the drive gear of the snow thrower. Make certain the squares of the flex cable and the drive gear are engaged before proceeding (Figure 35).
- Loosen the driveshaft clamp screw and remove the locking screw (Figure 36).
- Slip the driveshaft tube into the gearbox as far as it will go and align the locking screw holes of the gearbox and the tube by looking into the screw hole and rotating the tube.



#### CAUTION:

The lock screw holes must be aligned to prevent damage to the tube and to insure correct alignment of snow thrower to engine.

- Re-install the locking screw and tighten.
- Tighten the clamp screw securely with the Allen wrench supplied (Figure 36).
- **Note:** After assembly, the flex cable should not stick out beyond the slotted tube end. If it does, push the cable in as far as it will go (Figure 37).
- Slide the top cover over the tube and into position by aligning the screw holes.
- Re-install and tighten the cover screws.
- Connect the snow-thrower to power unit as outlined under "Attaching Lower Unit" (Page 2).

### 2. OPERATION

- Read and fully understand the Owner's Manual, especially the sections concerning safety, handling and refueling.
- Survey the area you wish to clear to determine what direction to throw the snow and from what direction the wind is blowing. Always throw downwind to prevent light snow from falling on you.
- Start your snow thrower and place it in the snow in front of you. Tilt upward and push forward until you feel the scraper reach ground.
- Push the unit at an angle of approx. 45° to the path you wish to clear until you reach arm's length. Lift it out of the snow, and return to your first starting point to make another pass, moving forward with each angular pass (Figure 38, page 16).

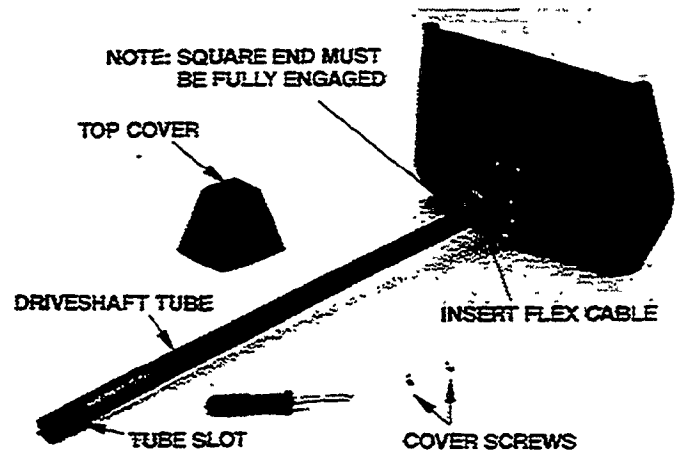


Figure 35

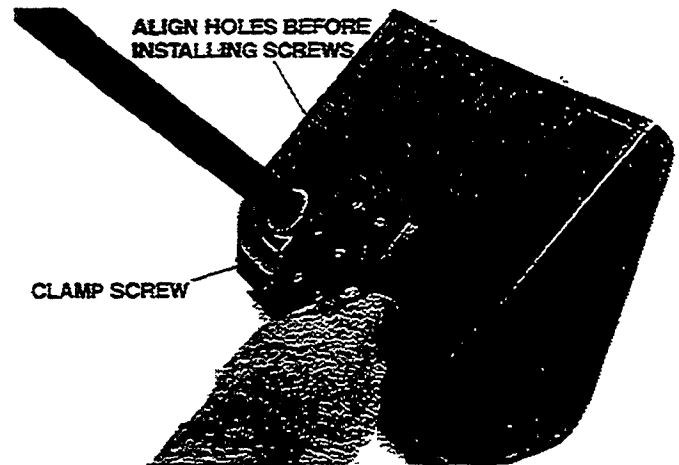


Figure 36

FLEX CABLE SHOULD NOT EXTEND MORE THAN 1/4" OUT OF TUBE

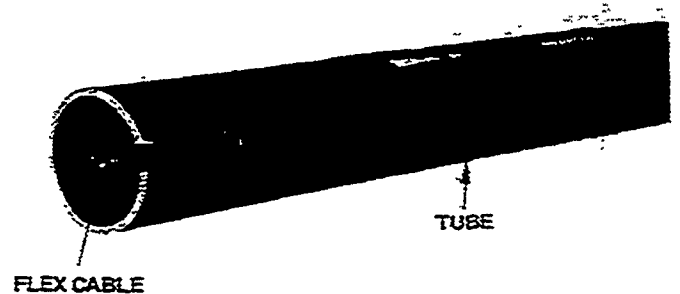


Figure 37

- A 4- to 6-inch snow depth can be removed with one pass. If the snow is deeper, then remove the top 4 to 6 inches by "skimming" above the ground. Now use additional lower passes to reach ground.
- When clearing large areas such as driveways, make one long pass along the driveway's length, then work from the center to each side by pushing the snow-thrower in front of you while walking.
- Don't force the snow thrower. You will find the work much easier if you let it do the work for you. Deeper snow will require more time, but not necessarily more of your energy to move.
- Snow removal is easiest immediately after the snow has stopped falling or early in the day before it begins to melt. The wetter the snow, the more difficult your job becomes.

### 3. MAINTENANCE

- Follow the engine maintenance as outlined (Page 4).
- Before each use, inspect the entire unit for loose, missing or broken parts. Make all repairs before using.
- Should a rotor or the scraper become broken, return the snow thrower to your nearest GREEN MACHINE® dealer for service.

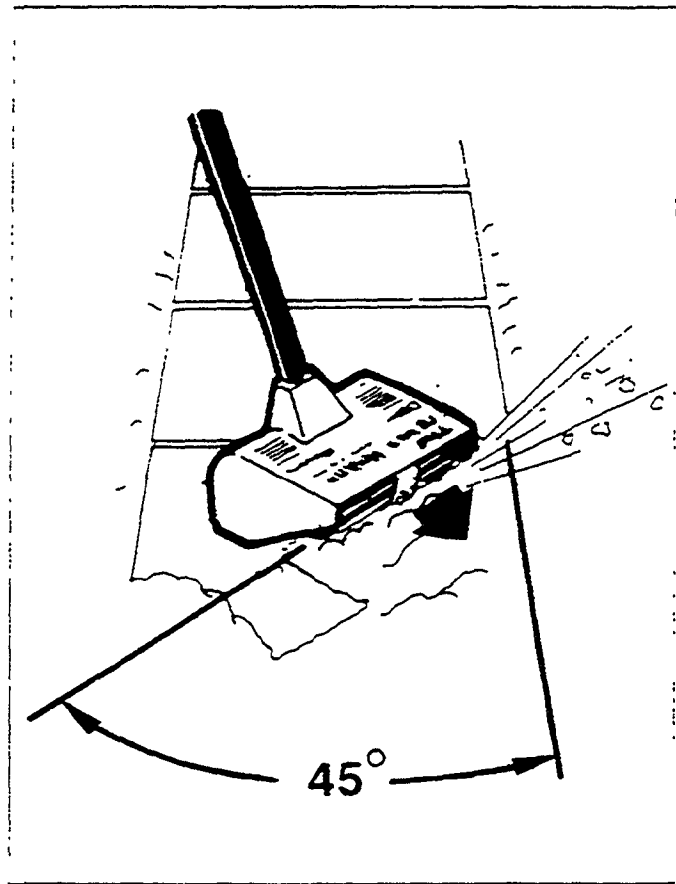


Figure 38



#### WARNING:

- Dress properly for cold, wet weather and wear foot gear that will provide good footing on slippery surfaces.
- Inspect the area to be cleared for covered "throwable" objects such as toys, sticks, wire, etc.
- Keep bystanders at least 50 feet away at all times.
- Never throw snow towards windows, structures, autos, people or animals.
- Stay clear of discharge at all times. Stop the engine before any service.
- Be alert for hidden hazards and nearby traffic when clearing snow.
- Never use snow thrower on roofs or steep slopes.
- Always be sure your footing and balance are adequate for the work.
- Before each use, and particularly if the snow thrower vibrates abnormally, stop the engine and inspect for loose, broken or missing parts. If found, the unit must be repaired before use.
- Never start or run the engine indoors.

## THE GREEN MACHINE® TROUBLE SHOOTING CHART

TROUBLE	POSSIBLE CAUSE	CORRECTION
<b>FAILURE OF ENGINE TO START — NO SPARK</b> 1. Failure located on the spark plug side	1. The electrode of spark plug is wet 2. Carbon deposit sticks to the electrodes of spark plug 3. Poor insulation caused by crack, etc., of insulator 4. Undersize or oversize gap of the electrodes of spark plug 5. Burning of the electrodes of spark plug	1. Dry it 2. Clean it 3. Replace spark plug 4. Adjust the gap to 0.6mm 5. Replace spark plug
2. Failure located on the magneto side.	1. Coil burnout 2. Coil poor insulation 3. Cord coating breakage 4. Unit burnout	1. Replace coil 2. Replace coil 3. Replace or repair cord 4. Replace magneto
<b>HAS SPARK</b> 1. Proper compression and sufficient fuel	1. Engine flooded 2. Use of improper fuel mixture	1. Discharge outward with recoil starter 2. Replace with proper fuel 25:1 ONE-MIX®
2. Sufficient supply of fuel but compression is poor	1. Heavy wear of cylinder, piston and piston ring 2. Loose spark plug	1. Replace all worn parts 2. Tighten
3. No supply of fuel to the carburetor	1. Fuel tank is empty 2. Loose fuel hose fitting or loose carburetor 3. Filter clogging 4. Fuel is available in the tank, however, fuel does not reach the carburetor 5. Air vent in the fuel tank clogging	1. Refill the fuel tank 2. Tighten fuel lines or carburetor 3. Clean or replace filter 4. Refer to the starting procedure 5. Clean it
<b>POWER IS NOT SUFFICIENT</b> 1. Compression of engine is normal and there is no misfiring	1. Air cleaner clogging 2. The muffler is plugged with carbon 3. Air leakage through the pipe fitting, etc. 4. Fuel passage clogging 5. Water is mixed in fuel	1. Clean 2. Clean the muffler or replace 3. Tighten the fitting securely 4. Clean 5. Replace with proper fuel
2. Overheating is observed	1. Excessive lean fuel mixture 2. Use of improper mixed oil 3. Carbon deposit 4. Fan cover, cylinder fin, etc., are stuffed with dirt 5. Forced operation	1. Adjust and clean carburetor 2. Replace with 2-cycle ONE-MIX® 3. Clean 4. Clean and remove dirt 5. Operate properly
3. Knocking noise is heard	1. Cylinder overheat 2. Use of improper fuel 3. The combustion is covered with carbon deposits	1. Adjust carburetor, clean cylinder fin 2. Replace with proper fuel, 25:1 ONE-MIX® 3. Clean the combustion chamber
4. Air suction	1. Loose carburetor 2. Loose fuel pipe	1. Tighten 2. Insert firmly
<b>ENGINE RUNS BUT TOOL WILL NOT PERFORM</b>	1. Lower tool not fully engaged in coupler	1. Refer to Owner's Manual for proper assembly or see authorized service dealer for assistance
<b>ENGINE STOPS WHILE IN OPERATION</b> 1. Engine stops abruptly	1. Defective stop button 2. Dislocation of plug cap 3. The piston shows score surface with indication of seizure 4. Short circuit of spark plug electrode due to carbon deposit 5. Failure of proper functioning of magneto	1. Replace 2. Fix firmly 3. Repair or replace 4. Clean 5. Disassemble and replace necessary parts
2. Engine stops gradually	1. Empty fuel tank 2. Inside carburetor clogging 3. Fuel tank clogging 4. Water is mixed in fuel	1. Refill 2. Disassemble and clean 3. Disassemble and clean pre-ator 4. Replace with proper fuel
<b>ENGINE WILL NOT STOP WHEN TURNED OFF</b>	1. The extreme end portion of ignition plug is red-heated 2. Broken stop button	1. Clean or replace spark plug and adjust the gap to 0.6 mm 2. Replace worn part
<b>SHAFT VIBRATES</b>	1. Cord is not in balance—both cords not of same length 2. Cord is worn out 3. Nylon cord head is bent 4. Saw or brush blade not centered on noiders A 5. Grease or oil has gotten into clutch assembly (clutch housing) 6. Lower gear case is out of grease	1. Equalize cord length at 6 inches 2. Same as #1 3. Replace arbor post 4. Re-center blade on noiders 5. Clean clutch shoes and drum 6. Grease gear case—10 operating hours

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