

Green Machine TM

2800 / 2840 SERIES OWNERS MANUAL

(UT26020) / (UT26200)

	SERIAL NO.		PG. NO.	SERIAL NO.	
2800 ENGINE	1	<input type="text"/>	2861 BLOWER TOOL	9	<input type="text"/>
2800 SHAFT	1	<input type="text"/>	2871 CULTIVATOR TOOL	10	<input type="text"/>
2840 POWER UNIT INCLUDES	2	<input type="text"/>	2851 EDGER TOOL	12	<input type="text"/>
2845 STRING TRIMMER/ BRUSH CUTTER TOOL	6	<input type="text"/>	2381 SNOW THROWER TOOL	15	<input type="text"/>

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

ASSEMBLY AND OPERATING INSTRUCTIONS

GREEN MACHINE® - LIMITED WARRANTY

The manufacturer warrants to the original retail purchaser that this Product is free from defects in material and workmanship and agrees to repair or replace at Manufacturer's discretion, any defective product free of charge within these time periods from the date of purchase:

- Two year, if the Product is used for personal, family, or household use;
- One year, if the Product is used for commercial or any other use.

This warranty is not transferable and does not cover damage resulting from defects other than in material or workmanship or damage caused by unreasonable use, including the failure to provide reasonable and necessary maintenance. In addition, this warranty does not cover general check-ups on electrical equipment, tune-ups on gasoline engines, or replacement of non-defective parts (such as electrical brushes, cables, plugs, spark plug, filters, starter ropes, etc.) that may wear and need to be replaced with reasonable use within the warranty period or which may require replacement in connection with normal maintenance. This warranty applies only to products sold within the United States of America, the District of Columbia, Canada, Mexico, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, the Canal Zone, or American Samoa.

SAVE YOUR SALES SLIP

Proof of purchase in the form of your dated sales receipt, cash register slip, etc. showing the serial number and the model of your Product will be required before our dealers can perform warranty service on the Product. You must at your own expense arrange to deliver or ship the Product for warranty repairs and arrange for pickup or return of the Product after repairs have been made.

This warranty does not apply to any trade accessory, engine or electric motor which is separately warranted by another manufacturer and not manufactured by the manufacturer.

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER EXPRESS WARRANTIES. ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY OR OTHERWISE, APPLICABLE TO THIS PRODUCT, SHALL BE LIMITED IN DURATION TO THE DURATION OF THIS LIMITED WARRANTY. THE MANUFACTURER SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR DAMAGES caused by unreasonable use, including the failure to provide reasonable and necessary maintenance. In addition, this warranty does not cover general check-ups on electrical equipment, tune-ups on gasoline engines or replacement of non-defective parts (such as electrical brushes, cables, plugs, spark plugs, filters, starter ropes, etc.) that may wear and need to be replaced with reasonable use within the warranty period or which may require replacement in connection with normal maintenance. This warranty applies only to products sold within the United States of America, the District of Columbia. **LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.**

HOW TO OBTAIN WARRANTY SERVICE

Warranty service can be obtained from a GREEN MACHINE® dealer authorized to make warranty repairs. If you need warranty service, check first with the dealer from whom you purchased the Product. **FOR WARRANTY SERVICE INFORMATION OUTSIDE THE USA PLEASE CONTACT YOUR LOCAL GREEN MACHINE® DEALER.**

The manufacturer will not make any reimbursements for warranty service, except to Green Machine® dealers authorized to make warranty repairs. You must present your sales receipt when making any claim for warranty service.

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

This warranty is given by Homelite, Inc., Post Office Box 7047, Charlotte, North Carolina 28241.

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™ product. 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.



WARNING: This warning symbol identified special instructions or procedures which, if not correctly followed, could result in personal injury or loss of life.

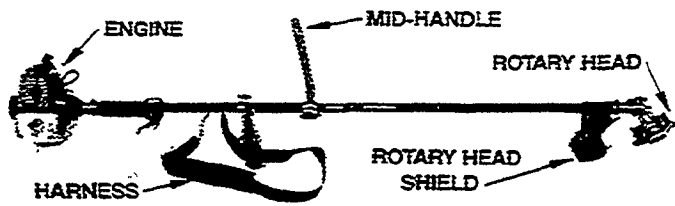


CAUTION: This caution symbol identified instructions or procedures which, if not strictly observed, could result in damage to or destruction of equipment.

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, a space is provided 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.

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.



INSTALLING THROTTLE CABLE

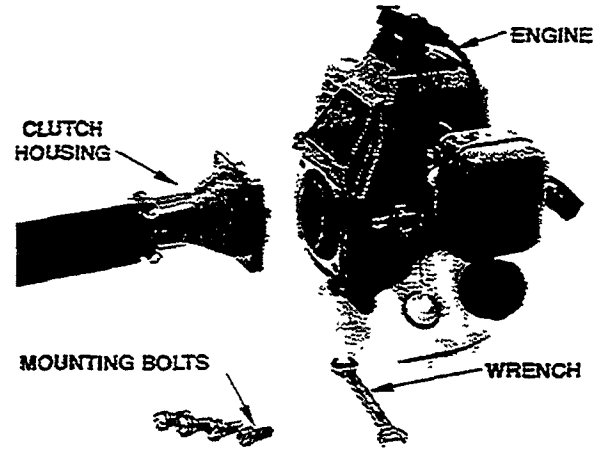


Figure 1

2800 STRINGTRIMMER/BRUSH CUTTER

Model 2800 Stringtrimmer/brushcutter designed for commercial users as well as homeowners with large acreage. It can also function as a tree pruner cutting branches up to 3" in diameter. From yardwork to professional grounds maintenance, the 2800 Panther™ brushcutter meets the demands.

1. ASSEMBLY

Mounting Engine To The Driveshaft

- Using the four (4) bolts supplied, mount the engine to the clutch housing as shown. (Figure 1)
- With wrench supplied, tighten all four (4) bolts evenly and securely.

2. INSTALLING MID-HANDLE (Figure 2)

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

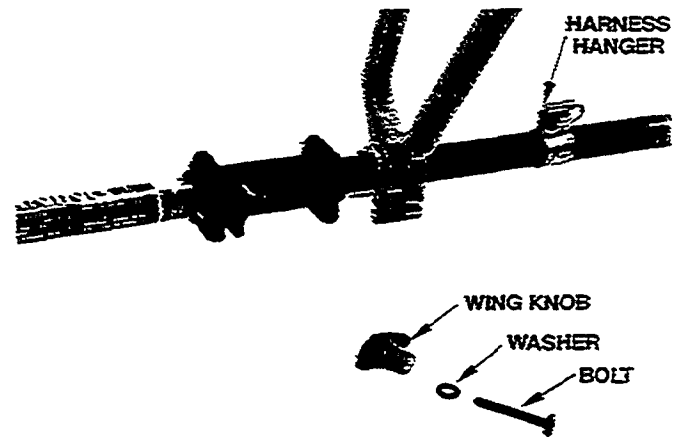


Figure 2

3. INSTALLING THROTTLE CABLE (Figure 3)

- Open throttle as shown, and hook the end of the throttle cable to the carburetor.



Figure 3

WARNING

BLADE COASTS AFTER THROTTLE RELEASE

W/ PROPER ADJ. BLADE COULD COAST UP TO 1/2 SECONDS

WARNING THE COASTING BLADE COULD HURT YOU OR OTHERS

HAZARD ZONE FOR THROWN OBJECTS IS 50 FEET

BLADE AND/OR TRIMMER LINE CAN THROW OBJECTS 100 FT

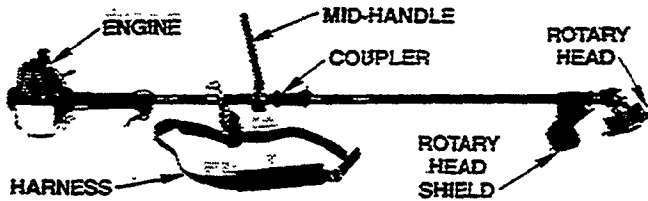
YOU OR OTHERS CAN BE BUNDED OR INJURED

WEAR EYE AND EAC PROTECTION

BLADE CAN TRIP PEOPLE AWAY FROM WATER. CAN NOT SWIM

BLADE TRUST CAN CAUSE AMPUTATION OF ARMS OR LEGS

KEEP PEOPLE AND ANIMALS 50 FEET AWAY



2840 STRINGTRIMMER/BRUSHCUTTER EXPAND-IT™ SYSTEM

Model 2840 Expand-It™ Stringtrimmer/brushcutter with a long 47.8" shaft for operator reach and comfort. Accepts optional brush and saw blades. Interchangeable with 4 other yard care tools.

1. ASSEMBLY

- Snap mid-handle over shaft tube adjacent to tube coupler (top of handle should angle back toward engine).
- 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 driveshaft coupler device attached to the power unit driveshaft tube.
- First, loosen the knob near the open end of the coupler. It is not necessary to loosen the other (3) three 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 driveshafts will align themselves.
- For changing lower units or breaking down for storage, follow the sequence in reverse.

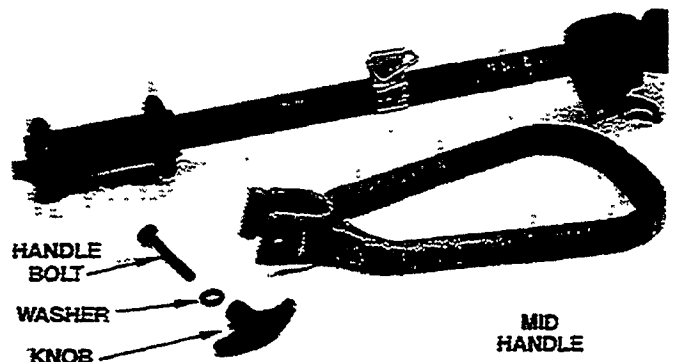


Figure 1

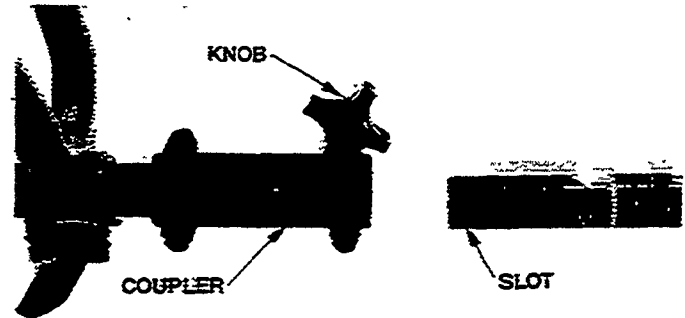


Figure 2

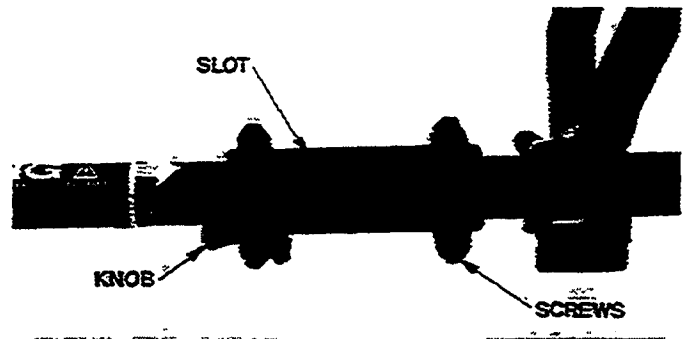


Figure 3



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

3. SUPPLYING FUEL MODELS 2800-2840

- Fill the fuel tank with fuel to ¾ full, using a mixed fuel of gasoline and 2 cycle air cooled engine oil.

REFUELING (DO NOT SMOKE!)

- Mix and store fuel in a container approved for gasoline.
- Mix fuel outdoors where there are no sparks or flames.
- Select bare ground, stop engine, and allow to cool.

- Loosen fuel cap slowly to release pressure and to keep fuel from escaping around the cap.
- Wipe spilled fuel from the unit. Move 10 feet away from refueling site before starting engine.
- **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 # GM 27339.**
- Always thoroughly mix the oil and 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. Use a ratio of 32:1 (32 parts of gasoline to one part of oil) i.e., 4.0 oz. of oil mixed in one U.S. gallon of gasoline.



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 7/8 full to avoid spillage.

4. INSPECTION

- 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).
- 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.

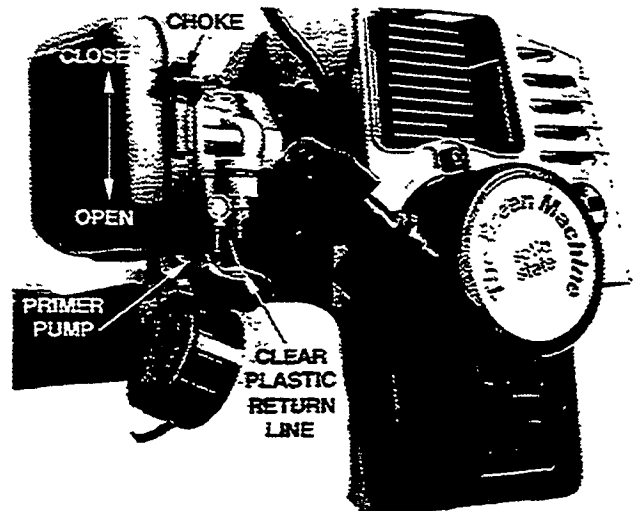


Figure 5

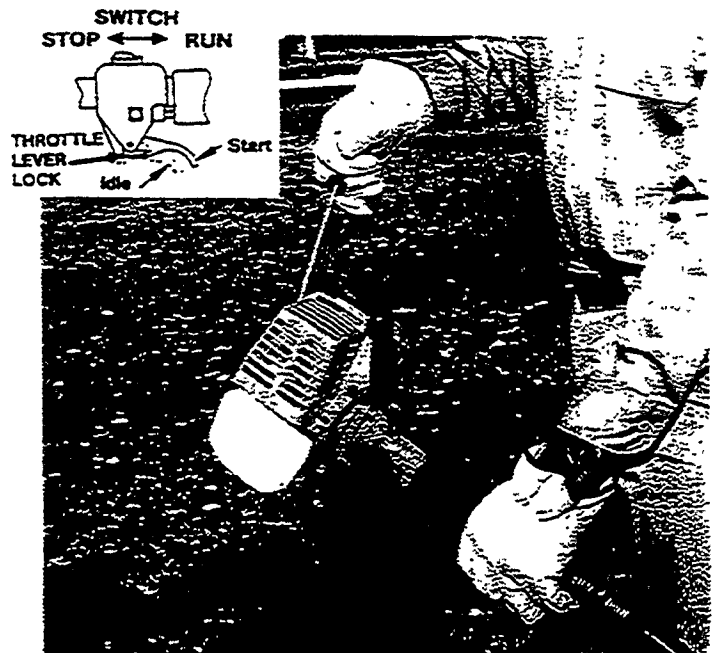


Figure 6

- 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:**
Place the unit on the ground when starting. Do not use your foot, or knee to hold it down while pulling up on the rope (Figure 7). This will cause the tube and cable to become bent and then break. Never allow the starter rope to snap back.

When Warm (Restarting Engine)

- 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

- 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.
- **Note:** Except for emergencies, avoid stopping engine while it is running at high speed, this avoids overheating the engine.

7. ADJUSTING

- Your Green Machine™ engine has been adjusted at the factory for optimum performance and fuel consumption, and no further adjustment should be required. However, because of varying atmospheric and climatic conditions, some minor adjustment may be needed for your area.
- 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 $1/4$ to $3/4$ " turn further counterclockwise.
- If the engine does not idle properly after this adjustment, contact your nearest Green Machine dealer for service.
- 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.



Figure 7

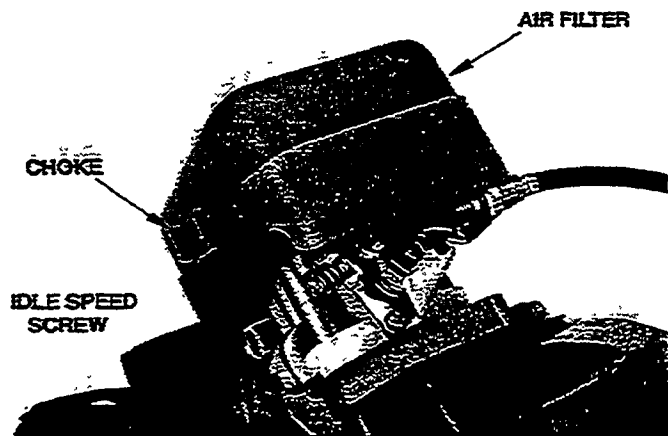


Figure 8

8. MAINTENANCE

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.

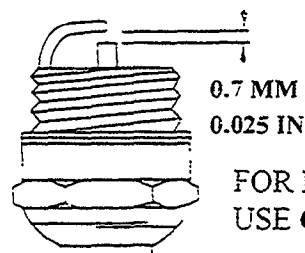
30-Hour Service, or Once a Week for Commercial Use.

- 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 in tank and clean if needed (Figure 10).
- Remove cylinder cover and clean out all dust, dirt, and foreign material.



SAFETY

- Before each use always inspect your Green Machine™ for loose, missing, damaged or broken parts. Correct before using.
- Always wear approved eye protection (safety goggles).
- Do not wear loose fitting clothes while operating unit.
- 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 use any type of wire in place of the nylon string.
- 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.
- Always make sure engine is securely mounted to driveshaft before each use.
- Always check for any fuel leaks before each use and correct before use.
- Never operate unit indoors or in an enclosed area.
- Keep bystanders away from work area at all times.
- Your Green Machine™ product is not a toy. Do not allow children to play with it or use it.



FOR BEST PERFORMANCE
USE GM 190036 SPARK PLUG

Figure 9

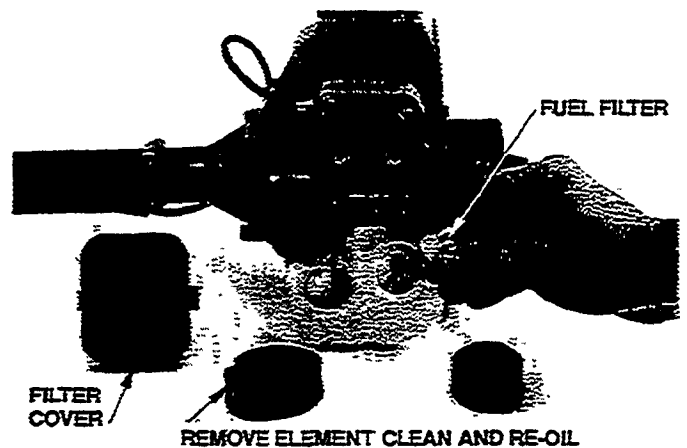


Figure 10



Figure 11

2845 STRING TRIMMER/BRUSH CUTTER
(For Models 2800-2840)

1. ASSEMBLY

- Using the tools shown in (Figure 12), remove the bolt (left hand thread), star washer, and flat washer at the bottom of the gearcase.
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 gearcase as shown in (Figure 13). Tighten rotary head as tight as possible by hand.
- Install the blade guard/head shield using the hardware supplied (Figure 14).
- **Note:** The flat washers must be installed on the bottom side of guard.
- 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 (note: bolt is left hand thread) and 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 1).

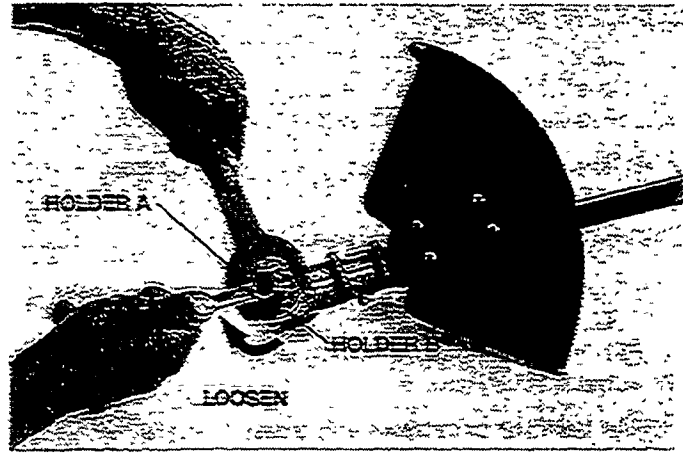


Figure 12

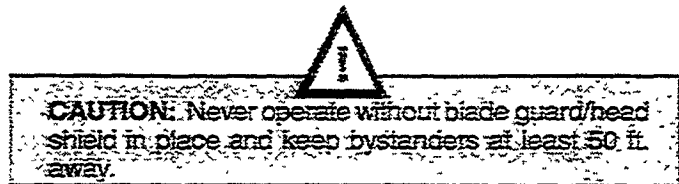
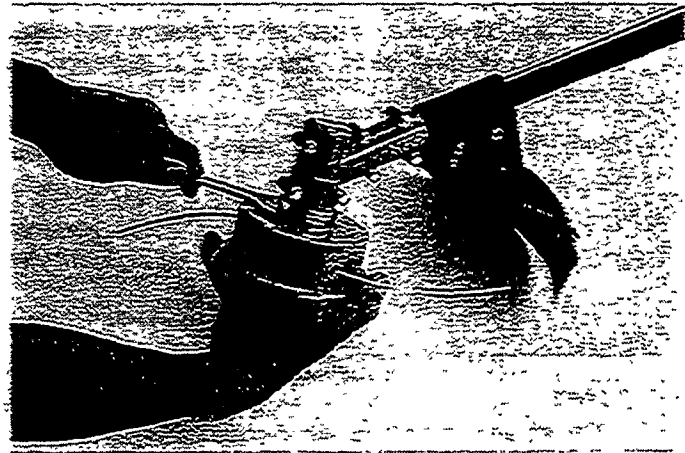


Figure 14



Figure 15

WARNING

BLADE COASTS AFTER THROTTLE 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 AMPUTATION OF ARMS OR LEGS
KEEP PEOPLE AND ANIMALS 50 FEET AWAY



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 professional re-sharpen your blade or saw.**

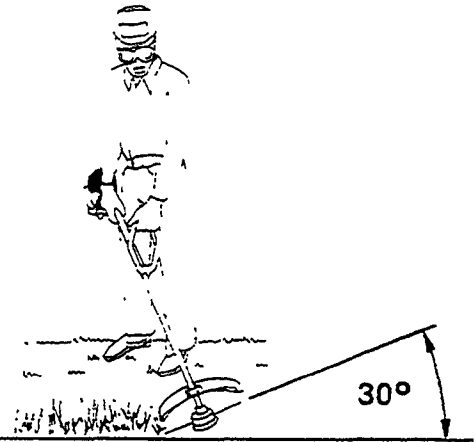


Figure 16

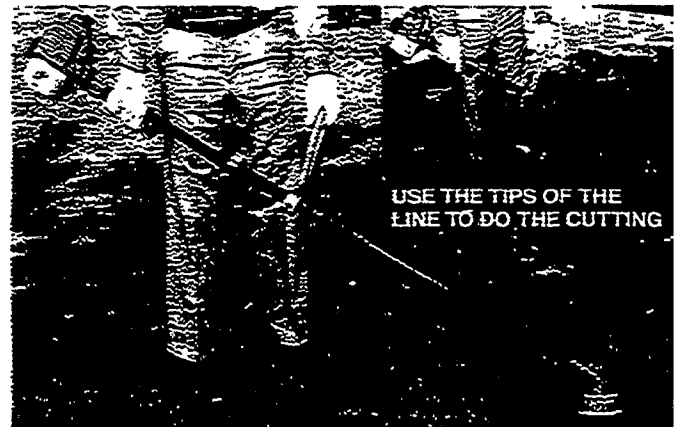


Figure 17

2. CUTTING TECHNIQUE.

- Hold unit so the rotary head is at an approx. 30° angle to the ground (**Figure 16**).
- 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**).

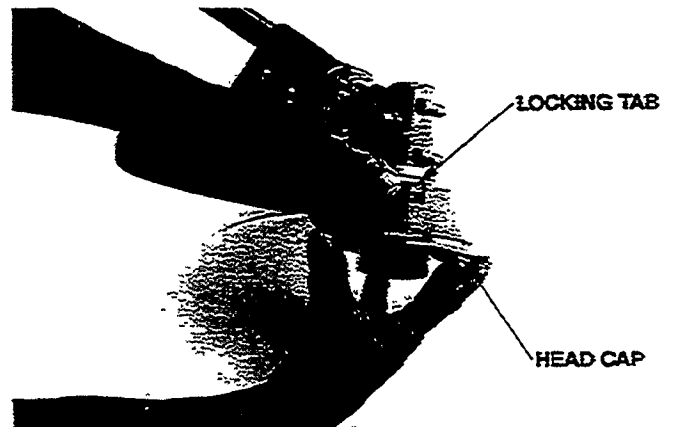


Figure 18

3. EXTENDING LINE.

- 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.

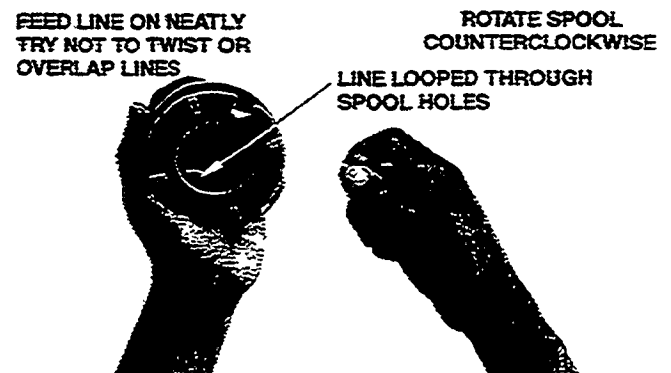


Figure 19

- **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 on 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

- Push in one of the locking tabs, releasing it from its notch (Figure 18, 19), 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 .080 diameter and approximately 30 ft long.
- Loop line through holes in spool and make certain that both lines are even (Figure 19).
- Hold spool as shown (Figure 19) and feed line on neatly by rotating the spool counterclockwise.
- **Note:** Do not wind 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 20) and insert lines in their respective line-savers and place spool back into the rotary head.
- **Note:** Be certain that lines do not become trapped under the spool (Figure 21)..
- Re-install rotary head cap by aligning locking tabs with their notches and pushing cap down until both locking tabs are securely locked (Figure 22).
- Before operating unit check by advancing the line manually, making sure lines are not trapped, and rotary head is assembled correctly.

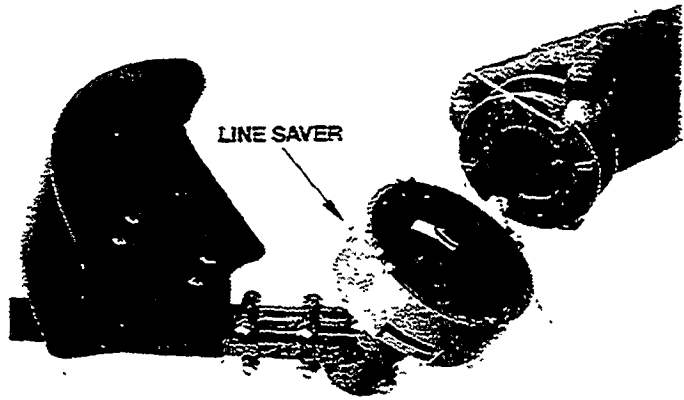
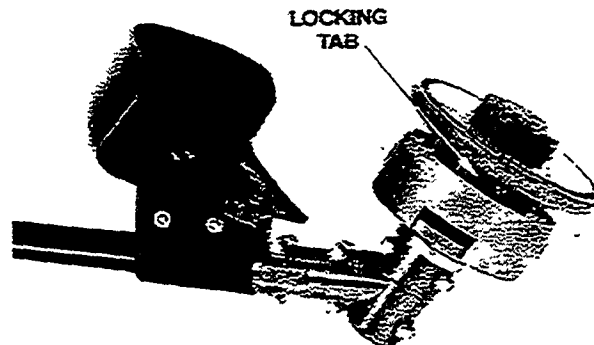


Figure 20



Figure 21



NOTE: MAKE SURE BOTH LOCKING TABS ARE SECURELY LOCKED.

Figure 22

5. MAINTENANCE

- Each 10 hours of use the gearcase must be regreased by first removing cutting head (or blade), blade holders and seal collar (Figure 23).
- Supply new grease until old grease is forced out.
- The flex cable is lubricated during assembly at the factory and needs no scheduled maintenance. However if it is removed, regrease and install exactly as it was removed. **Do not reverse. Use grade no. 2 grease.**

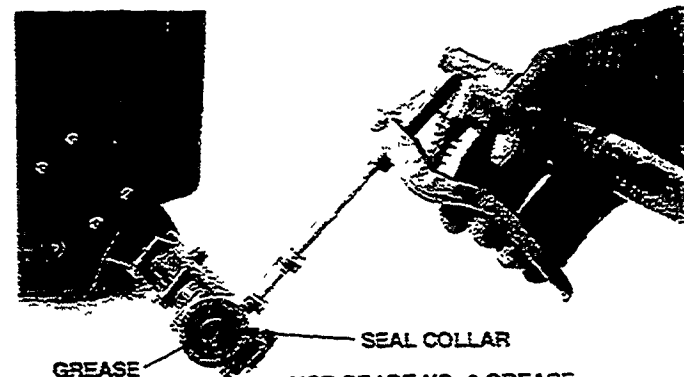


Figure 23



SAFETY:

- Before each use inspect your Green Machine™ product 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 bare foot or wearing sandals.
- Always cut from left to right.
- Always keep all bystanders a minimum of 50 ft. 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.

2861 POWER BLOWER

1. ASSEMBLY

- This lower unit 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 1)

2. OPERATION

- Your power blower produces a strong air blast when operated at full speed and 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 before very difficult and time consuming by conventional brooms and sweeping devices.
- You will find that it no longer is necessary to move objects to effectively clean around them. A simple

LOWER UNIT ONLY

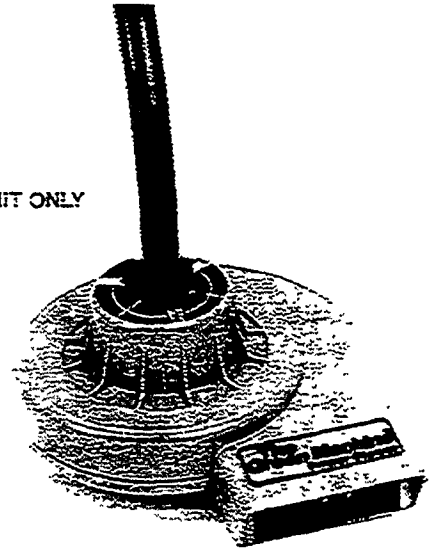


Figure 24



Figure 25

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 25).
- 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 housing will wear quickly. Carry it slightly above ground level.

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 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.

LOWER UNIT ONLY

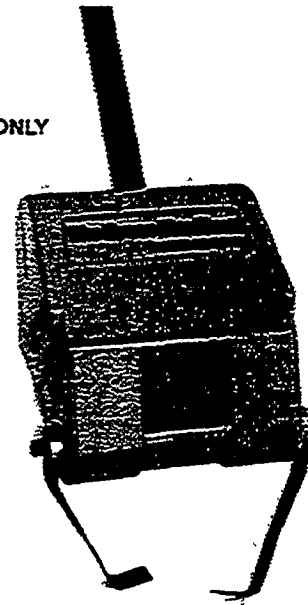


Figure 26



SAFETY:

- 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.
- Never operate unit while bare foot or wearing open sandals.
- Keep bystanders at least 50 ft. 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.

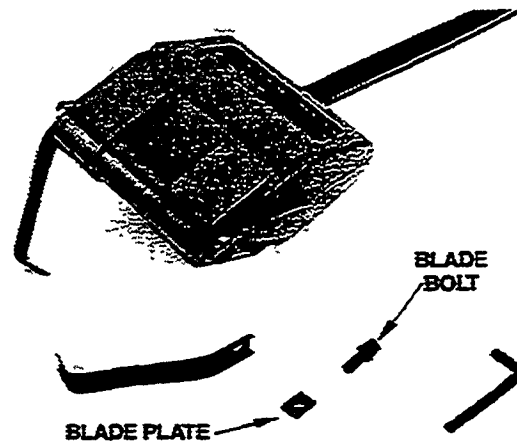


Figure 27

2871 WEEDER CULTIVATOR

1. ASSEMBLY

- Install the blades exactly as shown in (Figures 27-30). 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 29).
- Tighten the blade bolts as tight as possible using method shown in (Figure 30).
- Connect the weeder/cultivator lower unit to power unit as outlined under "attaching lower unit" (Page 1).

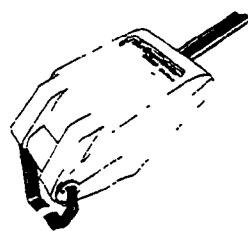


Figure 28

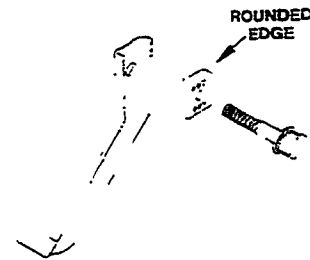


Figure 29



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

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, flower 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 31**).
- 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 31**) 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 4¾" (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 time-saving benefits of your Weeder/Cultivator.

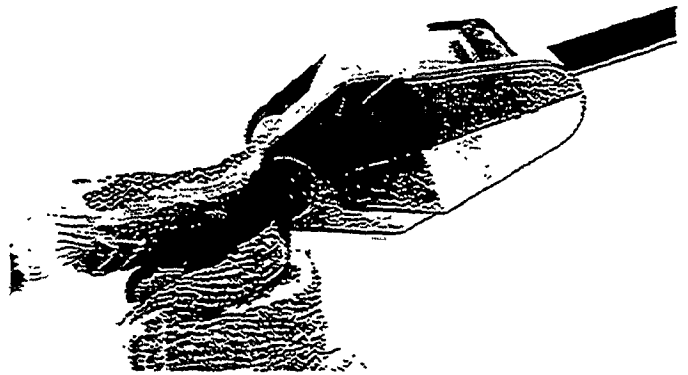


Figure 30



Figure 31



USE GRADE NO. 2 GREASE

Figure 32

- Allow your Weeder/Cultivator to do the work for you. Forcing it will only wear out the operator and shorten its life expectancy.
- 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 drivetrain 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 in garden areas. After wetting the sod to be removed, place the unit into the sod, holding down firmly and pulling 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.

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 (4) four upper cover screws, removing the cover and applying grease to the gears and other moving parts (Figure 32).
- 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 1).

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 (Fig. 33).



WARNING: Never adjust blade height with engine running.

- To adjust the blade's depth of cut, first loosen the wing knob as shown (Figure 33)



SAFETY

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. 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 engine 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™ product 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.

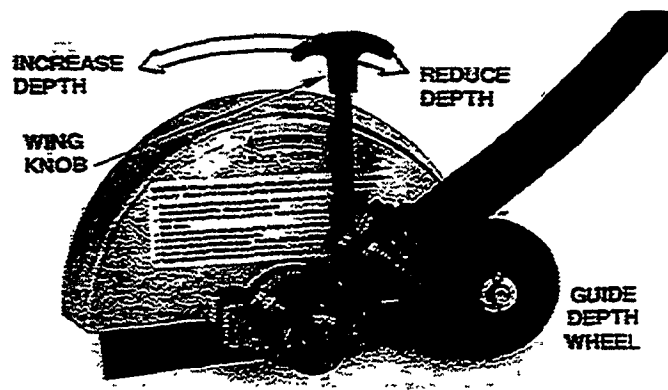


Figure 33

- Rotating blade shield back (toward the operator) will reduce the cutting depth.
- Rotating forward, will increase the blade's depth of cut (Figure 33-34).
- 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 your walking will not be 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 35).



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 35).
- **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 some time 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 3 inches.

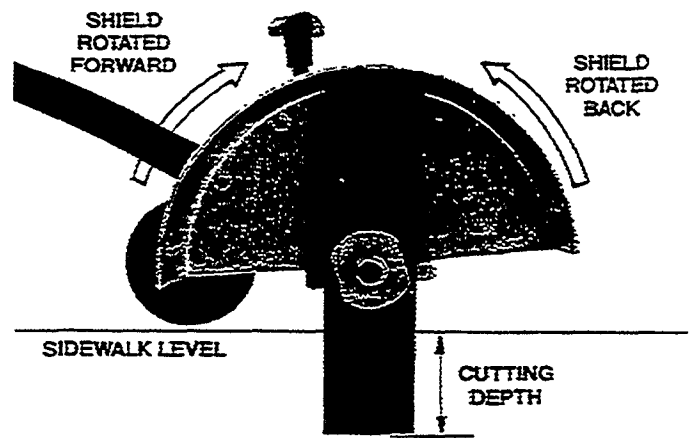


Figure 34



Figure 35

- Each 10 hours of use the gearcase should be regreased by first removing the blade, blade holders and seal collar (Figure 36).



CAUTION: Greasing without removing blade and holders will cause gear and bearing damage.

- To replace blade or to grease gearbox, first make certain engine is stopped. Fit spanner wrench supplied onto flats of holder B (Figure 37).
- Using suitable wrench, loosen blade bolt by turning clockwise. NOTE: left hand thread
- Remove blade and holders for regreasing.
- Remove only holder B and old blade if only blade is replaced.
- 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.



SAFETY

- 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.

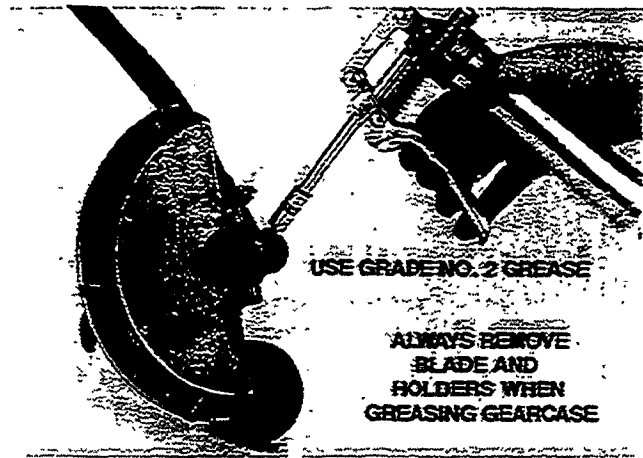


Figure 36

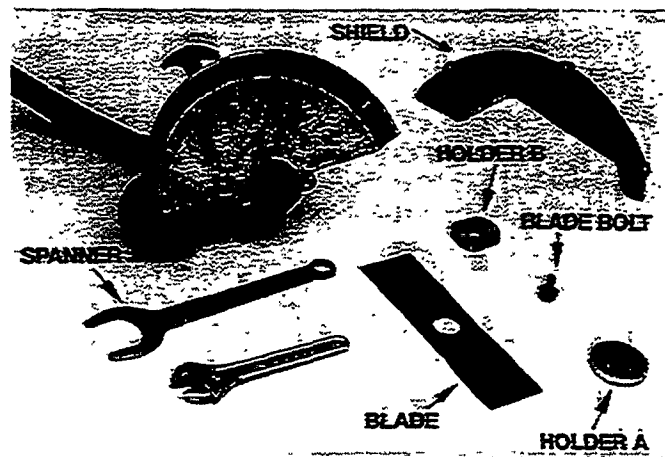


Figure 37

2381 SNOW THROWER

1. ASSEMBLY

- Using a Phillips screwdriver, remove the two (2) screws holding the top cover (Figure 38). 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 38).
- Loosen the driveshaft clamp screw and remove the locking screw (Figure 39).
- 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 39).
- **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 40).
- 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" on Page 1.

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 approximately 45° to the path you wish to clear until you reach arms 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 41).

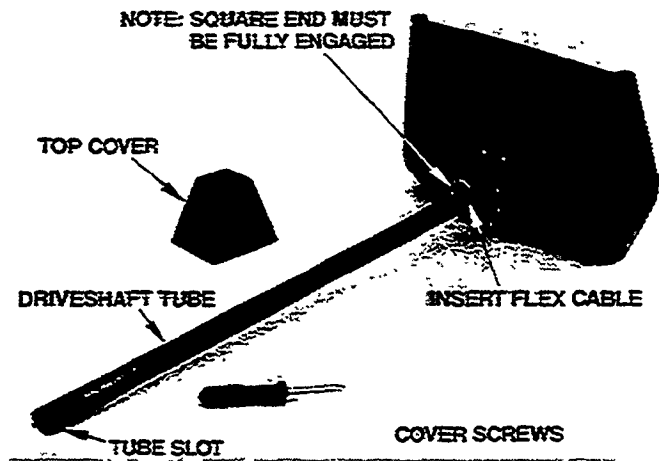


Figure 38

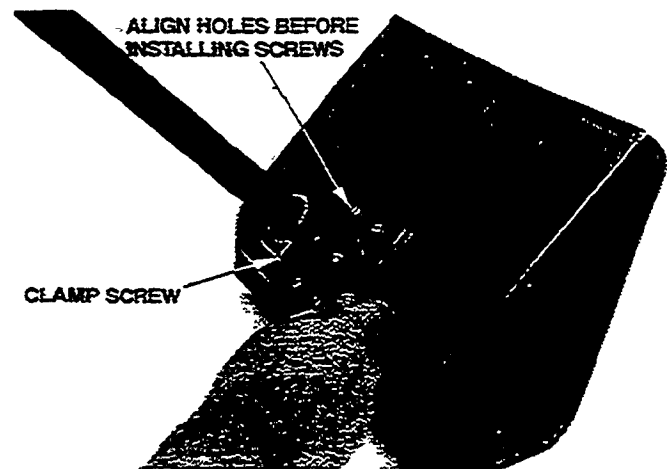


Figure 39

- A 4-6 inch snow depth can be removed with one pass. If the snow is deeper, then remove the top 4-6 inches by "skimming" above the ground, then use additional lower passes to reach ground.
- When clearing large areas such as driveways make one long pass 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. Let it do the work for you, you will find the work much easier. 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 day before it begins melting. The wetter the snow, the more difficult your job becomes.

3. MAINTENANCE

- Follow the engine maintenance as outlined on **Page 3**.
- 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.



SAFETY

- 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 ft. 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.

FLEX CABLE SHOULD NOT
EXTEND MORE THAN 1/8" OUT OF TUBE

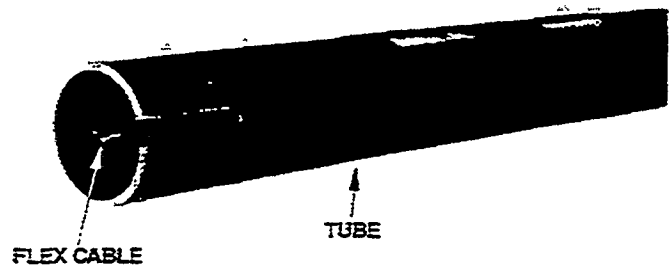


Figure 40

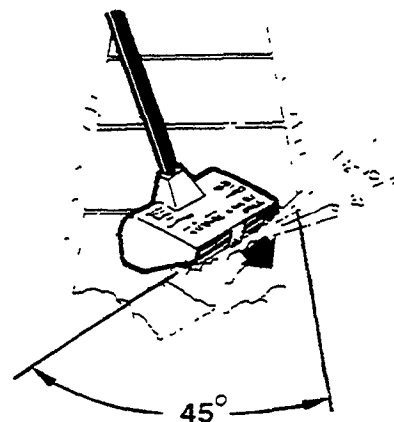


Figure 41

GREEN MACHINE™ TROUBLE SHOOTING CHART

TROUBLE	POSSIBLE CAUSE	CORRECTION
FAILURE OF ENGINE TO START — NO SPARK 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
HAS SPARK 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 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
POWER IS NOT SUFFICIENT 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 25:1 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 mix 3. Clean the combustion chamber
4. Air Suction	1. Loose carburetor 2. Loose fuel pipe	1. Tighten 2. Insert firmly
ENGINE RUNS BUT TOOL WILL NOT PERFORM	1. Lower tool not fully engaged in coupler.	1. Refer to owners manual for proper assembly or see authorized service dealer for assistance.
ENGINE STOPS WHILE IN OPERATION 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 breather 4. Replace with proper fuel
ENGINE WILL NOT STOP WHEN TURNED OFF	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
SHAFT VIBRATES	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 Holder 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 holders 5. Clean clutch shoes and drum 6. Grease gear case — 30 operating hours

Green Machine TM



REGISTRATION CARD
Please print carefully in ink.

Date _____

Model Number _____ Serial Number _____

Dealer Purchased from _____

City _____ State _____ Zip _____

Owner's Name _____

Address _____

City _____ State _____ Zip _____

Intended Use: Agriculture Cemetery Commercial Gov't Fed Golf
 Gov't-Other Home Rental Schools
 Other (list) _____

Green Machine TM

Mail to: P.O. Box 7047
Charlotte, NC 28241