

Green Machine®

ATTACHMENT OWNER'S MANUAL

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

<u>MODEL NO.</u>	<u>UT NO.</u>	<u>SERIAL NO.</u>
2381	UT26009	_____
2851 EA	UT26307	_____
2861 BA	UT26308	_____
2871 CA	UT26309	_____
3041 BCA	UT26310	_____

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 years, 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. Also, the warranty obligations do not apply to conditions resulting from misuse, alteration or accident. 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.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. ALSO, 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 AND CANADA, 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.

Green Machine®

by John Deere

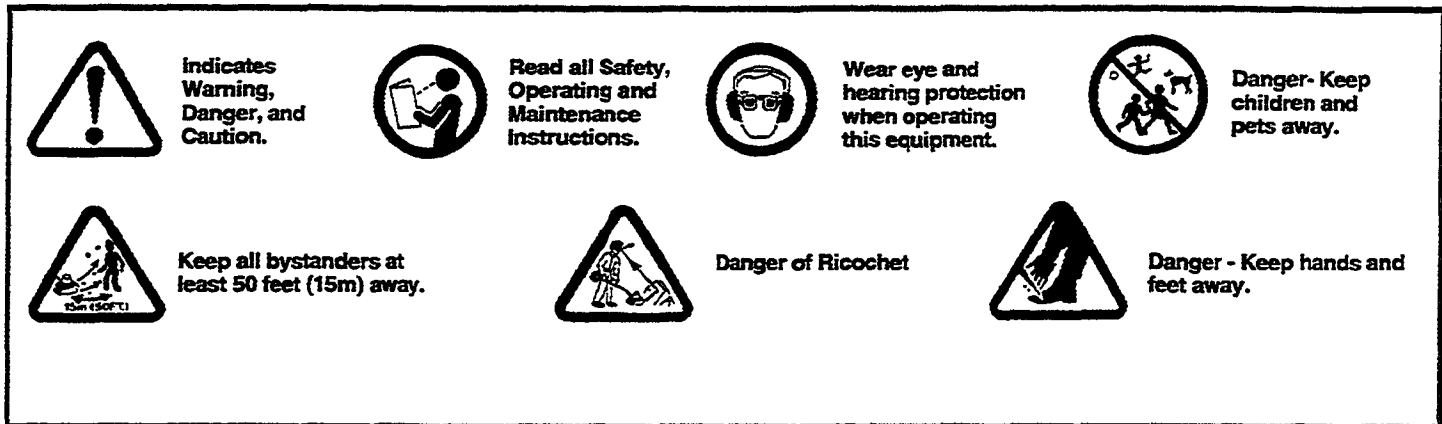
P.O. Box 7047
14401 Carowinds Blvd.
Charlotte, N.C. 28241

P/N 19651

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.



Warning: READ THE OWNER'S MANUAL BEFORE USING YOUR CHAIN SAW. FOLLOW ALL INSTRUCTIONS FOR SAFE OPERATION.

OPERATION

- Never start or run the engine inside a closed area, breathing exhaust fumes can kill.
- **CLEAR THE WORK AREA BEFORE EACH USE. REMOVE ALL OBJECTS SUCH AS ROCKS, BROKEN GLASS, NAILS, WIRE, OR STRING WHICH CAN BE THROWN OR BECOME ENTANGLED IN THE STRING HEAD OR BLADE.**
- Exposure to vibrations through prolonged use of gasoline powered hand tools could cause blood vessel or nerve damage in the fingers, hands, and wrists of people prone to circulation disorders, or abnormal swellings. Prolonged use in cold weather has been linked to blood vessel damage in otherwise healthy people. If symptoms occur such as numbness, pain, loss of strength, change in skin color or texture, or loss of feeling in the fingers, hands, or wrists, discontinue the use of this tool and seek medical attention.
- **FOLLOW THESE INSTRUCTIONS TO REDUCE THE RISK OF INJURY:**
 - **WEAR FULL EYE AND HEARING PROTECTION WHILE OPERATING THIS TRIMMER.**
 - Wear heavy long pants, shoes and gloves.
 - Keep all bystanders, children and pets at least 50 feet away.
 - Do not wear loose clothing or jewelry.
 - Secure long hair so it is above the shoulder.
 - Do not operate this product when you are tired, ill or under the influence of alcohol, drugs or medication.
 - Do not operate in poor lighting.
 - Keep firm footing and balance. Do not overreach.
 - Keep all parts of your body away from the string head and hot surfaces.
- **ALWAYS STOP ENGINE AND REMOVE SPARK PLUG WIRE BEFORE MAKING ANY ADJUSTMENTS OR REPAIRS EXCEPT CARBURETOR ADJUSTMENTS.**

MAINTENANCE

- Use only **GREEN MACHINE®** replacement parts. Failure to do so may cause poor performance and possible injury.
- Inspect unit before each use for loose fasteners, fuel leaks, etc. Replace damaged parts.
- Before storing, allow the engine to cool.
- Empty the fuel tank and restrain the unit from moving before transporting in a vehicle.

REFUELING (DO NOT SMOKE!)

- Refer to your product Owner's Manual for proper procedures.

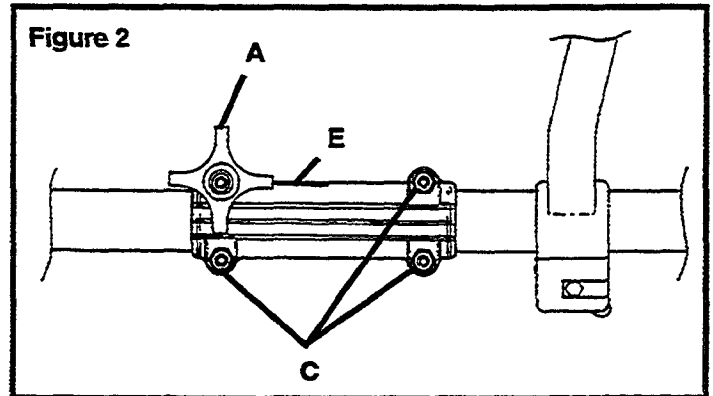
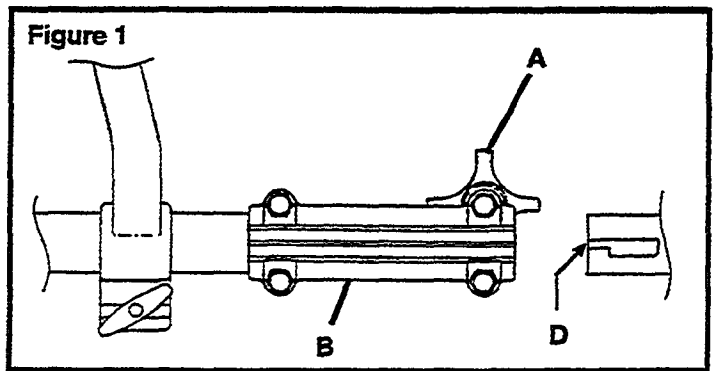
ATTACHING LOWER UNIT

The lower units connect to the power unit by means of the driveshaft coupler device attached to the power unit driveshaft tube.

1. First, loosen the knob (A) near the open end of the coupler (B). It is not necessary to loosen the other three (3) screws (C).
2. Position the slot (D) of the lower tubes as shown in Figure 1 and slide the lower unit into the coupler until the tubes of the power unit and lower unit solidly meet inside the coupler. Rotate lower tube to lock in place. By looking in the slot (E) (Figure 2) on the top, see that both tube ends are abutted together before re-tightening the knob. The inner driveshafts will align themselves.
3. For changing lower units or breaking down for storage, follow the sequence in reverse.

CAUTION:

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



3041 STRINGTRIMMER/BRUSHCUTTER

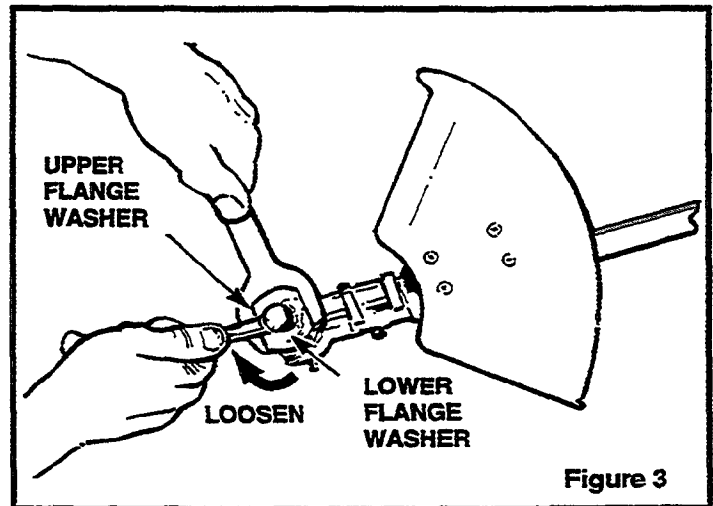
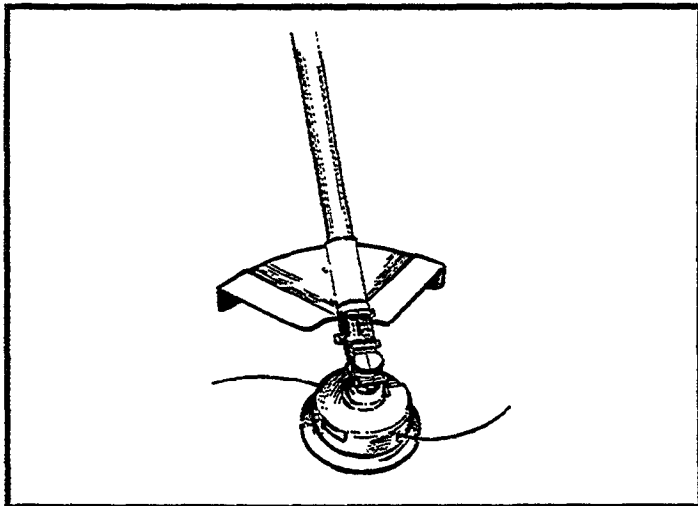


Figure 3

1. ASSEMBLY

- Connect the Stringtrimmer/Brushcutter lower unit to power unit as outlined under "Attaching Lower Unit" (Page 3).
- Using the tools shown in Figure 3, remove the bolt (left hand thread), star washer, and flat washer at the bottom of the gearcase.
Note: Save bolt washers as they are needed when using brush or saw blades.
- While holding the lower flange washer with the large spanner wrench, thread the rotary head onto gearcase as shown in Figure 4. Tighten the rotary head as tight as possible by hand.

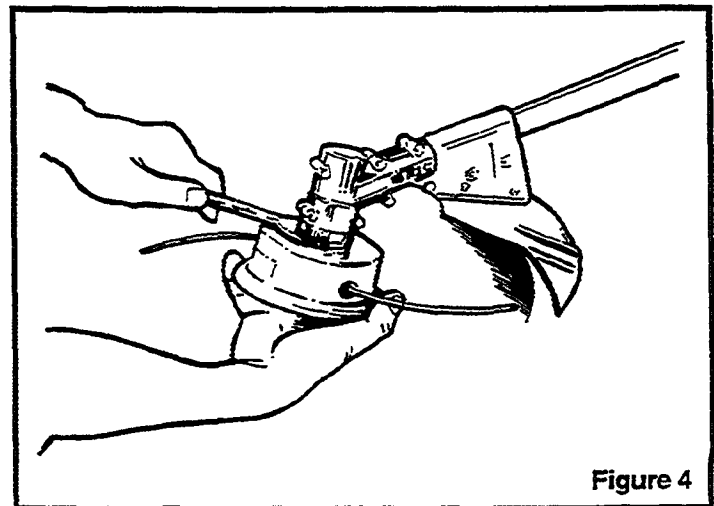
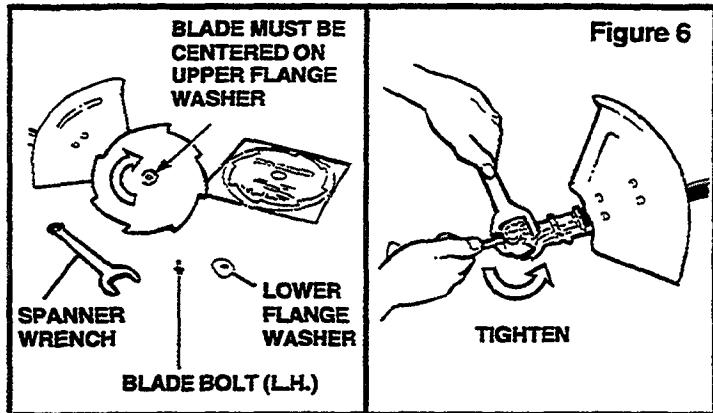
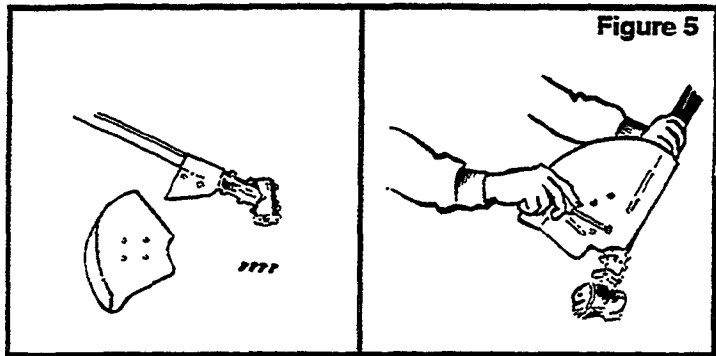


Figure 4

- Install the blade guard/head shield using the hardware supplied (Figure 5).
- To install brush or saw blades:
Remove bolt (LH), star washer and small flat washer at the bottom of the gear case (Figure 6).
- Remove lower flange washer and place blade on upper flange washer making sure that arbor hole in blade is centered on the arbor embossment on upper flange washer.
- Install lower flange washer making sure that the splines line up and flange washer 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 6).
- 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 flange washer, 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.



BLADE SAFETY

- Before each use, check to be sure that the blade is firmly attached. Be sure the throttle returns to the neutral position when released and that the blade does not rotate at idle.
- A coasting blade can injure while it continues to spin after the engine is stopped or the throttle trigger is released. Hold the coasting blade in heavy grass or brush until it stops.
- The front handle must be mounted properly. The front handle will assist in keeping the cutting attachment away from the operator.
- Exercise extreme caution when using the blade with this unit. **BLADE THRUST** is the reaction that may occur when the spinning blade contacts anything it cannot cut. This contact may cause the blade to stop for an instant, and suddenly “thrust” the unit away from the object that was hit. This reaction can be violent enough to cause the operator to 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.

In order to control the unit when Blade thrust occurs:

- Maintain a good comfortable stance and balanced position.
- Always hold the handles firmly with both hands.
- Approach material to be cut from left to right so that the unit will be pulled towards the cut instead of pushed toward the operator.
- Always cut at full throttle. The blade has maximum cutting power and is less likely to stall or bind.
- Keep hands, feet, and unit in proper position.
- Cut only material recommended. Avoid letting blade contact material it cannot cut, such as stumps, rocks, metal, etc.



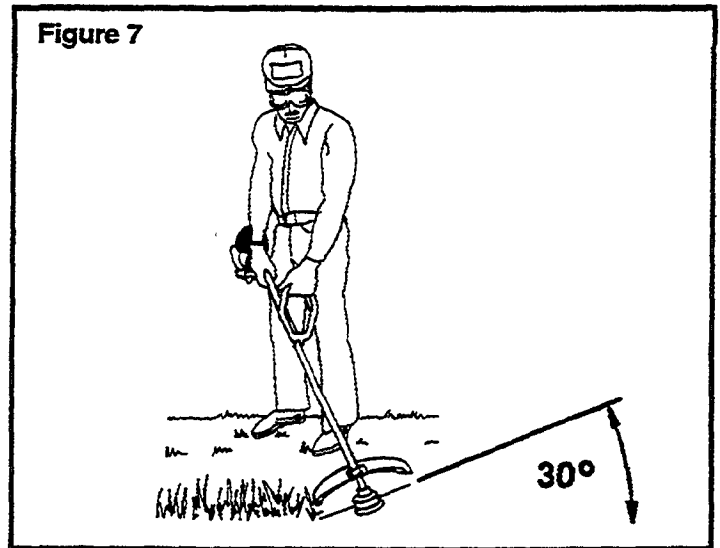
WARNING:

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 reaction could occur (See explanation of “BLADE THRUST” ON PAGE 4 under BLADE SAFETY).
- 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. The brush blade can cut brush up to 3/8" diameter. The saw blade can cut tree limbs up to 3" 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. 400175.
- Have a professional re-sharpen your blade or saw.

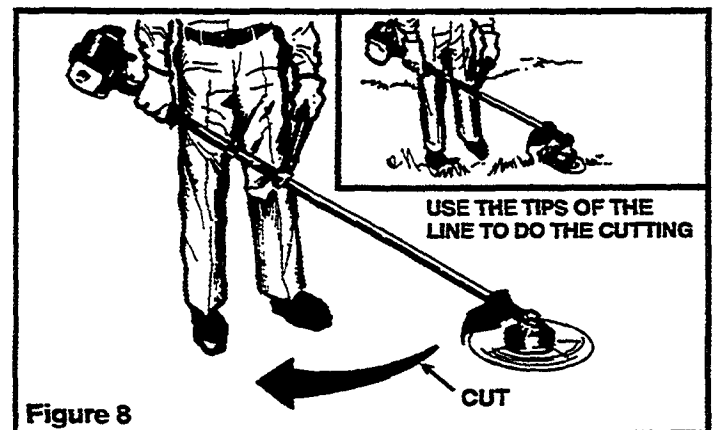
2. CUTTING TECHNIQUE:

- Hold the unit so that the rotary head is at an approximately 30° angle to the ground (Figure 7).
- Allow the very tip of the line to do the cutting.
- Always operate the unit with the correct line size (.080 dia.).
- Always use the correct line length (maximum 6.0, minimum 3.0 inches).
- **Note:** As the cutting line wears down, engine speed (RPM) will increase. Allowing the engine to run at high RPM (3 inch cutting 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 8).



3. EXTENDING LINE:

- As you perform your trimming tasks, the cutting line will wear shorter. It may be extended automatically with the engine running or manually, with the 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:** The line can be advanced manually by turning the unit over so that 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 the 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 the 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 9), 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 10).
- Hold spool as shown (Figure 10) 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.

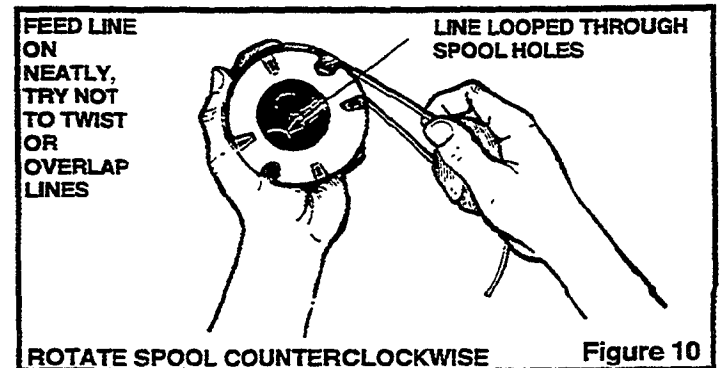
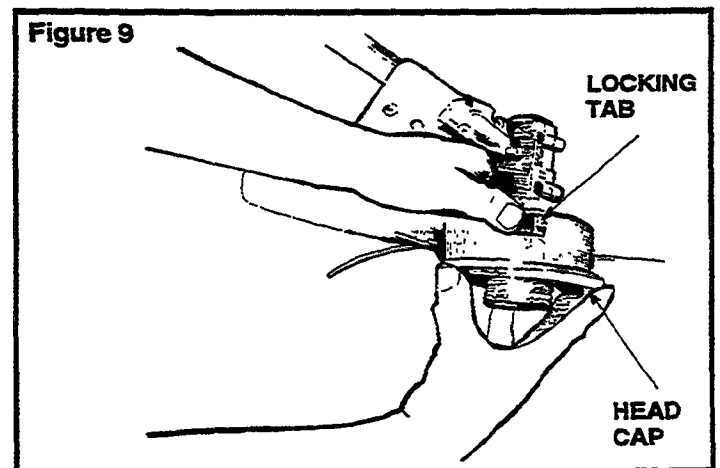
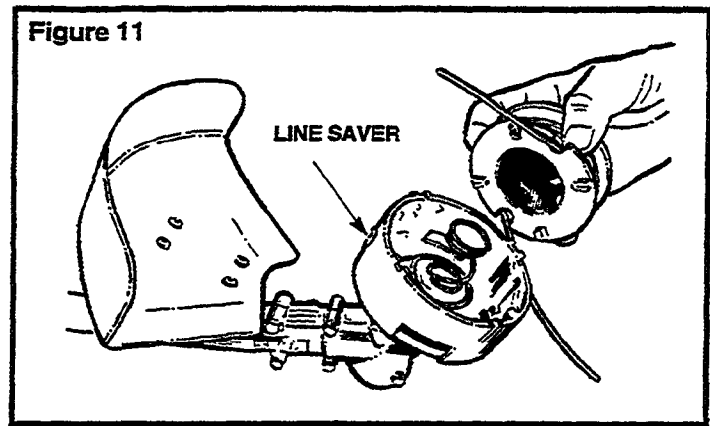


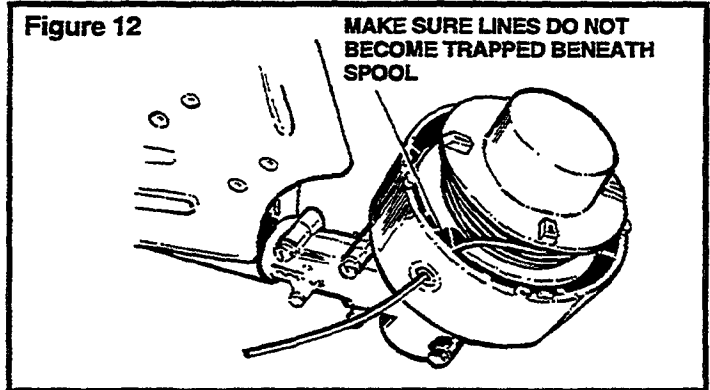
Figure 10

- Once the line is on the spool, hold spool as shown (Figure 11) and insert lines in their respective line-savers and place spool back into the rotary head.
- **Note:** Be certain that the lines do not become trapped under the spool (Figure 12).
- Re-install rotary head cap by aligning locking tabs with their notches and pushing cap down until both locking tabs are securely locked (Figure 13).
- Before operating the unit, check by advancing the line manually, making sure lines are not trapped, and rotary head is assembled correctly.



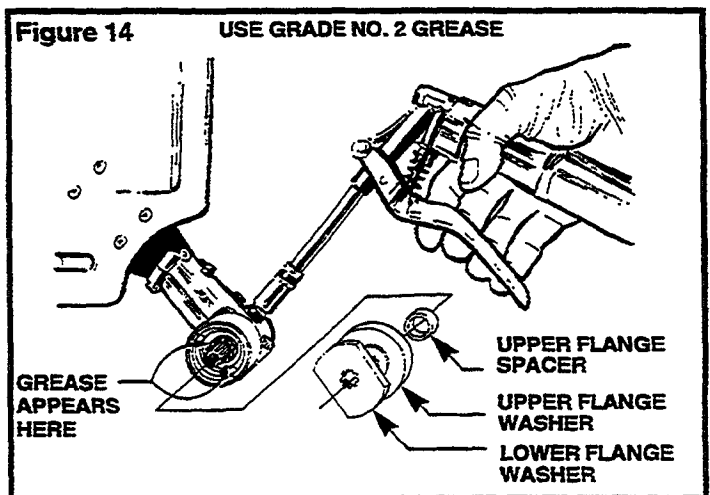
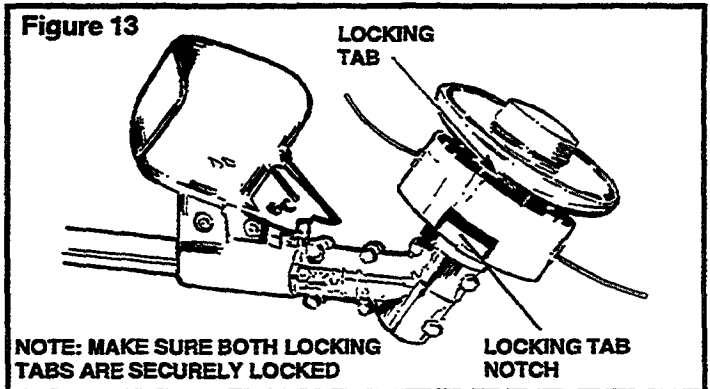
5. MAINTENANCE

- Each 10 hours of use, the gearcase should be re-greased by first removing the cutting head (or blade), flange washers and upper flange spacer (Figure 14).
- Add grease until it appears between spline and bearing.
- The flex cable is lubricated during assembly at the factory and needs no scheduled maintenance. However if it is removed, re-grease and install exactly as it was removed. **Do not reverse the flex cable. Use grade no. 2 grease.** (High-Low Temperature, Multi-Purpose - Part #18453).



SAFETY:

- Before each use, inspect your Green Machine® product for loose, damaged, broken or missing parts. Correct before use.
- Always wear approved eye protection (safety goggles) when operating unit.
- When operating the unit, do not wear loose fitting clothes. Always wear long pants.
- Never operate the unit in bare feet or while 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 (Fig 15)

1. ASSEMBLY

- This lower unit is fully assembled at the factory and requires no further assembly.
- Connect the Blower lower unit to the power unit as outlined under "Attaching Lower Unit" (Page 3).

2. OPERATION

- The correct handling of your Blower is shown in Figure 16.
- The ground level air blast is ideal for practically all sweeping jobs. The many uses for your Blower can be left to your own imagination.

Note: Carry it slightly above ground level. Do not drag or push it along on the ground as the housing will wear quickly.

- Your 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 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 throttle, you will find that the "air power" increases also. You have a fully variable and controlled blast of air at your disposal.
- In many situations it is not necessary to use all the full power of the Blower, in fact it is not advisable in some applications.
- When using the Blower in tight quarters such as corners of patios and garages, full power is not usually required. A somewhat slower speed will do the same job effectively without the turbulence created by full power operation. This turbulence only carries the blown material back into the corner and produces floating dust.
- You will find that it no longer is necessary to move objects to effectively clean around them. A simple blast from the Blower will move debris from those difficult to reach, and often impossible to clean, areas.
- The efficient use of the variable speed of your Blower will allow you to perform many sweeping tasks that were very difficult before, and time consuming by conventional brooms and sweeping devices.

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 before attempting to remove any lodged items in the blower.
- Note: Blower must be completely disassembled to install the flex cable.

Figure 15

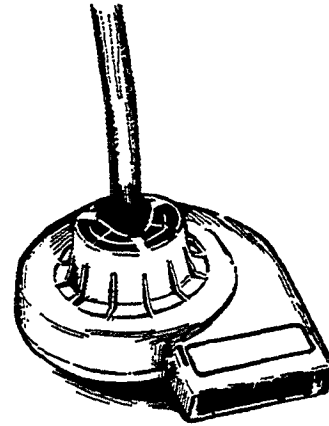
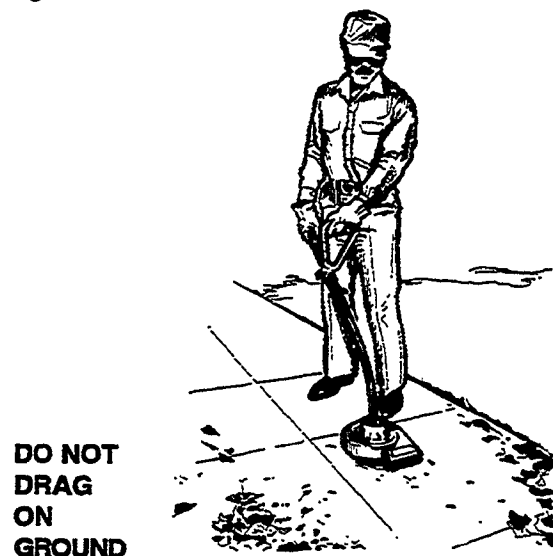


Figure 16



SAFETY:

- Before each use, inspect your Green Machine® product for loose, damaged or missing parts. Correct before use.
- Always wear approved eye protection (safety goggles) when operating unit.
- When operating the unit, do not wear loose fitting clothes. Always wear long pants.
- Never operate the unit in bare feet or while wearing open sandals.
- Keep bystanders at least 50 ft. away and never direct the air blast towards any persons, animals, or delicate objects.
- Keep air intake clear of debris.
- Always stay clear of air intake while the Blower is running.

2871 WEEDER CULTIVATOR

1. ASSEMBLY

- **Note:** The blade plates (A) must be assembled with the rounded edges facing into the blade and the work "out" facing away from the blade (Figure 18).
- Install the blades exactly as shown in Figures 18-20. Incorrect assembly will cause the blades to loosen during use.
- Tighten the blade bolts (B) as tight as possible with allen wrench (C) turning clockwise as shown in Figure 21.
- Connect the Cultivator lower unit to power unit as outlined under "Attaching Lower Unit" (Page 3).

CAUTION

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

2. OPERATION

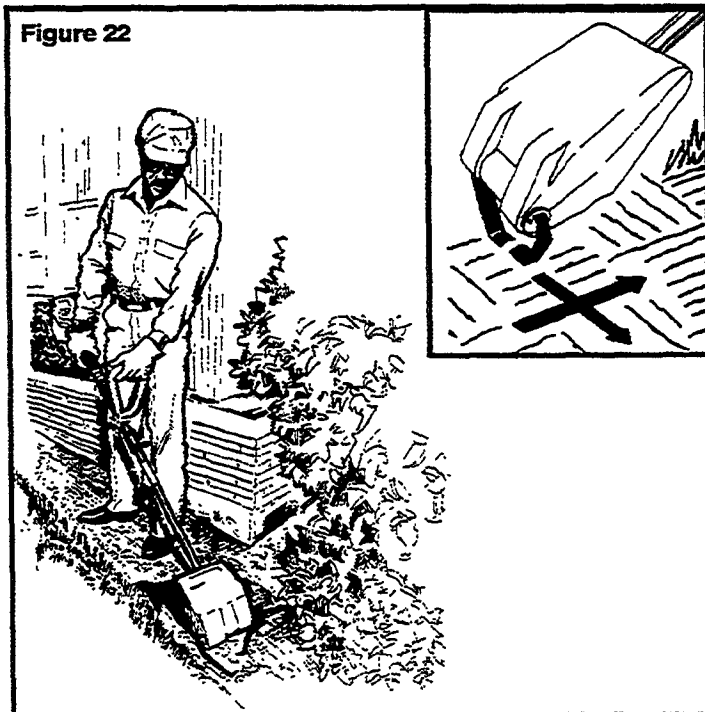
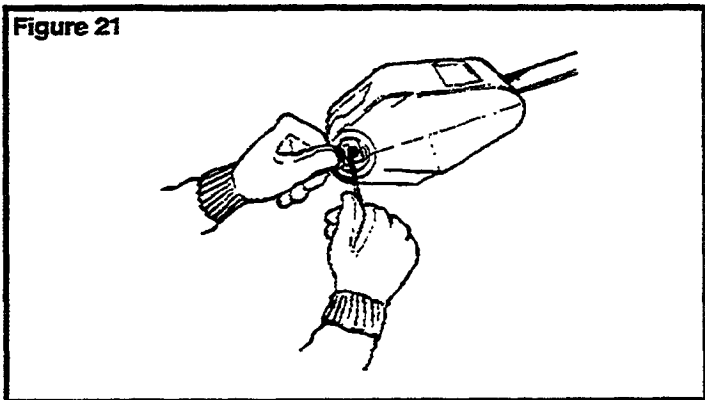
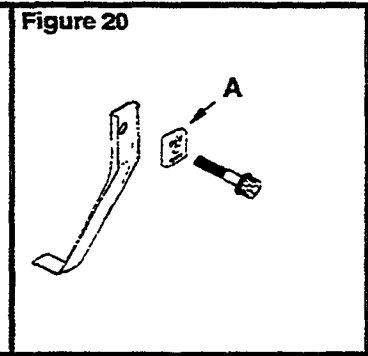
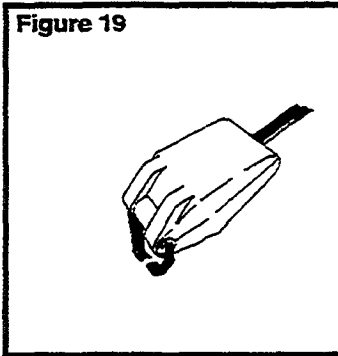
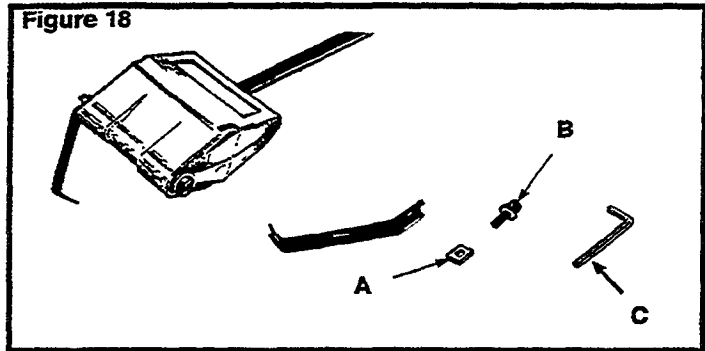
In nearly all types of soil, it is not necessary to use full engine throttle since the cutting action is so efficient. It is **not recommended to operate full throttle as engine and drivetrain life will be shortened. Partial throttle will usually be sufficient.**

Follow maintenance instructions provided in this manual.

Remember this tool is not a tiller for rock hard soil, but a cultivator intended for soil maintenance use.

The Cultivator will weed, cultivate and mix soil in difficult and hard-to-reach places with surprising control. This tool enables you to work closely under and around trees, shrubs, flower beds, sidewalks, and garden plants that once required the most careful manual work. As you learn the techniques of this Cultivator attachment, more uses will become apparent.

- Always wet the soil (preferably the night before), when using your Cultivator, as this will loosen the soil and make the job easier.
- The blades of your Cultivator will not become immobile, even in the wettest soil conditions.
- Your Cultivator should be used much like you would use a gardening hoe, except that this tool does the work for you. With slight pressure on the assist handle on the power end, the blades will dig themselves into the soil.
- Pull the unit **toward** you while it is digging beneath the soil's surface. (See Figure 22)



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

- At the end of a pulling stroke, lift the cultivator out of the soil and reach forward to begin another stroke. 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 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 22), you have effectively mixed every inch of soil, and removed all the weeds at the same time.

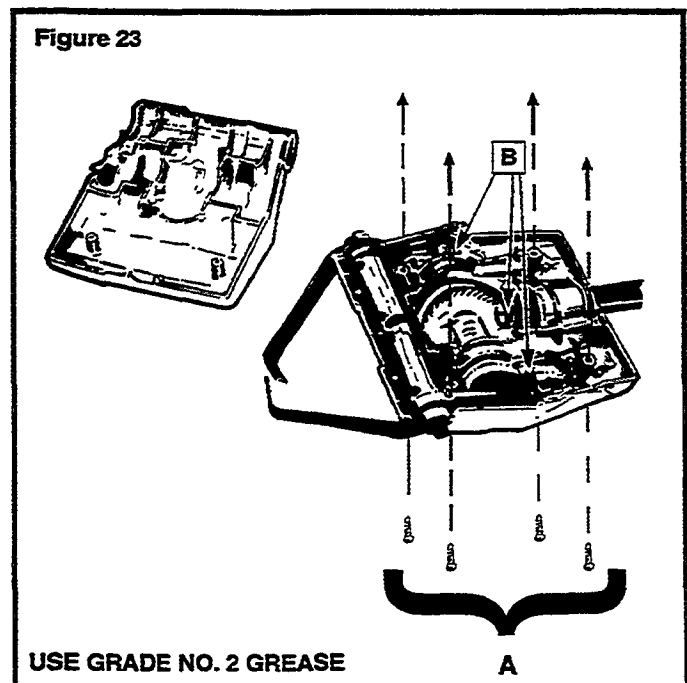
- Allow your Cultivator to do the work for you. Forcing it will only wear out the operator and shorten the Cultivator's life expectancy.

NOTES:

- Your Cultivator will effectively cultivate to a depth of 4 3/4" (12 cm). 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.
- Your 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 times act as a mini post hole digger.
- Another use for your Cultivator is as a mini sod remover, when making or enlarging flower beds in garden area. 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 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

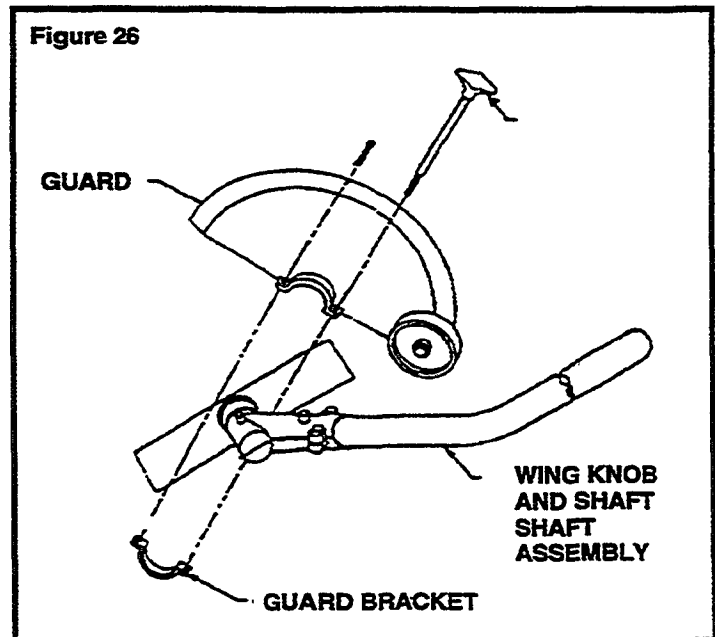
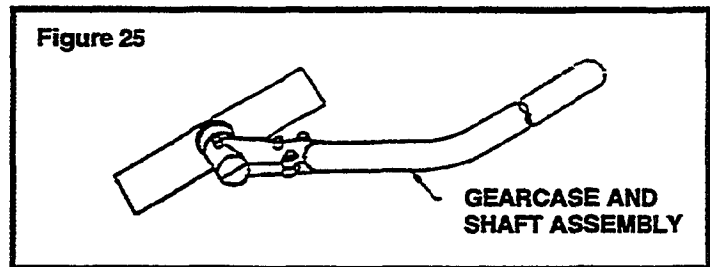
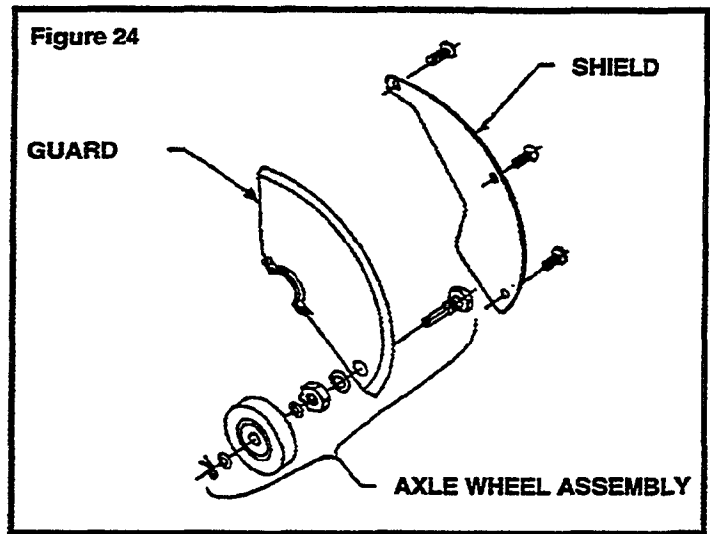
- **Before and during each use, the blades should be checked for tightness. Loose blades will result in damage to internal parts. Check all fasteners.**
- The Cultivator is internally lubricated at the factory and should not need service. However, if it is used daily or in extremely hard or dusty soil, it is recommended that new grease be supplied by first removing the four (4) upper coverscrews (A), removing the cover and applying grease to the gears and other moving parts (B) (See Figure 23). **USE ONLY GRADE NO. 2 GREASE.** Use grade no. 2 grease. (High-Low Temperature, Multi-Purpose - Part #18453).



2851 EDGER

1. ASSEMBLY

- The Axle Wheel Assembly (Figure 24) has been completed at the factory and is shown for reference only.
- Position the gearcase and shaft assembly as shown in Figure 25. Assemble the axle wheel assembly and guard bracket, using the supplied hex screw, wing knob and shaft, as shown in Figure 26 (Hex wrench supplied).
- Connect the Edger lower unit to the power unit as outlined under "Attaching Lower Unit" (Page 3). Position the guard by rotating it in either direction to obtain the correct cutting depth. Tighten Wing Knob securely before operation.



2. OPERATION

- Before using your Edger you should adjust the depth of cut by rotating the blade shield, which is attached to the guide/depth wheel (Figure 27).



SAFETY: Never adjust blade height with engine running.

- To adjust the blade's depth of cut, first loosen the wing knob as shown (Figure 27).
- Rotating blade shield back (toward the operator) will reduce the cutting depth.
- Rotating forward, will increase the blade's depth of cut (Figure 28).
- 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 of 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 29).



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

Figure 27

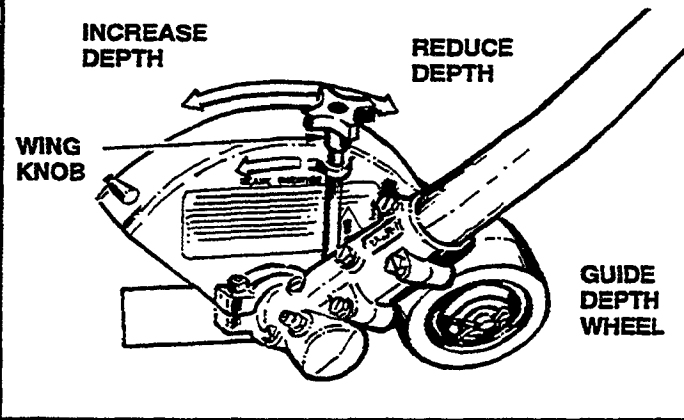


Figure 28

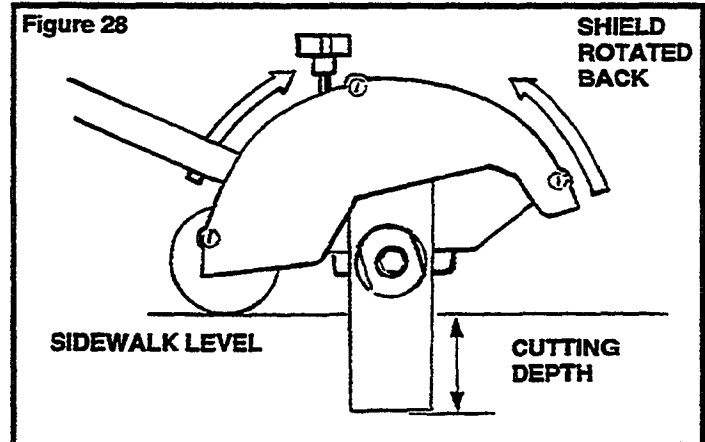
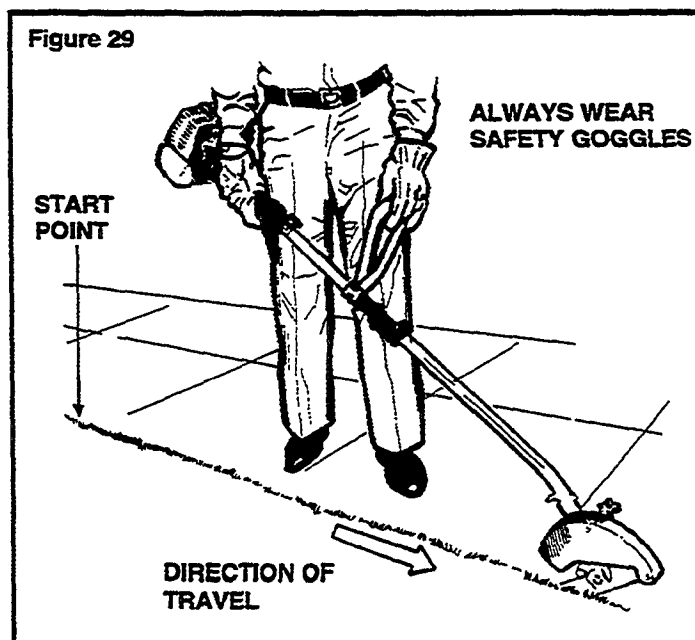


Figure 29



- Move forward as quickly as the blade and its cutting will allow. Do not force it, let the blade do the work.
- Use only as much engine speed as is needed to do the job. Overspeeding will shorten blade life.
- While edging, try not to allow the blade to touch the concrete.
- The correct handling of your edger is shown in **Figure 29**.
- 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

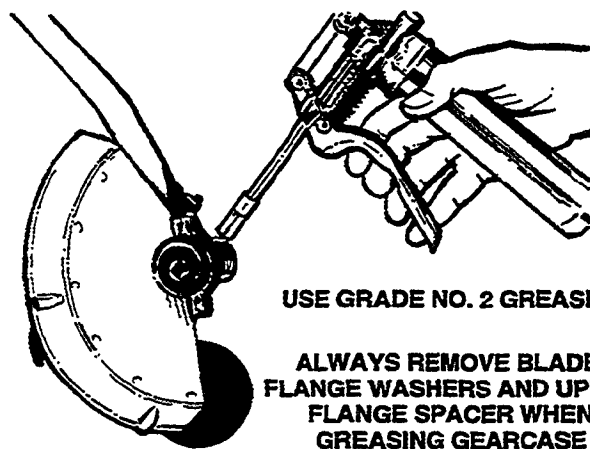
- Before each use, inspect the complete unit for loose or missing fasteners or parts. If found, correct before using.
- * Replace blades as needed. Never wear the blade shorter than 3 inches.
- Each 10 hours of use, the gearcase should be re-greased by first removing the blade, flange washers and upper flange spacer (**Figure 30**).



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

- To replace the blade or to grease the gearbox, first make certain the engine is stopped. Fit spanner wrench, supplied, onto flats of lower flange washer (**Figure 31**).
- Using suitable wrench, loosen blade bolt by turning clockwise. **NOTE:** Left hand thread.
- Remove blade and flange washers for re-greasing.
- Remove only lower flange washer and the old blade, if the blade only is being replaced.
- Install the new blade onto upper flange washer. Install lower flange washer and bolt.
- Make certain the blade is properly centered before tightening the blade bolt.
- Turn counterclockwise to tighten the blade bolt.
- Tighten Securely.
- Rotate the blade to see that the blade tips do not touch the blade shield at any point.

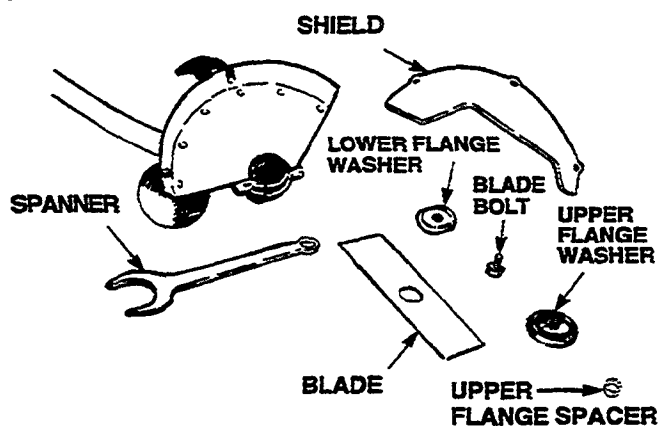
Figure 30



USE GRADE NO. 2 GREASE

ALWAYS REMOVE BLADE, FLANGE WASHERS AND UPPER FLANGE SPACER WHEN GREASING GEARCASE

Figure 31



SAFETY

- Never allow children to operate the edger. It is not a toy.
- Always read and understand the owner's manual before operation.
- Keep the area of operation clear of all persons; inspect the area for obstacles and objects which could be thrown.
- Dress properly - Do not wear loose clothes or jewelry. They can be caught in moving parts.
- When operating the unit, do not wear loose fitting clothes. Always wear long pants.
- Never operate the unit in bare feet or while wearing sandals.
- Always wear approved eye protection (safety goggles) when operating unit.
- Make certain engine is stopped whenever adjusting blade height or making repairs.
- Keep all fasteners tight to insure that the edger is in safe working condition.
- Never operate without the 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.

2851 SNOW THROWER

1. ASSEMBLY

- Using a Phillips screwdriver, remove the two (2) screws holding the top cover (Figure 32). 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 32).
- Loosen the driveshaft clamp screw and remove the locking screw (Figure 33).
- 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.

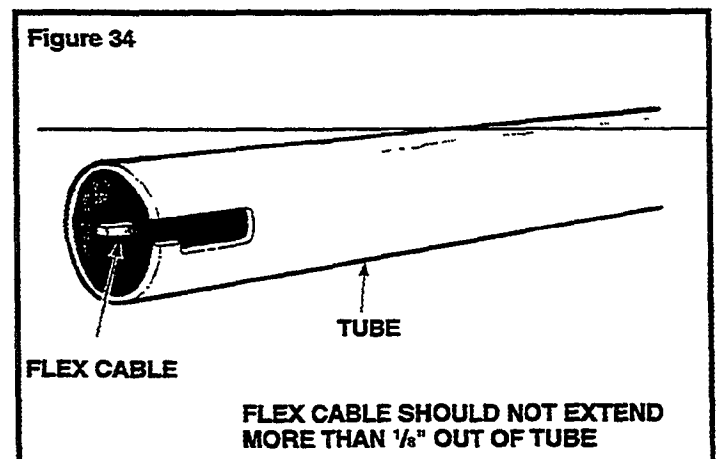
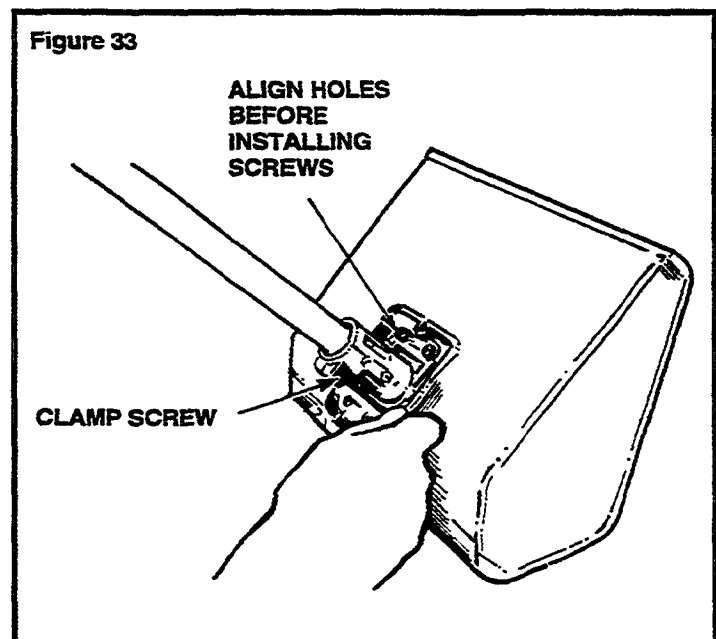
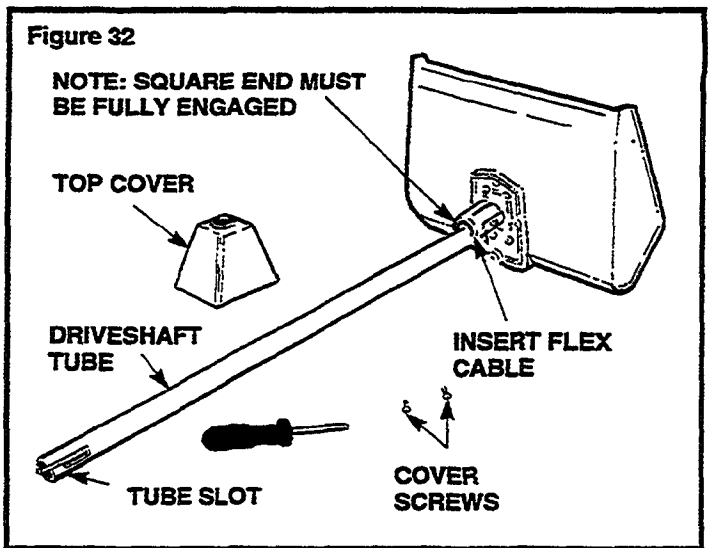


CAUTION: The lock screw holes must be aligned to prevent damage to the tube and to insure correct alignment of the snow thrower to the engine.

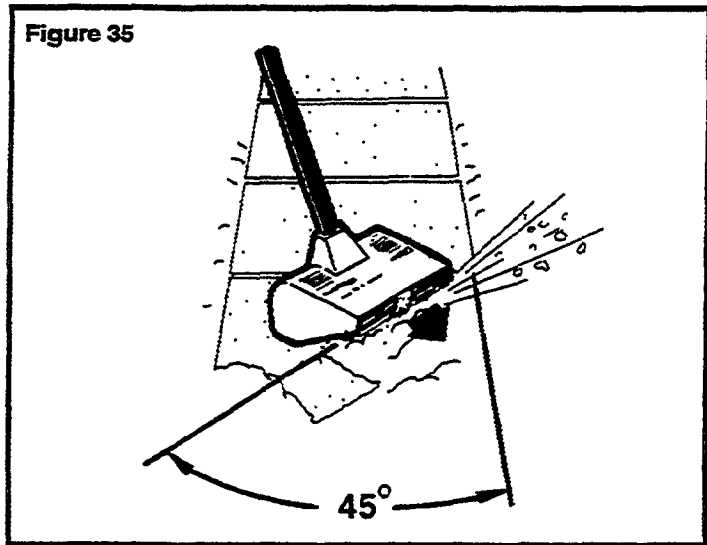
- Re-install the locking screw and tighten.
- Tighten the clamp screw securely, with the Allen wrench supplied (Figure 33).
- Note: After assembly, the flex cable should not stick out beyond the slotted tube end. If it does, push the cable in as far as it will go (Figure 34).
- Slide the top cover over the tube and into position by aligning the screw holes.
- Re-install and tighten the cover screws.
- Connect the Snow Thrower lower unit to the power unit as outlined under "Attaching Lower Unit" (Page 3).

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 the 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 35).
- 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 a large area 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.
- Do not 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 more.
- 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

- 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 objects which could be thrown, such as toys, sticks, wire, etc.
- Keep bystanders at least 50 ft. away at all times.
- Never throw snow toward any 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 the 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.

NOTES

Lined area for notes, consisting of a header box and 25 horizontal lines.

Green Machine®



Green Machine®
by **John Deere**

PRODUCT REGISTRATION CARD

Mr. Mrs. Ms. Miss.

First Name _____ Initial _____ Last Name _____

Job Title _____ Company Name _____

Address _____

City _____ State _____ Zip Code _____ Telephone Number _____

UT Number _____ Serial Number _____ Date of Purchase _____ Price Paid \$ _____

Store Name _____ Customer Number _____

Do you plan to purchase any of the following products in the next 1-12 months? (Check all that apply)

	1-6 Months	7-12 Months		1-6 Months	7-12 Months
Backpack Blowers	<input type="checkbox"/>	<input type="checkbox"/>	String Trimmers	<input type="checkbox"/>	<input type="checkbox"/>
Chain Saws	<input type="checkbox"/>	<input type="checkbox"/>	Brushcutters	<input type="checkbox"/>	<input type="checkbox"/>
Handheld Blowers	<input type="checkbox"/>	<input type="checkbox"/>	Edgers	<input type="checkbox"/>	<input type="checkbox"/>
Hedge Trimmers	<input type="checkbox"/>	<input type="checkbox"/>	Walk-Behind Lawn Mowers	<input type="checkbox"/>	<input type="checkbox"/>

How do you classify your company? (Check all that apply)

Lawn Care Company Golf Course

Landscape Contractor Institutional Grounds Care (parks, government, schools, etc.)

Chemical Application Other

What other equipment do you use regularly in your business? (Check all that apply)

Backpack Blowers Hedge Trimmers Tillers

Brushcutters Sprayers (Portable) Vacuums

Chain Saws Spreaders Walk-Behind Edgers

Chipper/Shredders Stick Edgers Other

Hand Held Blowers String Trimmers

Number of people employed by your company:

1 - 14 45 - 59

15 - 29 60 - 74

30 - 44 75 +

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Department GM
P.O. Box 7047
Charlotte, NC 28241

Green Machine®