

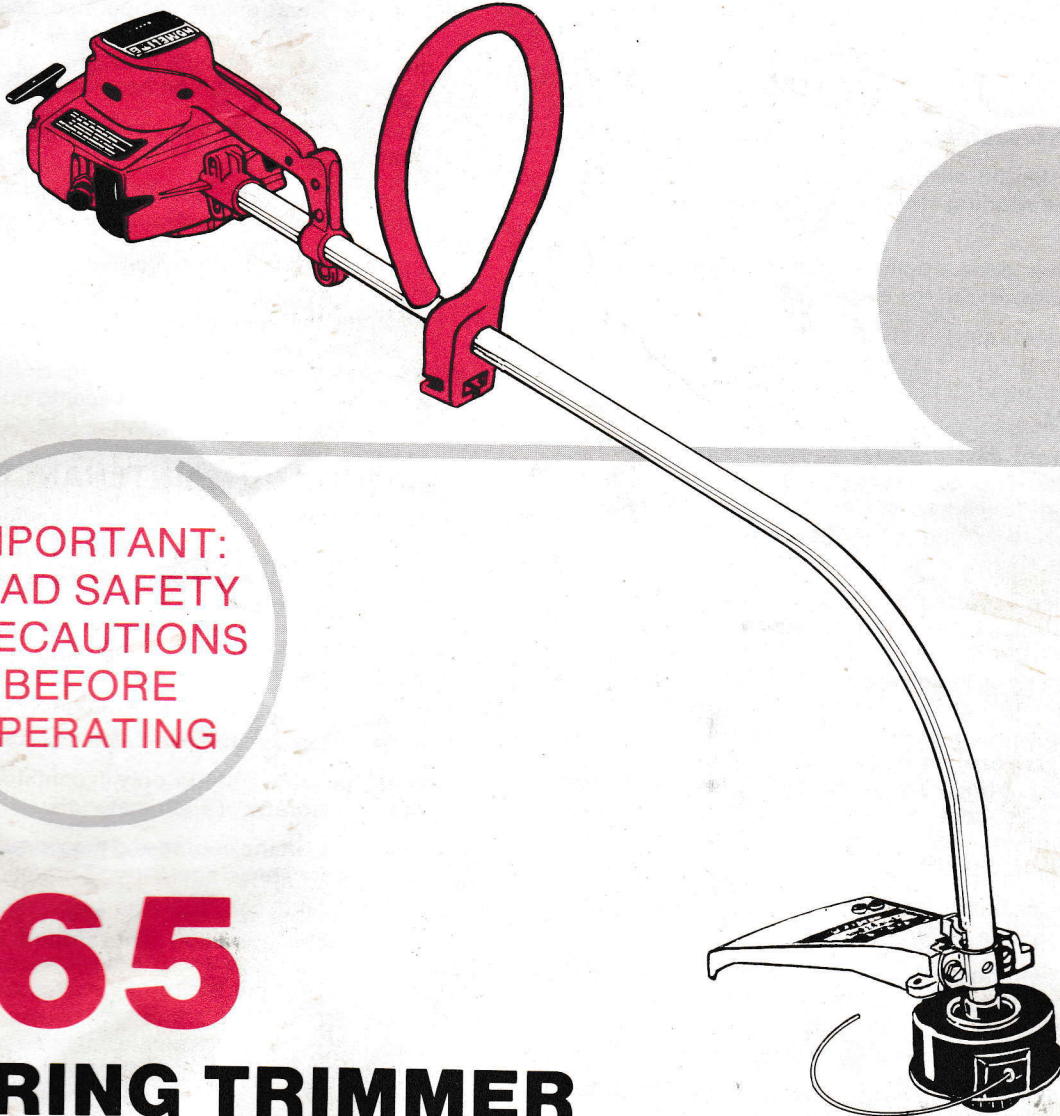
HOMELITE[®]
JACOBSEN

FIRST EDITION
PART NO. 17861
Printed in U.S.A.
Extra Copies \$1.00

OWNER'S

OPERATION AND MAINTENANCE

MANUAL



**IMPORTANT:
READ SAFETY
PRECAUTIONS
BEFORE
OPERATING**

165

STRING TRIMMER

NOTICE: For Servicing Dealer Information see back page.

SAFETY PRECAUTIONS

PERSONAL SAFETY PRECAUTIONS

- The whirling string could cause debris, stones or other loose items to become flying projectiles which could cause serious or permanent injury. Therefore do the following to reduce the risk of injury:
 - (1) Wear goggles and full eye protection while you operate this unit at all times.
 - (2) Keep all bystanders, children and pets away from the cutting area.
- Always hold the String Trimmer with both hands when operating. Use a firm grip on the front and rear handles.
- Use only Homelite® monofilament string designed for your String Trimmer. Under no circumstances should metal wire or metal-reinforced string be used, because pieces can break off and become dangerous projectiles.
- Wear full length slacks and sturdy shoes to protect against the whirling string and small objects thrown by it.
- Do not wear loose articles such as scarfs or ties which could be drawn into the engine air intake.
- Long or continuous exposure to the noise level produced by a String Trimmer may cause hearing impairment. Hearing protection devices are available through your dealer.
- Do not let any part of your body contact the hot muffler or cylinder. The muffler is the black box next to the spark plug. It will become hot while the unit is being operated and will remain hot for a short period after shutdown.
- It has been reported that vibrations from hand-held tools (chain saws, pneumatic hammers, grinders, sledge hammers, etc.) may contribute to a condition called Raynaud's Syndrome in certain individuals. Symptoms may include tingling, numbness and blanching of the fingers, usually apparent upon exposure to cold. Hereditary factors, exposure to cold and dampness, diet, smoking and work practices are all thought to contribute to the development of these symptoms. It is presently unknown what, if any, vibrations or extent of exposure may contribute to the condition.

There are measures that can be taken by the operator to possibly reduce the effects of vibration:

- a) Keep your body warm in cold weather. When operating the unit, wear gloves to keep the hands and wrists warm. It is reported that cold weather is a major factor contributing to Raynaud's Syndrome.
- b) Refrain from smoking (another suspected contributing factor).
- c) After each period of operation, exercise to increase blood circulation.

- d) Take frequent work breaks. Limit the amount of exposure per day.
- e) Keep the tool well maintained, fasteners tightened and worn parts replaced.

If you experience any of the symptoms of this condition, immediately discontinue use and see your physician about these symptoms.

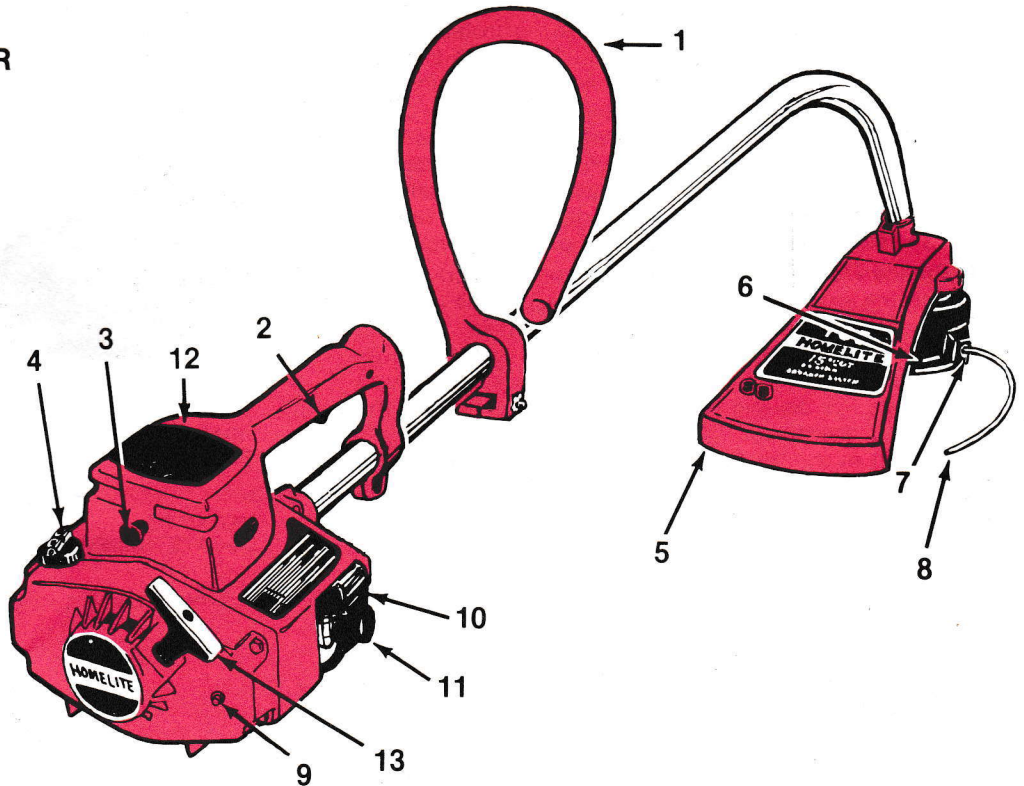
OPERATING AND STRING HAZARDS

- The string head assembly operated close to the ground and slightly tilted, will cause grass trimmings, stones and other loose objects to be thrown away from you. Flying projectiles can be hazardous.
- Do not attempt to touch or stop the string when it is rotating.
- Do not leave the String Trimmer unattended where it could be started by untrained persons or minors.
- All String Trimmer service, other than items in the Owner's Manual maintenance instructions, should be performed by competent service personnel. (If improper tools are used to remove the flywheel, structural damage to the flywheel could occur which could subsequently cause the flywheel to burst.)

FUELING AND MAINTENANCE HAZARDS

- Always shut-off the engine before fueling.
- Always use caution when handling fuel. Move the String Trimmer at least 10 feet (3 m) from the fueling point before starting the engine.
- Do not operate if there is a fuel leak. A fuel leak can cause a fire.
- Run this unit only out of doors. Carbon monoxide exhaust fumes can be lethal in a confined area.
- Store gasoline and fuel only in containers designed for the safe storage of such materials.
- Also shut-off the engine and disconnect the spark plug wire before servicing a String Trimmer.
- If the muffler is worn, replace it. Excessive engine speed in this condition is hazardous.

- 1 DE-VIBE HANDLE
- 2 THROTTLE TRIGGER
- 3 CHOKE
- 4 FUEL CAP
- 5 GRASS DEFLECTOR
- 6 STRING HEAD
- 7 STRING EYELET
- 8 STRING
- 9 "STOP" BUTTON
- 10 MUFFLER
- 11 SPARK PLUG BOOT
- 12 AIR FILTER COVER
- 13 STARTER GRIP



THE FACTS OF STRING TRIMMER OPERATION

The E-Z-LINE™ String Advance System is as simple as 1-2-3- to operate:

1. Run the engine at full throttle.
2. Tap string head on ground to advance string.
3. Resume trimming. For further details of string advance operation, refer to page 5 of this manual.

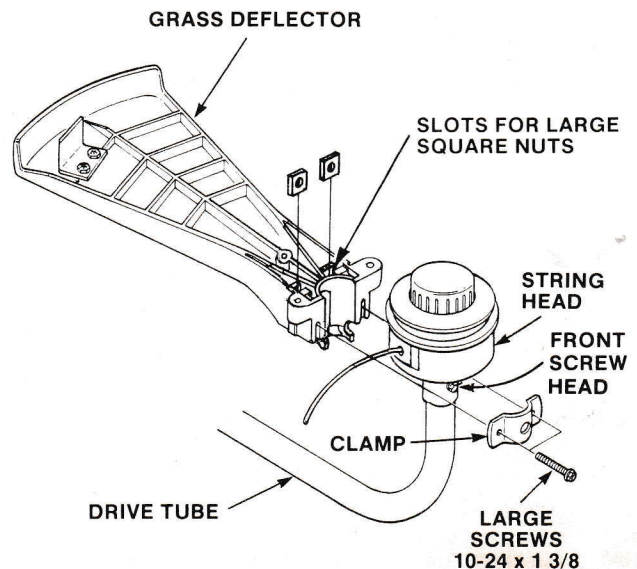
Your String Trimmer was factory-tested. Be sure that you

receive a String Trimmer Limited Warranty with your String Trimmer. Check the unit for any damage which might have occurred during either transportation or storage. If you discover damage to the String Trimmer, notify your dealer or shipper immediately.

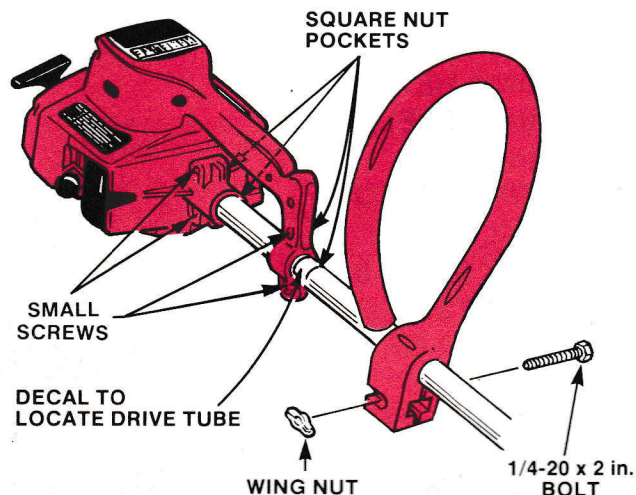
Please read this Owner's Manual carefully and make sure that you understand how to operate the unit properly and safely.

165 ASSEMBLY INSTRUCTIONS

1. **Grass Deflector to Drive Tube:** Hold the grass deflector upside down and insert the two large (10-24) square nuts into the slots provided (see illustration).
2. Hold the drive tube so that the string head is upside down. Assemble the grass deflector to the tube as illustrated, making sure that the two screw heads on the tube are located in the slot in the grass deflector and the hole in the clamp. Install the two 10-24 x 1 3/8 inch screws through the clamp and into the square nuts. Tighten securely.



3. **Front Handle to Drive Tube:** Remove the protective cap from the end of the drive tube. Place the De-vibe handle on the tube with the open end of the handle to the right side of the trimmer. Spread the clamps of the handle so that it will slide down the tube without disturbing the decal on the tube. The handle can be adjusted to a comfortable position after assembly is complete. Install the 1/4-20 x 2 inch bolt from the left hand side. Use the wing nut and tighten securely.
4. **Engine Housing to Drive Tube:** Insert the drive tube into the engine housing until the decal is as close as possible. There should be no more than 1/8 inch between the engine housing and the decal (see illustration). Rotate the string head back and forth to engage the flexible shaft. Align the tube so that the bend is downward. Place the four small square nuts (10-32) in the pockets on the left side of the engine housing. Install the four small screws (10-32 x 3/4) and tighten securely.



PREPARING FOR USE

FUELING

WARNING

The fuel tank may be under pressure. Remove the cap slowly to avoid spurting of fuel.

CAUTION

Select bare ground for fueling. DO NOT SMOKE or bring any flame or sparks near fuel. Move at least 10 feet (3m) from the fueling spot before cranking the engine.

1. Recommended Fuel Ingredients:

- a) Unleaded gasoline is preferable as leaded gasoline will result in spark plug fouling at a faster rate.
- b) Your 2-cycle engine is lubricated by oil mixed with gasoline. We recommend the exclusive use of a Homelite® high quality 2-cycle engine oil. Any Homelite 2-cycle engine oil, when mixed with gasoline according to the instructions on the oil package, will provide complete lubrication protection.
- c) All Homelite 2-cycle engine oils contain an anti-oxidant fuel stabilizer. Under average conditions, fuel mixed with Homelite oils will stay fresh up to 12 months.
- d) If Homelite oils are not used, we recommend stabilization of fuel with an anti-oxidant fuel stabilizer, such as Sta-bil, a product of Knox Laboratories, Chicago, IL 60616. Unstabilized fuel will stay fresh for only up to three months and should not be used after that time.
- e) If other than Homelite oils are used, mix in the ratio of 16 parts gasoline to 1 part 2-cycle oil (1 gallon: 8 oz.) regardless of the ratio given by the manufacturer of the oil.

WARNING

Always use clean fuel cans for both mixing and storage of fuel. Do not use glass bottles (which can shatter or explode) or plastic jugs not intended for gasoline storage.

2. How to Mix Fuel Thoroughly:

- a) Measure out the quantities of gasoline and oil to be mixed.
- b) Put some of the gasoline into the mixing can.
- c) Pour in all of the oil and agitate contents by stirring or by shaking the can.
- d) Pour in all of the gasoline. Again stir or agitate—this time for at least one minute.

3. Do Not Use:

- a) GASOHOL. Alcohol draws moisture causing “peroxides” and acids to form in the fuel. These substances may damage the engine.
- b) MULTI-GRADE OILS or any other oils not expressly labelled for 2-cycle engine use. Products formulated for 4-cycle engines usually contain additives which are either harmful or of no value in 2-cycle engine service.

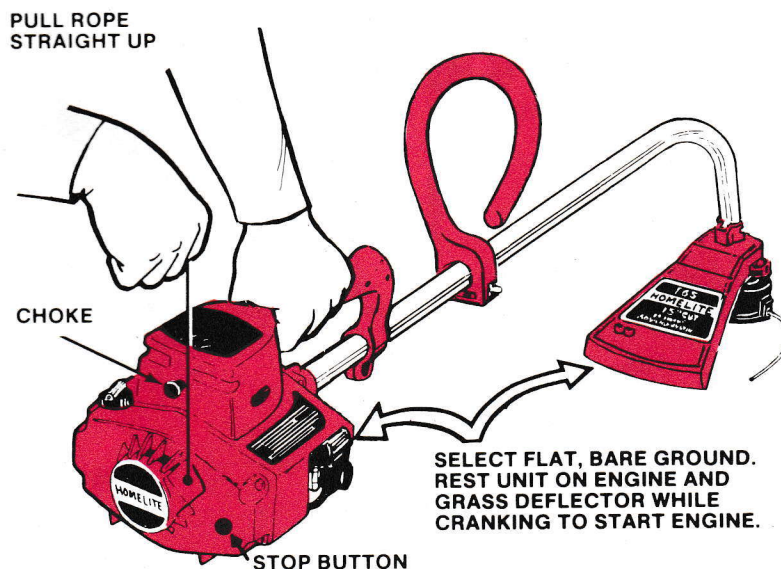
HOW TO FUEL

WARNING

Loosen fuel cap slowly to allow safe release of pressure from fuel tank.

1. Untwist and remove the fuel cap. Rest the cap on a clean surface so that it will not be a source of fuel contamination.
2. Pour in fuel carefully to the top. Avoid spillage by not overfilling.
3. Screw the fuel cap on tightly. Wipe up any fuel spillage immediately.

STARTING AND STOPPING



HOLDING DURING CRANKING

On a flat bare surface rest the unit on its grass deflector and engine housing. Hold the unit down with your left hand and pull the starter with your right hand.

STARTING AND STOPPING ENGINE

1. Position String Trimmer for cranking. (See illustration.)
2. Pull out CHOKE to start a cold engine. (Full-choke position.)
3. Pull starter ROPE until engine tries to run.
4. Push in CHOKE halfway. (Half-choke position.)
5. Again pull starter ROPE until the engine starts. If the engine does not keep running, it may be necessary to repeat Steps 2, 3 and 4.
6. After warm-up: (Up to three minutes warm-up may be required, depending on outside temperature.) Depress the TRIGGER and push in the CHOKE. The trimmer may be used in half-choke position for faster warm-up.
7. To stop, push and hold the "STOP" button until the unit stops.
8. When restarting a warm engine, pull out CHOKE only halfway.

OPERATING CONTROLS

STOP BUTTON-This engine incorporates a spring loaded stop button located in the starter housing. The engine is ready to start at all times. Push and hold the stop button in to stop the engine.

STRING ADVANCE

The user controls advancement of string by tapping string head on ground:

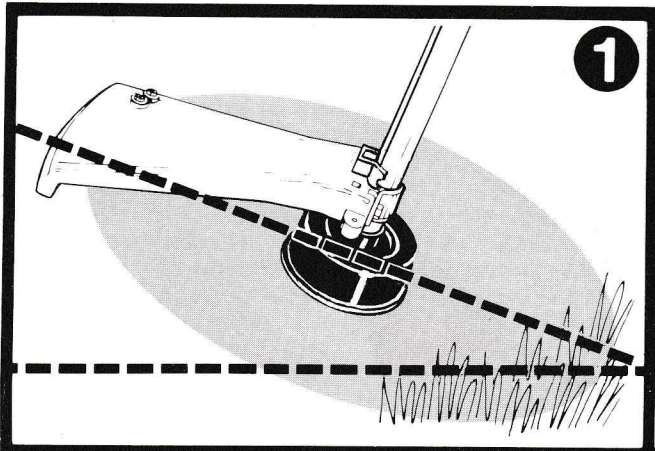
1. Run engine at full throttle.
2. Tap string head on ground to advance string. String advances each time head is tapped.
3. Several taps may be required until string strikes the cut off blade.
4. Resume trimming.

NOTE

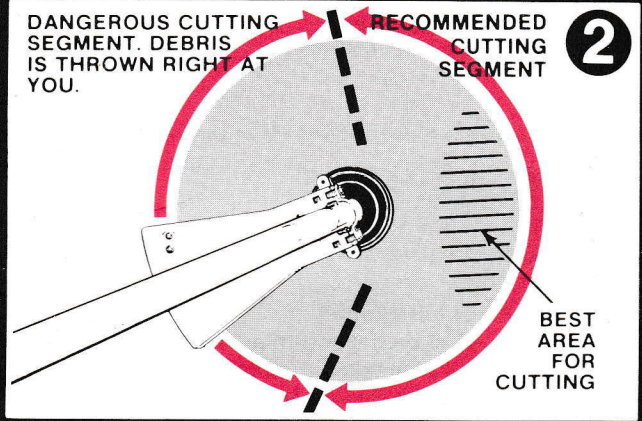
This unit is equipped with a line limiting cut-off blade on the grass deflector. Overadvancing string will only result in wasted string. Advance string just enough to reach the maximum 15" cutting swath. Advance string whenever you hear engine running faster than the normal "full string" speed. This will prevent wearing string too short to advance properly. If string has been worn very short, or the spool is nearly empty, several taps on ground may be required to reestablish full cutting swath.

The advance system may not operate properly if length of string outside string head is reduced to less than 1 1/2 inches. If this should occur and string will not advance when the string head is tapped on ground, STOP THE ENGINE, remove string spool and advance five inches of string manually per instructions and illustrations on page 8.

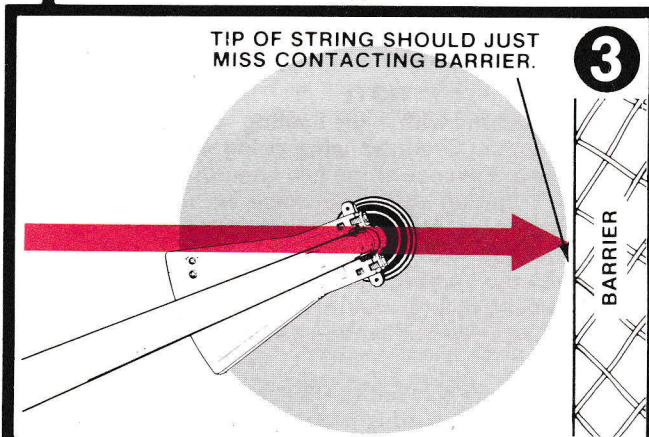
OPERATING DO'S AND DONT'S



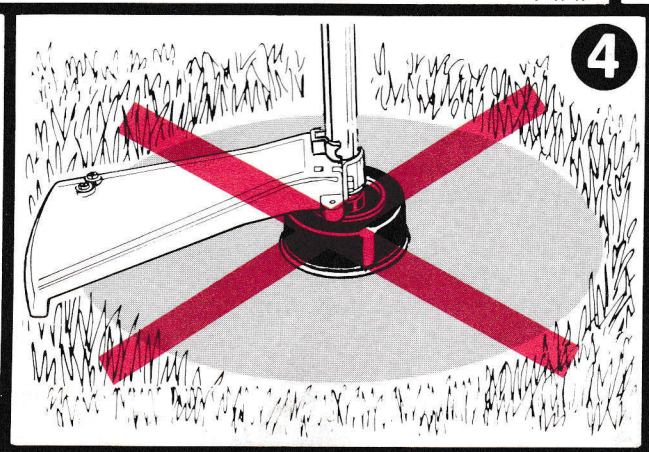
1. **DO** use String Trimmer on a slight tilt so string contact occurs at one point (away from you, for best cutting and minimum string wear).



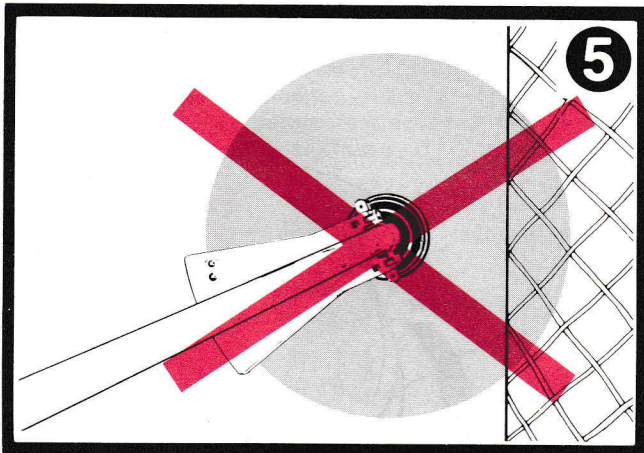
2. **DO** keep the String Trimmer head tilted to confine trimming action to the segment of the string circle away from you. Recommended segments of the cutting circle are illustrated. Best point of contact is marked. If you do not cut with the recommended segment, debris will be thrown toward you.



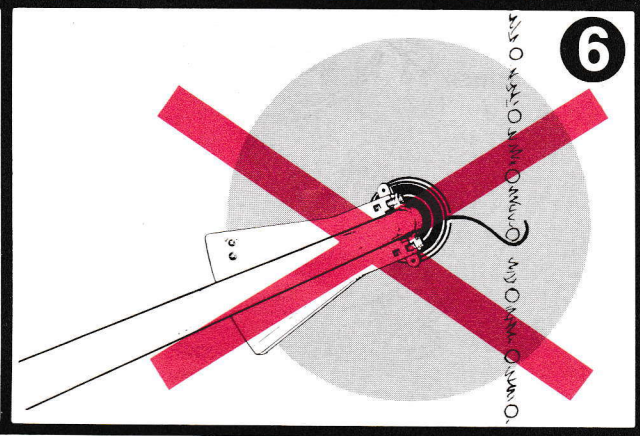
3. **DO** approach your target position gradually, — so that you will cut only with the tip of the string and not smash it broadside into a barrier.



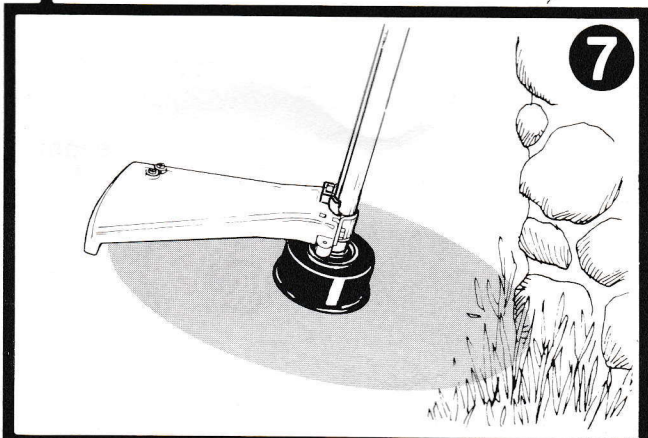
4. **DON'T** use the whole 360 degree string circle to cut. If you do, you'll use up too much string.



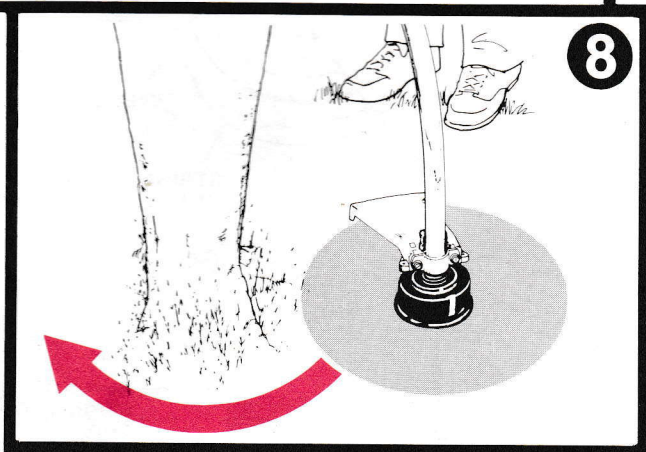
5. **DON'T** overfeed string, — overfed string will break off.



6. Wire and picket fences are hard on string. Learn to feed slowly. Every time you catch the string around a wire or picket it will break off.



7. Stone and brick walls and curbs wear string rapidly. Be sure not to overfeed. Even with minimum exposure of the string tip to the barrier, string wear will be high during this kind of trimming.



8. Trim around trees. Take your time. Walk around the tree. Do not whip the bark with an excessive length of string.

MAINTENANCE and ADJUSTMENT

STRING HEAD

You should be aware of the construction of the string head so that you can reinstall parts properly if they ever get out of place.

Replacement string is available in coils of 100 ft. (30.4 m) lengths (enough for four reloads) as well as on prewound spools.

Follow Steps 3 through 7 in the spool replacement instructions for installing the prewound spool into the string head.

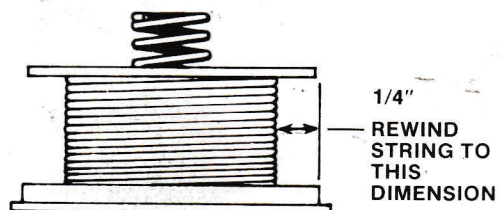
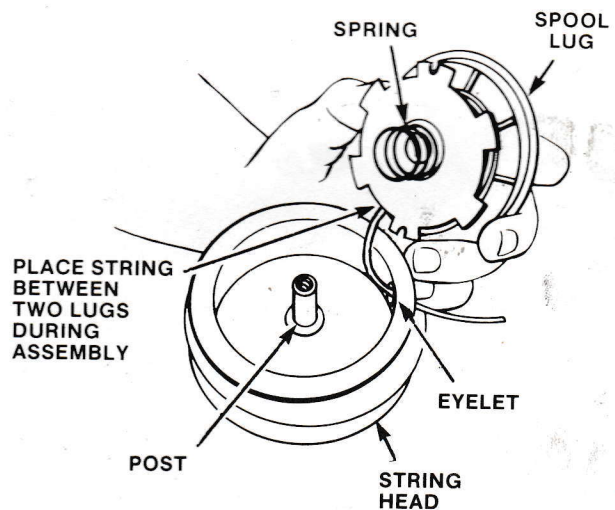
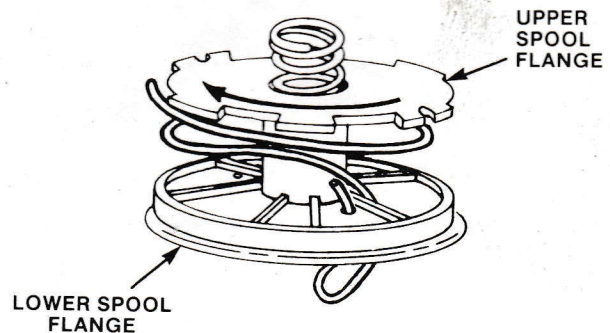
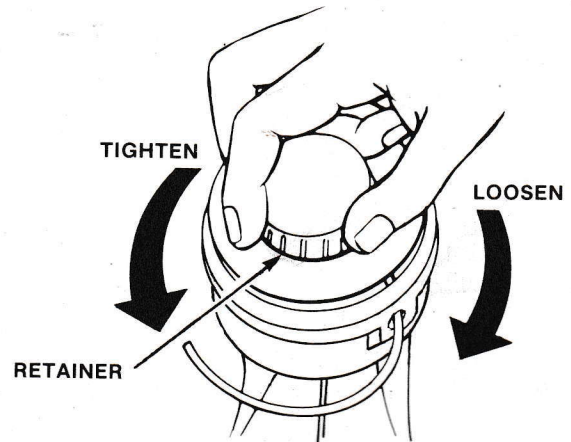
STRING REPLACEMENT (Winding Replacement String Onto Spool)

Use only Homelite® monofilament string which has a diameter of .080" (2.0 mm).

1. Remove retainer cap by turning clockwise.
2. Lift out spool and spring.
3. The spool is designed to hold a maximum of 25 ft. (7.6 m) of .080" diameter string. Winding too much string on the spool will adversely affect the performance of the string advance system.
4. To rewind string on spool, insert one end of the string through one of the two small holes in the spool flange and then back through the remaining hole (see illustration). Pull loop tight.
5. Wind the string onto the spool in direction of the arrow on the bottom of the spool. Wind tightly in an even pattern. After winding there should be 1/4" between wound string and outside edge of spool (see illustration).

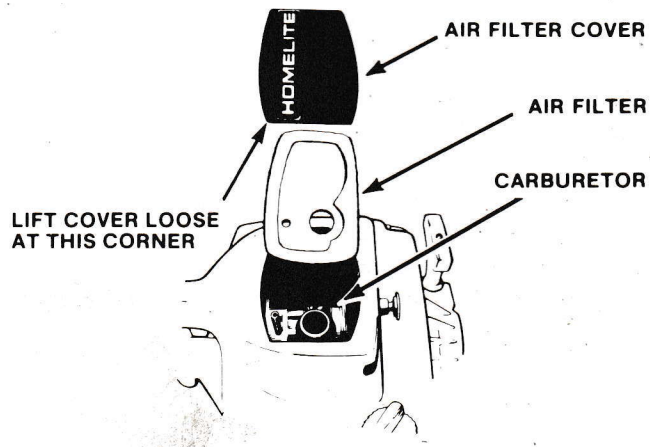
SPOOL REPLACEMENT AND MANUAL ADVANCE

1. Remove retainer cap by turning clockwise.
2. Lift out the spool and spring. Remove the spring from the old spool and install it on the new spool.
3. Feed end of string through string head eyelet. Leave 4" to 5" (10 to 12 cm) of string protruding from the string head.
4. Hold exposed string securely.
5. Place spool (with spring) into string head. Make sure that string does not get tangled on spool lugs.
6. Reinstall the retainer cap by turning it counterclockwise and tighten securely. Once a year lightly grease the threads on the retainer cap bolt.
7. To test operation of string advance, pull on string while alternately pressing down on and releasing retainer.



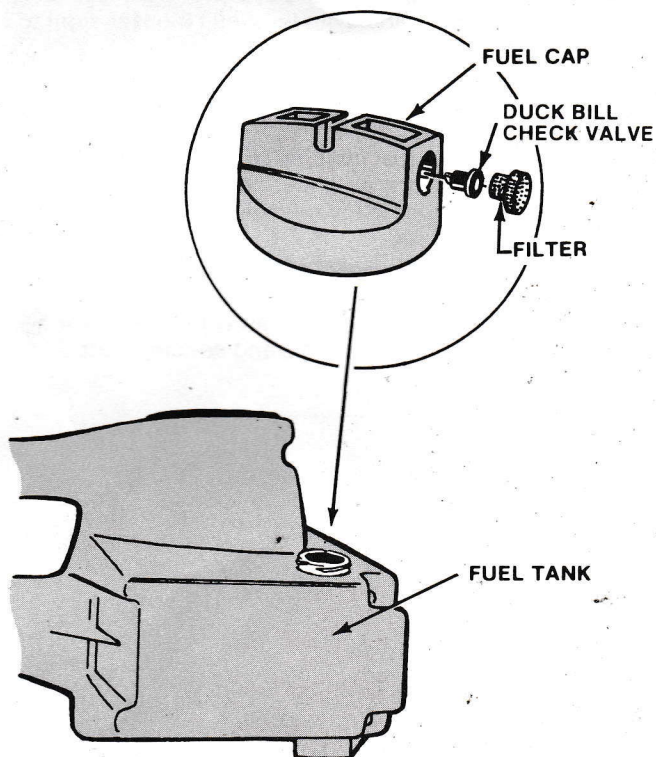
AIR FILTER

Any time your Trimmer seems sluggish, or low on power, the filter should be cleaned in warm, soapy water and allowed to air dry before reassembling onto Trimmer. Remove the filter cover as shown.



FUEL CAP FILTER

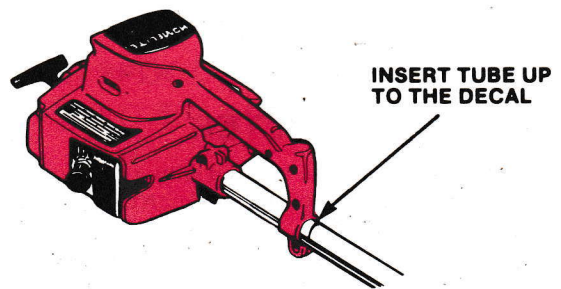
The fuel cap contains a filter and a check valve. A clogged filter will cause failure to accelerate, and lean running. If performance improves when the fuel cap is loosened, suspect a faulty check valve or clogged filter. Replace fuel cap as required. A leaking fuel cap is a fire hazard and should be replaced.



GREASING THE DRIVE SHAFT

The flexible shaft should be inspected and greased every year.

1. Remove the drive tube from the engine housing.
2. Pull the flexible drive shaft completely from the drive tube.
3. Clean the drive shaft with a cloth.
4. Reverse the shaft *end to end* to add to its service life. As you feed it back into the drive tube, lightly grease with a molybdenum disulfide grease product.
5. Insert the drive tube into the engine housing until the decal lines up with the front handle clamp. (See illustration.) Rotate the string head during insertion to insure engagement of the flexible shaft with the drive shaft. Engagement has occurred if the string head becomes difficult to rotate.
6. Align the tube so the bend is downward. Then secure the drive tube in the engine housing by installing and tightening the four drive screws and nuts.

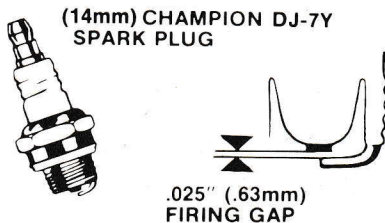


NOTE

Adjustments and repairs often can be attended to by the string trimmer owner. Exceptions are where special diagnostic equipment or tools, and training in small engine repair work are required. In these cases where we believe it best for the unit to be looked at by Homelite trained personnel, we will tell you to have the unit serviced by an authorized Homelite Dealer. Most authorized Homelite Servicing Dealers, listed under "Saws" in the yellow pages, service our string trimmers as well as chain saws.

SPARK PLUG

The engine uses the (14mm) Champion DJ-7Y, a tapered seat type (gasketless) non-resistor plug with .025" (0.63mm) electrode gap. Always make your replacements with a DJ-7Y or equivalent plug of the same configuration and heat range. The firing gap between the electrodes should be set with the aid of a wire type feeler gauge and should be done after the plug has been cleaned.



FUEL PICK-UP FILTER

1. The fuel pick-up can be hooked with a piece of clean wire, and the filter brought out through the filler hole in the fuel tank.
2. A clogged pick-up, preventing normal rate of fuel flow to the carburetor, will cause "lean operation" symptoms — hard starting and lack of power. A dirty filter must be replaced.
3. Occasionally check the fuel line from pick-up to carburetor. Cracks or kinks in this line may also cause lean operation.



CARBURETOR

The carburetor was adjusted at the factory. Adjustment by the owner is not recommended (see "Caution" note). However, carburetor adjustments are accessible for the convenience of authorized service personnel. Slight re-adjustment of the carburetor may be required for operation above 5000 feet altitude. An authorized servicing dealer should also be consulted if the engine fails to accelerate smoothly.

CAUTION

Improper carburetor adjustment procedures may result in the following:

1. Unstable idling or inability to accelerate.
2. Stalling at idle and low power.

STORAGE

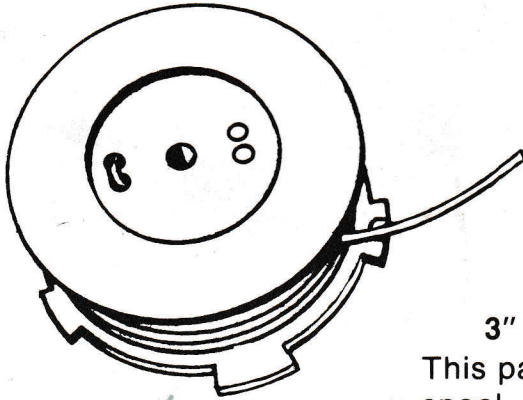
1. All local regulations for the safe storage of fuel supplies must be observed. Non-stabilized fuel supplies should be used up in other equipment or discarded.
2. If you do not expect to use the String Trimmer for a month or more, prepare the engine internally for storage by either method A or method B:

Method A) Fill the fuel tank with fresh fuel which contains an anti-oxidant stabilizer. (See fuel mixing instructions.) Run the engine on this mixture for ten seconds and use the choke instead of the switch to stop the engine. This will put a lot of stabilized fuel into the crankcase and cylinder. Refill the tank right to the top to keep air out.

Method B) Drain as much fuel from the fuel tank as possible, then start and run the engine until it runs dry and quits. Remove the spark plug to pour in a teaspoonful of a rust inhibitor product or a detergent oil. Install the spark plug and crank the engine enough times to distribute the oil over the cylinder and piston walls as a vapor.

3. Clean all foreign material from the outside surfaces of the unit. Store it in a well-ventilated place where it is inaccessible to children and away from corrosive agents such as garden chemicals and de-icing salts.

REPLACEMENT .080" (2mm) DIAMETER STRING

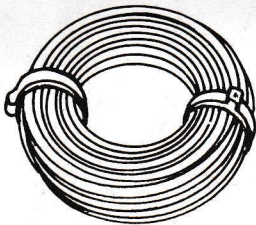


25 FT. SPOOLED STRING

DA-97951

3" (8 cm) DIAMETER SPOOL AND STRING PACK

This pack contains 25 feet (7.6m) of string prewound on a spool.



100 FT. LOOP STRING ONLY

DA-97952-A

100 FT. LOOP OF STRING

This 100 feet long (30.4m) loop of string can be cut into 25 feet (7.6m) lengths—enough for four reloads.

FILL IN THIS INFORMATION FOR YOUR RECORD

MODEL NO. 165
UT NO. 20536
SERIAL NO. 15038
DATE OF PURCHASE 5/20/86
NAME OF DEALER BOARDMAN'S
ADDRESS BINGHAMTON, N.Y.
INVOICE NO. 05-14346

SERVICING DEALER INFORMATION

For the location of your nearest Homelite
Servicing Dealer in the contiguous United
States, Hawaii, Puerto Rico, and the Virgin
Islands.

CALL: 1-800-242-4672
1-800-521-5165 N.C. Res. only

**NOTE: Only Dealer Location Information
can be obtained at this number.**

HOMELITE DIVISION OF TEXTRON INC.

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Charlotte, N.C. 28217

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