

HOMELITE[®]
JACOBSEN

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OWNER'S OPERATION AND MAINTENANCE MANUAL



IMPORTANT:
READ SAFETY
PRECAUTIONS
BEFORE
OPERATING

MODEL HK-18
TRIMMER/BRUSHCUTTER

NOTICE: For Servicing Dealer Information see back page.

BASIC SAFETY PRECAUTIONS

PERSONAL SAFETY PRECAUTIONS

- The whirling string (or blade) could cause debris, wire, 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 both 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 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 box on the right side of the engine. It will become hot while the unit is being operated and will remain hot for a short period after shutdown.
- Always use the shoulder harness when operating the unit.
- 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 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.

- Keep all bystanders, children and pets away from the cutting area. Flying debris could be hazardous. Scything with the steel blade could be dangerous.
- Always keep the steel blades sharp. Wear gloves whenever you replace the blades. Always use replacement blades specified by Homelite.
- Always check the blade retention before use. Make sure the blade is mounted properly and secure.
- Inspect the blade for wear and cracks and replace as necessary.
- This unit is designed for use with the string head or optional four tooth brush blade only. Do not attempt to use any type of saw blade.
- Always flip the ignition switch to "OFF" before attempting to remove any obstruction caught or jammed in the blade or string head assembly.
- Do not attempt to touch or stop the string or blade when it is rotating.
- Do not leave the string trimmer unattended where it could be started by untrained persons, or minors.
- All service to this unit, 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 or clutch, or if an improper tool is used to hold the flywheel in order to remove the clutch, structural damage to the flywheel could occur which could subsequently cause the flywheel to burst.)

WARNING ABOUT KICK REACTION OF BLADES

- Exercise caution when using the steel blades (optional) with this unit. In order to control the brushcutter when the kick reaction occurs; maintain a good comfortable stance and balanced position and a firm grip. Hold the brushcutter handles firmly with both hands.

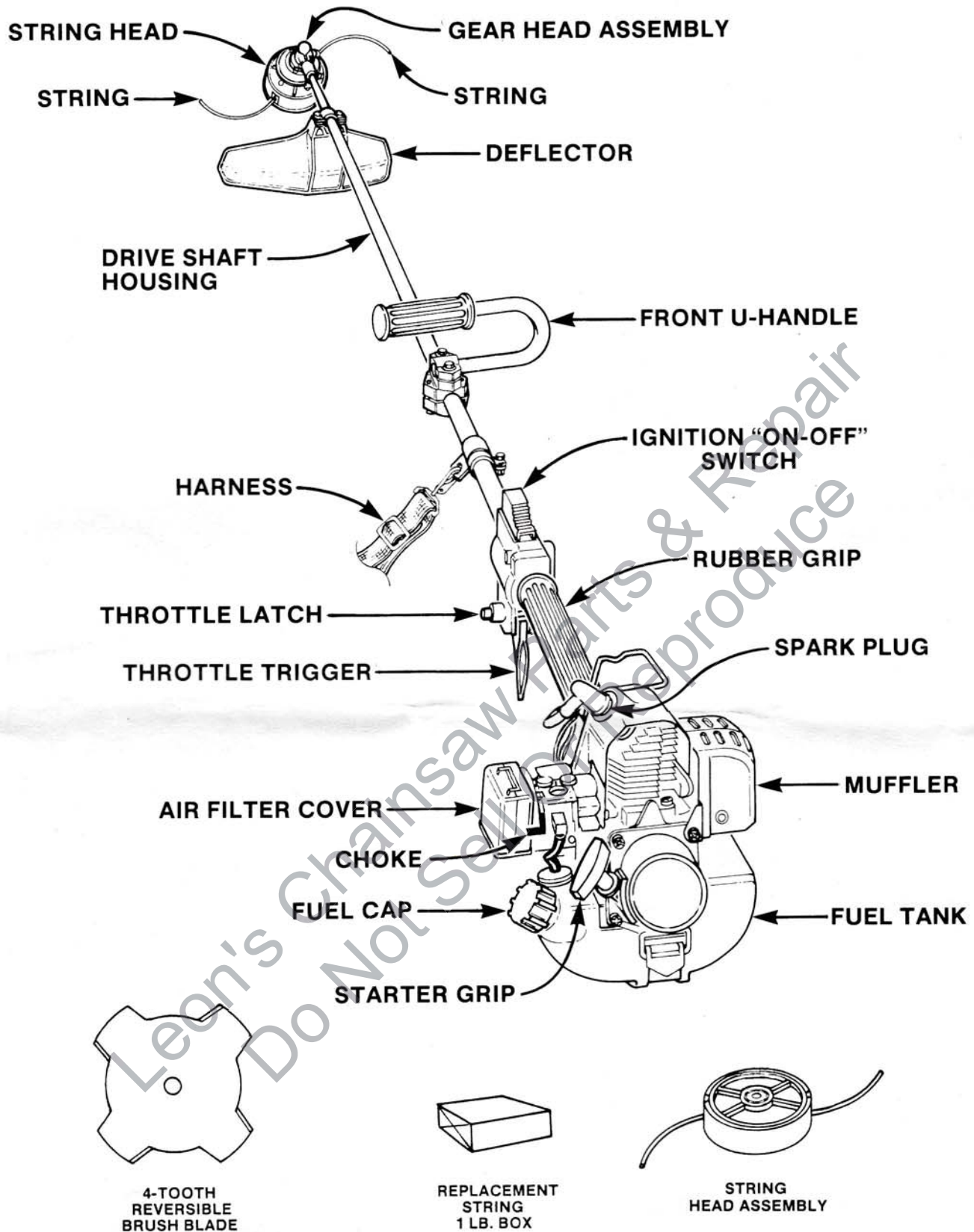


The kick reaction will occur whenever the steel blade contacts an object. Avoid heavy cutting in the area marked zone 1 and zone 2.

Always use the 4-tooth blade for general clearing of weeds, vines and brush. Not recommended for sizes which require sawing (larger than 3/4 inch thick).

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 these units 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/brushcutter.
- If the muffler is worn, replace it. Excessive engine speed in this condition is hazardous.



IMPORTANT

Be sure that you receive a Homelite Consumer Products Limited Warranty with your unit. Check out the unit for any damage which might have occurred during either transportation or storage. If you discover damage to the unit, notify your dealer or the shipper immediately.

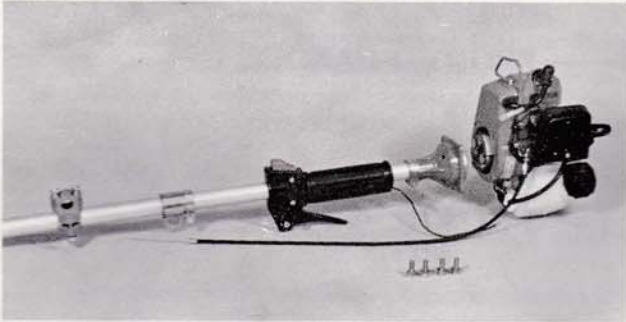
Please read this owner's manual carefully and make sure that you understand how to operate the unit properly and in safety.

ASSEMBLY INSTRUCTIONS

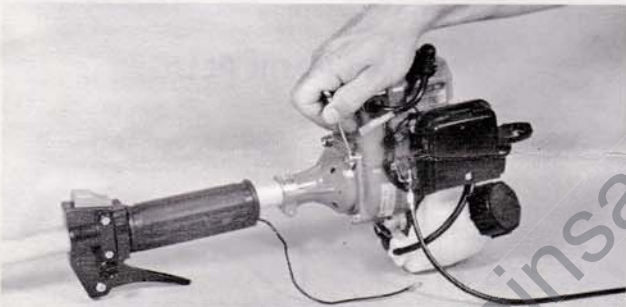
Each trimmer/brushcutter is supplied in two separate cartons - one contains the engine and the other contains the driveshaft assembly. Carefully follow the instructions below when assembling your unit.

ENGINE TO DRIVESHAFT

1. Carefully assemble the driveshaft assembly to the engine by positioning the clutch drum housing as shown.

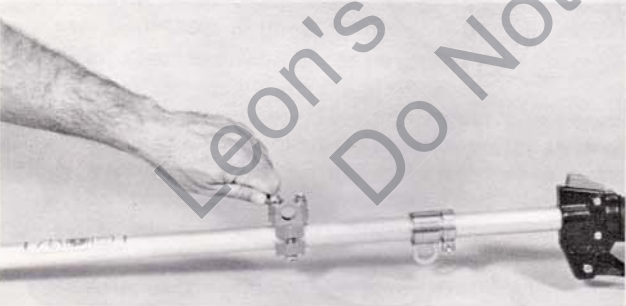


2. Slide the clutch drum housing over the clutch and align the four mounting holes. Install the four (4) bolts supplied and tighten securely.

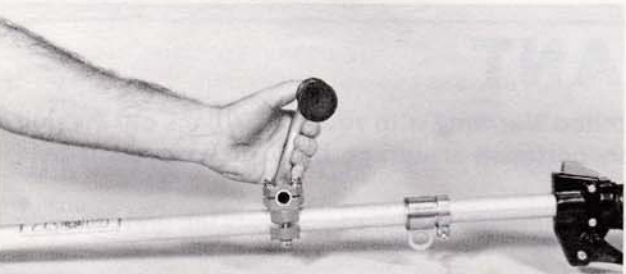


FRONT HANDLE TO DRIVESHAFT

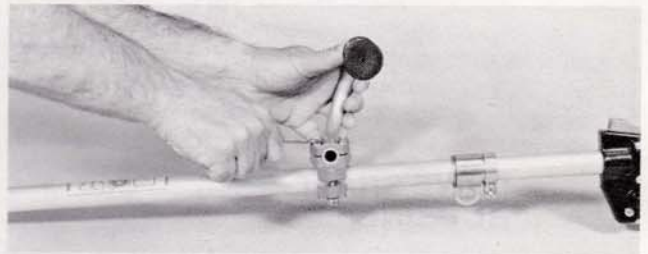
1. Loosen the two (2) screws located on top of the handle mounting bracket.



2. Insert the front U-handle through the bracket from the right side. Position the U-handle so that it is flush with the left side of the bracket and tilted slightly toward the rear.



3. Tighten the two (2) screws securely.

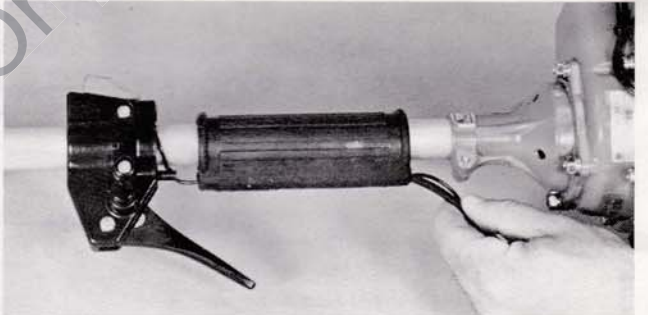


THROTTLE CABLE AND STOP SWITCH WIRE

1. Loosen (do not remove) the three (3) screws on the throttle trigger assembly and slide the assembly approximately one (1) inch away from the rubber grip.

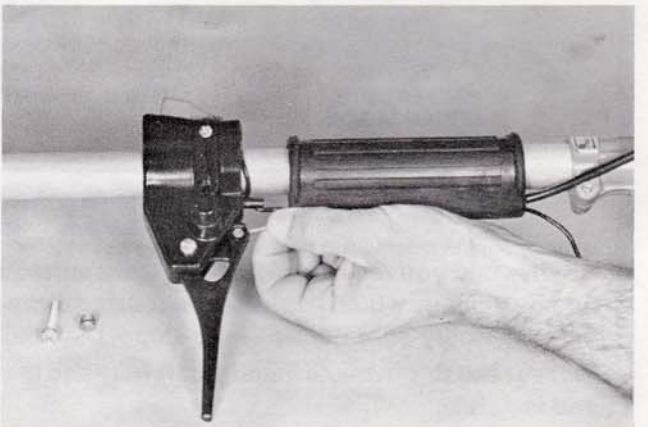


2. Route the throttle cable from the carburetor through the sleeve along the bottom side of the rubber grip to the throttle lever.



3. Remove the center screw on the throttle lever assembly. This will allow the throttle lever to swing out enough to attach the throttle cable.

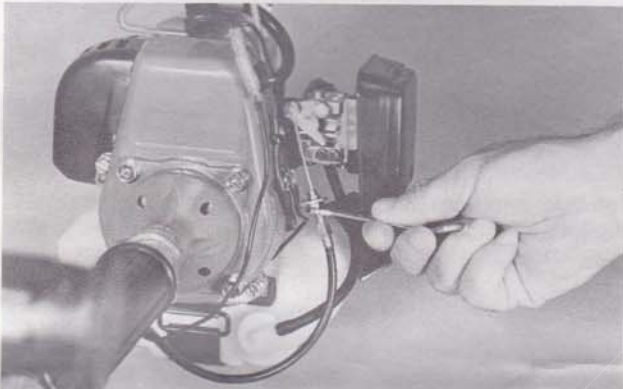
4. Insert the cable end into the throttle lever and swing the lever back into the assembly, making sure that the cable is in the slot provided.



5. Hold the throttle lever in the OPEN position and install the screw removed in Step 3.



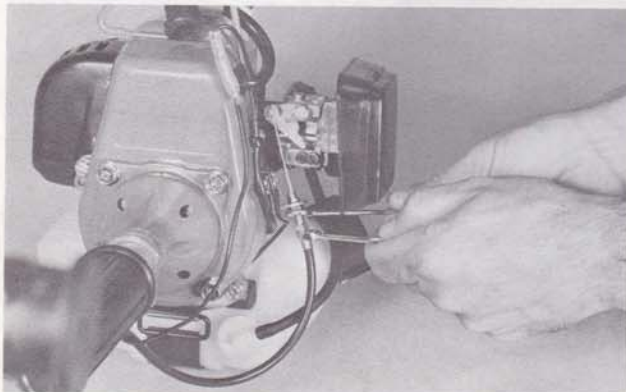
6. Slide the throttle trigger assembly back to the rubber grip and tighten the three (3) screws securely.
7. Adjust the throttle cable so that there is approximately 1/16 inch of free play in the throttle lever.
 - a) Loosen the jam nut on the cable adjusting screw.



- b) Turn the cable adjusting screw clockwise to increase or counterclockwise to decrease the amount of free play.



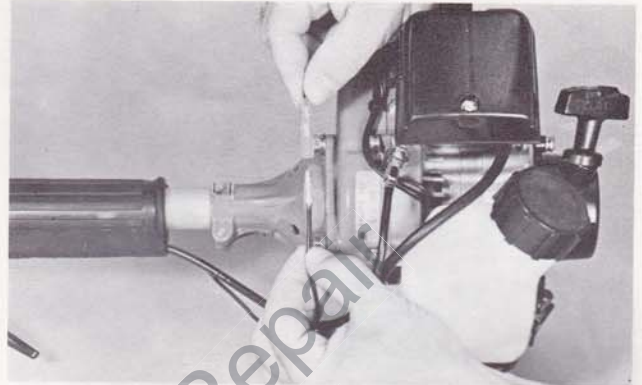
- c) Hold the adjusting screw and tighten the jam nut securely.



WARNING

Adjusting the throttle cable too tight (no free play) will result in the engine throttle not returning to idle. If this occurs, the clutch will not disengage and the string head/brush blade will continue to rotate.

8. Connect the stop switch wire from the throttle assembly to the connector on the engine.

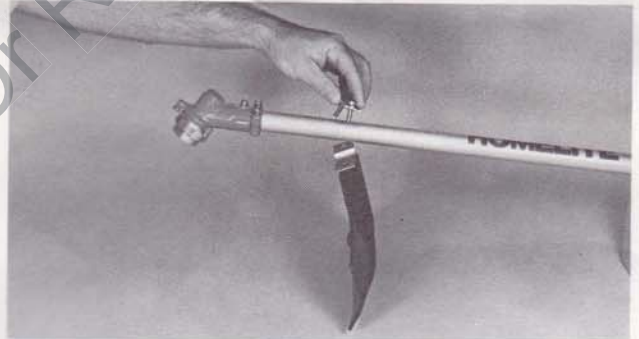


CAUTION

Always operate the string trimmer/brushcutter with the deflector in place to protect operator and bystanders from flying debris.

DEFLECTOR TO DRIVESHAFT

Locate the deflector on the driveshaft four (4) inches from the gear head housing as shown below. Using the two (2) mounting clamps and two (2) Phillips head screws supplied, attach the deflector with the concave side facing the gear head and tighten securely.

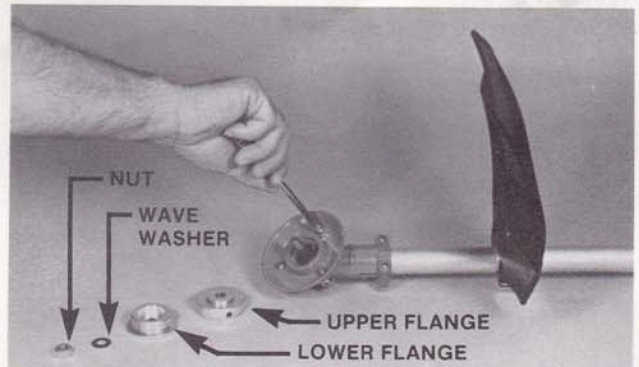


COVER TO GEAR HEAD

Remove blade mounting nut and wave washer by turning clockwise (left hand thread). Lift off the lower and upper flanges.

Remove the three cover mounting screws from gear head assembly.

Position gear head cover with the concave side up as shown. Reinstall and tighten the three mounting screws.



OPTIONAL FOUR TOOTH BRUSH BLADE INSTALLATION

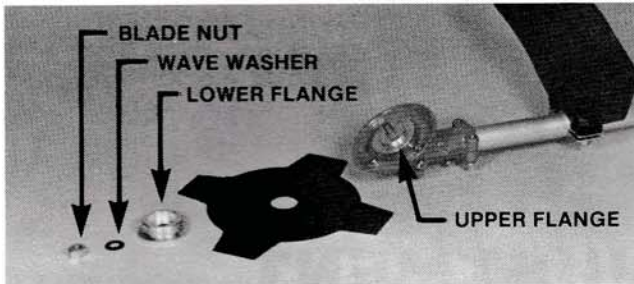
WARNING

Use only the four tooth brush blade with this unit. Do not use any type of saw blade.

CAUTION

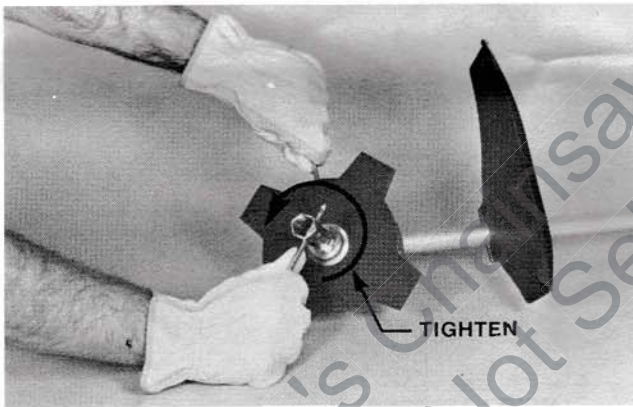
Wear gloves during installation and removal of blades.

Place upper flange over splined gear shaft as shown.



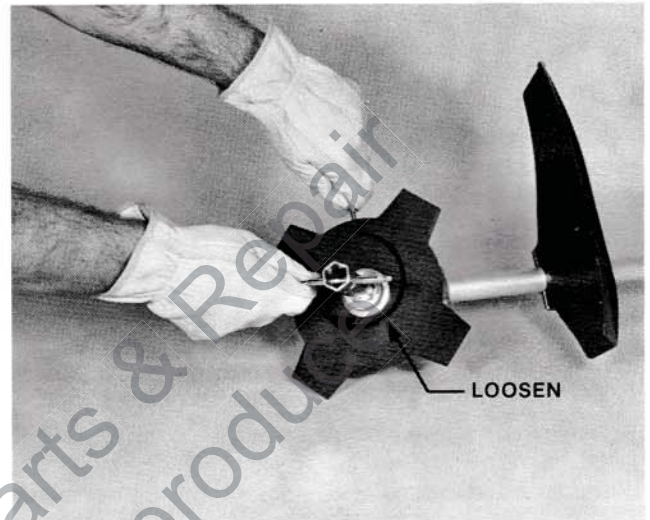
Install and center the blade over the upper flange. Then install the lower flange, wave washer and blade nut.

Tighten blade nut by using the double-ended socket and the shaft holder tool. Position shaft holder tool through the holes as shown. Turn blade nut counterclockwise to tighten.



REMOVING BLADE FROM GEAR HEAD

To remove blade, position shaft holder tool as shown and use the double-ended socket to turn blade nut. Turn blade nut clockwise to remove.



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 (3 m) from the fueling spot before cranking the engine.

1. Recommended Fuel Ingredients:

- Unleaded gasoline is preferable as leaded gasoline will result in spark plug fouling at a faster rate.
- 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.

- 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.
- 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, Ill. 60616. Unstabilized fuel will stay fresh for only up to three months and should not be used after that time.
- 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 (which were not intended for gasoline storage and might contaminate the fuel).

2. How to Mix Thoroughly:

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

3. Do Not Use:

- GASOHOL.** Alcohol draws moisture. Then "peroxides" and acids form in the fuel. These substances may damage the engine.

- MULTI-GRADE OILS** or any other oils not expressly labeled 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.

- The fuel cap is the black cap located at the left bottom corner of the engine.
- Untwist and remove the fuel cap. Rest the cap on a clean surface so that it will not be a source of fuel contamination.
- Pour in fuel carefully, fill near the top but avoid spillage due to overfilling.
- Screw the fuel cap on tightly. Wipe up any fuel spillage immediately.

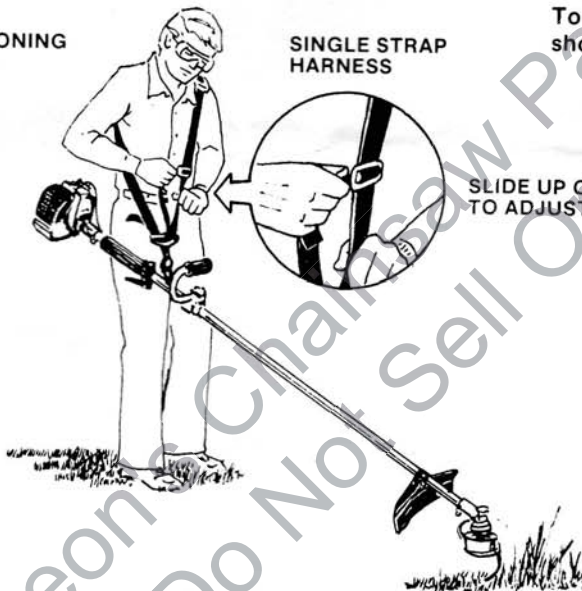
HARNES ADJUSTMENT

CAUTION

To assure operator control, shoulder strap or harness should always be worn when operating the brushcutter.

CORRECT POSITIONING OF HARNES

SINGLE STRAP HARNES



SLIDE UP OR DOWN TO ADJUST.

MOVE HARNES CLIP BACK AND FORTH TO BALANCE 3" (5-10 cm) OFF GROUND

HOLDING DURING STARTING

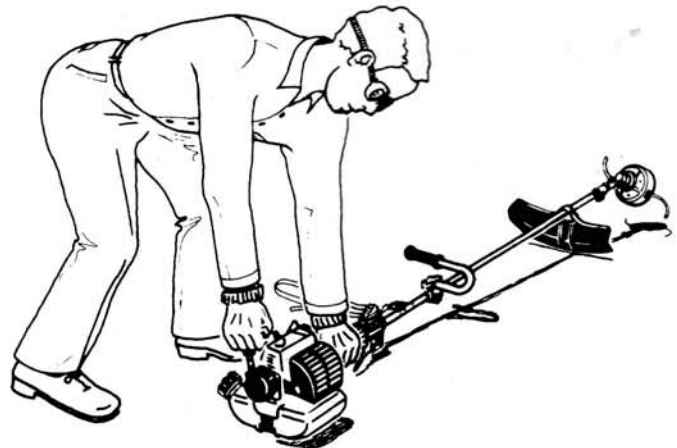
CAUTION

Position the trimmer so the string or blade cannot come into contact with any object during starting.

- Lay the trimmer on a flat, bare surface.
- Rest the trimmer on the deflector and fuel tank.
- Hold the rubber grip at the throttle lever with the left hand.
- Crank the engine with the right hand.

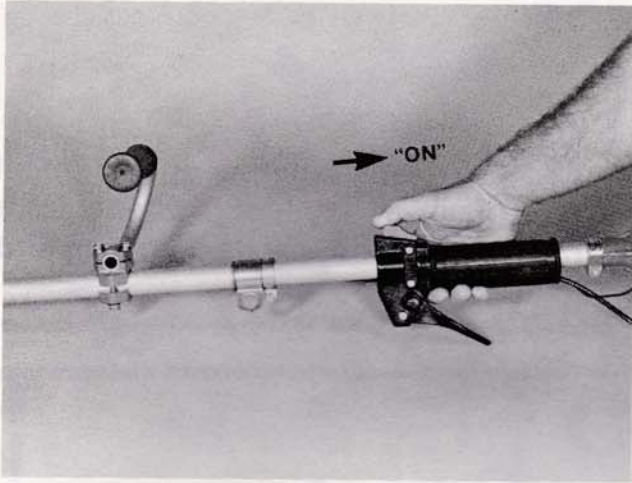
WARNING

Do not place foot or knee on the driveshaft housing. This could bend the internal driveshaft and will not be covered under the warranty provision.

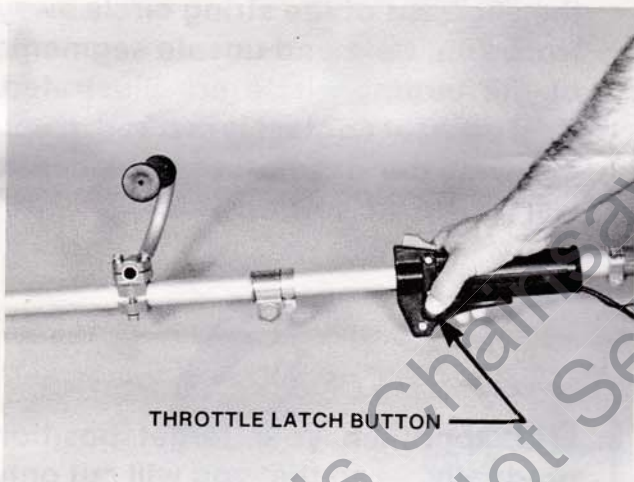


STARTING AND STOPPING

1. Move the ignition switch to "ON".

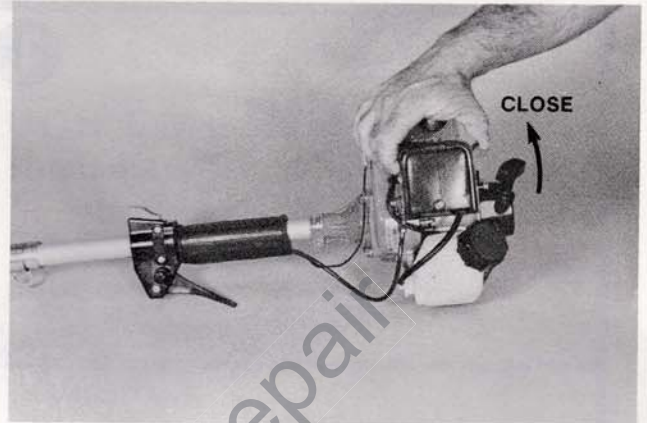


2. Latch the throttle trigger in the start position.
 - a) Squeeze and hold the trigger depressed.
 - b) Push and hold in the latch button.

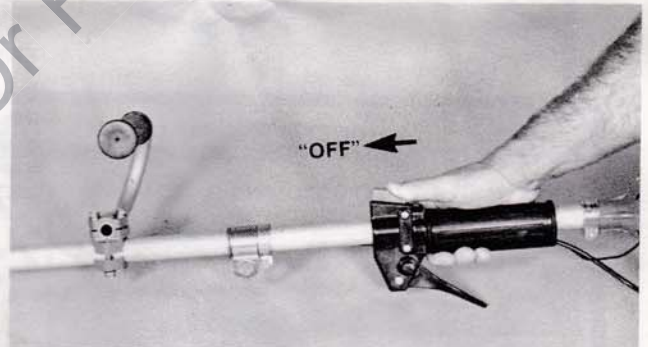


- c) Release the trigger.

3. Push the choke lever up to close the choke.



4. Position the trimmer for starting (see illustration under HOLDING DURING STARTING on page 8). Pull the starter grip briskly until the engine fires and tries to run. Open the choke halfway and continue cranking until the engine starts.
5. Depress and release the throttle trigger to release the latch.
6. After warm-up (up to three minutes may be required, depending on the outside temperature), open the choke by pushing the lever all the way down.
7. To stop, move the ignition switch to "OFF".

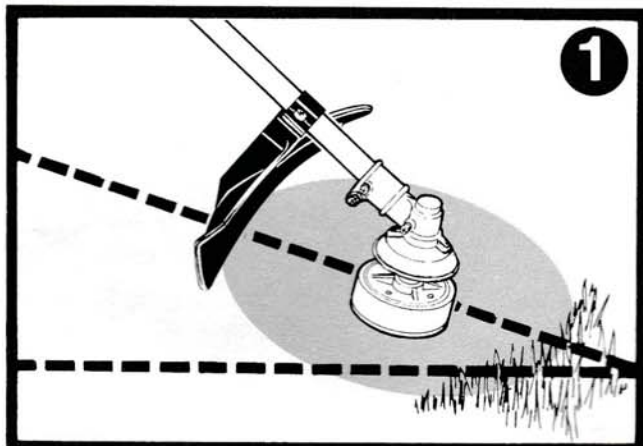


STARTING A WARM ENGINE

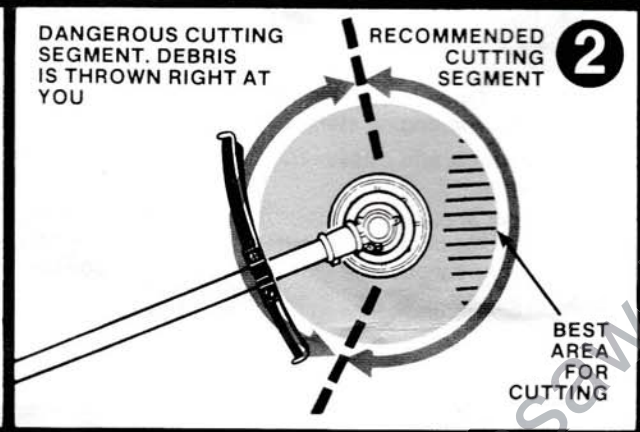
1. Move ignition switch to "ON".
2. Latch the throttle trigger in the start position.
3. Position the trimmer for starting.
4. Pull the starter grip briskly to start the engine.

OPERATING DO'S AND DON'TS

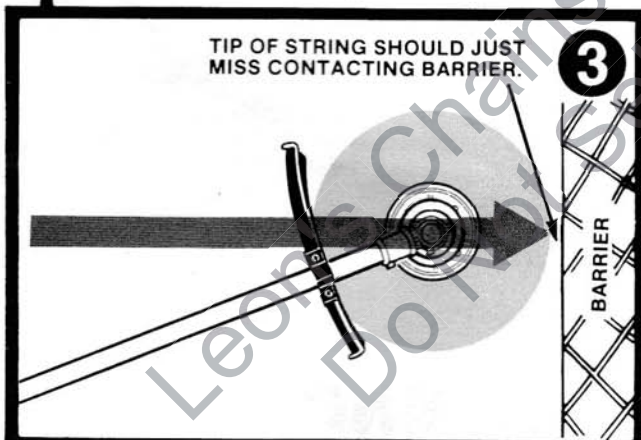
STRING TRIMMER



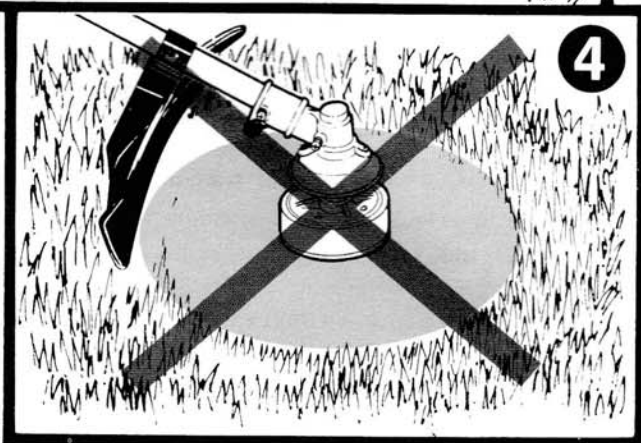
1. **DO** use String Trimmer on a slight tilt so string contact occurs at one point (away from you, for best cutting and minimum string wear).



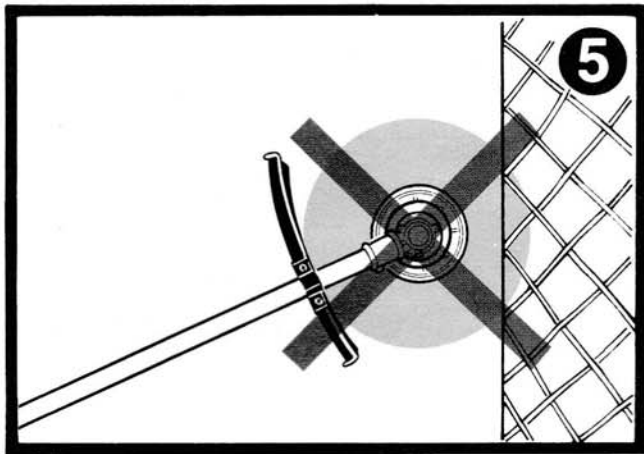
2. **DO** keep the String Trimmer head tilted to confine trimming action to the segment of the string circle away from you. Safe and unsafe segments of the cutting circle are illustrated. Best point of contact is marked. If you cut with the unsafe segment debris will be thrown toward you.



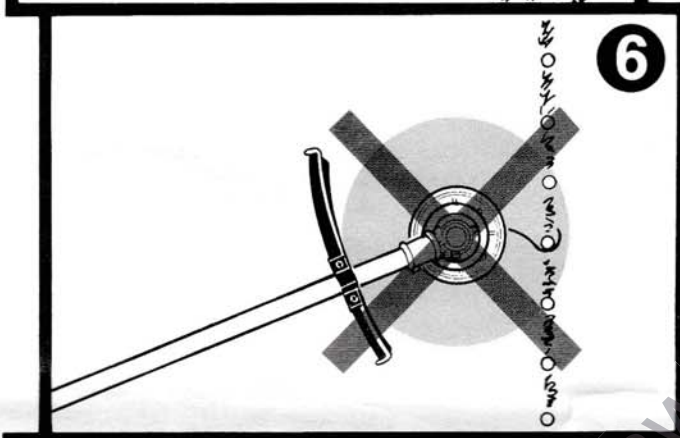
3. **DO** approach your target position gradually, — so that you will cut only with the tip of the string and not smash it broadside into a barrier.



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



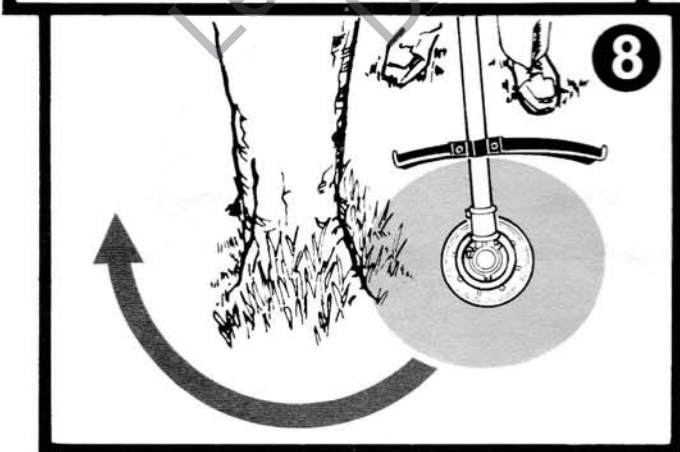
5. **DON'T** overfeed string, — overfed string will break off.



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.

BRUSHCUTTER BLADE PRECAUTION

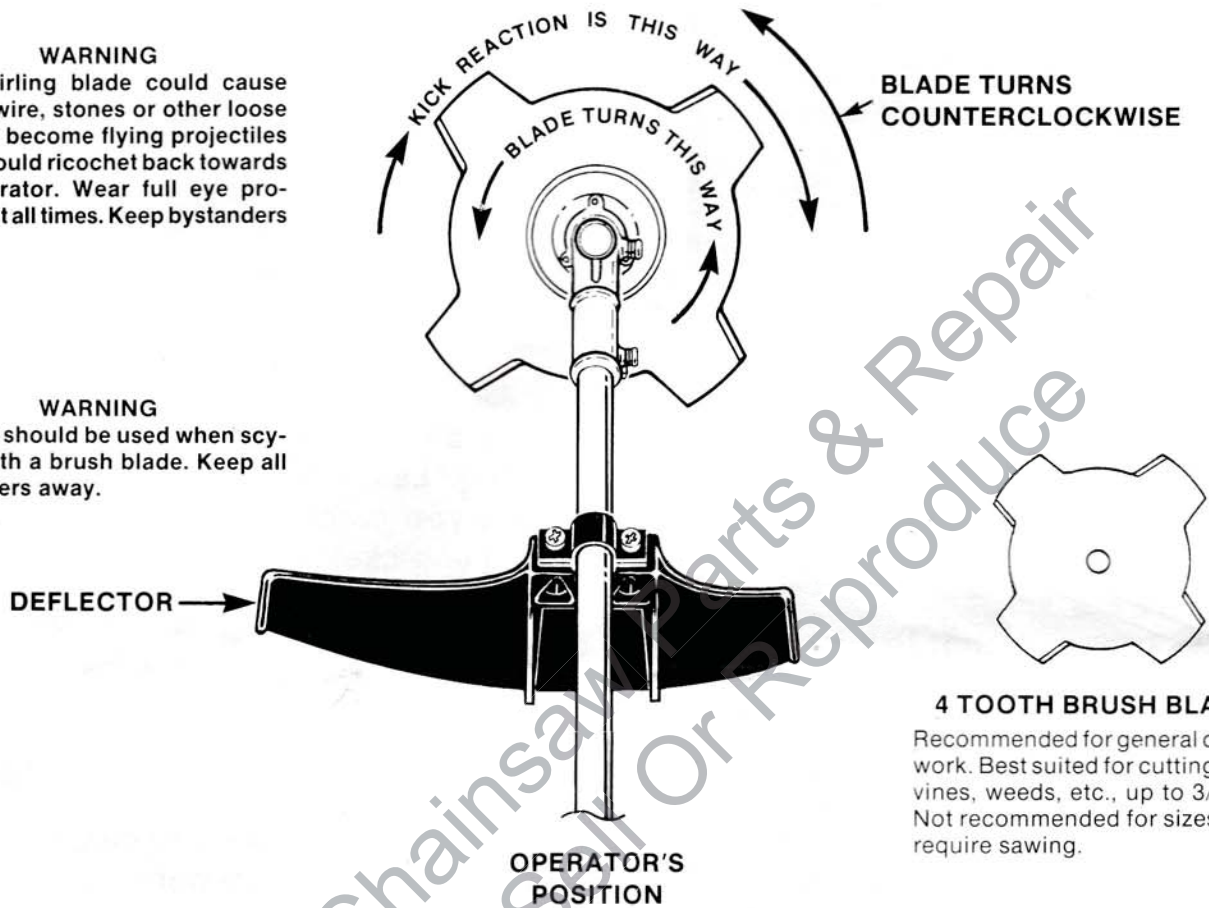
EXERCISE CAUTION WHEN USING THE STEEL BLADE WITH THIS UNIT. A KICK REACTION WILL OCCUR WHEREVER THE STEEL BLADE CONTACTS AN OBJECT. THE KICK WILL BE IN A DIRECTION OPPOSITE TO THE BLADE ROTATION AT THE POINT OF CONTACT.

WARNING

The whirling blade could cause debris, wire, stones or other loose items to become flying projectiles which could ricochet back towards the operator. Wear full eye protection at all times. Keep bystanders away.

WARNING

Caution should be used when scything with a brush blade. Keep all bystanders away.



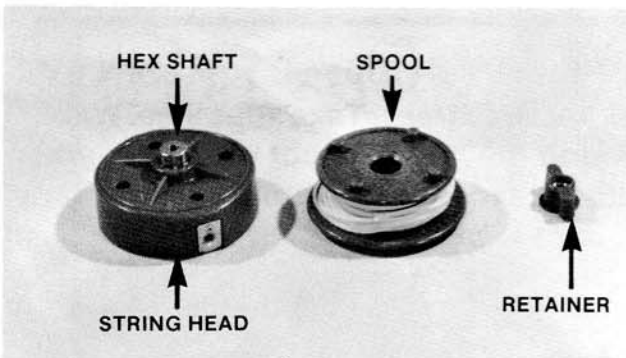
4 TOOTH BRUSH BLADE

Recommended for general clearing work. Best suited for cutting brush, vines, weeds, etc., up to 3/4 inch. Not recommended for sizes which require sawing.

MAINTENANCE AND ADJUSTMENT

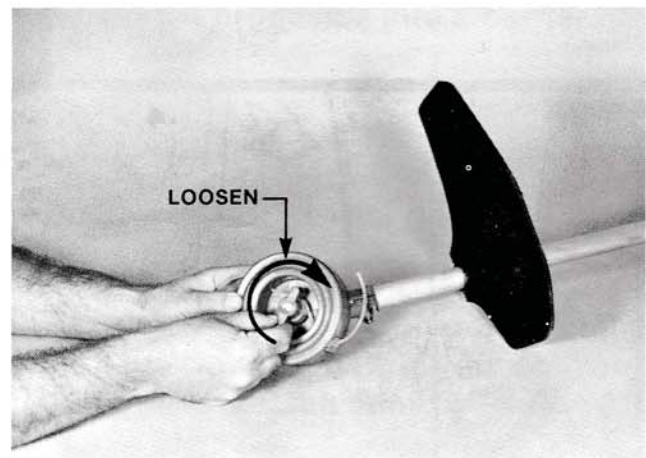
You should be aware of the construction of the string head so parts can be reinstalled properly.

The string head assembly consists of the parts shown below.



MANUAL STRING ADVANCE

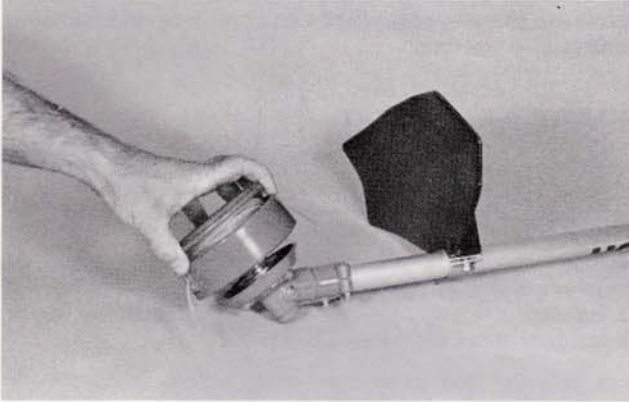
While holding string head, loosen the spool retainer by turning it clockwise. Loosen retainer enough to be able to lift spool 1/4 inch from string head.



Lift spool 1/4 inch out of string head. Rotate spool to advance string. String should be advanced so each cutting line measures no more than 7 inches (17.7 cm) (18 inch cutting swath).

NOTE

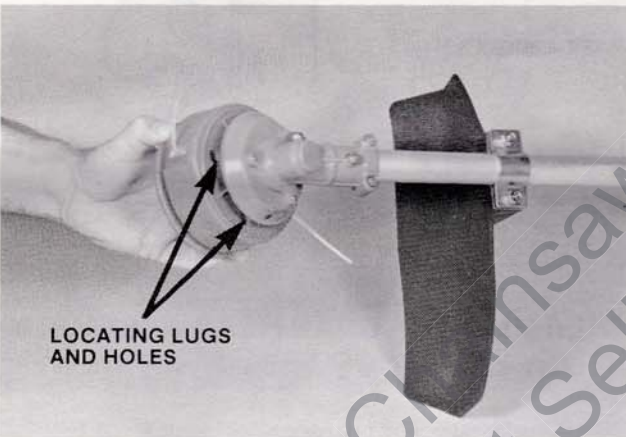
Direction of spool rotation for advancement will depend upon which direction the string has been wound on the spool.



CAUTION

DO NOT OVERADVANCE STRING. String overadvancing will only result in lowered engine speeds and poor performance.

After advancing string, rotate spool slightly in either direction to lineup locating lugs on spool with locating holes in string head.



Tighten spool retainer by turning it counterclockwise.

WINDING REPLACEMENT STRING ONTO SPOOL

Remove spool retainer by turning it clockwise. Lift spool from string head.

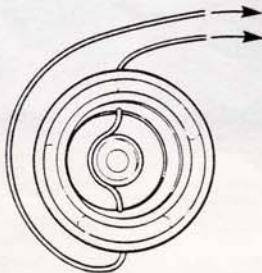
Measure and cut a 15 foot (4.6 m) length of .105 inch (2.7 mm) string from 1 lg. (0.45 kg) box (Part No. 98071).

Thread one end of string through the hole in each side of spool.

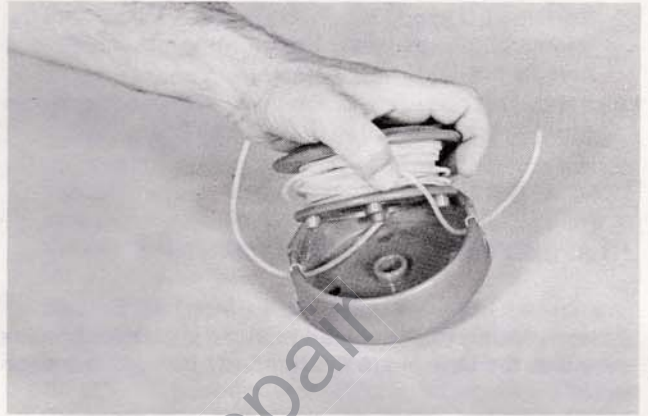
Center the spool in the 15 foot (4.6 m) length of string.

Position string around center mounting hole as shown.

Tightly wrap both lengths of string in the same (either) direction around spool taking care not to twist the string while wrapping.



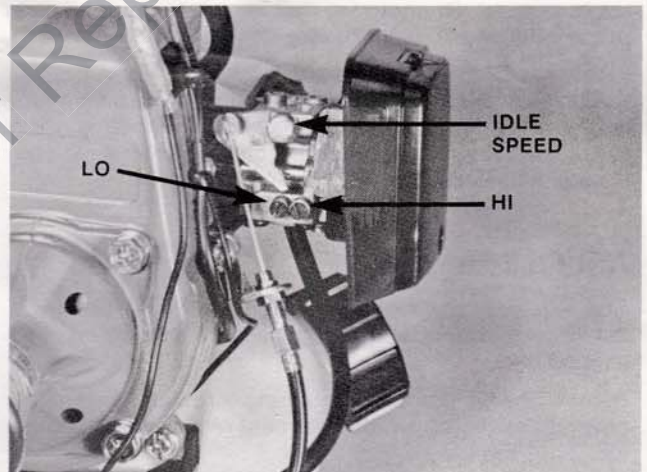
Reinstall spool and string onto string head. Feed 7 inches (17.7 cm) of string through each eyelet. Tilt spool and place into string head taking care that string does not slip under spool flange.



Rotate spool slightly in either direction to engage locating lugs on spool with locating holes in string head. Install string head assembly over shaft. Reinstall and tighten retainer by turning it counterclockwise.

CARBURETOR

The carburetor has been adjusted at the factory. Do not change the carburetor settings unless the unit fails to perform properly.



IF THE UNIT WILL NOT START:

1. Carefully turn (**do not force**) the HI and LO speed needles clockwise until they seat.
2. Turn the HI and LO speed needles counterclockwise one full turn.

After the engine starts, run the unit approximately three minutes to warm it to operating temperature before continuing the carburetor adjustment procedure.

IDLE SPEED ADJUSTMENT:

Turn the idle speed adjustment screw clockwise to increase or counterclockwise to decrease the idle speed.

WARNING

Idle speed must be slow enough to allow the drive clutch to disengage so that the string head/brush blade does not move at idle.

IDLE MIXTURE ADJUSTMENT:

1. With the throttle trigger in the idle position, turn the LO speed needle clockwise until the engine begins to falter. Stop turning the needle and note its position.
2. Turn the LO speed needle counterclockwise until the engine begins to falter. Stop turning the needle and note its position.
3. Set the LO speed needle midway between the needle positions determined in Steps 1 and 2.

Readjust idle speed if necessary.

HI SPEED MIXTURE ADJUSTMENT:

NOTE

Before making the HI speed mixture adjustment, make sure that the strings are full length (7 inches from each eyelet).

1. With the throttle trigger fully open, turn the HI speed needle counterclockwise until the engine runs very rough.
2. Turn the needle clockwise until the engine begins to run smooth.
3. Turn the needle 1/8 turn counterclockwise.

WARNING

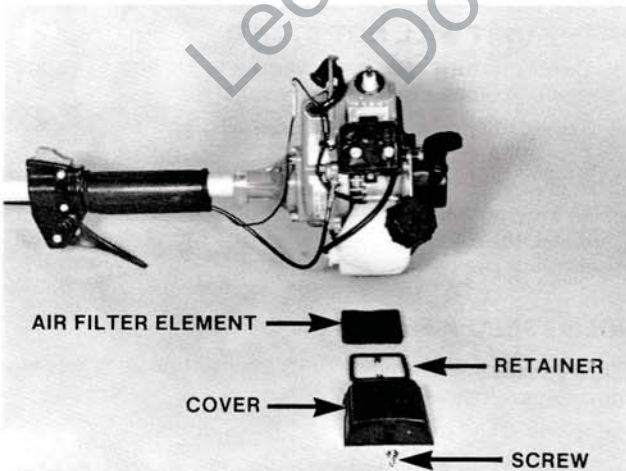
Turning the HI speed needle clockwise too far will cause the engine to run too lean (causing an extremely high engine speed). Running the unit for any length of time in this condition will cause severe damage to the engine.

Check acceleration by opening the throttle rapidly. If the engine does not idle well or accelerate smoothly, more exact carburetor adjustments can be made by your Homelite dealer.

AIR FILTER

Any time your trimmer seems sluggish or low on power, the air filter should be inspected and cleaned or replaced as required.

Remove the air filter cover retaining screw and the air filter cover. Remove the air filter element retainer and the filter element from the air filter box.



Wash the element in clean gasoline. Pour a small amount of fuel mixture over the element and squeeze lightly. The element should be slightly damp with fuel mixture when reinstalled.

WARNING

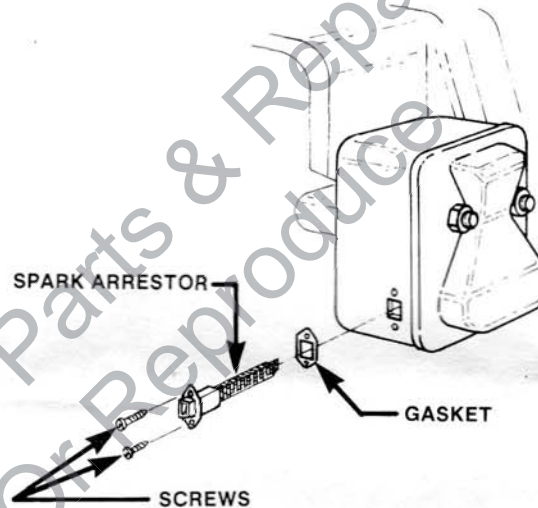
Since gasoline creates highly flammable gas vapors, be sure to wash the filter element in an area free of fire, flame, or sparks. Do not smoke while cleaning the element. Wipe gasoline off of hands or any other surface immediately. Move the trimmer at least 10 feet (3 m) from the cleaning area before starting.

SPARK ARRESTOR

Another possible cause of poor performance can be a dirty or damaged spark arrestor in the muffler.

Remove the muffler cover from the engine.

Remove the spark arrestor and clean by scraping or brushing with a wire brush. Replace the spark arrestor if it is damaged. Never run the trimmer without the spark arrestor as this can create a fire hazard.



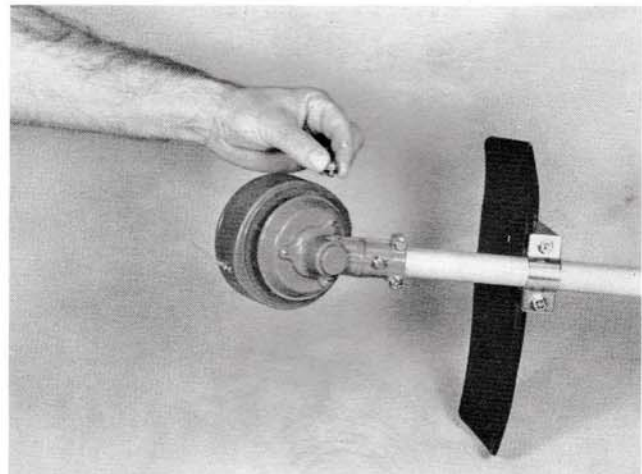
GREASING THE GEAR HEAD ASSEMBLY

The gear head should be greased after every 50 hours of operation.

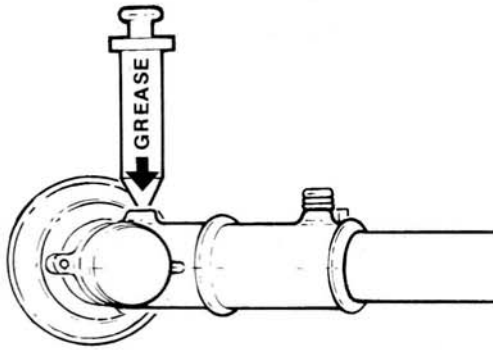
NOTE

Use All-Temp Multi-Purpose Grease (Part No. 17193) when greasing gear head.

Remove large slotted head screw on right side of gear head.



Hold nose of grease gun tightly over large hole on right side of gear head. Turn gear shaft while pumping grease into head.



Wipe excess grease from gear head and reinstall the screw.

SPARK PLUG

Use a 3/4" socket to remove and install spark plug.



CHAMPION CJ-8
SPARK PLUG



.025" (0.6 mm)
FIRING GAP

The replacement spark plug for the Model HK-18 is a Champion CJ-8 (Part No. 63710-S) with .025" (0.6 mm) electrode gap. Always replace spark plug with a CJ-8 or equivalent in configuration and heat range. The firing electrode gap should be set with the aid of a wire type feeler gauge and should be done after each cleaning.

Chronic spark plug fouling should be investigated. It may indicate an improper carburetor setting, faulty ignition or improper oil mixture.

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 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.

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.**

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