

MODEL NO. 51628 - 900001 & UP

OPERATOR'S MANUAL

TC1800 GAS TRIMMER



SAFETY INSTRUCTIONS

To assure optimum performance, and to gain knowledge of the Trimmer, it is essential that you or any other operator of the Trimmer read and understand the contents of this manual before operating Trimmer. Pay particular attention to the instructions highlighted by the safety alert symbol. Failure to comply with the safety instructions may result in personal injury.

BEFORE OPERATING

- 1. Operate the machine only after reading and understanding the contents of this manual. A replacement manual is available by sending complete model and serial number to: The Toro Company, 8111 Lyndale Avenue South. Minneapolis, Minnesota 55420.
- 2. Never allow children to operate the Trimmer. It is not a toy. Never allow adults to, operate unit without first reading the Operator's Manual.
- 3. Become familiar with the controls and know how to stop the engine quickly.
- 4. The following articles of apparel are strongly recommended and are required by some local safety and insurance regulations:
 - A. Safety gogglesB. Safety shoes

 - C. Long pants
 - D. A long sleeved shirt
 - E. Ear plugs

Dress properly — Do not wear loose clothing or jewelry. They can be caught in moving parts.

- 5. Keep the area of operation clear of all persons, particularly small children and pets.
- 6. Never operate Trimmer when you are fatiqued.
- 7. Keep all shields, safety devices and decals in place. If a shield, safety device or decal is defective or damaged, repair or replace it before operating the machine.
- 8. Gasoline is highly flammable. Trimmer is fueled with a mixture of gasoline and oil. Indoor or outdoor heat, sunlight or engine heat may create flammable gasoline vapors which pressurize Trimmer fuel tank. Observe all the following precautions:

- A. Use an approved fuel container for storing the gasoline/oil mixture.
- Do not fill tank when engine is hot or running.
- C. Do not smoke while handling gasoline.
- Fill fuel tank outdoors and up to about one-half inch (13 mm) from the top of the tank, not the filler neck.
- Wipe up any spilled gasoline before starting the engine.
- Before transporting Trimmer in a vehicle, drain all gasoline from fuel tank.
- Store Trimmer in a cool, ventilated place.
- Lay trimmer on a flat surface with engine in upright position when not operating, to avoid saturating inner parts of gas cap.

WHILE OPERATING

- 9. Do not run the engine in a confined area without adequate ventilation. Exhaust fumes are hazardous and could be deadly.
- 10. Always be sure of your footing; keep a firm hold of the handles with both hands, and walk, never run, during operation. Shut the engine off before proceeding to the next area of operation.
- 11. The Trimmer is intended to be used as a means of trimming grassy, and weedy areas only. DO NOT use the Trimmer for such things as tree pruning or hedge trimming. Do not use the Trimmer for vertical edging. The grass shield is designed only for horizontal trimming.
- 12. Do not put hands or feet near or under rotating parts. Keep clear at all times.
- 13. If the Trimmer should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.

A SAFETY INSTRUCTIONS

- 14. Avoid using Trimmer near rocks, gravel, stones, or other debris which could be picked up and thrown or personal injury could result.

 15. Use Trimmer only in daylight or good artificial light.
- 16. Shut off engine and be certain all moving parts have completely stopped rotating before inverting trimmer.
- 17. Never use wire or metal reinforced string in place of monofilament cutting line.
- 18. Wear a long sleeve shirt or other similar arm protection to avoid possible contact with hot engine surfaces.

MAINTENANCE

19. Before servicing or making adjustments to the machine, stop the engine and pull high

tension wire off spark plug to prevent accidental starting of the engine.

- 20. Assure entire machine is in good condition. Keep all nuts, bolts and screws properly tightened.
- 21. If major repairs are ever needed or if assistance is desired, contact an Authorized Toro Service Dealer.
- 22. To reduce potential fire hazard, keep the engine area free of excessive oil, grass, leaves and accumulation of dirt.
- 23. If the engine must be running to perform a maintenance adjustment, keep hands, feet, clothing and any part of the body away from any moving parts. Keep everyone away.



SAFETY INSTRUCTION DECALS

Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged.



ON MUFFLER SHIELD (Part No. 63-8440)



ON DRIVE SHAFT TUBE (Part No. 46-9480)

ON ENGINE HOUSING (Part No. 65-2690)



TABLE OF CONTENTS

Page	Page
Assembly Instructions3	Replacing Spark Plug 9
Mount Cutter Head 3	Cooling System Service 10
Secure Support Handle 3	Servicing Air Cleaner 10
Before Operation 4	Cleaning Trimmer Head 10
Mix Gasoline & Oil 4	Replacing Fuel Filter
Operation	Adjusting Throttle Control 11
Starting & Stopping Instructions 5	Lubricate Flexible Shaft 12
Centrifugal Clutch 5	Preparing Trimmer for Storage 12
Engine Operation 5	Optional Spark Arrestor
Operating Tips 6	Product Identification
Lengthening Cutting Line 6	Toro Service Support 13
Maintenance 7-12	Accessories
Replacing Cutting Line 7	Maintenance Record
Adjusting Carburetor 8	Troubleshooting Chart
Servicing Muffler 9	

ASSEMBLY INSTRUCTIONS

MOUNT CUTTER HEAD (Fig. 1)

1. Remove plastic shipping cap from end of drive shaft tube to expose flexible shaft.

Note: Hold flexible shaft in drive shaft tube as it may slide out of tube when cap is removed.

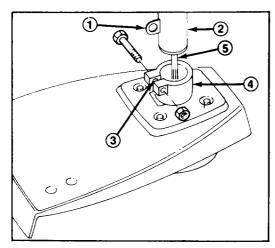


Figure 1

- Retaining clips Drive shaft tube

- 3. Slotted area 4. Bearing housing 5. Flexible shaft
- 2. Insert flexible shaft into square hole in bearing housing.
- 3. Align retaining clips on drive shaft tube with slotted area in bearing housing.
- 4. Insert drive shaft tube and flexible shaft into bearing housing. Tube should slide into bearing housing until holes in retaining clips are aligned with mounting holes in bearing housing.
- 5. Secure tube and retaining clips to bearing housing with capscrew and locknut.

SECURE SUPPORT HANDLE (Fig. 2)

1. Rotate support handle upright and adjust to comfortable operating position. Tighten handle knob securely (Fig. 2).

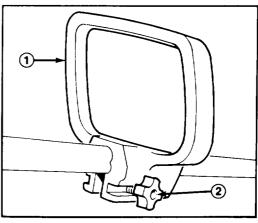


Figure 2

- Support handle Handle knob

Note: Do not remove tape from cutting line before initial start up.

INSTALLING SPARK ARRESTOR (Fig. 3)

- 1. Locate opening in the muffler cover, remove two (2) screen mounting screws and remove screen cover.
- 2. Reverse assembly procedures to install screen assembly.

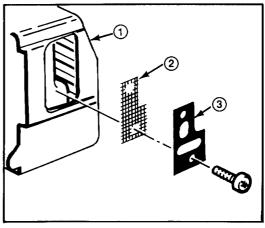


Figure 3

- 1. Muffler cover
- Screen cover
- 3. Screen assembly

BEFORE OPERATING

A DANGER: Gasoline is extremely flammable and explosive under certain conditions. Do not smoke when handling fuel and keep fuel far away from open flames and sparks. Never buy more than a 30 day supply of gasoline and store it in an approved container. Keep gasoline out of reach of children.

Refuel outdoors, only when engine is cold. Fill tank to within 1/4" to 1/2" (6 to 13 mm) from its top. This space is for expansion of fuel. Use funnel or spout to prevent spilling. Wipe up any spilled gas. Assure area is dry before starting engine.

MIX GASOLINE AND OIL - 40:1 RATIO

1. Approved Mixture — For simplicity and best engine performance, mix the contents of one 3.2-ounce bottle of Toro "EASY MIX" Two-Cycle Oil with one gallon of fresh unleaded regular gasoline. Leaded regular gasoline may be used if unleaded regular is not available.

Toro Two-Cycle Oil is specifically formulated to provide superior lubrication, make starting easy and prolong engine life. If Toro Two-Cycle Oil is not available, mix one gallon of gasoline and 3.2 ounces of another high grade two-cycle oil that has the NMMA or BIA-TCW certification printed on the label.

NEVER USE AUTOMOTIVE OIL (i.e. SAE 30. 10W30, etc.). TWO-CYCLE OIL THAT IS NOT CERTIFIED NMMA/BIA-TCW OR THE WRONG MIX RATIO BECAUSE THE ENGINE CAN BE DAMAGED AND THAT WOULD NOT BE COVERED BY THE TORO WARRANTY.

2. Mixing Gasoline and Oil - Pour correct

amount of two-cycle oil into an approved gasoline container and add a half gallon of gasoline. Install cap on gasoline container and shake the container to mix oil and gas thoroughly. Remove cap and add remaining amount of gasoline.

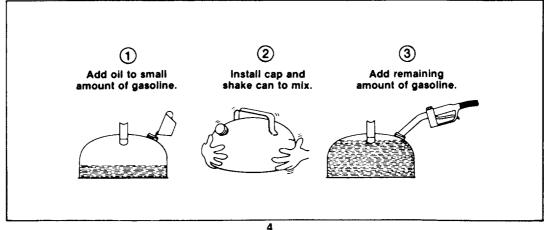
IMPORTANT: NEVER USE METHANOL, GASOLINE CONTAINING METHANOL, GAS-OHOL CONTAINING MORE THAN 10% ETHANOL, GASOLINE ADDITIVES, PRE-MIUM GAS OR WHITE GAS BECAUSE THE ENGINE FUEL SYSTEM COULD BE DA-MAGED.

FUEL STABILIZERS WITH ISOPROPYL ALCOHOL CAN BE USED, HOWEVER, TORO GAS STABILIZER AND FUEL CONDITIONER IS RECOMMENDED TO KEEP THE ENGINE **CLEAN AND ASSURE EASY STARTS.**

NOTE: Do not mix gasoline and oil in the product fuel tank. Oil that is at room temperature mixes easier and more thoroughly than cold oil.

40:1 GAS/OIL Mixing Chart

U.S. Gallon			
Gasoline	Oil		
1 gallon	3.2 oz.		
2 gallons	6.4 oz.		
2 ganons	0.4 OZ.		



OPERATION

STARTING AND STOPPING INSTRUCTIONS (Fig. 4, 5 & 6)

Cold Engine

1. Lay trimmer on a flat surface with engine in upright position.

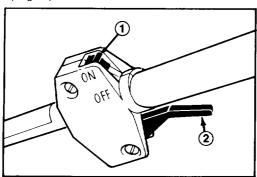


Figure 4

- Ignition switch Throttle trigger
- 2. Move ignition switch to "ON" position.
- 3. Move choke lever to "START" position.
- 4. Push the carburetor primer bulb until fuel drains from the carburetor thru fuel tube to the fuel tank.

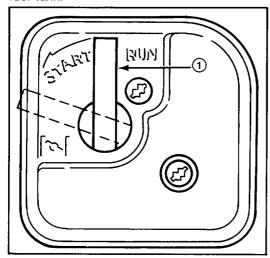


Figure 5 1. Choke lever

- 5. Squeeze throttle trigger to full throttle position and hold in this position.
- 6. Pull recoil starter handle out slowly until starter rachets are engaged, then pull handle with short, sharp strokes until engine starts. Move choke lever to RUN position. If engine fails to start, repeat all steps above.

Note: Always pull starter rope straight up. Pull-

ing rope at an angle will force it against the eyelet and cause it to fray and wear more quickly. Hold the starter handle when rope retracts. Never allow it to snap back from extended position. The rope can fray or snag and the starter can be damaged.

Warm Engine

1. Move ignition switch to "ON" position.

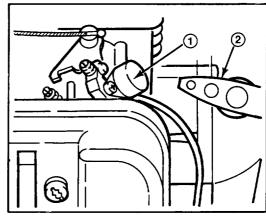


Figure 6

- Primer bulb
 Recoil starter
- 2. Move choke lever to "RUN" position.
- 3. Squeeze throttle trigger to full throttle position and hold.
- 4. Pull recoil starter handle out slowly until starter rachets are engaged, then pull handle with short, sharp strokes until engine starts. If engine fails to start, repeat all steps above.

Note: Use of the primer bulb is not required to start a warm engine. However, if a combination of a hot engine and warm outside temperatures induces a vapor lock condition, use the primer bulb. This will introduce cool fuel into the carburetor and break the vapor lock.

To Stop Engine:

1. Release throttle trigger and move ignition switch to "OFF" position.



CAUTION

The cutter head continues to rotate for a few seconds after the engine is shut off. Do not place any part of the body in the cutter head area until you are sure the cutter head has stopped.

CENTRIFUGAL CLUTCH

This machine is equipped with a centrifugal

OPERATION

clutch which is designed to engage when engine speed reaches approximately 3600 - 4200 RPM. This is the point at which the cutter head begins to rotate. The clutch will slip to prevent possible engine damage should the cutter head be prevented from rotating. Should this situation occur, STOP ENGINE, remove obstruction and resume operation.

ENGINE OPERATION

1. Allow the engine to run at idle speed a few minutes to warm up before using.

IMPORTANT: The cutting head should not rotate at engine idle speed. If cutting head rotates at idle, decrease idle speed by adjusting idle stop screw. Refer to Adjusting Carburetor, page 8.

Note: DO NOT have engine under load during this warm up period.

- 2. When starting trimmer engine initially, check carburetor adjustments, refer to Adjusting Carburetor, page 8.
- 3. By squeezing throttle lever, increase engine RPM to speed required for operation *before* placing trimmer under load.

IMPORTANT: Do not use trimmer at very low engine speeds. Cutting efficiency will be poor and clutch damage could result.

- 4. ALWAYS reduce engine speed to idle when not trimming.
- 5. NEVER operate the engine at high RPM without line extended.

OPERATING TIPS (Fig. 7 & 8)



CAUTION

Always wear safety goggles or other suitable eye protection and long pants and shoes while operating Trimmer. Wear a long sleeve shirt or other similar arm protection to avoid possible contact with hot muffler surface. Ear protection must be worn when operating trimmer for prolonged periods of time (over 2½ hours).

1. The Trimmer will cut grass, weeds, ivy and other similar grasses, and can be used to cut areas around shrubs, foundation walls, along fences, sidewalks and patios.

Be sure to inspect area to be trimmed for any wire, cord, or string-like matter which could become entangled in and thrown by the rotating line.

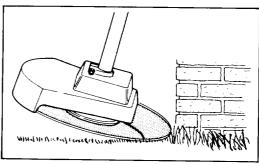


Figure 7

2. Do not force the unit. Remember it is only the tip of the cutting line that does the job. Forcing the line against an object like a foundation wall or fence could cause the line to break.



CAUTION

Always be sure of your footing when operating Trimmer.

- 3. A Get comfortable. Make sure support handle adjusting knob is tightened securely before operating Trimmer. When trimming you should be standing in a natural position without having to bend over or stand on your toes.
- 4. Slowly move Trimmer in a side to side motion into the area being cut, while, at the same time, holding the unit at the desired height of cut. Always tip the leading edge of the cutter slightly downward to gain maximum efficiency.

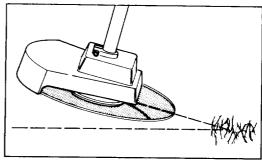


Figure 8

5. The life of your cutting line is dependent upon following the above trimming techniques, as well as what is being cut, and where the cutting is being done. EXAMPLE: Line will wear faster when run against a foundation wall

OPERATION

as compared to trimming around a tree. Some line breakage will occur from moving unit too fast, from entanglement with foreign matter, from normal line fatigue, and from attempting to cut thick, stalky weeds in excess of unit's capability.

LENGTHENING CUTTING LINE (Fig. 9)

Your Toro Trimmer is equipped with an automatic line feeding device so the line can be lengthened without STOPPING THE ENGINE.

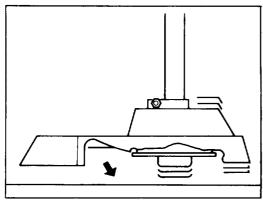


Figure 9

Note: Engine speed and noise will increase noticeably when line wears down.

1. To lengthen line, firmly tap spool on the ground while the engine continues to run at normal cutting RPM (Fig. 9). The line will be fed from the spool and cut off to the proper length by the cutting knife attached to the shield.

Remember to keep the engine speed up while lengthening the line. Just tap the Trimmer on the ground; do not hold it on the ground.

Note: The spool cap may wear during normal use of the line advance feature and may require occasional replacement.

Empty spools and spools prewound with 38 feet of cutting line are available through your local Toro Dealer.

A Never continue to use a spool cap which has been worn through, cracked or has chips out of it.

MAINTENANCE

REPLACING CUTTING LINE (Fig. 10-12)

1. To replace cutting line when your factory furnished supply runs out, you may purchase .080 dia. replacement line to rewind the empty spool or prewound replacement spools from your Toro Retailer.



CAUTION

Shut off engine and be certain cutter head has completely stopped rotating before inverting trimmer.

2. To remove empty spool, insert medium blade screw driver in one of two window slots on spool hub and twist screw driver 1/4 turn. Spool will snap off. **Note:** Use as wide a screw driver as will fit in slot so as not to mar cap when twisting.

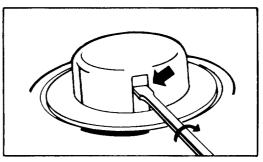


Figure 10

- 3. To rewind empty spool, use the following steps:
- A. Hook one end of line into the grooved notch on spool. Wind line around spool in the direction indicated by arrow on spool in level rows between spool flanges as shown.

- **Note:** Avoid crossover or crisscrossing of line to insure proper line advancing.
- B. Do not wind more than 38 feet of line onto spool, or allow wound line to extend outside of spool. Only use line .080" dia.
- Keep line tight on spool by securing in remaining spool notch.

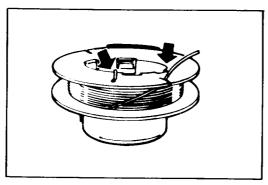


Figure 11



WARNING

Do not use any type of wire or other string-like substance. Use only Toro approved replacement monofilament line of .080 inch diameter. Use of improper monofilament line could result in personal injury.

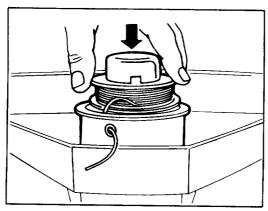


Figure 12

Note: Before reassembly, be sure to thoroughly clean drum and power shaft area and visually inspect for any damaged or worn parts.

- D. The spool and the core are keyed. Be sure they are properly aligned when putting spool back on. Thread end of line through eyelet. Pull line free from notch in spool keeping tension on line. (Do not release line tension until spool is installed in drum.) Place spool on keyed core and push in place until you hear it click. Unwind no more than five inches from spool.
- 4. If line should break at the eyelet, remove the spool completely, refeed the cutting line through the eyelet and reassemble spool to Trimmer following instructions above.

ADJUSTING CARBURETOR (Fig. 13)

The carburetor has been adjusted at the factory, but an adjustment may be required to compensate for differences in fuel, temperature, and altitude.

IMPORTANT: Before making carburetor adjustments, clean the air filter and muffler and be sure the right amount of line is fed from the trimmer spool.



CAUTION

To prevent personal injury, use extreme caution when an adjustment or maintenance procedure must be performed while the engine is running. Pull high tension wire off spark plug if engine does not have to be running while performing adjustment or maintenance procedures.

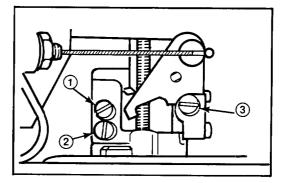


Figure 13

- 1. Low speed screw
- 2. High speed screw
- 3. Idle speed screw

IMPORTANT: Do not adjust screws too tight because the screw and seat will likely be damaged.

- 1. Low and High Speed Mixture Screws—Close screws by gently rotating them clockwise until a slight seating resistance is felt. Next rotate each screw 1 turn counterclockwise.
- 2. Idle Speed Screw— Gently turn screw clockwise to increase idle speed or counterclockwise to decrease idle speed.

Note: These settings are approximate; however, they will allow engine to be started so carburetor can be fine tuned — steps 3-6.

3. Start the engine and let it warm up for approximately 3-5 minutes. Do not adjust carburetor when engine is cold. Be sure to perform carburetor adjustments while at a temperature that will be the average outdoor temperature at which the Trimmer will be used. Allow the engine to idle. If necessary, readjust the idle speed to keep the engine from stalling (3500 RPM). Turning screw clockwise increases idle speed, counterclockwise decreases idle speed.



CAUTION

Engine must be running so final adjustment of the carburetor can be performed. To guard against possible personal injury, keep hands, feet, and face away from concealed, moving, or rotating parts.

Note: When making adjustments turn adjustment screws 1/8 turn at a time and wait for engine to respond to change.

4. With the throttle trigger in the maximum speed position, turn the high speed screw clockwise slowly and note the position at which the engine speed is reduced. Now turn the high speed screw counterclockwise and again note the position when speed is reduced. Set the screw in the midway position.

Note: Minor adjustments to the high speed screw may be necessary to produce maximum power when operating under heavy cutting conditions. To increase cutting power, turn the high speed screw counter clockwise 1/16 turn at a time. Test cutting power at each setting until the optimum position is found.

5. With throttle trigger in idle position, repeat procedure, adjusting low speed screw.

Note: A minor adjustment to low speed screw may be required if engine hesitates when accelerating. Turn screw 1/16 turn at a time and check engine response.

6. Recheck idle speed and adjust if necessary to 2700 - 3500 RPM.

IMPORTANT: Cutter head should not rotate at idle speed.

SERVICING MUFFLER (Fig. 14 & 15)

If engine speed or power decreases drastically, inspect and clean muffler and exhaust port of carbon deposits to relieve back pressure.

1. Remove three (3) screws securing muffler cover to trimmer.

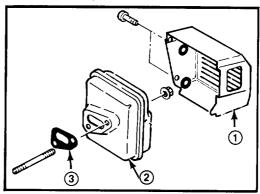


Figure 14

- 1. Muffler cover
- 2. Muffler body
- 3. Gasket

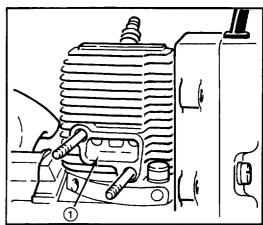


Figure 15

1. Exhaust port

- 2. Remove two (2) nuts securing muffler, and using care not to damage muffler gasket, remove muffler.
- 3. Clean any carbon buildup from inside of muffler body and on spark arrestor screen.
- 4. Rotate the engine crankshaft until the piston totally covers the exhaust port (Fig. 15). Clean the exhaust port area by using a clean, flat piece of hard wood. Remove all loose particles.

IMPORTANT: Use extreme care when cleaning exhaust port. Stay clear of the piston so it will not be damaged. Piston damage can cause early engine failure.

- 5. Make sure the muffler gasket is still useable (replace, if necessary) and install gasket and muffler to Trimmer.
- 6. Reinstall muffler cover and tighten all fasteners securely.

REPLACING SPARK PLUG (Fig. 16)

Use a Champion DJ-8J spark plug or equivalent. Correct air gap is .025" (0.6 mm). Remove plug after every 25 operating hours and check its condition.

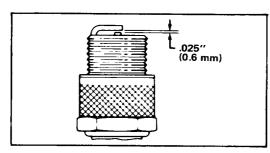


Figure 16

- 1. Stop engine and pull wire off spark plug.
- 2. Clean around spark plug and remove plug from cylinder head.

IMPORTANT: Replace a cracked, fouled or dirty spark plug. Do not sand blast, scrape or clean electrodes because engine damage could result from grit entering cylinder.

3. Set air gap at .025" (0.6 mm). Install correctly gapped spark plug and gasket seal. Tighten plug firmly to 9 ft-lb (1.2Kg-m).

COOLING SYSTEM SERVICE

To avoid overheating and possible engine damage, visually inspect the cooling air inlet for debris obstructing the air passages, muffler, and also the cooling fins around the cylinder after each use. Remove any contamination by using a flat piece of wood shaped so it will pass between the fins.

SERVICING AIR CLEANER (Fig. 17)

After every 25 hours of operation, inspect and clean air cleaner.

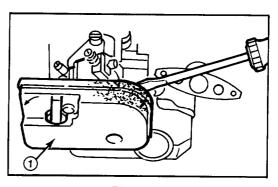


Figure 17

1. Choke cover

1. Insert screwdriver or thin bladed tool under choke cover and work a portion of the foam air filter from between choke cover and choke plate. Grasp filter with fingers and finish removing from between cover and plate. Slip the filter off over top of choke cover.

IMPORTANT: DO NOT REMOVE THE TWO SCREWS SECURING THE CHOKE COVER

2. Wash filter in clean solvent and air dry.

Note: If filter is torn, frayed or damaged, replace it.

3. Slip filter over top of choke cover and insert between cover and choke plate.

Note: Ensure curved portion matches curve of choke cover and filter is fitted under tabs (4) of choke plate before continuing operation.

CLEANING TRIMMER HEAD (Fig. 18 & 19)

Stringy weeds or other debris may become wound around powershaft. Trimmer head assembly must be removed and cleaned periodically.

- 1. Drain gasoline from fuel tank and remove high tension wire from spark plug.
- 2. Insert medium blade screwdriver in one of two windows slots on spool hub and twist screwdriver ¼ turn. Spool will snap off.

Note: Use as wide a screwdriver as will fit in slot so as not to damage cap when twisting.

3. Hold drum securely and unscrew spool core counter-clockwise. This will unscrew the driver.

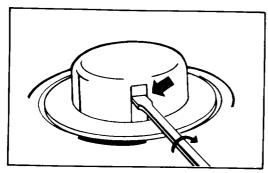


Figure 18

- 4. Remove washer and compression spring, and slide drum off powershaft.
- 5. Clean debris from inside and outside of drum and any wrapped around powershaft.
- 6. Slide drum onto powershaft, assuring roll pin fits into slot on top of drum.
- 7. Install compression spring, washer, spoolcore and driver onto powershaft.
- 8. The spool and spoolcore are keyed. Be sure they are properly aligned when putting spool back on. Thread end of line through eyelet,

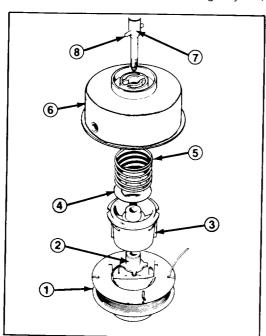


Figure 19

- Spool hub
- Driver
- Spool core Washer
- Compression spring
- Drum Power shaft assembly
- Roll pin

place spool on keyed core and push in place until you hear it click.

REPLACING FUEL FILTER (Fig. 20)

After every 25 hours of operation, remove and replace fuel filter.

- 1. Drain gasoline from fuel tank. Start engine and let it run at idle speed until it stops and all fuel is expended.
- 2. Remove fuel tank cap. Invert trimmer and shake until end of suction hose is accessable or passes thru fuel tank opening.

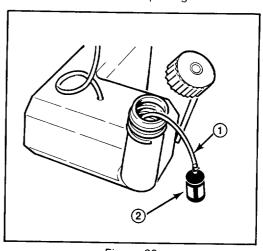


Figure 20

1. Suction hose 2. Fuel filter

Alternate Method: Insert a clean wire with a hooked end into tank, hook suction hose above weight, and carefully pull hose out fuel tank opening.

- 3. Using a twisting motion, remove filter from suction hose.
- 4. Replace fuel filter and reinstall suction hose into tank.
- 5. Install fuel tank cap.

ADJUSTING THROTTLE CONTROL (FIG. 21)

- 1. Squeeze throttle trigger and note travel of throttle shaft plate.
- 2. When in full throttle position, throttle plate should make contact with stop.
- 3. When in idle position, throttle plate should stop just before making contact with idle screw and allowing a small amount of slack in cable to occur.
- 4. Loosen jam nuts on throttle cable and adjust, if necessary, until desired positions are attained. Tighten jam nuts and recheck throttle operation.

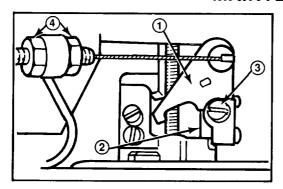


Figure 21

- 1. Throttle shaft plate
- 2. Stop
- 3. Idle screw
- 4. Jam nuts

LUBRICATE FLEXIBLE SHAFT

The flexible drive shaft has been evenly greased at the factory. After approximately 40 hours of operation, the flexible drive shaft should be removed from the drive shaft housing and all surfaces of it should be evenly greased with No. 2 general purpose lithium base grease. To remove flexible drive shaft from drive shaft housing, first remove cutter head assembly by reversing assembling instructions given on page 3. Then simply pull flexible drive shaft from drive shaft housing.

PREPARING TRIMMER FOR STORAGE

- 1. Drain gasoline from fuel tank. Start the engine and let it run at idle speed until it stops and all fuel is expended.
- 2. Remove dirt and grime from external parts of Trimmer housing. Also clean the cooling system: refer to Cooling System Service.
- 3. Pull high tension wire off spark plug, clean area around plug so foreign matter cannot fall into cylinder when plug is removed. Remove plug from cylinder head and pour one teaspoon (5 ml) of 2 cycle oil into spark plug hole. Pull recoil starter handle slowly to distribute oil on inside of cylinder. Reinstall spark plug and tighten it to 9 ft-lbs (1.2 Kg·m). If torque wrench is not used, tighten plug firmly. DO NOT INSTALL HIGH TENSION WIRE ON SPARK PLUG.
- 4. Check condition of cutter head; replace line, if necessary; refer to Replacing Cutting Line
- 5. Clean the air cleaner if necessary: refer to Air Cleaner Service.
- 6. Check and tighten all screws, bolts, nuts and mating parts. If any part is damaged, repair or replace it.
- 7. Store Trimmer in a clean, dry place. Cover Trimmer to protect it and keep it clean.

PRODUCT IDENTIFICATION

A model number and a serial number decal is located on drive shaft tube. Always refer to specific numbers on this decal in correspondence or when replacement parts are needed.

TORO SERVICE SUPPORT

If help — concerning safety, set-up, operation and maintenance or troubleshooting — is ever needed, contact the local Authorized TORO Service Dealer or Distributor. Refer to the "Yellow Pages" for assistance. In addition to skilled service technicians, the dealer and distributor have factory approved accessories and replacement parts. Keep your TORO all TORO. Buy genuine TORO replacement parts and accessories.

ACCESSORIES

Part No.	Description
46-2951	Shoulder Harness
43-4990	Prewound Spool
42-5690	Empty Spool
43-5000	38' Coil — .080" Cutting Line
46-2710	1 lb. — .080" Cutting Line (400 ft.)
44-9870	Accessory Kit (Flex Blade and harness)
46-2961	Deluxe Harness
46-2961	Clamp and Ring Kit

MAINTENANCE RECORD

Date	Hours Used	Check Air Cleaner	Check Cooling System	Check Spark Plug	Check Cutter Head	Preparing for Storage
		and the second s				
					1	
					L	

TROUBLESHOOTING CHART

This Troubleshooting Chart is intended as a guide to assist in correcting some of the common problems which may occur. Most of the "Remedies" can be performed with common hand tools. The Chart is not intended as a guide for major overhaul procedures. For problems which are not covered in this Troubleshooting Chart or this Operator's Manual, consult your local Toro Dealer.

Trouble	Possible Cause	Remedy		
Engine Won't Start or Hard Starting	A. No Fuel	A. Fill fuel tank with gasoline, oil mix: refer to Preparation Before Starting.		
	B. Stale Fuel	B. Drain fuel tank. Fill with proper fuel.		
	C. Carburetor Maladjusted	C. Adjust: refer to Adjusting Carburetor.		
	D. Faulty Spark Plug	D. Replace spark plug.		
	E. Improper Starting	E. Refer to Starting and Stopping Procedures.		
	F. Clogged Air Cleaner	F. Refer to Air Cleaner Service.		
	G. Fuel Filter Plugged	G. Replace fuel filter.		
	H. Carbon Buildup in Exhaust System	H. Clean Exhaust System, refer to Servicing Muffler.		
Engine RPM Too Slow	A. Wrong Fuel Mix	A. Drain Fuel Tank. Fill with proper gasoline, oil mix. Refer to Before Operation.		
	B. Clogged Air Cleaner	B. Refer to Air Cleaner Service.		
	C. Engine Overheating	C. Refer to Cooling System Service.		
	D. Carbon Build Up in Exhaust System	D. Clean Exhaust System, refer to Servicing Muffler.		
:	E. Trimmer Head Dirty	E. Clean Trimmer Head; refer to Cleaning Trimmer Head.		
	F. Throttle Cable Maladjusted	F. Refer to Adjusting Throttle Control.		
Engine Runs Erratically	A. Carburetor Maladjusted	A. Adjust; refer to Adjusting Carburetor.		
	B. Contaminated Fuel	B. Turn High Speed Screw 3 turns counterclockwise, then return to the original positions. Refer to Adjusting Carburetor.		
	C. Fuel Filter Plugged	C. Replace Fuel Filter.		
Engine Stops	A. Out of Fuel	A. Fill fuel tank.		
Running	B. Fuel Filter Plugged	B. Replace Fuel Filter.		
Trimmer Vibrates	A. Line Wound Incorrectly	A. Rewind cutting line; refer to Replacing Cutting Line.		
Abnormally	B. Trimmer Head Dirty.	B. Clean Trimmer Head; refer to Cleaning Trimmer Head.		

The Toro Promise

A Two Year Limited Warranty On All

Gasoline Powered Consumer Products

The Toro Company promises to repair these TORO Products if defective in materials or workmanship. The following time periods from the date of purchase apply:

Residential Product 2 Years
Residential Products Used Commercially 45 Days

The costs of parts and labor are included, but the customer pays the transportation costs. Just return any residential product to an Authorized TORO Service Dealer or TORO Distributor.

Should you feel your TORO is defective and wish to rely on The Toro Promise, the following procedure is recommended:

- Contact any Authorized TORO Service Dealer, TORO Master Service Dealer, or TORO Distributor (the Yellow Pages of your telephone directory is a good reference source).
- 2. He will either instruct you to return the product to him or recommend another Authorized TORO Service outlet which might be more convenient.
- Bring the product along with your original sales slip, or other evidence of purchase date, to the service dealer.
- 4. The servicing dealer will inspect the unit, advise you whether the product is defective and, if so, make all repairs necessary to correct the defect without extra charge to you.

If for any reason you are dissatisfied with the dealer's analysis of the defect or the service performed, you may contact us.

Write:

TORO Customer Service Department 8111 Lyndale Avenue South Minneapolis Minnesota 55420

The above remedy of product defects through repair by an Authorized TORO Service Dealer is the purchaser's sole remedy for any defect.

THERE IS NO OTHER EXPRESS WARRANTY. ALL IMPLIED WARRANTIES OF MERCHANT-ABILITY AND FITNESS FOR USE ARE LIMITED TO THE DURATION OF THE EXPRESS WARRANTY.

Some states do not allow limitations on how long implied warranty lasts, so the above limitation may not apply to you.

This Warranty applies only to parts or components which are defective and does not cover repairs necessary due to normal wear, misuse, accidents, or lack of proper maintenance. Regular, routine maintenance of the unit to keep it in proper operating condition is the responsibility of the owner.

All warranty repairs reimbursable under The Toro Promise must be performed by an Authorized TORO Service Dealer using Toro approved replacement parts

Repairs or attempted repairs by anyone other than an Authorized TORO Service Account are not reimbursable under The Toro Promise. In addition, these unauthorized repair attempts may result in additional malfunctions, the correction of which is not covered by warranty.

THE TORO COMPANY IS NOT LIABLE FOR INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH THE USE OF THE PRODUCT INCLUDING ANY COST OR EXPENSE OF PROVIDING SUBSTITUTE EQUIPMENT OR SERVICE DURING PERIODS OF MALFUNCTION OR NON-USE.

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

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

COUNTRIES OTHER THAN THE UNITED STATES OR CANADA

Customers who have purchased TORO products exported from the United States or Canada should contact their TORO Distributor (Dealer) to obtain guarantee policies for your country, province or state. If for any reason

you are dissatisfied with your Distributor's service or have difficulty obtaining guarantee information, contact the TORO importer. If all other remedies fail, you may contact us at The Toro Company.

Compliance with Radio Interference Regulations Certified. Certifie Conforme au Reglement sur le Brouillage Radioelectrique