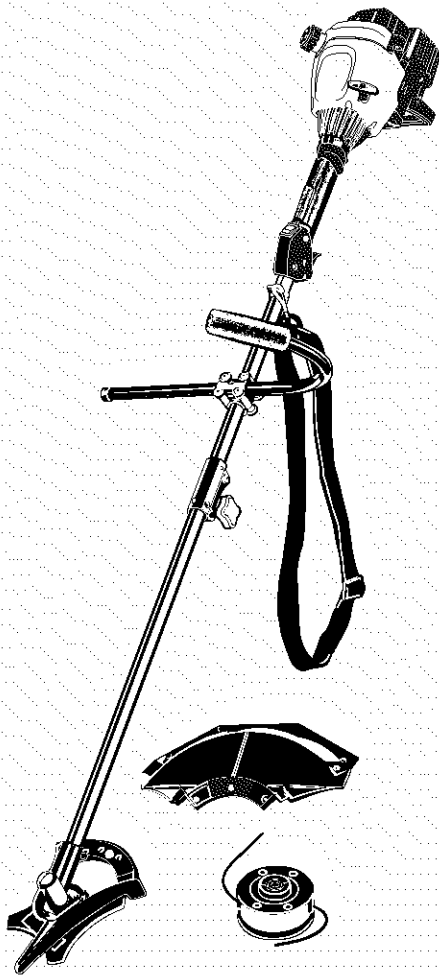




# Operator's Manual



## 2-Cycle Gasoline Trimmer / Brushcutter Model TB90BC

### IMPORTANT: READ SAFETY RULES AND INSTRUCTIONS CAREFULLY

**NOTE:** For users on U.S. Forest Land and in the states of California, Maine, Oregon and Washington. All U.S. Forest Land and the state of California (Public Resources Codes 4442 and 4443), Oregon and Washington require, by law that certain internal combustion engines operated on forest brush and/or grass-covered areas be equipped with a spark arrestor, maintained in effective working order, or the engine be constructed, equipped and maintained for the prevention of fire. Check with your state or local authorities for regulations pertaining to these requirements. Failure to follow these requirements could subject you to liability or a fine. This unit is factory equipped with a spark arrestor. If it requires replacement, Accessory Part 791-180890 Spark Arrestor Screen is available by contacting the service department at Troy-Bilt LLC, P.O. Box 361131 Cleveland, Ohio 44136-0019.

TROY-BILT LLC, P.O. BOX 361131, CLEVELAND, OH 44136-0019

P/N 792-10820 (01/02 rev. P00)  
PRINTED IN USA

# TABLE OF CONTENTS

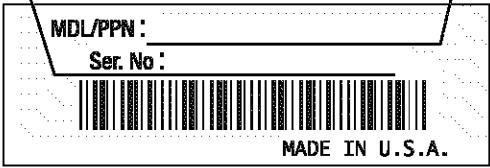
Content	Page
Calling Customer Support .....	2
Rules for Safe Operation .....	3
Know Your Unit .....	7
Assembly Instructions .....	8
Oil and Fuel Information .....	12
Starting/Stopping Instructions .....	13
Operating Instructions .....	14
Maintenance and Repair Instructions .....	17
Accessories and Replacement Parts .....	22
Cleaning and Storage .....	23
Troubleshooting Chart .....	24
Specifications .....	25
Warranty Information .....	28

## FINDING MODEL NUMBER

This Operator's Manual is an important part of your new Trimmer/Brushcutter. It will help you assemble, prepare and maintain the unit for best performance. Please read and understand what it says.

Before you start assembling your new equipment, please locate the model plate on the equipment and copy the information from it in the space provided below. This information is very important if you need help from our Customer Support Department or an authorized dealer.

- You can locate the model number by looking at the underside of the engine. A sample model plate is explained below. For future reference, please copy the model number and the serial number of the equipment in the space below

Serial Number	Model / Parent Part Number
	Copy the model / parent part number here: _____
	Copy the serial number here: _____

## CALLING CUSTOMER SUPPORT

If you have difficulty assembling this product or have any questions regarding the controls, operation or maintenance of this unit, please call the Customer Support Department.



Call 1- (330) 558-7220 or 1- (866) 840-6483 to reach a Customer Support representative. Please have your unit's model number and serial number ready when you call. See previous section to locate this information. You will be asked to enter the serial number in order to process your call.



For more details about your unit, visit our website at [www.troybilt.com](http://www.troybilt.com)

# RULES FOR SAFE OPERATION

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols, and their explanations, deserve your careful attention and understanding. The safety warnings do not by themselves eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention measures.

SYMBOL	MEANING
	<b>SAFETY ALERT SYMBOL:</b> Indicates danger, warning, or caution. Attention is required in order to avoid serious personal injury. May be used in conjunction with other symbols or pictographs.
	<b>NOTE:</b> Advises you of information or instructions vital to the operation or maintenance of the equipment.

## California Proposition 65 Warning:

	<b>WARNING</b>	
<p><b>THE ENGINE EXHAUST FROM THIS PRODUCT CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.</b></p>		

## READ ALL INSTRUCTIONS BEFORE OPERATING

- Read the instructions carefully. Be familiar with the controls and proper use of the unit.
- Do not operate this unit when tired, ill, or under the influence of alcohol, drugs, or medication.
- Children and teens under the age of 15 must not use the unit, except for teens guided by an adult.
- Inspect the unit before use. Replace damaged parts. Check for fuel leaks. Make sure all fasteners are in place and secure. Replace cutting attachment parts that are cracked, chipped, or damaged in any way. Make sure the cutting attachment is properly installed and securely fastened. Be sure the cutting attachment shield is properly attached, and positioned as recommended. Failure to do so can result in personal injury to the operator and bystanders, as well as damage to the unit.
- Use only 0.105 inch (2.667 mm) diameter genuine Troy-Bilt LLC replacement line. Never use metal-reinforced line, wire, or rope, etc. These can break off and become a dangerous projectile.
- Be aware of the risk of injury to the head, hands and feet.
- Clear the area to be cut before each use. Remove all objects such as rocks, broken glass, nails, wire, or string which can be thrown or become entangled in



**DANGER:** Failure to obey a safety warning will result in serious injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock, and personal injury.



**WARNING:** Failure to obey a safety warning can result in injury to yourself and others. Always follow the safety precautions to reduce the risk of fire, electric shock, and personal injury.



**CAUTION:** Failure to obey a safety warning may result in property damage or personal injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock, and personal injury.

the cutting attachment. Clear the area of children, bystanders, and pets. At a minimum, keep all children, bystanders and pets outside a 50 feet (15 m) radius; there still may be a risk to bystanders from thrown objects. Bystanders should be encouraged to wear eye protection. If you are approached, stop the engine and cutting attachment immediately.

- Squeeze the throttle control and check that it returns automatically to the idle position. Make all adjustments or repairs before using unit.

## SAFETY WARNINGS FOR GAS TRIMMERS

**WARNING:** Gasoline is highly flammable, and its vapors can explode if ignited. Take the following precautions:

- Store fuel only in containers specifically designed and approved for the storage of such materials.
- Always stop the engine and allow it to cool before filling the fuel tank. Never remove the cap of the fuel tank, or add fuel, when the engine is hot. Never operate the unit without the fuel cap securely in place. Loosen the fuel tank cap slowly to relieve any pressure in the tank.
- Add fuel in a clean, well-ventilated area outdoors where there are no sparks or flames. Slowly remove the fuel cap only after stopping engine. Do not smoke while fueling or mixing fuel. Wipe up any spilled fuel from the unit immediately.
- Avoid creating a source of ignition for spilled fuel. Do not start the engine until fuel vapors dissipate.
- Move the unit at least 30 feet (9.1 m) from the fueling source and site before starting the engine. Do not smoke. Keep sparks and open flames away from the area while adding fuel or operating the unit.

## WHILE OPERATING

- Never start or run the unit inside a closed room or building. Breathing exhaust fumes can kill. Operate this unit only in a well ventilated area outdoors.
- Wear safety glasses or goggles that are marked as meeting ANSI Z87.1 standards, and ear/hearing protection when operating this unit. Wear a face or dust mask if the operation is dusty.

# RULES FOR SAFE OPERATION

- Wear heavy, long pants, boots, gloves and a long sleeve shirt. Do not wear loose clothing, jewelry, short pants, sandals or go barefoot. Secure hair above shoulder level.
- The cutting attachment shield must always be in place while operating the unit. Do not operate unit without both trimming lines extended, and the proper line installed. Do not extend the trimming line beyond the length of the shield.
- This unit has a clutch. The cutting attachment remains stationary when the engine is idling. If it does not, have the unit adjusted by an authorized service technician.
- Adjust the J-Handle to your size to provide the best grip.
- Be sure the cutting attachment is not in contact with anything before starting the unit.
- Use the unit only in daylight or good artificial light.
- Avoid accidental starting. Be in the starting position whenever pulling the starter rope. The operator and unit must be in a stable position while starting. See Starting/Stopping Instructions.
- Use the right tool. Only use this tool for the purpose intended.
- Do not overreach. Always keep proper footing and balance.
- Always hold the unit with both hands when operating. Keep a firm grip on both the front and rear handle or grips.
- Keep hands, face, and feet at a distance from all moving parts. Do not touch or try to stop the cutting attachment when it is rotating.
- Do not touch the engine, gear housing or muffler. These parts get extremely hot from operation. When turned off they remain hot for a short time.
- Do not operate the engine faster than the speed needed to cut, trim or edge. Do not run the engine at high speed when not cutting.
- Always stop the engine when cutting is delayed or when walking from one cutting location to another.
- If you strike or become entangled with a foreign object, stop the engine immediately and check for damage. Do not operate before repairing damage. Do not operate the unit with loose or damaged parts.
- Stop and switch the engine to off for maintenance, repair, or for changing the cutting attachment or other attachments.
- Use only genuine manufacturer's replacement parts and accessories for this unit. These are available from your authorized service dealer. Use of any non Troy-Bilt LLC parts or accessories could lead to serious injury to the user, or damage to the unit, and void your warranty.
- Keep unit clean of vegetation and other materials. They may become lodged between the cutting attachment and shield.
- To reduce fire hazard, replace faulty muffler and spark

arrestor, keep the engine and muffler free from grass, leaves, excessive grease or carbon build up.

## WHILE OPERATING WITH CUTTING BLADE

- Read and understand all safety warnings before operating this unit.
- Always use the shoulder harness when using the brush blade accessory.
- Keep the J-handle between the operator and cutting attachment or blade at all times.
- NEVER cut with the cutting blade located over 30 inches (76 cm) or more above the ground level.
- Blade thrust may occur when the spinning blade contacts an object that it does not immediately cut. Blade thrust can be violent enough to cause the unit and/or operator to be propelled in any direction, and possibly lose control of the unit. Blade thrust can occur without warning if the blade snags, stalls or binds. This is more likely to occur in areas where it is difficult to see the material being cut.
- For operation with the brush blade, do not cut anything thicker than 1/2 inch or a violent kickback could occur.
- Do not attempt to touch or stop the blade when it is rotating.
- A coasting blade can cause injury while it continues to spin after the engine is stopped or the throttle trigger is released. Maintain proper control until the blade has completely stopped rotating.
- Do not run the unit at high speed when not cutting.
- If you strike or become entangled with a foreign object, stop the engine immediately and check for damage. Have any damage repaired before attempting further operations. Do not operate unit with a bent, cracked or dull blade. Discard blades that are bent, warped, cracked or broken.
- Do not sharpen the cutting blade. Sharpening the blade can cause the blade tip to break off while in use. This can result in severe personal injury. Replace the blade.
- Do not use the cutting blade for edging or as an edger, severe personal injury to yourself or others can occur. Use the cutting blade only for the purpose as described in this manual.
- Stop the engine IMMEDIATELY if you feel excessive vibration. Vibration is a sign of trouble. Inspect thoroughly for loose nuts, bolts or damage before continuing. Repair or replace affected parts as necessary.

## AFTER USE

- Clean cutting blades with a household cleaner to remove any gum buildup. Oil the blade with machine oil to prevent rust.
- Lock up and store the cutting blade in an appropriate area to protect the blade from unauthorized use or damage.

# RULES FOR SAFE OPERATION

## OTHER SAFETY WARNINGS

- Never store the unit, with fuel in the tank, inside a building where fumes may reach an open flame or spark.
- Allow the engine to cool before storing or transporting. Be sure to secure the unit while transporting.
- Store the unit in a dry area, locked up or up high to prevent unauthorized use or damage, out of the reach of children.

- Never douse or squirt the unit with water or any other liquid. Keep handles dry, clean and free from debris. Clean after each use, see **Cleaning and Storage** instructions.
- Keep these instructions. Refer to them often and use them to instruct other users. If you loan someone this unit, also loan them these instructions.

## SAVE THESE INSTRUCTIONS

## SAFETY AND INTERNATIONAL SYMBOLS

This operator's manual describes safety and international symbols and pictographs that may appear on this product. Read the operator's manual for complete safety, assembly, operating and maintenance and repair information.

### SYMBOL

### MEANING



#### • SAFETY ALERT SYMBOL

Indicates danger, warning, or caution. May be used in conjunction with other symbols or pictographs.



#### • WARNING - READ OPERATOR'S MANUAL

Read the Operator's Manual(s) and follow all warnings and safety instructions. Failure to do so can result in serious injury to the operator and/or bystanders.



#### • WEAR EYE AND HEARING PROTECTION

**WARNING:** Thrown objects and loud noise can cause severe eye injury and hearing loss. Wear eye protection meeting ANSI Z87.1 standards and ear protection when operating this unit. Use a full face shield when needed.



#### • KEEP BYSTANDERS AWAY

**WARNING:** Keep all bystanders, especially children and pets, at least 50 feet (15 m) from the operating area.



#### • PRIMER BULB

Push primer bulb, fully and slowly, 5 to 7 times.



#### • UNLEADED FUEL

Always use clean, fresh unleaded fuel.

# RULES FOR SAFE OPERATION

## SYMBOL

## MEANING



### • OIL

Refer to operator's manual for the proper type of oil.



### • THROWN OBJECTS AND ROTATING CUTTER CAN CAUSE SEVERE INJURY

**WARNING:** Do not operate without the cutting attachment shield in place. Keep away from the rotating cutting attachment.



### • ON/OFF STOP CONTROL

ON / START / RUN



### • ON/OFF STOP CONTROL

OFF OR STOP



### • HOT SURFACE WARNING

Do not touch a hot muffler, gear housing or cylinder. You may get burned. These parts get extremely hot from operation. When turned off they remain hot for a short time.



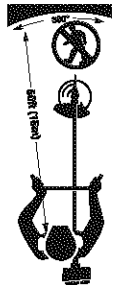
### • SHARP BLADE

**WARNING:** Sharp blade on cutting attachment shield. To prevent serious injury, do not touch line cutting blade.



### • BRUSHCUTTERS • Replace dull blade.

Do not sharpen the cutting blade. Sharpening the blade can cause the blade tip to break off while in use. This can result in severe personal injury.



### • TRIMMER/BRUSHCUTTER SAFETY

**WARNING:** Thrown objects and rotating cutter can cause severe injury. Keep bystanders, especially children and pets, at least 50 feet (15 m.) away from the cutting area. The cutting attachment shield must be used when using the trimmer cutting attachment.

# RULES FOR SAFE OPERATION

## KNOW YOUR UNIT

### APPLICATIONS

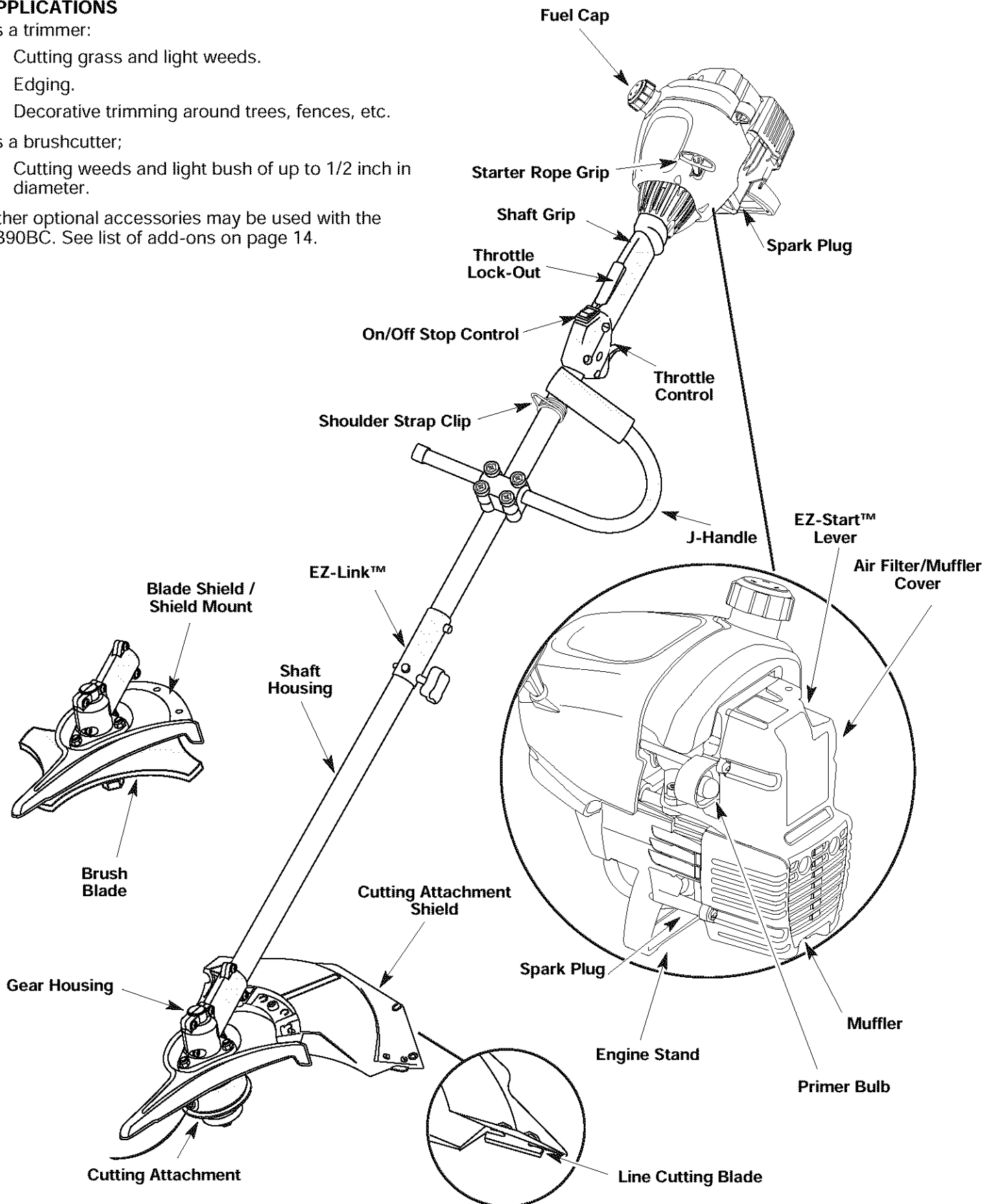
As a trimmer:

- Cutting grass and light weeds.
- Edging.
- Decorative trimming around trees, fences, etc.

As a brushcutter;

- Cutting weeds and light bush of up to 1/2 inch in diameter.

Other optional accessories may be used with the TB90BC. See list of add-ons on page 14.



# ASSEMBLY INSTRUCTIONS

## INSTALLING AND ADJUSTING THE J-HANDLE

1. Place the J-handle between the top and middle clamp pieces (Fig. 1).

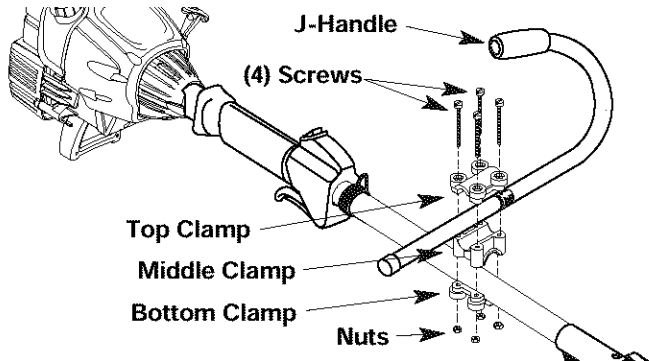


Fig. 1

2. While holding the three pieces together, install the four (4) screws through the top clamp and into middle clamp.

**NOTE:** The holes in the top and middle clamp will line up only when assembled correctly.

3. Place the clamps and J-handle over the shaft housing and onto the bottom clamp.
4. Hold each hex nut in the bottom clamp recess with a finger. Start screws with a large Phillips screwdriver. Do not tighten until you make the handle adjustment.
5. Slide the J-handle in or out until the arrow/white line on the decal touches the clamp assembly (Fig. 2).

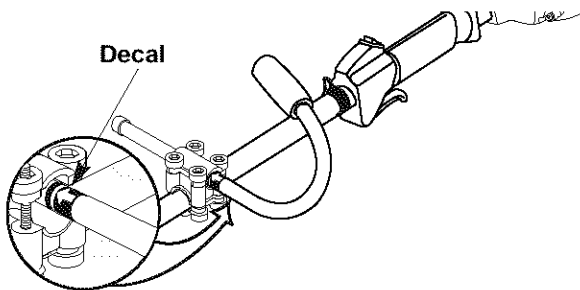


Fig. 2



Fig. 3

6. While holding the unit in the operating position (Fig. 3), position the J-handle to the location that provides you the best grip.
7. Tighten the clamp screws evenly, until the J-handle is secure.

## INSTALLING THE HARNESS



**WARNING:** Always use the shoulder harness when using the cutting blade to avoid serious personal injury.

1. Push the strap through the center of the buckle.
2. Pull the strap over the cross bar and down through the slot in the buckle (Fig. 4).

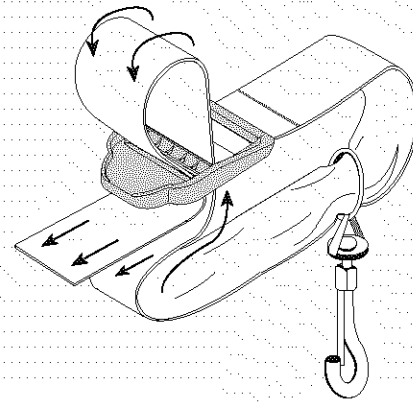


Fig. 4

3. Put the harness on over head and onto shoulder. Snap it on to the support fitting (Fig. 5).

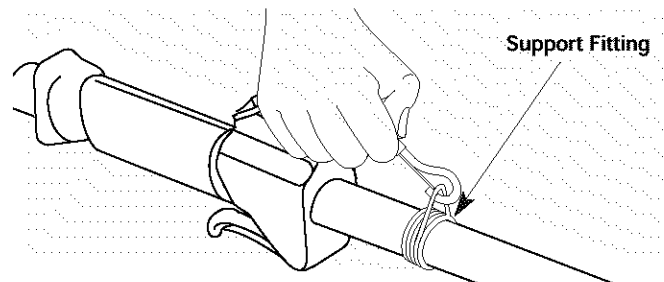


Fig. 5

4. Adjust length to fit the operator's size. Pull tab to lengthen, pull strap to shorten (Fig 6).

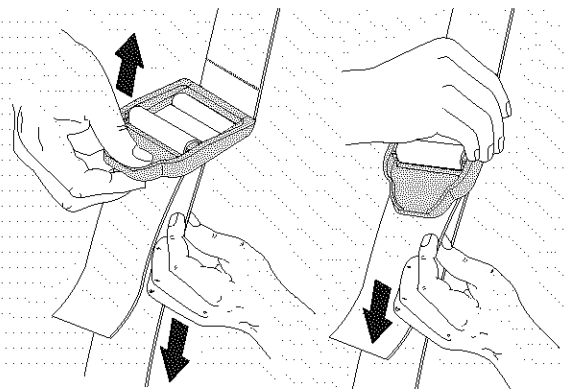


Fig. 6



# ASSEMBLY INSTRUCTIONS

## REMOVING AND INSTALLING CUTTING ATTACHMENT SHIELD

Remove the cutting attachment shield when using the unit as a brushcutter.



**WARNING:** The cutting attachment shield should NOT be installed when operating the unit with a blade. Remove the cutting attachment shield before removing or installing the blade.

Remove the cutting attachment shield from the shield mount by removing the three (3) screws with a flat blade screwdriver (Fig. 7). Store parts for future use.

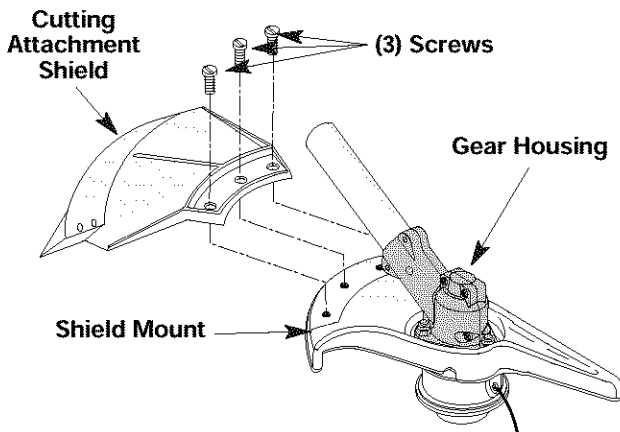


Fig. 7

Install the cutting attachment shield when using the unit as a grass trimmer.



**WARNING:** To avoid serious personal injury, the cutting attachment shield SHALL be in place at all times while operating the unit as a grass trimmer.

Install the cutting attachment shield on the shield mount by inserting the three (3) screws into the shield mount. Tighten securely with a flat blade screwdriver (Fig. 7).

## REMOVE THE CUTTING ATTACHMENT AND INSTALL THE CUTTING BLADE

**NOTE:** To make removing or installing the cutting blade or cutting attachment easier, place the unit on the ground or on a work bench.

### Remove the Cutting Attachment Shield

See Removing and Installing Cutting Attachment Shield.

### Remove the Cutting Attachment



**WARNING:** The gear housing gets hot with use and can result in injury to the operator. When the unit is turned off it remains hot for a short time. Do not touch the gear housing until it has cooled.

1. Align the shaft bushing hole with the locking rod slot and insert the locking rod into the shaft bushing hole (Fig. 8).

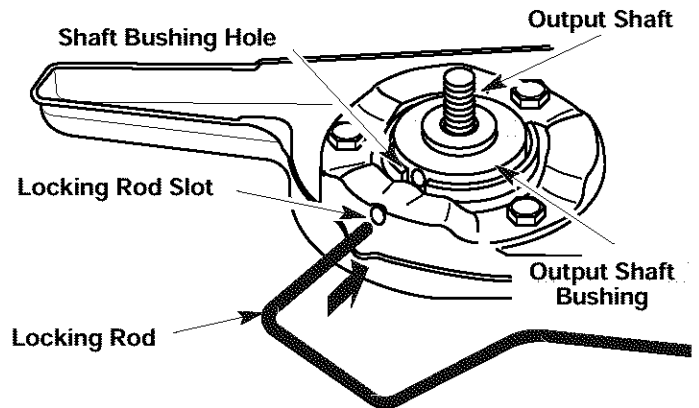


Fig. 8

2. Hold the locking rod in place by grasping it next to the boom of the unit (Fig. 9).
3. While holding the locking rod, remove the cutting attachment by turning it clockwise off of the output shaft (Fig. 10). Store the cutting attachment for future use.

**NOTE:** The blade retainer under the cutting attachment will be used when installing the cutting blade.

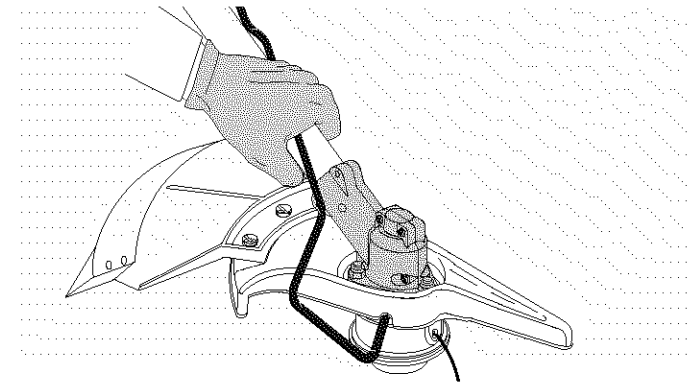


Fig. 9

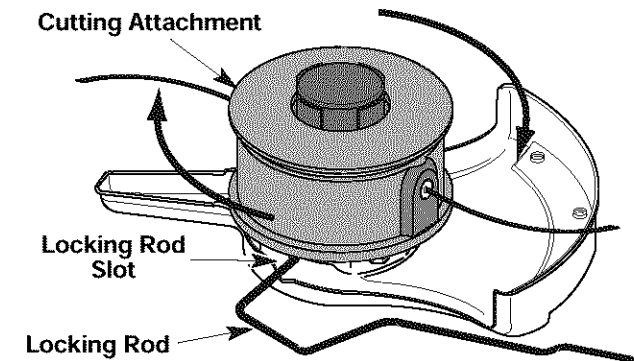


Fig. 10

# ASSEMBLY INSTRUCTIONS

## Install the Cutting Blade



**WARNING:** To avoid serious personal injury, always wear gloves while handling or installing the blade.

- Place the cutting blade on the output shaft bushing (Fig. 11).
- Make sure that the cutting blade is centered on the pilot step and sitting flat against the output shaft bushing (Fig. 12).



**WARNING:** If the cutting blade is off-center, the unit will vibrate, and the blade may fly off, which can cause serious personal injury.

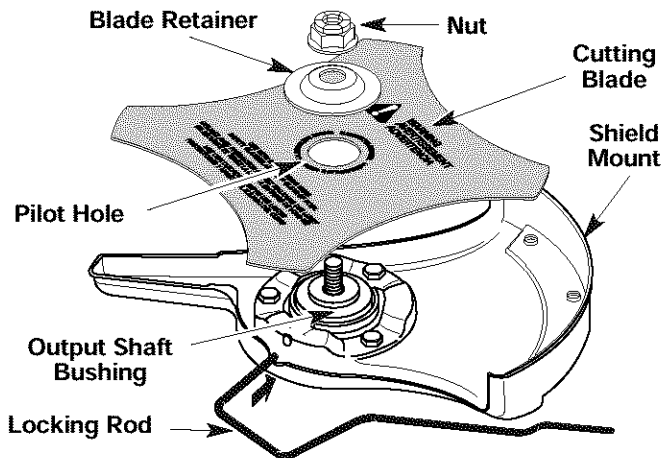


Fig. 11

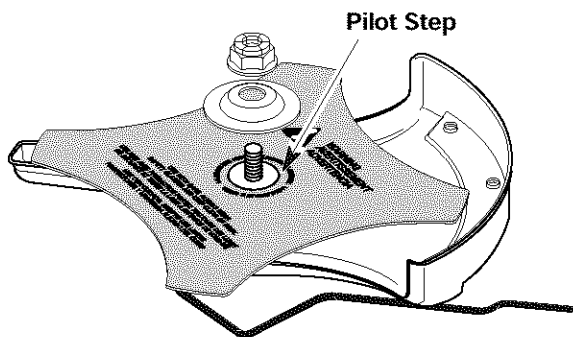


Fig. 12

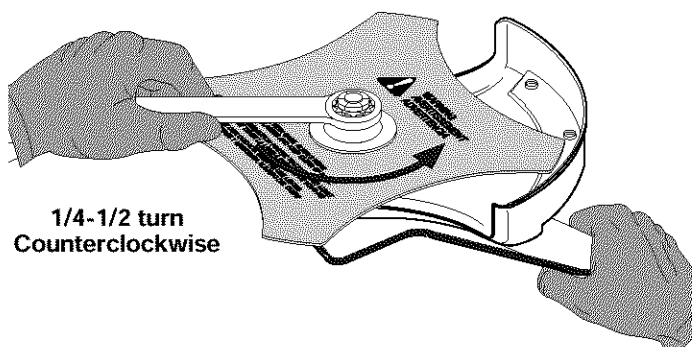


Fig. 13

- Align the shaft bushing hole with the locking rod slot and insert the locking rod into the bushing hole (Fig. 8, Pg. 9).
- Put the blade retainer and nut on the output shaft. Make sure that the blade is installed correctly.
- Tighten nut counterclockwise against the blade while holding the locking rod;
  - If using a torque wrench and an 5/8 inch socket tighten to: **325 - 335 in•lb, 27 - 28 ft.•lb, 37 - 38 N•m.**
  - Without a torque wrench, use a 5/8 inch closed-end or socket wrench, turning the nut until the blade retainer is snug against the shaft bushing. Make sure that the blade is installed correctly, then rotate the nut an additional 1/4 to 1/2 turn counterclockwise (Fig. 13).
- Remove the locking rod from the locking rod slot.



**WARNING:** To avoid serious personal injury or damage to the unit, do not start or operate this unit with the locking rod in the locking rod slot.



**WARNING:** Do not sharpen the cutting blade. Sharpening the blade can cause the blade tip to break off while in use. This can result in severe personal injury. Replace the blade.

## REMOVE THE CUTTING BLADE AND INSTALL THE CUTTING ATTACHMENT

### Remove the Cutting Blade



**WARNING:** To avoid serious personal injury, always wear gloves while handling or installing the blade.

- Align the shaft bushing hole with the locking rod slot and insert the locking rod into the bushing hole (Fig. 8, Pg. 9).
- Hold the locking rod in place by grasping it next to the boom of the unit (Fig. 14).

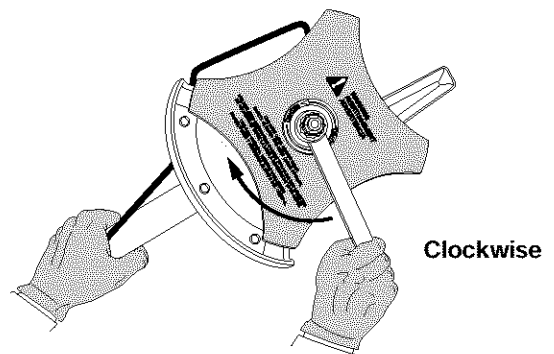


Fig. 14

## ASSEMBLY INSTRUCTIONS

3. While holding the locking rod, loosen the nut on the blade by turning it clockwise with a 5/8 inch closed-end or socket wrench (Fig. 14).
4. Remove the nut, blade retainer, and blade. Store the nut and blade together for future use in a secure place. Store out of reach of children.

### Install the Cutting Attachment

5. Align the shaft bushing hole with the locking rod slot and insert the locking rod into the shaft bushing hole. (Fig. 8, Pg. 9). Place the blade retainer on the output shaft with the flat surface against the output shaft bushing as shown in Fig. 15. Screw the cutting attachment counterclockwise onto the output shaft. Tighten securely.

**NOTE:** The blade retainer must be installed on the output shaft in the position shown for the cutting attachment to work correctly.

6. Remove the locking rod.
7. Install the cutting attachment shield. See Removing and Installing Cutting Attachment Shield, Pg. 9.

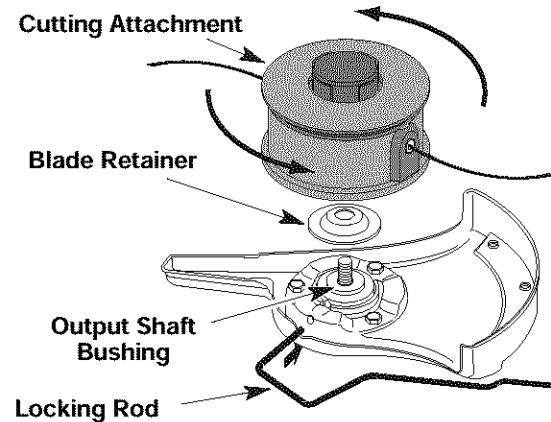


Fig. 15



**WARNING:** To avoid serious personal injury, the cutting attachment shield SHALL be in place at all times while operating the unit as a grass trimmer.

# OIL AND FUEL INFORMATION

## OIL AND FUEL MIXING INSTRUCTIONS

Old and/or improperly mixed fuel are the main reasons for the unit not running properly. Be sure to use fresh, clean unleaded fuel. Follow the instructions carefully for the proper fuel/oil mixture.

### Definition of Blended Fuels

Today's fuels are often a blend of gasoline and oxygenates such as ethanol, methanol or MTBE (ether). Alcohol-blended fuel absorbs water. As little as 1% water in the fuel can make fuel and oil separate. It forms acids when stored. When using alcohol-blended fuel, use fresh fuel (less than 60 days old).

### Using Blended Fuels


If you choose to use a blended fuel, or its use is unavoidable, follow recommended precautions.

- Always use fresh fuel mix per your operator's manual.
- Always agitate the fuel mix before fueling the unit.
- Drain the tank and run the engine dry before storing the unit.

### Using Fuel Additives



The bottle of Troy-Bilt 2-Cycle oil that came with your unit contains a fuel additive which will help inhibit corrosion and minimize the formation of gum deposits. It is recommended that you use only Troy-Bilt 2-Cycle oil with this unit.


If unavailable, use a good 2-cycle oil designed for air-cooled engines along with a fuel additive, such as STA-BIL® Gas Stabilizer or an equivalent. Add 0.8 oz. (23 ml.) of fuel additive per gallon of fuel according to the instructions on the container. NEVER add fuel additives directly to the unit's fuel tank.


 **CAUTION:** For proper engine operation and maximum reliability, pay strict attention to the oil and fuel mixing instructions on the 2-cycle oil container. Using improperly mixed fuel can severely damage the engine.


Thoroughly mix the proper ratio of 2-cycle engine oil with unleaded gasoline in a separate fuel can. Use a 32:1 fuel/oil ratio. Do not mix them directly in the engine fuel tank. See the table below for specific gas and oil mixing ratios.

**NOTE:** One gallon (3.8 liters) of unleaded gasoline mixed with one 4 oz. (120 ml.) bottle of Troy-Bilt 2 Cycle oil makes a 32:1 fuel/oil ratio.

	+	
<b>UNLEADED GAS</b>		<b>TROY-BILT 2 CYCLE OIL</b>
<b>1 US. GALLON (3.8 LITERS)</b>	+	<b>4.0 FL. OZ. (120 ml)</b>
<b>1 LITER</b>	+	<b>30 ml</b>
<b>MIXING RATIO - 32:1</b>		

 **WARNING:** Gasoline is extremely flammable. Ignited Vapors may explode. Always stop the engine and allow it to cool before filling the fuel tank. Do not smoke while filling the tank. Keep sparks and open flames at a distance from the area.

 **WARNING:** Remove fuel cap slowly to avoid injury from fuel spray. Never operate the unit without the fuel cap securely in place.

 **WARNING:** Add fuel in a clean, well ventilated area outdoors. Wipe up any spilled fuel immediately. Avoid creating a source of ignition for spilt fuel. Do not start the engine until fuel vapors dissipate.

**NOTE:** Dispose of the old fuel/oil mix in accordance to Federal, State, and Local regulations.

# STARTING/STOPPING INSTRUCTIONS

## STARTING INSTRUCTIONS



**WARNING:** Operate this unit only in a well-ventilated area outdoors. Carbon monoxide exhaust fumes can be lethal in a confined area.



**WARNING:** Avoid accidental starting. Be in the starting position when pulling the starter rope (Fig. 9). The operator and unit must be in a stable position while starting to avoid serious personal injury.

Avoid serious personal injury, ensure any Add-On being used is installed correctly and secure before starting unit.

1. Mix gas with oil. Fill fuel tank with fuel/oil mixture. See **Oil and Fuel Mixing Instructions** Pg. 12.
2. Put the On/Off Stop Control in the **ON (I)** position (Fig. 16).
3. Fully press and release primer bulb slowly 5 to 7 times. Fuel should be visible in the bulb (Fig. 17). If fuel is not visible, press three (3) more times, or until it is.
4. Push the EZ-Start™ Lever to the left until it clicks and locks into place. (Fig. 17).
5. With the unit in the starting position (Fig. 18). **DO NOT SQUEEZE THE THROTTLE CONTROL.** Pull the starter rope briskly 5 times in the with the EZ-Start™ lever pushed to the left. If the engine starts to run before the fifth pull, proceed to step 7.

**NOTE:** When starting, the EZ-Start™ Lever will automatically click off when the throttle control is squeezed.

**NOTE:** If the engine floods while trying to start. Squeeze the throttle control (Fig. 16). Pull the starter rope briskly. The engine should start within three (3) to eight (8) pulls.

6. Squeeze the throttle control to warm up engine for 5 to 10 seconds. Ez-Start™ Lever will click off automatically (Fig. 17).

**NOTE:** If engine stalls while squeezing trigger, continue to squeeze trigger and pull starter rope until the trimmer starts. (Fig. 18)

**NOTE:** Choking is unnecessary when starting a warm engine. Put the On/Off Stop Control in the **ON** position (Fig. 3), squeeze the throttle and pull the starter rope briskly. (Fig. 18).

## STOPPING INSTRUCTIONS

1. Release your hand from the throttle control (Fig. 18). Allow the engine to cool down by idling.
2. Put the On/Off Stop Control in the **OFF (O)** position (Fig. 16).

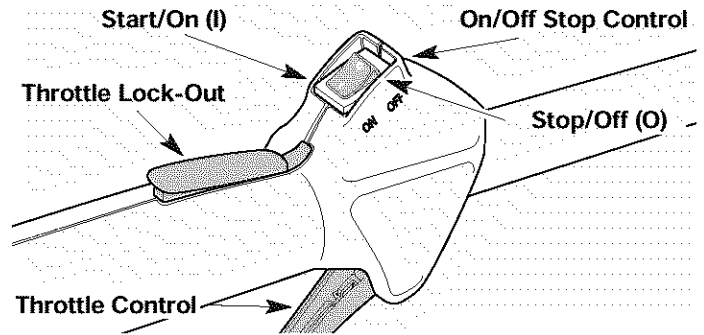


Fig. 16

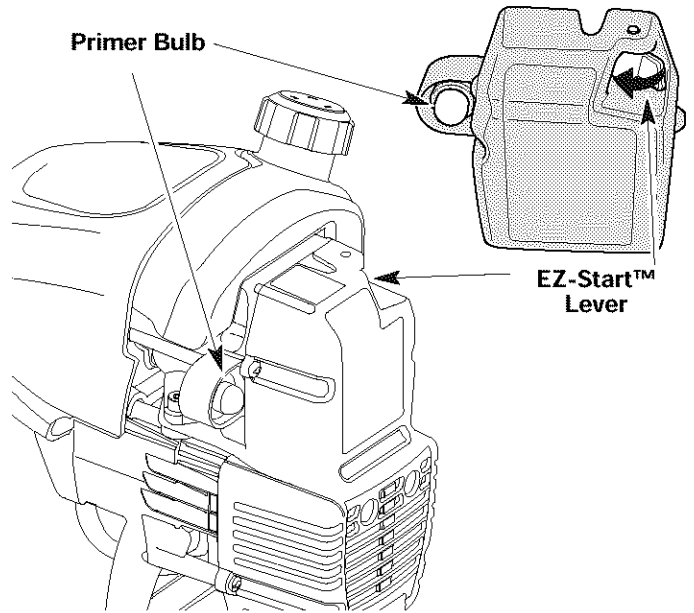


Fig. 17

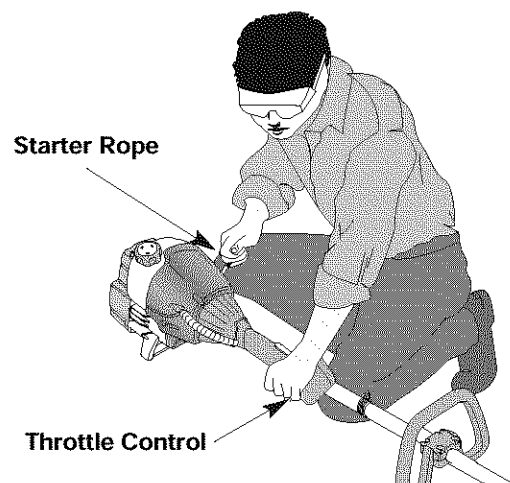


Fig. 18

# OPERATING INSTRUCTIONS

## OPERATING THE EZ-LINK™ SYSTEM

The EZ-Link™ system enables the use of these optional add-ons.

Blower/Vacuum .....	BV720r
Cultivator .....	GC720r
Edger .....	LE720r
Hedge Trimmer .....	HS720r
Snow Thrower .....	ST720r
Straight Shaft Trimmer .....	SS725r
Sweeper/Blower .....	SB720r
Tree Pruner .....	TP720r
Turbo Blower .....	TB720r

**WARNING:** Read and understand operator's manual for add-on prior to operation.

### Removing the Cutting Attachment or Add-Ons:

1. Turn the knob counterclockwise to loosen (Fig. 19).
2. Press and hold the release button (Fig. 19).
3. While firmly holding the upper shaft housing, pull the cutting attachment or add-on straight out of the EZ-Link™ coupler (Fig. 20).

### Installing the Cutting Attachment or Add-Ons:

**WARNING:** To avoid serious personal injury and damage to the unit, shut unit off before removing or installing add-ons.

**NOTE:** To make installing or removing the add-on easier, place the unit on the ground or on a work bench.

1. Turn knob counterclockwise to loosen (Fig. 21).

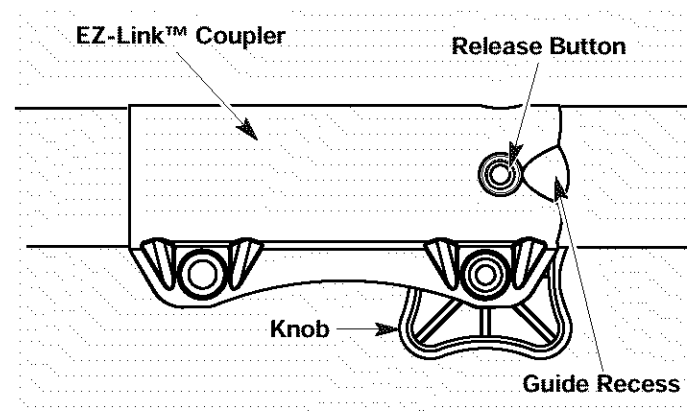


Fig. 19

2. While firmly holding the add-on, push it straight into the EZ-Link™ coupler (Fig. 20).

**NOTE:** Aligning the release button with the guide recess will help installation (Fig. 19).

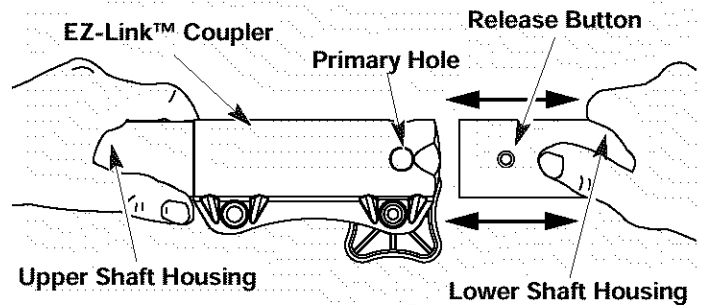


Fig. 20

3. Turn the knob clockwise to tighten (Fig. 21).

**CAUTION:** Lock the release button in the primary hole and securely tighten the knob before operating this unit.

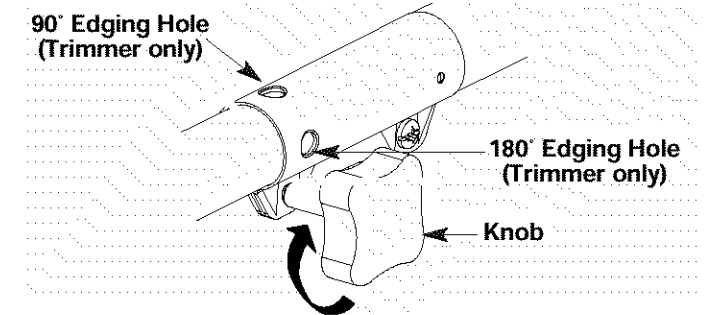


Fig. 21

**CAUTION:** The cutting attachment and add-ons with the EZ-Link™ system are to be used in the primary hole unless stated otherwise in the specific add-ons operator's manual. Using the wrong hole could lead to personal injury, or damage to the unit.

For edging when using the line head cutting attachment with EZ-Link™ models, lock the release button of the cutting attachment into the **90° edging hole** or the **180° edging hole** (Fig. 21).

**WARNING:** Do not use the cutting blade for edging or as an edger, severe personal injury to yourself or others can occur.

# OPERATING INSTRUCTIONS

## HOLDING THE TRIMMER



**WARNING:** Always wear eye, hearing, foot, body protection and strap to reduce the risk of injury when operating this unit.

Before operating the unit, stand in the operating position (Fig. 22). Check for the following:

- The operator is wearing eye protection and proper clothing.
- The right arm is slightly bent, and the hand is holding the shaft grip.
- The left arm is straight, and the hand is holding the J-handle.
- The unit is at waist level.
- The cutting attachment is parallel to the ground and easily contacts the vegetation to be cut without the operator having to bend over.



Fig. 22

## ADJUSTING TRIMMING LINE LENGTH

The Bump Head™ cutting attachment allows you to release trimming line without stopping the engine. To release more line, lightly tap the cutting attachment on the ground (Fig. 23) while operating the trimmer at high speed.

**NOTE:** Always keep the trimming line fully extended. Line release becomes more difficult as cutting line becomes shorter

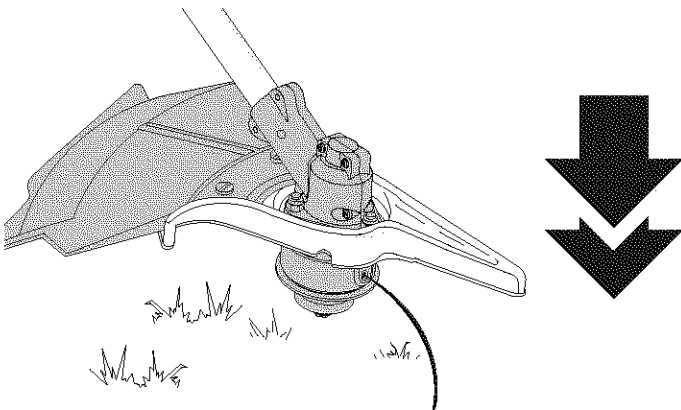


Fig. 23

Each time the head is bumped, about 1 inch (25.4 mm.) of trimming line is released. A blade in the cutting attachment shield will cut the line to the proper length if excess line is released.

For best results, tap the Bump Head™ on bare ground or hard soil. If line release is attempted in tall grass, the engine may stall. Always keep the trimming line fully extended. Line release becomes more difficult as the cutting line becomes shorter.

**NOTE:** Do not rest the Bump Head™ on the ground while the unit is running .



**CAUTION:** Do not remove or alter the line cutting blade assembly. Excessive line length will make the clutch overheat. This may lead to serious personal injury or damage to the unit.

Some line breakage will occur from:

- Entanglement with foreign matter
- Normal line fatigue
- Attempting to cut thick, stalky weeds
- Forcing the line into objects such as walls or fence posts

## TIPS FOR BEST TRIMMING RESULTS

- Keep the cutting attachment parallel to the ground.
- Do not force the cutting attachment. Allow the tip of the line to do the cutting, especially along walls. Cutting with more than the tip will reduce cutting efficiency and may overload the engine.
- Cut grass over 8 inches (200 mm) by working from top to bottom in small increments to avoid premature line wear or engine drag.
- Cut from left to right whenever possible. Cutting to the right improves the unit's cutting efficiency. Clippings are thrown away from the operator.
- Slowly move the trimmer into and out of the cutting area at the desired height. Move either in a forward-backward or side-to-side motion. Cutting shorter lengths produces the best results.
- Trim only when grass and weeds are dry.
- The life of your cutting line is dependent upon;
  - Following the previous trimming techniques
  - What vegetation is being cut
  - Where it's being cut

For example, the line will wear faster when trimming against a foundation wall as opposed to trimming around a tree.

# OPERATING INSTRUCTIONS

## DECORATIVE TRIMMING

Decorative trimming is accomplished by removing all vegetation around trees, posts, fences, etc.

Rotate the whole unit so that the cutting attachment is at a 30° angle to the ground (Fig. 24).

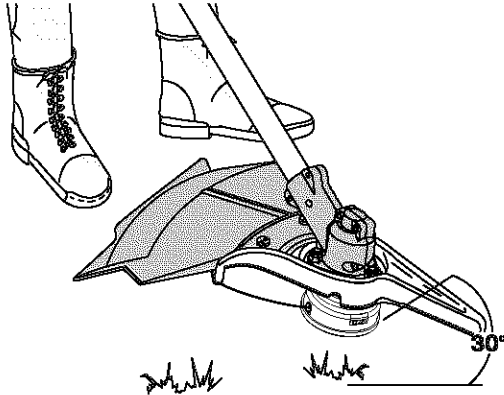


Fig. 24

## USING THE CUTTING BLADE



**WARNING:** Always wear eye, hearing, foot, body protection and the strap to reduce the risk of injury when operating this unit.



**WARNING:** Do not use the cutting blade for edging or as an edger, severe personal injury to yourself or others can occur.

Before operating the unit with the cutting blade stand in the operating position (Fig. 25).

### Cutting Blade Operating Tips:

To establish a rhythmic cutting procedure:

- Plant feet firmly, comfortably apart.
- Bring the engine to full throttle before entering the material to be cut. The blade has maximum cutting power at full throttle and is less likely to bind, stall, or cause blade thrust, which can result in serious personal injury to the operator or others.



**WARNING:** Blade thrust may occur when the spinning blade contacts an object that it does not immediately cut. Blade thrust can be violent enough to cause the unit and/or operator to be propelled in any direction, and possibly lose control of the unit. Blade thrust can occur without warning if the blade snags, stalls or binds. This is more likely to occur in areas where it is difficult to see the material being cut.

- Cut while swinging the upper part of your body from right to left.
- Always release the throttle trigger and allow the engine to return to idle speed when not cutting.
- When done, always unsnap unit from harness before taking harness off.



**WARNING:** The blade continues to spin after the engine is turned off. The coasting blade can seriously cut you if accidentally touched.

- Swing the unit in the same direction as the blade spins, which increases the cutting action.
- Move forward to the next area to be cut after the return swing and plant feet again.
- The cutting blade is designed with a second cutting edge, which can be used by removing the blade, turning it upside down, and reinstalling it.



**WARNING:** Do not sharpen the cutting blade. Sharpening the blade can cause the blade tip to break off while in use. This can result in severe personal injury to yourself or others. Replace the blade.

To reduce the chance of material wrapping around the blade, follow these steps:

- Cut at full throttle.
- Swing the unit into material to be cut from your right to your left (Fig. 26).
- Avoid the material just cut as you make the return swing.



**WARNING:** Do not clear away cut material with the engine running or blade turning. To avoid serious personal injury, turn off engine. Allow the blade to stop before removing materials wrapped around the blade shaft.



Fig. 25

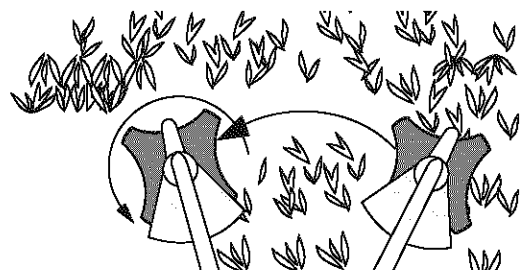


Fig. 26



# MAINTENANCE AND REPAIR INSTRUCTIONS

**NOTE:** Some maintenance procedures may require special tools or skills. If you are unsure about these procedures take your unit to an authorized service dealer.

## MAINTENANCE SCHEDULE

These required maintenance procedures should be performed at the frequency stated in the table. They should also be included as part of any seasonal tune-up.



**WARNING:** To prevent serious injury, never do maintenance or repairs with unit running. Always do maintenance and repairs on a cool unit. Disconnect spark plug wire to ensure the unit will not start.

**NOTE:** Maintenance, Replacement, or Repair of the emission control devices and system may be performed by any non-road engine repair establishment, individual or authorized service dealer.

In order to assure peak performance of your engine, inspection of the engine exhaust port may be necessary after 50 hours of operation. If you notice lost RPM, poor performance or general lack of acceleration, this service may be required. If you feel your engine is need of this inspection, refer service to an authorized servicing dealer, or establishment for repair. **DO NOT** attempt to perform this process yourself as engine damage may result from contaminants involved in the cleaning process for the port.

FREQUENCY	MAINTENANCE REQUIRED	REFER TO:
Before Starting Engine	Fill fuel tank with correct oil and fuel mixture.	Page 12
Every 10 Hours	Clean and re-oil air filter.	Page 19
Every 25 Hours	Check spark arrestor and clean. Check spark plug condition and gap.	Page 20 Page 22
Every 50 Hours	Inspect exhaust port and spark arrestor screen for clogging or obstruction to assure maximum performance levels.	Page 20

## LINE INSTALLATION

This section covers both SplitLine™ and standard single line installation.

Always use genuine Troy-Bilt™ 0.105 in. (2.667 mm) replacement line. Line other than specified may make the engine overheat or fail.



**WARNING:** Never use metal-reinforced line, wire, chain, or rope, etc. These can break off and become dangerous projectiles.

There are two methods to replace the trimming line.

- Wind the inner reel with new line
- Install a prewound inner reel

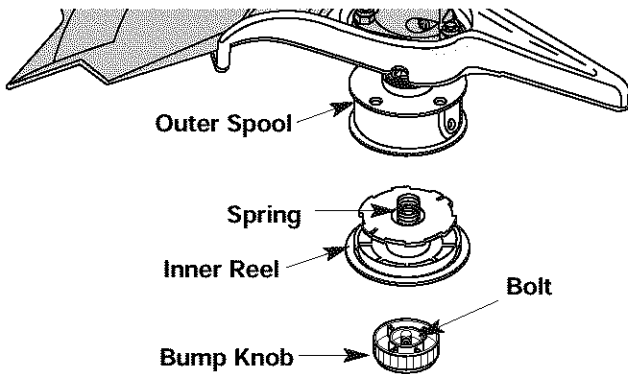


Fig. 27

## Winding the Existing Inner Reel

1. Hold the outer spool with one hand and unscrew the Bump Knob clockwise (Fig. 27). Inspect the bolt inside the bump knob to make sure it moves freely. Replace the bump knob if damaged.
2. Remove the inner reel from the outer spool (Fig. 27).
3. Remove spring from the inner reel (Fig. 27).
4. Use a clean cloth to clean the the inner reel, spring, shaft, and inner surface of the outer spool (Fig. 28).

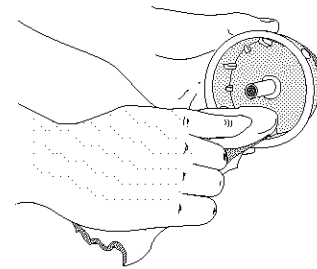


Fig. 28

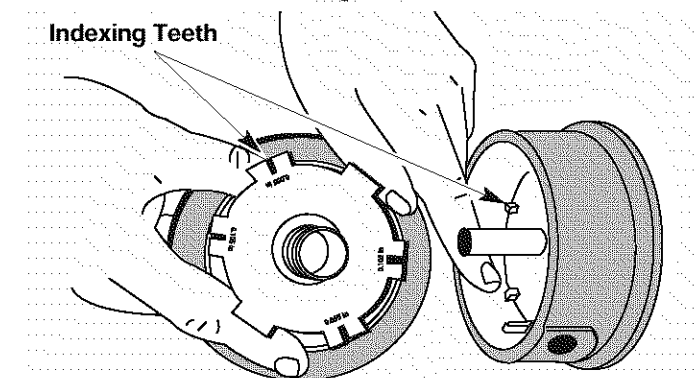


Fig. 29

# MAINTENANCE AND REPAIR INSTRUCTIONS

- Check the indexing teeth on the inner reel and outer spool for wear (Fig. 29). If necessary, remove burrs or replace the reel and spool.

**NOTE:** SplitLine™ can only be used with the inner reel with the slotted holes. Single line can be used on either type of inner reel. Use Figure 30 to identify the inner reel you have.

**NOTE:** Always use the correct line length when installing trimming line on the unit. The line may not release properly if the line is too long.

For Use with Single Line ONLY

For Use with SplitLine™ or Single Line

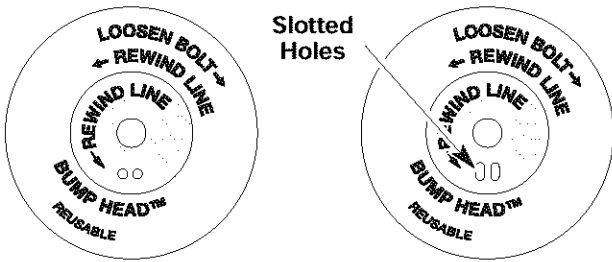


Fig. 30

## Single Line Installation

Go To Step 8 for SplitLine™ Installation

- Take approximately 40 feet (12.2 m) of new trimming line, loop it into two equal lengths. Insert each end of the line through one of the two holes in the inner reel (Fig. 31). Pull the line through the inner reel so that the loop is as small as possible.

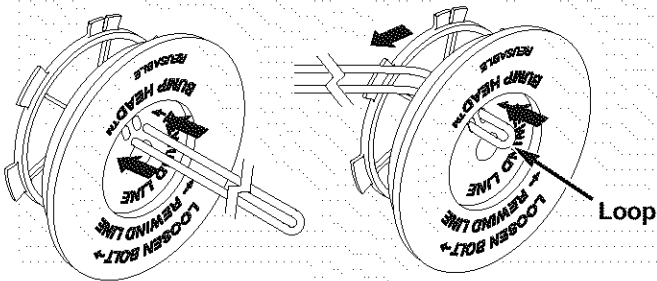


Fig. 31

- Wind the lines in tight even layers, onto the reel (Fig. 32). Wind the line in the direction indicated on the inner reel. Place your index finger between the two lines to stop the lines from overlapping. Do not overlap the ends of the line. Proceed to step 11.

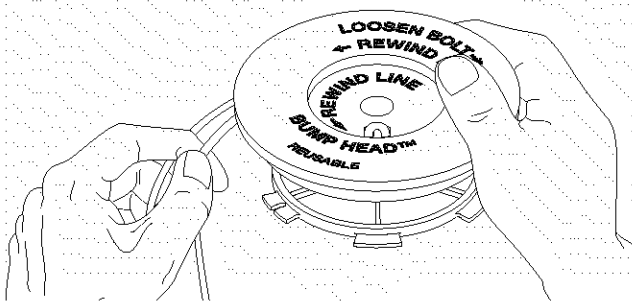


Fig. 32

## SplitLine™ Installation

- Take approximately 20 feet (6.1 m) of new trimming line. Insert one end of the line through one of the two holes in the inner reel (Fig. 33). Pull the line through the inner reel until only about 4 inches is left out.
- Insert the end of the line into the open hole in the inner reel and pull the line tight to make the loop as small as possible (Fig. 33).
- Before winding, split the line back about 6 inches.
- Wind the line in tight even layers in the direction indicated on the inner reel.

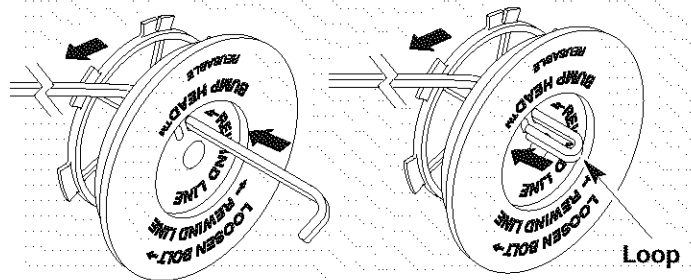


Fig. 33

**NOTE:** Failure to wind the line in the direction indicated will cause the cutting attachment to operate incorrectly.

- Insert the ends of the line into the two holding slots (Fig. 34).

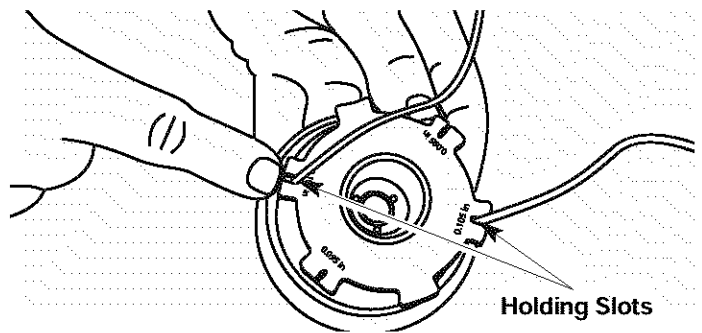


Fig. 34

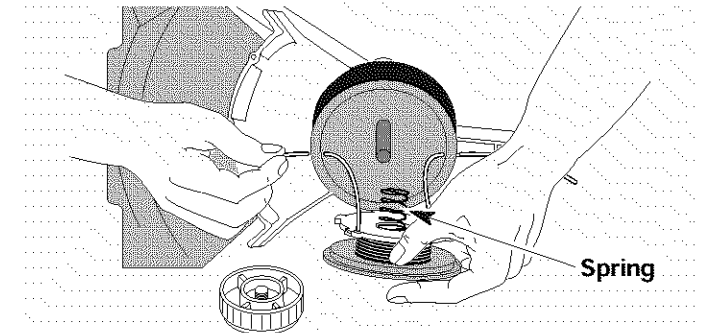


Fig. 35

# MAINTENANCE AND REPAIR INSTRUCTIONS

13. Insert the ends of the line through the eyelets in the outer spool and place inner reel with spring inside the outer spool (Fig. 35). Push the inner reel and outer spool together. While holding the inner reel and outer spool, grasp the ends and pull firmly to release the line from the holding slots in the reel.

**NOTE:** The spring must be assembled on the inner reel before reassembling the cutting attachment.

14. Hold the inner reel in place and install the bump knob by turning counterclockwise. Tighten securely.

## INSTALLING A PREWOUND REEL

1. Hold the outer spool with one hand and unscrew the bump knob clockwise (Fig. 15, Pg. 11). Inspect the bolt inside the bump knob to make sure it moves freely. Replace the bump knob if damaged.
2. Remove the old inner reel from the outer spool (Fig. 27).
3. Remove the spring from the old inner reel (Fig. 27).
4. Place the spring in the new inner reel.

**NOTE:** The spring must be assembled on the inner reel before reassembling the cutting attachment.

5. Insert the ends of the line through the eyelets in the outer spool (Fig. 35, Pg. 18).
6. Place the new inner reel inside the outer spool. Push the inner reel and outer spool together. While holding the inner reel and outer spool, grasp the ends and pull firmly to release the line from the holding slots in the spool.
7. Hold the inner reel in place and install the bump knob by turning counterclockwise. Tighten securely.

### Replacement Parts:

See Accessories / Replacement Parts on page 22.

## AIR FILTER MAINTENANCE

### Removing the Air Filter/Muffler Cover



**WARNING:** To avoid serious personal injury, always turn your trimmer off and allow it to cool before you clean or do any maintenance on it.

1. Remove the four (4) screws securing the air filter/muffler cover (Fig. 36). Use a flat blade or T20 Torx bit screwdriver.
2. Push slightly up and then pull the cover from the engine. Do not force.

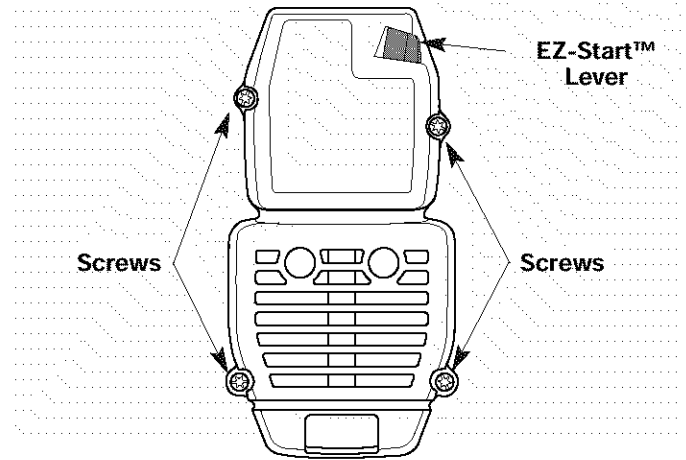


Fig. 36

### Cleaning the Air Filter



**WARNING:** To avoid serious personal injury, always turn your trimmer off and allow it to cool before you clean or do any maintenance on it.

Clean and re-oil the air filter every 10 hours of operation. It is an important item to maintain. Not maintaining the air filter will VOID the warranty.

1. Remove air filter/muffler cover. See **Removing the Air Filter/Muffler Cover**.
2. Turn cover over and look inside to locate the air filter. Remove the air filter from inside the air filter/muffler cover (Fig. 37).

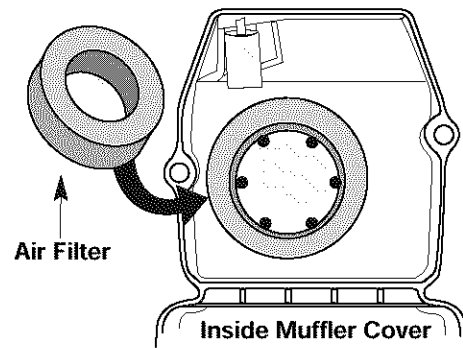


Fig. 37

3. Wash the filter in detergent and water (Fig. 38). Rinse the filter thoroughly. Squeeze out excess water. Allow it to dry completely.

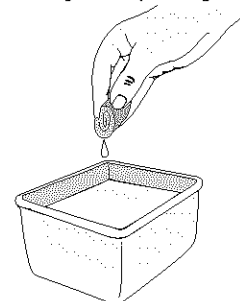


Fig. 38

# MAINTENANCE AND REPAIR INSTRUCTIONS

- Apply enough clean SAE 30 oil to lightly coat the filter (Fig. 39).

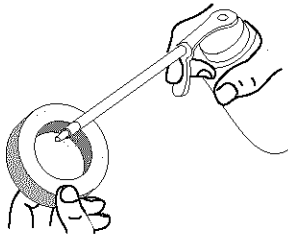


Fig. 39

- Squeeze the filter to spread and remove excess oil (Fig. 40).

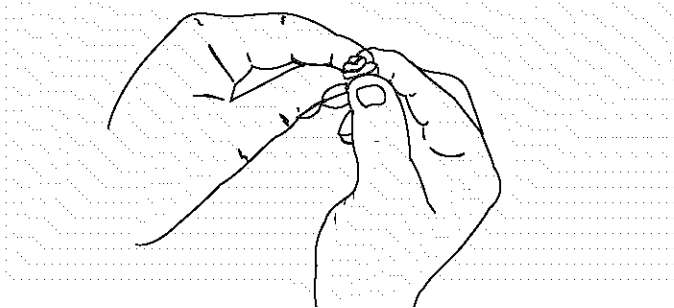


Fig. 40

- Replace the air filter inside the air filter/muffler cover (Fig. 37, Pg. 20).

**NOTE:** Operating the unit without the air filter and air filter/muffler cover assembly, will VOID the warranty.

## Reinstalling the Air filter/Muffler Cover

- Place the air filter/muffler cover over the back of the carburetor and muffler. Align the screw holes.
- Insert the four (4) screws into the holes in the air filter/muffler cover (Fig. 36, Pg. 20) and tighten. **Do not over tighten.**

## SPARK ARRESTOR MAINTENANCE

- Remove air filter/muffler cover. See **Removing the Air Filter/Muffler Cover**.
- Locate muffler front and the two (2) bolts securing it to the engine. (Fig. 41). Remove the two (2) bolts using a flat blade screwdriver or 5/16-inch socket or nut driver. Pull muffler off of the engine.
- Turn muffler over to the back side and locate the exhaust gasket. Remove the muffler gasket from the muffler (Fig. 41).

**NOTE:** If exhaust gasket is torn or damaged, replace with a new gasket before reassembling muffler.

- Using a small flat blade screwdriver, carefully pry up the spark arrestor from the recessed hole (Fig. 42). Remove spark arrestor from muffler.
- Clean the spark arrestor with a wire brush. Replace if damaged or unable to clean thoroughly (Fig. 42).

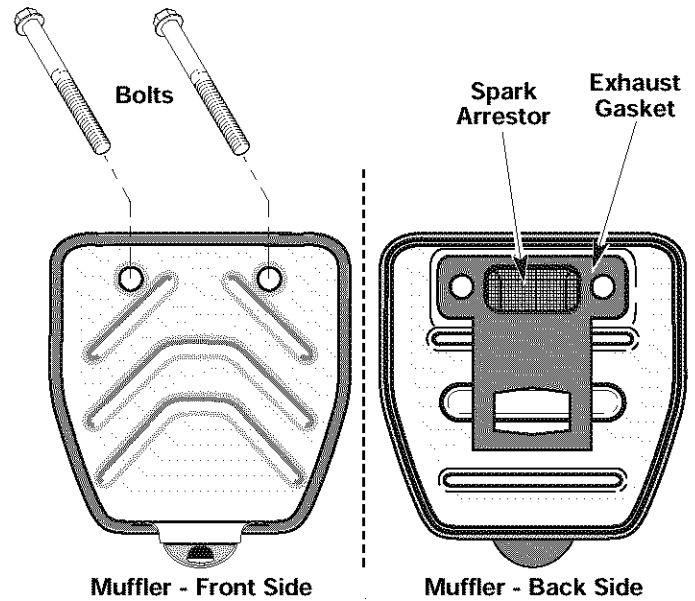


Fig. 41

- Reinstall the spark arrestor by pressing it into the recessed hole on muffler's back side. Make sure it fits tightly against the muffler and is not raised up.
- Place exhaust gasket against muffler's back side. Align exhaust gasket bolt holes with bolt holes in muffler. While holding exhaust gasket in place, insert bolts into muffler's front side. (Fig. 41).
- Place muffler with exhaust gasket in place and bolts inserted against the engine, aligning bolt holes. Tighten bolts to secure muffler to the engine.

If using a torque wrench torque to:  
**80-90 in.·lb. (9-10.2 N·m).**



**WARNING:** If muffler is not tightened securely, it could fall off causing damage to the unit and possible serious personal injury.

- Reinstall air filter/muffler cover.

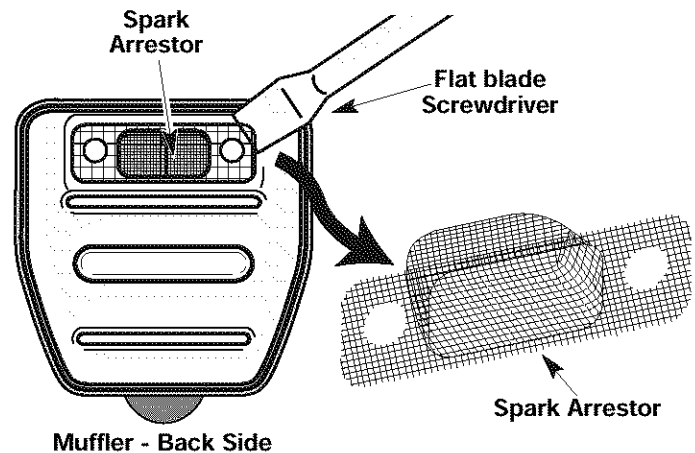


Fig. 42

# MAINTENANCE AND REPAIR INSTRUCTIONS

## CARBURETOR ADJUSTMENT

The idle speed of the engine is adjustable through the Air Filter/Muffler cover (Fig. 43).

**NOTE:** Careless adjustments can seriously damage your unit. An authorized service dealer should make carburetor adjustments.

### Check Fuel Mixture

Old and/or improperly mixed fuel is usually the reason for the unit not running properly. Drain and refill the tank with fresh, properly mixed fuel prior to making any adjustments. Refer to **Oil and Fuel Information** Pg. 12.

### Clean Air Filter

The condition of the air filter is important to the operation of the unit. A dirty air filter will restrict air flow and change the air/fuel mixture. This is often mistaken for an out of adjustment carburetor. Check the condition of the air filter before adjusting the idle speed screw. Refer to **Air Filter Maintenance** Pg. 19.

### Adjust Idle Speed Screw



**WARNING:** The cutting attachment may be spinning during idle speed adjustments. Wear protective clothing and observe all safety instructions to prevent serious personal injury.

If after checking the fuel mixture and cleaning the air filter the engine still will not idle, adjust the idle speed screw as follows.

1. Start the engine and let it run at a high idle for 5 minutes to warm up. See **Starting/Stopping Instructions**, Pg. 13.
2. Release the throttle trigger and let the engine idle. If the engine stops, insert a small phillips or flat blade screwdriver into the hole in the air filter/muffler cover (Fig. 43). Turn the idle speed screw in, **clockwise**, 1/8 of a turn at a time (as needed) until the engine idles smoothly.

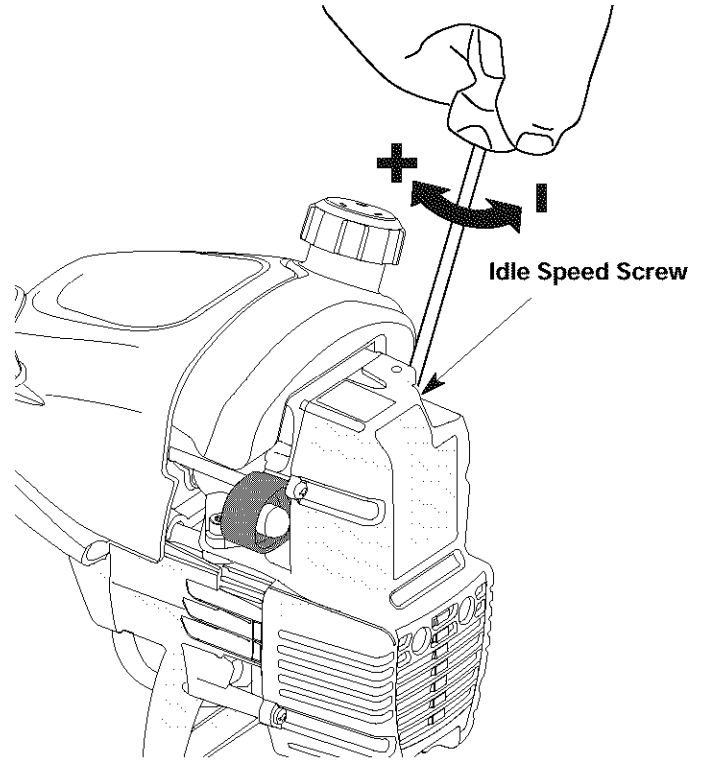


Fig. 43

**NOTE:** The cutting attachment should not rotate when the engine idles.

3. If the cutting attachment rotates when the engine idles, turn the idle speed screw **counterclockwise** 1/8 of a turn at a time (as needed), to reduce idle speed.

Checking the fuel mixture, cleaning the air filter, and adjusting the idle speed screw should solve most engine problems.

If not and:

- The engine will not idle,
- The engine hesitates or stalls on acceleration,
- There is a loss of engine power,

have the carburetor adjusted by an authorized service dealer.




**WARNING:** When the unit is turned off make sure the cutting attachment has stopped before the unit is set down to prevent serious personal injury.

# MAINTENANCE AND REPAIR INSTRUCTIONS

## REPLACING THE SPARK PLUG

Use a Champion RDJ7Y spark plug (or equivalent). The correct air gap is **0.020 inch (0.5 mm)**. Remove the plug after every **25 hours** of operation and check its condition.

1. Stop the engine and allow it to cool. Grasp the plug wire firmly and pull it from the spark plug.
2. Clean around the spark plug. Remove the spark plug from the cylinder head by turning a 5/8 in. socket counterclockwise.
3. Replace cracked, fouled or dirty spark plug. Set the air gap at **0.020 in. (0.5 mm)** using a feeler gauge (Fig. 44).



**CAUTION:** Do not sand blast, scrape, or clean electrodes. Grit in the engine could damage the cylinder.

4. Install a correctly gapped spark plug in the cylinder head. Tighten by turning the 5/8 in. socket clockwise until snug.

If using a torque wrench torque to:

**110-120 in.·lb. (12.3-13.5 N·m).**

**Do not over tighten.**

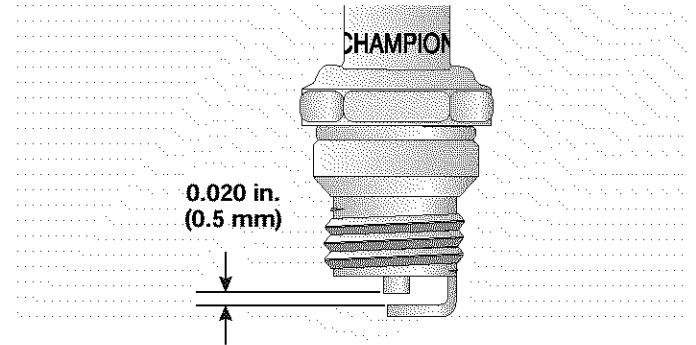


Fig. 44

## ACCESSORIES/REPLACEMENT PARTS

2-Cycle Oil	791-147543
Spark Plug	791-610311B
Exhaust Gasket	791-182065
Spark Arrestor	791-182747
Replacement Line	0.105in ( 2.66mm )
Replacement Line Cartridge	753-1160
Inner Reel Spring	791-610636B
Outer Spool	791-683301
Inner Reel	791-147495
Bump Knob	791-180814B
Fuel Cap	791-180000B
Shoulder Strap	791-682075B

These replacement parts can be purchased from your local authorized dealer.

# CLEANING AND STORAGE

## CLEANING



**WARNING:** To avoid serious personal injury, always turn your trimmer off and allow it to cool before you clean or do any maintenance on it.

Use a small brush to clean off the outside of the unit. Do not use strong detergents. Household cleaners that contain aromatic oils such as pine and lemon, and solvents such as kerosene, can damage plastic housing or handle. Wipe off any moisture with a soft cloth.

## STORAGE

- Never store the unit with fuel in the tank where fumes may reach an open flame or spark.
- Allow the engine to cool before storing.
- Store the unit locked up to prevent unauthorized use or damage.
- Store the unit in a dry, well ventilated area.
- Store the unit out of the reach of children.

## LONG TERM STORAGE

If the unit will be stored for an extended time, use the following storage procedure.

1. Drain all fuel from the fuel tank and drain into a container with the same 2-cycle fuel mixture. Do not use fuel that has been stored for more than 60 days. Dispose of the old fuel/oil mix in accordance to Federal, State, and Local regulations.
2. Start the engine and allow it to run until it stalls. This ensures that all fuel has been drained from the carburetor.
3. Allow the engine to cool. Remove the spark plug and put 1 oz. (30 ml) of any high quality motor oil or 2-cycle oil into the cylinder. Pull the starter rope slowly to distribute the oil. Reinstall the spark plug.

**NOTE:** Remove the spark plug and drain all of the oil from the cylinder before attempting to start the trimmer after storage.

4. Thoroughly clean the unit and inspect for any loose or damaged parts. Repair or replace damaged parts and tighten loose screws, nuts or bolts. The unit is ready for storage.
5. Thoroughly clean the unit and inspect for any loose or damaged parts. Repair or replace damaged parts and tighten loose screws, nuts or bolts. The unit is ready for storage.

## TRANSPORTING

- Allow the engine to cool before transporting.
- Secure the unit while transporting.
- Drain fuel from unit.
- Tighten fuel cap before transporting.

# TROUBLESHOOTING

## ENGINE WILL NOT START

### CAUSE

On/Off Stop Control is in OFF position  
Empty fuel tank  
Primer bulb wasn't pressed enough  
Engine flooded  
  
Old or improperly mixed fuel  
Fouled spark plug  
Plugged spark arrestor

### ACTION

Turn On/Off Stop Control to ON  
Fill fuel tank with properly mixed fuel  
Press primer bulb fully and slowly 5-7 times  
Use starting procedure with EZ-Start Lever™ in the RUN position, Pg. 13  
Drain gas tank / Add fresh fuel mixture  
Replace or clean the spark plug  
Clean or replace spark arrestor

## ENGINE WILL NOT IDLE

### CAUSE

Air Filter is Plugged  
Old or improperly mixed fuel  
Improper carburetor adjustment

### ACTION

Replace or clean the air filter  
Drain gas tank / Add fresh fuel mixture  
Adjust per instruction Pg. 21

## ENGINE WILL NOT ACCELERATE

### CAUSE

Old or improperly mixed fuel  
Improper carburetor adjustment  
  
Cutting attachment bound with grass  
Dirty air filter  
Plugged spark arrestor

### ACTION

Drain gas tank / Add fresh fuel mixture  
Take to an authorized service dealer for carburetor adjustment  
Stop the engine and clean the cutting attachment  
Clean or replace the air filter  
Clean or replace spark arrestor Pg. 20

## ENGINE LACKS POWER OR STALLS WHEN CUTTING

### CAUSE

Old or improperly mixed fuel  
Improper carburetor adjustment  
  
Fouled spark plug  
Plugged spark arrestor

### ACTION

Drain gas tank / Add fresh fuel mixture  
Take to an authorized service dealer for carburetor adjustment  
Replace or clean the spark plug  
Clean or replace spark arrestor Pg. 20

## CUTTING ATTACHMENT WILL NOT ADVANCE LINE

### CAUSE

Cutting attachment bound with grass  
Cutting attachment out of line  
Inner reel bound up  
Cutting head dirty  
Line welded  
  
Line twisted when refilled  
Not enough line is exposed

### ACTION

Stop the engine and clean cutting attachment  
Refill with new line  
Replace the inner reel  
Clean inner reel and outer spool  
Disassemble, remove the welded section and rewind the line  
Disassemble and rewind the line  
Push the bump knob and pull out line until 4 inches (102 mm) of line is outside of the cutting attachment

**If further assistance is required, contact your authorized service dealer.**



# SPECIFICATIONS

## ENGINE

Engine Type	Air-Cooled, 2-Cycle
Stroke	1.25 in. (31.75 mm)
Displacement	1.9 cu in. (31 cc)
Clutch Type	Centrifugal
Idle Speed RPM	2,800 - 3,600 rpm
Operating RPM (Trimmer)	6,100 - 10,400 rpm
Operating RPM (Brushcutter)	8,200 - 9,600 rpm
Ignition Type	Electronic
Ignition Switch	Momentary Flip Switch
Spark Plug Gap	0.020 in. (0.5 mm)
Lubrication	Fuel/Oil Mixture
Fuel/Oil Ratio	32:1
Carburetor	Diaphragm, All-Position
Starter	Auto Rewind
Muffler	Baffled with Guard
Throttle	Manual Spring Return
Fuel Tank Capacity	12 oz. (355 ml)

## DRIVE SHAFT and CUTTING ATTACHMENT

Drive Shaft Housing	Steel Tube, EZ-Link™
Throttle Control	Finger-Tip Trigger with Lock-Out
Unit Weight (No fuel, with cutting attachment, cutting attachment shield and J-handle)	14 lbs. (5.23 kg)
Cutting Mechanism	4-Tooth Cutting Blade, Dual String Cutting Head
Line Spool	Bump Line Releaser
Line Spool Diameter	4 inches (101.6 mm)
Trimming Line Diameter	0.105 inch (2.66 mm)
Cutting Path Diameter, Cutting Attachment	18 inches (45.7 cm)
Cutting Path Diameter, Cutting Blade	8 inches (204 mm)
Shoulder Harness	Single Quick-Snap

# NOTES

## **California / EPA Emission Control Warranty Statement; Your Warranty Rights and Obligations**

The California Air Resources Board, EPA (Environmental Protection Agency), and TROY-BILT LLC (TROY-BILT) are pleased to explain the emission Control System Warranty on your 2000 and later small off-road engine. In California and the 49 states, new small off-road engines must be designed, built and equipped to meet the state's stringent anti-smog standards. TROY-BILT must warrant the emission control system on your small off-road engine for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your small off-road engine.

Your Emission control system may include parts such as the carburetor or fuel-injection system, the ignition system, and catalytic converter. Also included may be hoses, belts, connectors and other emission-related assemblies.

Where a warrantable condition exists, TROY-BILT will repair your small off-road engine at no cost to you including diagnosis, parts and labor.

The 2000 and later small off-road engines are warranted for two years. If any emission-related part on your engine is defective, the part will be repaired or replaced by TROY-BILT.

### **Owner's Warranty Responsibilities:**

- As the small off-road engine owner, you are responsible for the performance of the required maintenance listed in your operator's manual. TROY-BILT recommends that you retain all receipts covering maintenance on your small off-road engine, but TROY-BILT cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.
- As the small off-road engine owner, you should however be aware that TROY-BILT may deny you warranty coverage if your small off-road engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.
- You are responsible for presenting your small off-road engine to a TROY-BILT authorized service center as soon as problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

If you have any questions regarding your warranty rights and responsibilities, you should call 1-866-840-6483

### **Manufacturer's Warranty Coverage:**

- The warranty period begins on the date the engine or equipment is delivered to the retail purchaser.
- The manufacturer warrants to the initial owner and each subsequent purchaser, that the engine is free from defects in material and workmanship which cause the failure of a warranted part for a period of two years.
- Repair and replacement of warranted part will be performed at no charge to the owner at an authorized TROY-BILT service center. For the nearest location please contact TROY-BILT at: 1-866-840-6483.
- Any warranted part which is not scheduled for replacement, as required maintenance or which is scheduled only for regular inspection to the effect of "Repair or Replace as Necessary" is warranted for the period. Any warranted part which is scheduled for replacement as required maintenance will be warranted for the period of time up to the first scheduled replacement point for that part.
- The owner will not be charged for diagnostic labor which leads to the determination that a warranted part is defective. If the diagnostic work is performed at an authorized TROY-BILT Service Center.
- The manufacturer is liable for damages to other engine components caused by the failure of a warranted part still under warranty.
- Failures caused by abuse, neglect or improper maintenance are not covered under warranty.
- The use of add-on or modified parts can be grounds for disallowing a warranty claim. The manufacturer is not liable to cover failures of warranted parts caused by the use of add-on or modified parts.
- In order to file a claim, go to your nearest authorized TROY-BILT Service Center. Warranty service or repairs will be provided at all authorized TROY-BILT Service Centers.
- Any manufacturer approved replacement part may be used in the performance of any warranty maintenance or repair of emission related parts and will be provided without charge to the owner. Any replacement part that is equivalent in performance or durability may be used in non-warranty maintenance or repair and will not reduce the warranty obligations of the manufacturer.
- The following components are included in the emission related warranty of the engine, air filter, carburetor, primer, fuel lines, fuel pick up/fuel filter, ignition module, spark plug and muffler.

# MANUFACTURER'S LIMITED WARRANTY FOR:



The limited warranty set forth below is given by Troy-Bilt LLC with respect to new merchandise purchased and used in the United States, its possessions and territories.

Troy-Bilt LLC warrants this product against defects in material and workmanship for a period of two (2) years commencing on the date of original purchase and will, at its option, repair or replace, free of charge, any part found to be defective in material or workmanship. This limited warranty shall only apply if this product has been operated and maintained in accordance with the Operator's Manual furnished with the product, and has not been subject to misuse, abuse, commercial use, neglect, accident, improper maintenance, alteration, vandalism, theft, fire, water or damage because of other peril or natural disaster. Damage resulting from the installation or use of any accessory or attachment not approved by Troy-Bilt LLC for use with the product(s) covered by this manual will void your warranty as to any resulting damage. This warranty is limited to ninety (90) days from the date of original retail purchase for any Troy-Bilt product that is used for rental or commercial purposes, or any other income-producing purpose.

**HOW TO OBTAIN SERVICE:** Warranty service is available, WITH PROOF OF PURCHASE THROUGH YOUR LOCAL AUTHORIZED SERVICE DEALER. To locate the dealer in your area, visit our website at [www.troybilt.com](http://www.troybilt.com), check for a listing in the Yellow Pages, call 1 (866) 840-6483 or 1 (330) 558-7220 or write to P.O. Box 361131, Cleveland, OH 44136-0019.

**This limited warranty does not provide coverage in the following cases:**

- A. Tune-ups - Spark Plugs, Carburetor Adjustments, Filters
- B. Wear items - Bump Knobs, Outer Spools, Cutting Line, Inner Reels, Starter Pulley, Starter Ropes, Drive Belts
- C. Troy-Bilt LLC does not extend any warranty for products sold or exported outside of the United States of America, its possessions and territories, except those sold through Troy-Bilt's authorized channels of export distribution.

Troy-Bilt LLC reserves the right to change or improve the design of any Troy-Bilt Product without assuming any obligation to modify any product previously manufactured.

**No implied warranty, including any implied warranty of merchantability or fitness for a particular purpose, applies after the applicable period of express written warranty above as to the parts as identified. No other express warranty or guaranty, whether written or oral, except as mentioned above, given by any person or**

**entity, including a dealer or retailer, with respect to any product shall bind Troy-Bilt LLC During the period of the Warranty, the exclusive remedy is repair or replacement of the product as set forth above.** (Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.)

**The provisions as set forth in this Warranty provide the sole and exclusive remedy arising from the sales. Troy-Bilt LLC shall not be liable for incidental or consequential loss or damages including, without limitation, expenses incurred for substitute or replacement lawn care services, for transportation or for related expenses, or for rental expenses to temporarily replace a warranted product.** (Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.)

In no event shall recovery of any kind be greater than the amount of the purchase price of the product sold. Alteration of the safety features of the product shall void this Warranty. You assume the risk and liability for loss, damage, or injury to you and your property and/or to others and their property arising out of the use or misuse or inability to use the product.

This limited warranty shall not extend to anyone other than the original purchaser, original lessee or the person for whom it was purchased as a gift.

**How State Law Relates to this Warranty:** This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

To locate your nearest service dealer dial 1 (877) 282-8684

**Troy-Bilt LLC**

P.O. Box 361131

Cleveland, OH 44136-0019