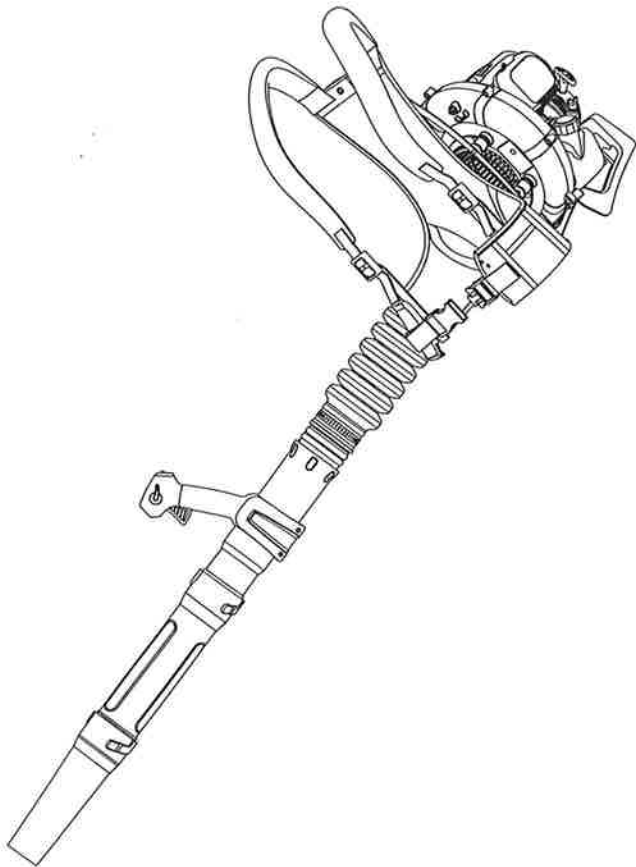




# Operator's Manual

## 4-Cycle Backpack Blower TB4BP EC



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## SAVE THESE INSTRUCTIONS

### SERVICE INFORMATION

**DO NOT RETURN THIS UNIT TO THE RETAILER. PROOF OF PURCHASE WILL BE REQUIRED FOR WARRANTY SERVICE.**

For assistance regarding the assembly, controls, operation or maintenance of the unit, please call the Customer Support Department at **1-800-828-5500** in the United States or **1-800-668-1238** in Canada. Additional information about the unit can be found on our website at [www.troybilt.com](http://www.troybilt.com) or [www.troybilt.ca](http://www.troybilt.ca).

For service, please call the Customer Support Department to obtain a list of authorized service dealers near you. Service on this unit, both within and after the warranty period, should only be performed by an authorized and approved service dealer. When servicing, use only identical replacement parts.

All information, illustrations, and specifications in this manual are based on the latest product information available at the time of printing. We reserve the right to make changes at any time without notice.

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## RULES FOR SAFE OPERATION

### SPARK ARRESTOR NOTE

**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, ask your LOCAL SERVICE DEALER to install the **Accessory Part #753-05669 Muffler Assembly.**

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:</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>DANGER:</b> 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.
	<b>WARNING:</b> 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.
	<b>CAUTION:</b> 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.



**SAFETY ALERT:** 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.



**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.

**NOTE:** Advises you of information or instructions vital to the operation or maintenance of the equipment.

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

**FOR QUESTIONS, CALL 1-800-828-5500 IN U.S. OR 1-800-668-1238 IN CANADA**

### • IMPORTANT SAFETY INSTRUCTIONS •



#### CALIFORNIA PROPOSITION 65

**WARNING:** Engine exhaust, some of its constituents and certain finished components contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.

#### READ ALL INSTRUCTIONS BEFORE OPERATING



**WARNING:** When using the unit, you must follow the safety rules. Please read these instructions before operating the unit in order to ensure the safety of the operator and any bystanders. Please keep these instructions for later use.

- Read the instructions carefully. Be familiar with the controls and proper use of the unit.
- Read this operating instruction manual carefully. Be thoroughly familiar with the controls and the proper use of the equipment. Know how to stop the unit and disengage the controls quickly.
- Do not operate this unit when tired, ill, or under the influence of alcohol, drugs, or medication.
- Never allow children to operate the equipment. Never allow adults unfamiliar with the instructions to use the unit. Never allow adults to operate the equipment without proper instruction.
- All guards and safety attachments must be installed properly before operating the unit.

#### SAFETY WARNINGS FOR GAS UNITS



**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 fuel tank cap or add fuel when the engine is hot. Always loosen the fuel tank cap slowly to relieve any pressure in the tank before fueling. Do not smoke.
- Always add fuel in a clean, well-ventilated outdoor area where there are no sparks or flames. Do not smoke.
- Never operate the unit without the fuel cap securely in place.
- Avoid creating a source of ignition for spilled fuel. Wipe up any spilled fuel from the unit immediately, before starting the engine. Move the unit at least 30 feet (9.1 m) from the fueling source and site before starting the engine. Do not smoke.
- Never start or run the unit inside a closed room or building. Breathing exhaust fumes can kill. Only operate this unit in a well-ventilated outdoor area.

## RULES FOR SAFE OPERATION

### WHILE OPERATING

- Wear safety glasses or goggles that are marked as meeting ANSI Z87.1 standards and are marked as such. Wear ear/hearing protection when operating this unit.
- Never run the unit without the proper equipment attached.
- To reduce the risk of hearing loss associated with sound level(s), always wear ear/hearing protection when operating this unit.
- Wear heavy long pants, boots, gloves, and a long sleeve shirt. Do not wear loose clothing, jewelery, short pants, sandals or go barefoot. Secure hair above shoulder level.
- To avoid static electricity shock, do not wear rubber gloves or any other insulated gloves while operating this unit.
- Use the unit only in daylight or good artificial light.
- Keep outside surfaces free from oil and fuel.
- 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. Refer to *Starting/Stopping Instructions*.
- Do not set unit on any surface except a clean, hard area while engine is running. Debris such as gravel, sand, dust, grass, etc. could be picked up by the air intake and thrown out by the discharge opening, damaging unit, property, or causing serious injury to bystanders or operator.
- Use the right tool. Only use this tool for its intended purpose.
- Do not force unit. It will do the job better and with less likelihood of injury at a rate for which it was designed.
- Do not overreach or use from unstable surfaces such as ladders, trees, steep slopes, rooftops, etc. Always keep proper footing and balance.
- Always hold the unit with a firm grip when operating.
- Keep hands, face, and feet away from all moving parts. Do not touch or try to stop the impeller when it is rotating. Do not operate without guards in place.
- Do not put any object into openings. Do not use with any opening blocked; keep free of dirt, debris, and anything that may reduce the air flow.
- Do not touch the engine or muffler. These parts get extremely hot from operation, even after the unit is turned off.
- Do not operate the engine faster than the speed needed to do the job. Do not run the engine at high speed when not in use.
- Always stop the engine when operation is delayed or when walking from one location to another.
- Stop the engine for maintenance, repair, to install or remove the blower tubes. The unit must be stopped and the impeller no longer turning to avoid contact with the rotating blades.

- If you strike or come into contact 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.
- Use only replacement parts recommended for this tool that are sold by a Troy-Bilt outlet. Use of any replacement parts purchased elsewhere may be hazardous, and will also void your warranty.
- Never use this unit for spreading chemicals, fertilizers or other substances which may contain toxic materials.
- 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.
- Turn the engine off and disconnect the spark plug for maintenance or repair.
- Never point the blower or blowing debris in the direction of people, animals, or in the direction of windows. Always direct the blowing debris away from people, animals, and windows. Use extra caution when blowing debris near solid objects such as trees, automobiles, walls, etc.

### OTHER SAFETY WARNINGS

- Always disconnect the spark plug before performing maintenance or accessing movable parts. See *Replacing the Spark Plug*.
- Never store the unit, with fuel in the tank, inside a building where fumes may reach an open flame (pilot lights, etc.) or sparks (switches, electrical motors, etc.).
- Allow the engine to cool before storing or transporting. Be sure to secure the unit while transporting.
- Store the unit in a dry place, secured, or at a height to prevent unauthorized use or damage. Keep 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 this unit to others, also loan these instructions to them.















**SPECIAL NOTE:** Exposure to vibrations through prolonged use of gasoline powered hand tools could cause blood vessel or nerve damage in the fingers, hands, and joints of people prone to circulation disorders or abnormal swelling. Prolonged use in cold weather has been linked to blood vessel damage in otherwise healthy people. If symptoms occur such as numbness, pain, loss of strength, change in skin color or texture, or loss of feeling in the fingers, hands or joints, discontinue use of this tool and seek medical attention. A reduced vibration system does not guarantee avoidance of these problems. Users who operate power tools on a regular basis must closely monitor their physical condition and the condition of this tool.

## SAVE THESE INSTRUCTIONS

## RULES FOR SAFE OPERATION

### SAFETY AND INTERNATIONAL SYMBOLS

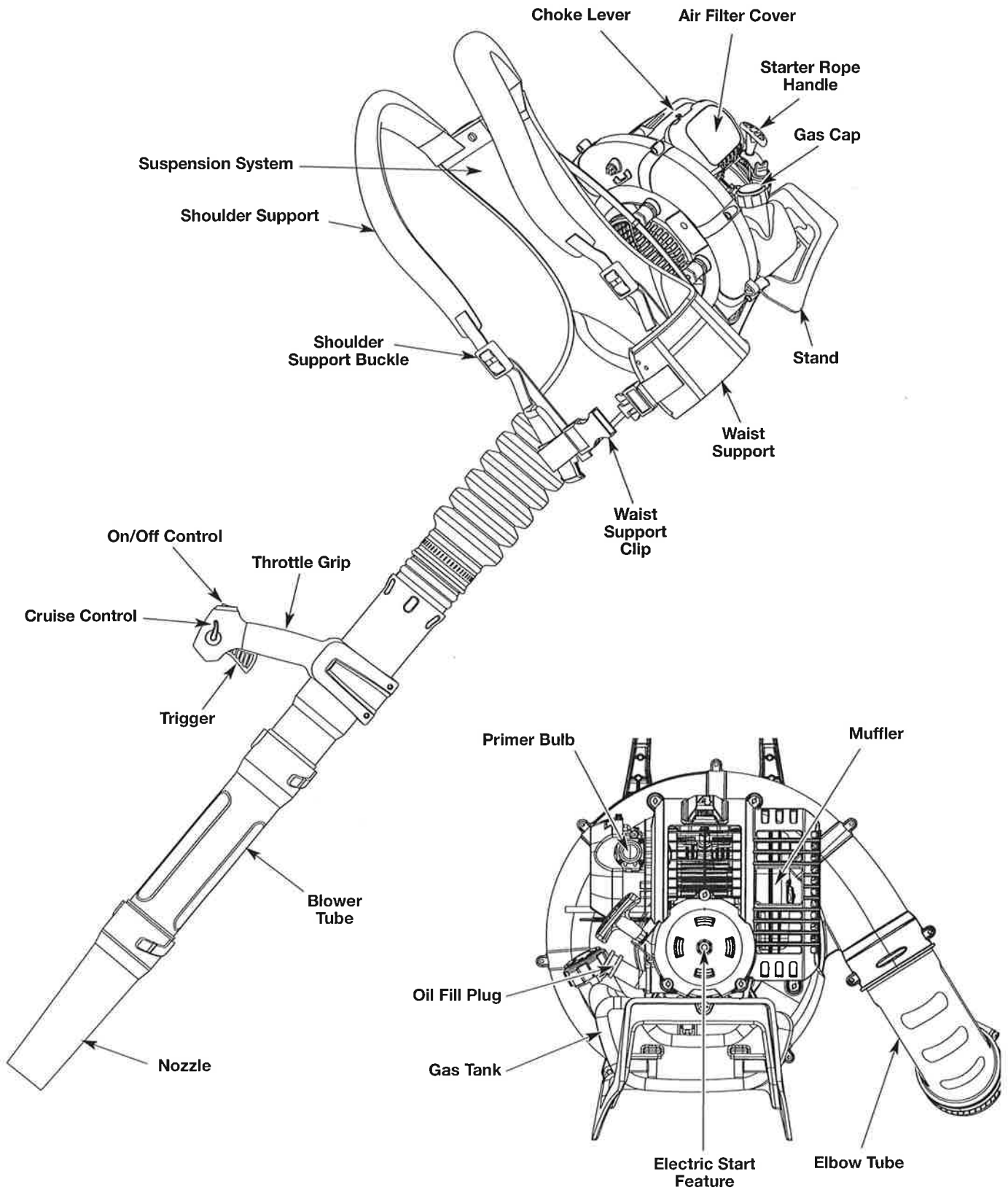
This operator's manual describes safety and international symbols and pictographs that may appear on this product. Read the operator's manual for complete safety, assembly, operating, maintenance, and repair information.

SYMBOL	MEANING	SYMBOL	MEANING
	<ul style="list-style-type: none"> <li>• <b>SAFETY ALERT SYMBOL</b></li> </ul> Indicates danger, warning or caution. May be used in conjunction with other symbols or pictographs.		<ul style="list-style-type: none"> <li>• <b>ON/OFF STOP CONTROL</b></li> </ul> ON / START / RUN
	<ul style="list-style-type: none"> <li>• <b>WARNING: READ OPERATOR'S MANUAL</b></li> </ul> 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.		<ul style="list-style-type: none"> <li>• <b>ON/OFF STOP CONTROL</b></li> </ul> OFF or STOP
	<ul style="list-style-type: none"> <li>• <b>WEAR EYE AND HEARING PROTECTION</b></li> </ul> <b>WARNING:</b> 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.		<ul style="list-style-type: none"> <li>• <b>KEEP BYSTANDERS AWAY</b></li> </ul> <b>WARNING:</b> 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.
	<ul style="list-style-type: none"> <li>• <b>UNLEADED FUEL</b></li> </ul> Always use clean, fresh unleaded fuel.		<ul style="list-style-type: none"> <li>• <b>THROWN OBJECTS CAN CAUSE SEVERE INJURY</b></li> </ul> <b>WARNING:</b> 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.
	<ul style="list-style-type: none"> <li>• <b>OIL</b></li> </ul> Refer to operator's manual for the proper type of oil.		<ul style="list-style-type: none"> <li>• <b>CHOKE CONTROL</b></li> </ul> 1. • <b>FULL</b> choke position 2. • <b>PARTIAL</b> choke position 3. • <b>RUN</b> choke position
	<ul style="list-style-type: none"> <li>• <b>PRIMER BULB</b></li> </ul> Push primer bulb, fully and slowly, 10 times.		<ul style="list-style-type: none"> <li>• <b>HOT SURFACE WARNING</b></li> </ul> Do not touch a hot surface. You may get burned. These parts get extremely hot from operation. They remain hot for a short time after the unit is turned off.
	<ul style="list-style-type: none"> <li>• <b>DO NOT USE E85 FUEL IN THIS UNIT</b></li> </ul> <b>WARNING:</b> It has been proven that fuel containing greater than 10% ethanol will likely damage this engine and void the warranty.		<ul style="list-style-type: none"> <li>• <b>BLOWERS - ROTATING IMPELLER BLADES CAN CAUSE SEVERE INJURY</b></li> </ul> <b>WARNING:</b> Stop the engine and allow the impeller to stop before opening the vacuum door, installing or changing tubes or bag, or before cleaning or performing any maintenance.

## KNOW YOUR UNIT

### TOOLS REQUIRED:

- T-20 Torx® Screwdriver
- Flathead Screwdriver



## ASSEMBLY INSTRUCTIONS

### ASSEMBLING THE BLOWER TUBE



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

#### Installing the Flex Tube

1. Place a hose clamp over the end of the **Flex Tube** (Fig. 1A).
2. Slide the end of the **Flex Tube** with the clamp on it over the elbow tube (Fig. 1B).
3. Align the bump on the **Flex Tube** with the bump on the elbow tube (Fig. 1C).
4. Tighten the screw on the hose clamp to secure the **Flex Tube** to the elbow tube (Fig. 1D).

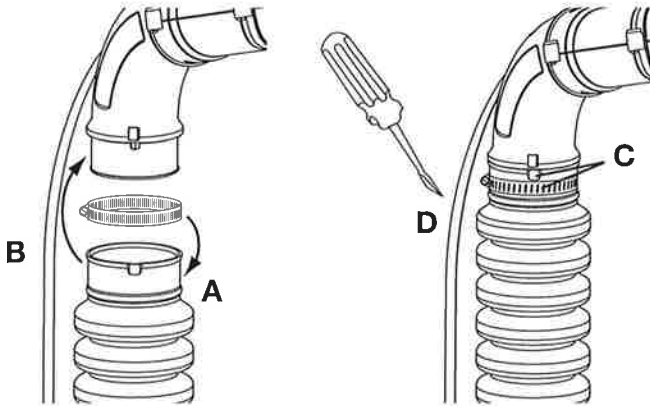


Fig. 1

#### Installing the Upper Blower Tube

1. Place a hose clamp over the other end of the Flex Tube (Fig. 2, A).
2. Slide the end of the hose with the clamp on it over the top end of the upper blower tube (Fig. 2, B).
3. Align the bump on the Flex Tube with the bump on the upper blower tube (Fig. 2, C).
4. Tighten the screw on the hose clamp to secure the Flex Tube to the upper blower tube (Fig. 2, D).

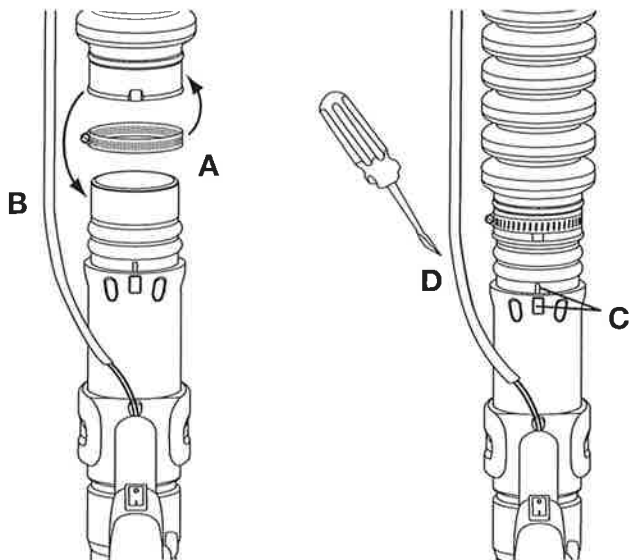


Fig. 2

#### Installing the Lower Blower Tube and Nozzle

1. Align the bump slot on the end of the lower blower tube with the bump on the bottom end of the upper blower tube (Fig. 3, A).
2. Insert the bump on the upper blower tube into the bump slot on the lower blower tube (Fig. 3, A).
3. Twist the lower blower tube clockwise around the upper blower tube until the upper blower tube bump locks into place (Fig. 3, B).

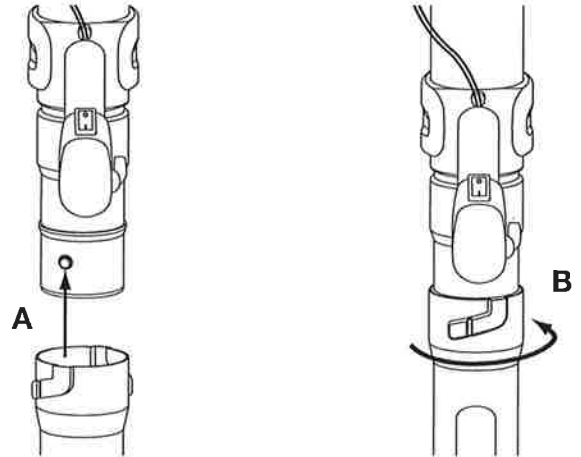


Fig. 3

4. Align the bump slot on the top end of the nozzle with the bump on the bottom end of the lower blower tube (Fig. 4, A).
5. Insert the bump on the lower blower tube into the bump slot on the nozzle (Fig. 4, A).
6. Twist the nozzle clockwise around the lower blower tube until the nozzle bump locks into place (Fig. 4, B).

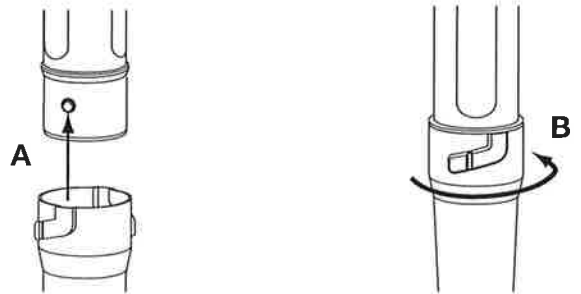


Fig. 4

#### Secure the Throttle Cables

Place a zip tie around the elbow tube and the throttle cables, as shown (Fig. 5). Tighten the zip tie, making sure not to crimp the cables.

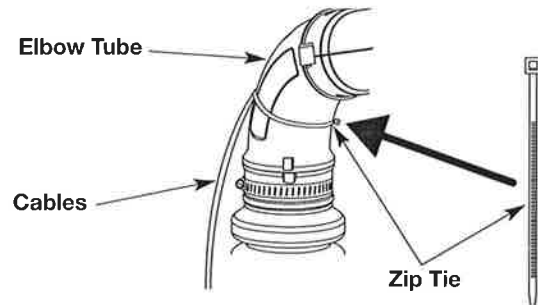


Fig. 5

## ASSEMBLY INSTRUCTIONS

The completed blower tube should look like Figure 6.

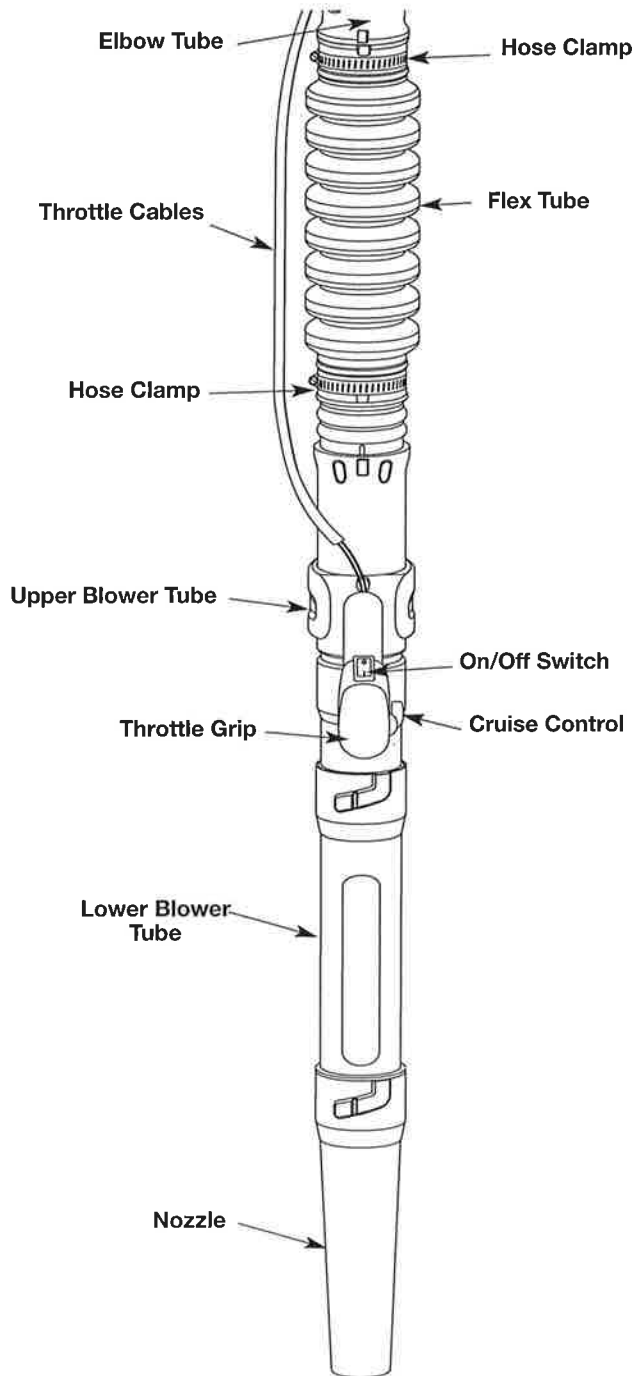


Fig. 6



**WARNING:** To avoid serious personal injury, make sure that the blower tubes are locked in place or firmly installed.

### Adjusting the Throttle Grip

1. Move the throttle grip to a location on the upper blower tube that is comfortable for you (Fig. 7).

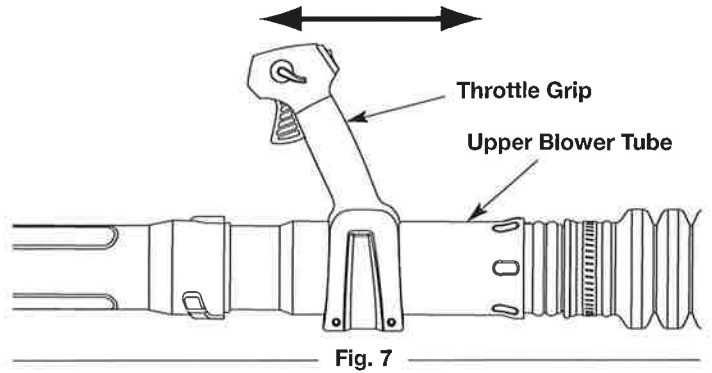


Fig. 7

2. Using a Torx® screwdriver, tighten the two screws at the bottom of the throttle grip (Fig. 8).

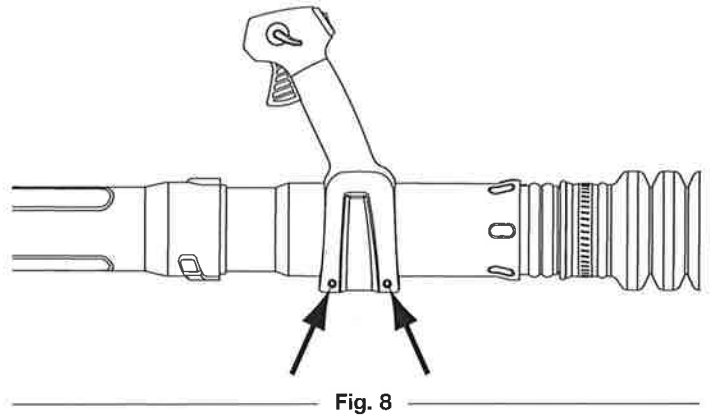


Fig. 8

## OIL AND FUEL INFORMATION



**WARNING: OVERFILLING OIL CRANKCASE MAY CAUSE SERIOUS PERSONAL INJURY.** Check and maintain the proper oil level in the crank case; it is important and cannot be overemphasized. Check the oil before each use while the engine is cold and change it as needed. See *Changing the Oil*.

### RECOMMENDED OIL TYPE

Using the proper type and weight of oil in the crankcase is extremely important. Check the oil before each use and change the oil regularly. Failure to use the correct oil, or using dirty oil, can cause premature engine wear and failure.

Use a high-quality SAE 30 weight oil of API (American Petroleum Institute) service class SF, SG, SH.

### ADDING OIL TO CRANKCASE: INITIAL USE

**NOTE:** This unit is shipped without oil. In order to avoid damage to the unit, put oil in the crankcase before you attempt to start the unit.

Your unit is supplied with one 3.04 fluid oz. (90 ml) bottle of SAE 30 SF, SG, SH oil (Fig. 9).

**NOTE:** Save the bottle of oil. It can be used to measure the correct amount during future oil changes (Fig. 9). See *Changing the Oil*.

1. Unscrew the top of the bottle of oil and remove the paper seal covering the opening. Replace the top. Next, cut the tip off the funnel spout (Fig. 9).
2. Remove the oil fill plug from the crankcase (Fig. 10).
3. Tilt the unit backwards 30° (Fig. 11).
4. Pour the entire bottle of oil into the oil fill hole (Fig. 11).

**NOTE:** Never add oil to the fuel or fuel tank.

5. Wipe up any oil that may have spilled and reinstall the oil fill plug.

Check oil before each use and change as needed. Refer to *Checking the Oil Level*.

### CHECKING THE OIL LEVEL

Check the oil only when the engine is off and cool.

1. Place the unit on its stand on a level surface.
2. Remove the oil fill plug from the crankcase (Fig. 10).
3. Look into the oil fill hole (Fig. 10). If the oil level comes up to the first thread, then the oil is full (Fig. 12). If it does not, fill with oil until it does.

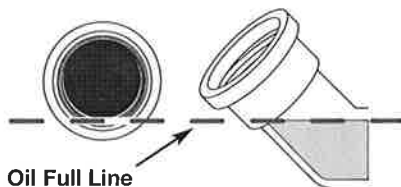


Fig. 12

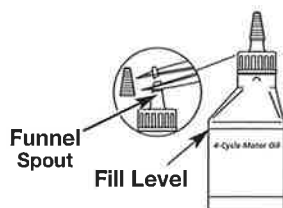


Fig. 9

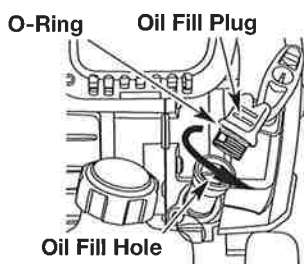


Fig. 10

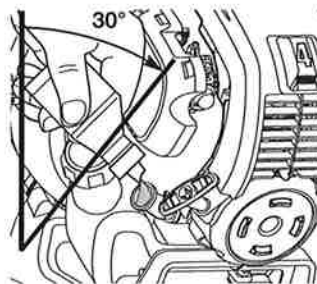


Fig. 11

### RECOMMENDED FUEL TYPE

Old fuel is the primary reason for improper unit performance. Be sure to use fresh, clean, unleaded gasoline.

**NOTE:** This is a four cycle engine. In order to avoid damage to the unit, **do not mix oil with gasoline.**

### 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 or form acids when stored. Use fresh fuel (less than 30 days old), when using alcohol-blended fuel.

### Using Blended Fuels

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

- Always use fresh unleaded gasoline
- Use the fuel additive STA-BIL® or an equivalent
- Drain tank and run the engine dry before storing unit

### Using Fuel Additives



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



**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.

The use of fuel additives, such as STA-BIL® Gas Stabilizer or an equivalent, will inhibit corrosion and minimize the formation of gum deposits. Using a fuel additive can keep fuel from forming harmful deposits in the carburetor for up to six (6) months. 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 gas tank.

### FUELING THE UNIT



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

1. Remove the fuel cap.
2. Place the gas container's spout into the fill hole on the fuel tank (Fig. 13) and fill the tank.

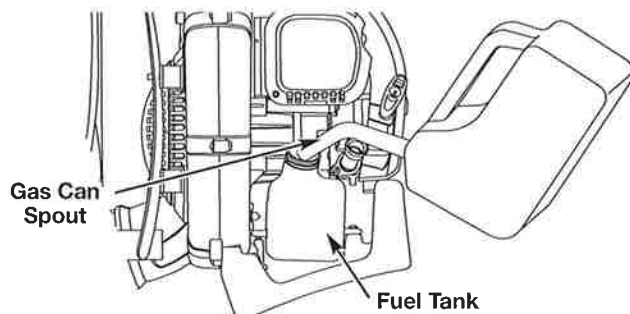


Fig. 13

**NOTE:** Do not overfill the tank.

3. Wipe up any gasoline that may have spilled.
4. Reinstall the fuel cap.
5. Move the unit at least 30 ft. (9.1 m) from the fueling source and site before starting the engine.

**NOTE:** Dispose of the old gasoline in accordance with federal, state and local regulations.

## STARTING/STOPPING INSTRUCTIONS



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



**WARNING:** Avoid accidental starting. Make sure you are in the starting position when pulling the starter rope (Fig. 16). To avoid serious injury, the operator and unit must be in a stable position while starting. To avoid serious personal injury, make sure that the blower tube is locked in place or firmly installed.

### STARTING INSTRUCTIONS

1. Check the oil level in the crankcase. Refer to *Checking the Oil Level*.
2. Fill the fuel tank with fresh, clean unleaded gasoline. Refer to *Fueling the Unit*.

**NOTE:** There is no need to turn the unit on. The On/Off Control is in the ON (I) position at all times.

3. Fully press and release the primer bulb 10 times, slowly. Some amount of fuel should be visible in the primer bulb (Fig. 14). If fuel cannot be seen in the bulb, press and release the bulb until fuel is visible.
4. Move the choke lever to **Position 1** (Fig. 14).

**NOTE:** The unit should be started in idle. Do not squeeze the trigger until step 8 (Fig. 15, A).

5. **Do not squeeze the trigger.** Crouch in the starting position (Fig. 16). Pull the starter rope 5 times in a controlled motion.
6. Move the choke lever to **Position 2** (Fig. 14).
7. **Do not squeeze the trigger.** Pull the starter rope 3-5 times in a controlled motion to start the engine.
8. Squeeze and hold the trigger, or press down the cruise control (Fig. 15, A), and allow the engine to warm up for 30 to 60 seconds.
9. **Continue to squeeze the trigger.** Move the choke lever to **Position 3** (Fig. 14) and continue warming the engine for an additional 60 seconds. During this time the unit may be used.

**IF...** the engine does not start, go back to step 3.

**IF...** the engine fails to start after a few attempts, move the choke lever to **Position 3** and pull the starter rope 3-8 times in a controlled motion.

**IF WARM...** If the engine is already warm, go back to step 6.

### STOPPING INSTRUCTIONS

1. Release your hand from the trigger. Allow the engine to cool down by idling.
2. Press and hold the On/Off switch in the OFF (O) position until the unit comes to a complete stop (Fig. 15, A).

### Using the Cruise Control

1. Once the engine has started and warmed up, squeeze the trigger to accelerate the unit as needed (Fig. 15, A).
2. For longer periods of operation and to eliminate possible finger fatigue, move the cruise control toward the FAST position to incrementally increase or maintain the unit's engine speed (Fig. 15, B). When the cruise control is pressed, the trigger will recede into the handle.
3. To decrease engine speed, move the cruise control to the SLOW position and the trigger will return to idle position (Fig. 15, B).

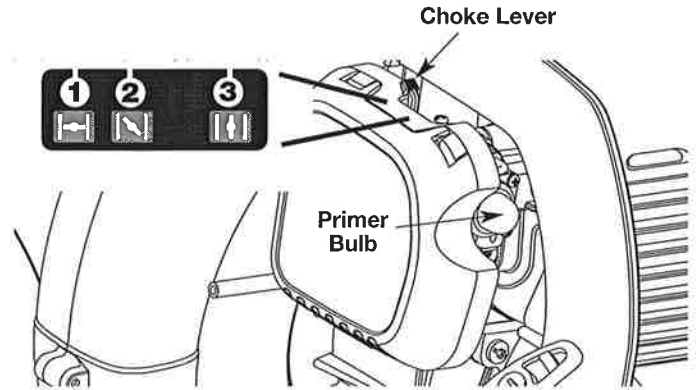


Fig. 14

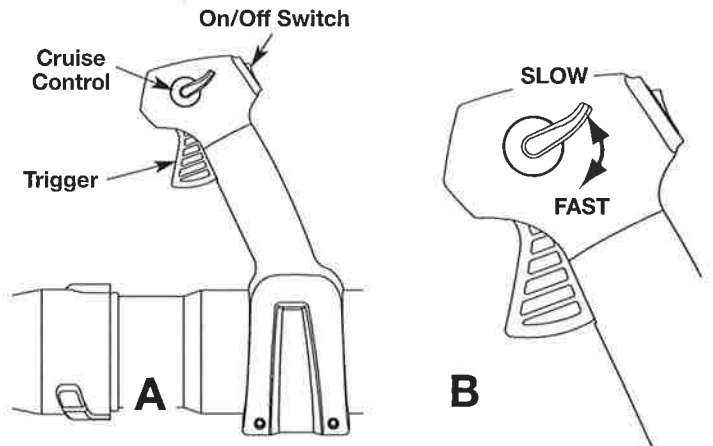


Fig. 15

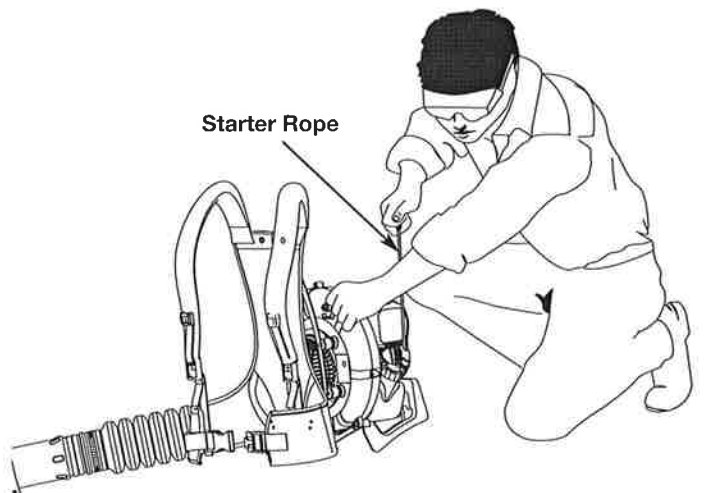


Fig. 16

## STARTING/STOPPING INSTRUCTIONS

### IF USING THE OPTIONAL ELECTRIC STARTER OR POWER START BIT™ ACCESSORY



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



**WARNING:** Avoid accidental starting. Make sure you are in the starting position when pulling the starter rope (Fig. 16). To avoid serious injury, the operator and unit must be in a stable position while starting. To avoid serious personal injury, make sure that the blower tube is locked in place or firmly installed.

#### **NOTE- This Unit Can Use an Electric Start or Power Start Bit™ Optional Accessory!**

Please refer to the Electric Starter or Power Start Bit™ operator's manual for proper use of this feature. (Items Sold Separately! Please refer to page 15 of this manual about purchasing these accessories.)

#### **STARTING INSTRUCTIONS**

1. Check the oil level in the crankcase. Refer to *Checking the Oil Level*.
2. Fill the fuel tank with fresh, clean unleaded gasoline. Refer to *Fueling the Unit*.

**NOTE:** There is no need to turn the unit on. The On/Off Control is in the ON ( I ) position at all times.

3. Fully press and release the primer bulb **10** times, slowly. Some amount of fuel should be visible in the primer bulb (Fig. 14). If fuel cannot be seen in the bulb, press and release the bulb until fuel is visible.
4. Move the choke lever to **Position 1** (Fig. 14).

**NOTE:** The unit should be started in idle. Do not squeeze the trigger until step 10 (Fig. 15, A).

5. Crouch in the starting position (Fig. 16). Insert the electric starter or Power Start Bit™ into the back of the unit (Fig. 32). Refer to the Operation section of the Electric Starter or Power Start Bit™ operator's manual.
6. **Do not squeeze the trigger.** Press and hold the electric starter or drill's ON (I) button for 2 seconds.
7. Move the choke lever to **Position 2** (Fig. 14).
8. **Do not squeeze the trigger.** Press and hold the electric starter or drill's ON (I) button for 2-second intervals until the unit starts.
9. Remove the electric starter or drill from the unit.
10. Squeeze and hold the trigger, or press down the cruise control (Fig. 15, A), and allow the engine to warm up for 30 to 60 seconds.
11. **Continue to squeeze the trigger.** Move the choke lever to **Position 3** (Fig. 14) and continue warming the engine for an additional 60 seconds. During this time the unit may be used.

**IF...** the engine does not start, go back to step 3.

**IF...** the engine fails to start after a few attempts, place the choke lever in **Position 3** and squeeze the throttle control. Press and hold the electric starter or drill ON (I) button for 2-second intervals until the unit starts.

**IF WARM...** If the engine is already warm, go back to step 7.

#### **STOPPING INSTRUCTIONS**

1. Release your hand from the trigger. Allow the engine to cool down by idling.
2. Press and hold the On/Off switch in the OFF (O) position until the unit comes to a complete stop (Fig. 15, A).

#### **Using the Cruise Control**

1. Once the engine has started and warmed up, squeeze the trigger to accelerate the unit as needed (Fig. 15, A).
2. For longer periods of operation and to eliminate possible finger fatigue, move the cruise control toward the FAST position to incrementally increase or maintain the unit's engine speed (Fig. 15, B). When the cruise control is pressed, the trigger will recede into the handle.
3. To decrease engine speed, move the cruise control to the SLOW position and the trigger will return to idle position (Fig. 15, B).

## OPERATING INSTRUCTIONS

### ADJUSTING THE SUSPENSION SYSTEM

1. Place the unit's shoulder supports over the shoulders while the unit is behind you.
2. Close the suspension system's waist support by sliding the waist support clips together (Fig. 17, A).

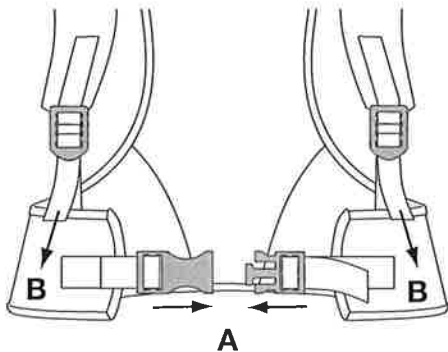


Fig. 17

**NOTE:** Make sure the weight of the unit is supported on the hips by the waist support (Fig. 18, A).

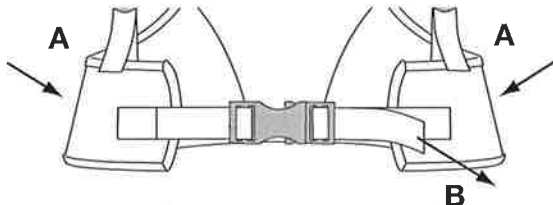


Fig. 18

3. If weight is not on hips, loosen the shoulder supports (Fig. 19, A) and pull the waist support handle (Fig. 18, B) to tighten. Adjust until the unit's weight rests on the hips.

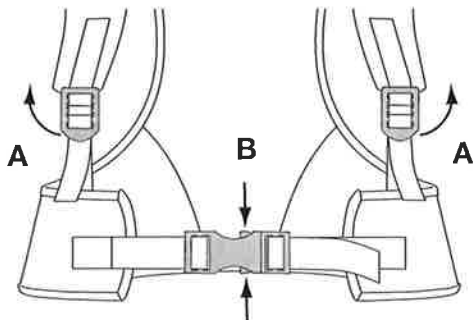


Fig. 19

4. Pull the shoulder support handles to tighten the shoulder supports (Fig. 17, B).

### Releasing the Suspension System

1. To release the shoulder supports, pull up on bottom tab of the shoulder support buckles (Fig. 19, A).
2. Squeeze the top and bottom of the waist support clips to release the waist support (Fig. 19, B).

### HOLDING THE BLOWER



**WARNING:** To avoid serious personal injury, wear goggles or safety glasses at all times when operating this unit. Wear a face mask or dust mask in dusty locations.

Before operating the unit, stand in the operating position (Fig. 20). Check for the following:

- Operator is wearing proper clothing, such as boots, safety glasses or goggles, ear/hearing protection, gloves, long pants and long sleeve shirt.



Fig. 20

- If the conditions are dusty, the operator is wearing a dust mask or face mask.
- The unit is in good working condition.
- The tubes are in place and secure.

### OPERATING TIPS



**WARNING:** To prevent serious personal injury or damage to the unit, make sure blower tubes are in place before you operate the unit.

- Assure the unit is not directed at anybody or any loose debris before starting the unit.
- Verify that the unit is in good working condition. Make sure the tubes are in place and secure.
- Always hold the unit securely when operating.
- To reduce the risk of hearing loss associated with sound level(s), hearing protection is required.
- Operate power equipment only at reasonable hours— not early in the morning or late at night when people might be disturbed. Comply with times listed in local ordinances. Usual recommendations are 9:00 am to 5:00 pm, Monday through Saturday.
- To reduce noise levels, limit the number of pieces of equipment used at any one time.
- To reduce noise levels, operate power blowers at the lowest possible speed to do the job.
- Check your equipment before operation, especially the muffler, air intakes and air filters.
- Use rakes and brooms to loosen debris before blowing.
- In dusty conditions, slightly dampen surfaces or use a mister attachment when water is available.
- Conserve water by using power blowers instead of hoses for many lawn and garden applications, including areas such as screens, patios, grills, porches, and gardens.
- Watch out for children, pets, open windows or freshly washed cars, and blow debris safely away.
- Use the full blower nozzle extension so the air stream can work close to the ground.
- Clean up after using blowers and other equipment. Dispose of debris appropriately.
- Use the cruise control (Fig. 15) to keep the trigger depressed while operating to make continuous operation easier.

### APPLICATIONS

1. Use the blower for trees, shrubs, flower beds and hard-to-clean areas.
2. Use the unit around buildings and for other normal cleaning procedures.
3. Use the blower around walls, overhangs, fences and screens.

## MAINTENANCE AND REPAIR INSTRUCTIONS



**WARNING:** To prevent serious injury, never perform maintenance or repairs with unit running. Always service and repair a cool unit. Disconnect the spark plug wire to ensure that the unit cannot start. See *Replacing the Spark Plug*.

### MAINTENANCE SCHEDULE

Perform these required maintenance procedures at the frequency stated in the table. These procedures should also be a part of any seasonal tune-up.

**NOTE:** Some maintenance procedures may require special tools or skills. If you are unsure about these procedures, take your unit to a Troy-Bilt or other qualified service dealer.

**NOTE:** Maintenance, replacement, or repair of the emission control devices and system may be performed by a Troy-Bilt or other qualified service dealer.

**NOTE:** Please read the California/EPA statement that came with the unit for a complete listing of terms and coverage for the emissions control devices, such as the spark arrestor, muffler, carburetor, etc.

FREQUENCY	MAINTENANCE REQUIRED	SEE
Every 10 hours	Clean and oil air filter	p 12
After 1st 10 hours	Change oil	p 12
	Check rocker arm to valve clearance and adjust	p 13
Every 40 hours	Change oil	p 12
	Check rocker arm to valve clearance and adjust	p 13
	Check spark plug condition and gap	p 14

### CHANGING THE OIL

Change the oil while the engine is still warm. The oil will flow freely and carry away more impurities.



**WARNING:** Wear gloves to prevent injury when handling unit.

1. Remove the oil fill plug.
2. Pour the oil out of the oil fill hole and into a container by tipping the unit to the side (Fig. 21). Allow ample time for complete drainage.
3. Wipe up any oil residue on the unit and clean up any oil that may have spilled. Dispose of the oil according to federal, state and local regulations.
4. Tilt the unit backwards 30° (Fig. 22).
5. Refill the crankcase with 3.04 fluid ounce (90 ml) of SAE 30 SF, SG, SH oil.
- b Use the bottle and spout saved from initial use to measure the correct amount of oil. The top of the label on the bottle measures approximately 3.04 ounces (90 ml) (Fig. 22). Check the level, See *Checking the Oil Level*. If the level is low, add a small amount of oil and recheck. Do not overfill (Fig. 22).
6. Replace the oil fill plug.

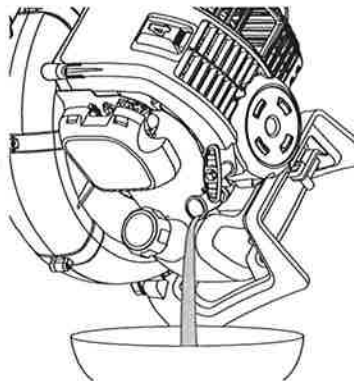


Fig. 21

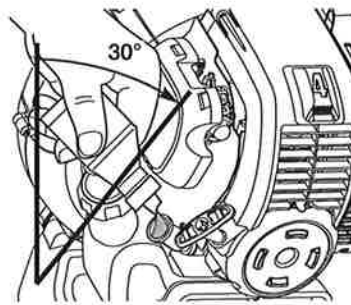
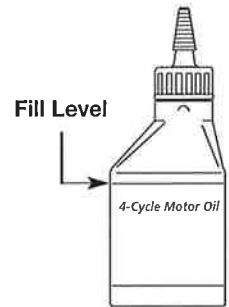


Fig. 22



### AIR FILTER MAINTENANCE

#### Cleaning the Air Filter

Failure to maintain your air filter properly can result in poor performance or can cause permanent damage to your engine.

1. Open the air filter cover. Push the locking tab on the under side of the cover inward. Then pull the air filter cover out and up. (Fig. 23).

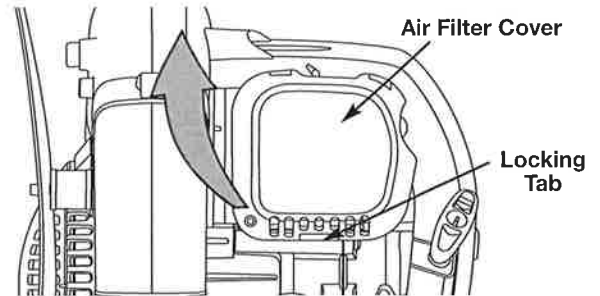


Fig. 23

2. Remove the air filter (Fig. 24).

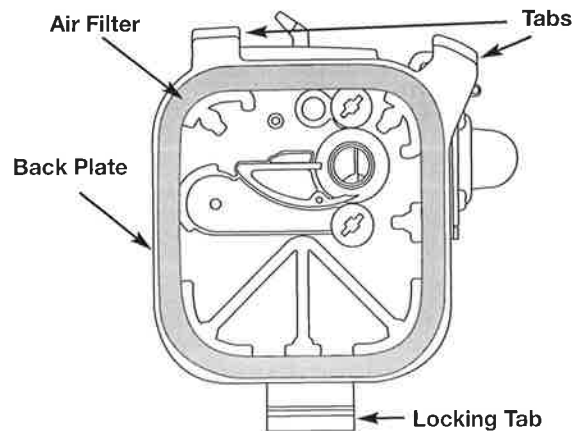


Fig. 24

3. Wash the filter in detergent and water. Rinse the filter thoroughly and allow it to dry.
  4. Apply enough clean SAE 30 motor oil to lightly coat the filter.
  5. Squeeze the filter to spread and remove excess oil.
  6. Replace the filter (Fig. 24).
- NOTE:** If the unit is operated without the air filter, you will VOID the warranty.
7. Reinstall the air filter cover. Position the slots on the top of the air filter cover onto the tabs at the top of the back plate (Figs. 23 & 24).
  8. Swing the cover down until the tab on the air filter backplate snaps into place in the slot on the air filter cover (Fig. 25).

## MAINTENANCE AND REPAIR INSTRUCTIONS

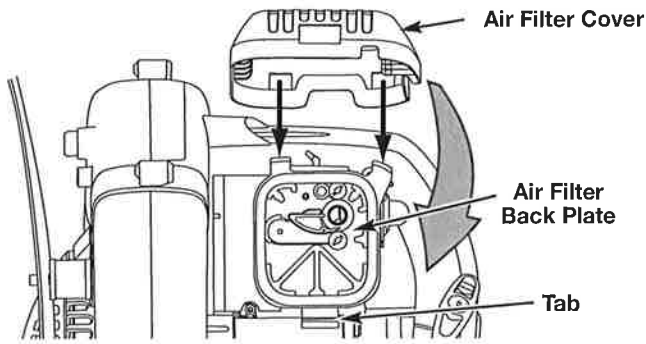


Fig. 25

### IDLE SPEED ADJUSTMENT

The idle speed of the engine is adjustable. An idle adjustment screw is between the air filter cover and the engine starter housing (Fig. 26).

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

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

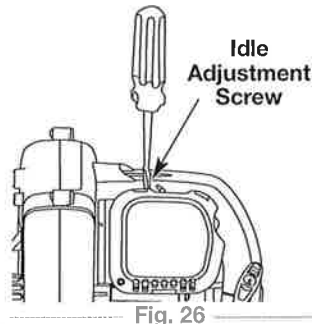


Fig. 26

1. Start the engine and let it run at a high idle for a minute to warm up. Refer to *Starting/Stopping Instructions*.
2. Release the throttle trigger and let the engine idle. If the engine stops, insert a small Phillips screwdriver in between the air filter cover and the engine cover (Fig. 26). Turn the idle speed screw in, clockwise, 1/8 of a turn at a time (as needed) until the engine idles smoothly.

Checking the fuel, cleaning the air filter, and adjusting the idle speed should solve most engine problems. If not and all of the following are true:

- 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.

### ROCKER ARM CLEARANCE

This requires disassembly of the engine. If you feel unsure or unqualified to perform this, take the unit to an authorized service center.

- The engine must be cold when checking or adjusting the valve clearance.
- This task should be performed inside, in a clean, dust free area.

1. Remove the seven (7) screws on the back of the engine cover with a Flat-head or T-25 Torx® screwdriver (Fig. 27).

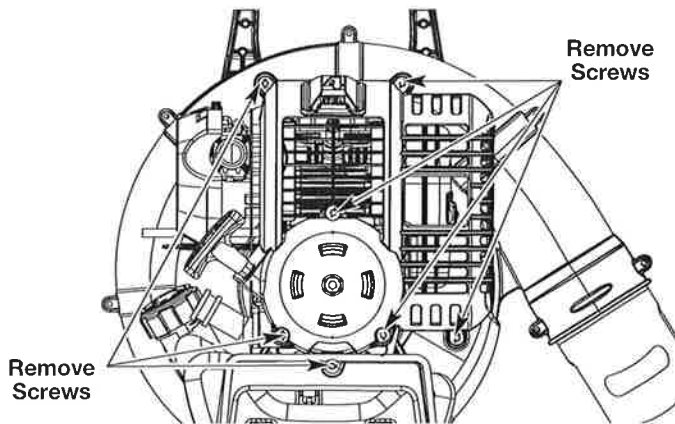


Fig. 27

2. Disconnect the spark plug wire.
3. Clean dirt from around the spark plug. Remove the spark plug from the cylinder head by turning a 5/8 in. socket counterclockwise.
4. Remove the engine cover (Fig. 27).
5. Clean dirt from around the rocker arm cover. Remove the screw holding the rocker arm cover with a large flat blade screwdriver or Torx® T-25 bit (Fig. 28). Remove the rocker arm cover and gasket.
6. Pull the starter rope slowly to bring the piston to the top of its travel, (known as top dead center). Check that:

- The piston is at the top of its travel while looking in the spark plug hole (Fig. 29).
  - Both rocker arms move freely, and both valves are closed.
- If these statements are not true, repeat this step.

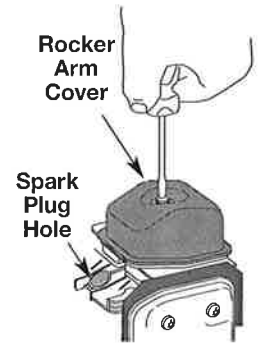


Fig. 28

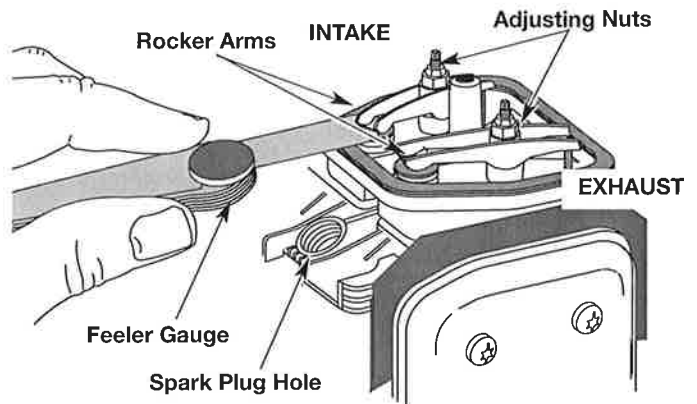


Fig. 29

7. Slide the feeler gauge between the rocker arm and the valve return spring. Measure the clearance between the valve stem and rocker arm (Fig. 29). Measure both the intake and exhaust valves. The recommended clearance for both intake and exhaust is .003 – .006 in. (.076 – 0.152 mm). Use a standard automotive .005 in. (0.127 mm) feeler gauge. The feeler gauge should slide between the rocker arm and valve stem with a slight amount of resistance, without binding. See Figures 29 and 30.

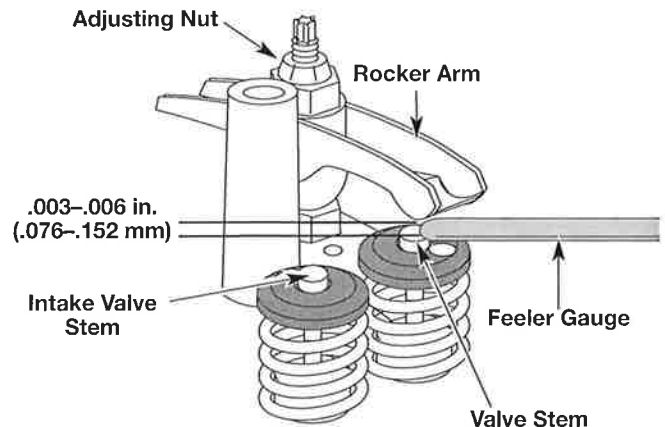


Fig. 30

## MAINTENANCE AND REPAIR INSTRUCTIONS

8. If the clearance is not within specification:
  - a. Turn the adjusting nut (Fig. 30) using a 5/16 inch (8 mm) wrench or nut driver.
    - To increase clearance, turn the adjusting nut counterclockwise.
    - To decrease clearance, turn the adjusting nut clockwise.
  - b. Recheck both clearances, and adjust as necessary.
9. Reinstall the rocker arm cover using a new gasket. Torque the screw to 20–30 in•lb (2.2–3.4 N•m).
10. Check the spark plug and reinstall. See *Replacing the Spark Plug*.
11. Replace the spark plug wire.
12. Reinstall the engine cover. Check alignment of the cover before tightening the screws. Tighten screws.

### REPLACING THE SPARK PLUG

Use a replacement part number **753-05784** or **Champion® RDZ4H** spark plug. The correct air gap is 0.025 in. (0.635 mm).

1. Stop the engine and allow it to cool. Remove the seven (7) screws on the back of the engine cover with a Flat-head or T-25 Torx® screwdriver (Fig. 27).
2. Grasp the plug wire firmly and pull the cap from the spark plug.
3. Clean dirt from around the spark plug. Remove the spark plug from the cylinder head by turning a 5/8 in. socket counterclockwise.



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

4. Replace cracked, fouled or dirty spark plug. Set the air gap at 0.025 in. (0.635 mm) using a feeler gauge (Fig. 31).
5. Install a correctly-gapped spark plug in the cylinder head. Turn 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.

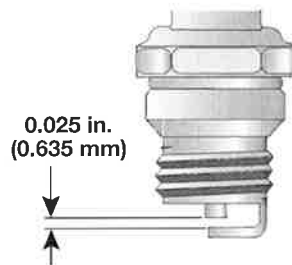


Fig. 31

## CLEANING AND STORAGE

### CLEANING



**WARNING:** To avoid serious personal injury, always turn your unit off and allow it to cool before you clean or service 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.
- Lock up the unit 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

1. Drain all gasoline from the gas tank into a container. Do not use gas that has been stored for more than 30 days. Dispose of the old gasoline in accordance with federal, state and local regulations.
2. Start the engine and allow it to run until it stalls. This ensures that all gasoline has been drained from the carburetor.
3. Allow the engine to cool. Remove the seven (7) screws on the back of the engine cover with a Flat-head or T-25 Torx® screwdriver. Remove the spark plug and put 5 drops of high quality motor oil into the cylinder. Pull the starter rope slowly to distribute the oil. Reinstall the spark plug.

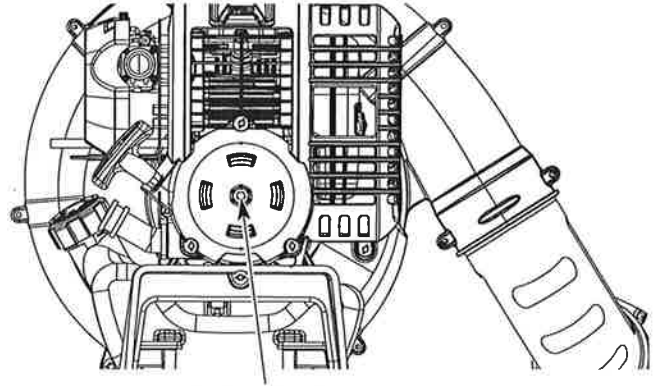
**NOTE:** Remove the spark plug and drain all of the oil from the cylinder before attempting to start the unit after storage.

4. Change the oil, referring to *Changing the Oil*. Dispose of the old oil in accordance with federal, state and local regulations.
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.

## OPTIONAL ACCESSORY

### ELECTRIC STARTER AND POWER START BIT™ FEATURES

This unit is designed to be started with an optional electric starter or Power Start Bit™ that are sold separately. If choosing to start the unit using one of these features or have questions, please contact your local retailer or call **1-800-828-5500** in the U.S (**1-800-668-1238** in Canada) for more information and purchasing. You may also go to [www.troybilt.com](http://www.troybilt.com) or [www.troybilt.ca](http://www.troybilt.ca).



Electric Start Feature

Fig. 32

## TROUBLESHOOTING

CAUSE	ACTION
<b>ENGINE WILL NOT START</b>	
Empty fuel tank	Fill fuel tank with fuel
Primer bulb wasn't pressed enough	Press primer bulb fully and slowly 10 times
Old fuel (over 30 days)	Drain fuel tank and add fresh fuel
Fouled spark plug	Replace or clean the spark plug
<b>ENGINE WILL NOT IDLE</b>	
Air filter is plugged	Replace or clean the air filter
Old fuel (over 30 days)	Drain fuel tank and add fresh fuel
Improper idle speed	Adjust according to the <i>Idle Speed Adjustment</i> section
<b>ENGINE WILL NOT ACCELERATE</b>	
Old fuel (over 30 days)	Drain fuel tank and add fresh fuel
Dirty air filter	Clean or replace the air filter
<b>ENGINE LACKS POWER OR STALLS</b>	
Old fuel (over 30 days)	Drain fuel tank and add fresh fuel
Fouled spark plug	Replace or clean the spark plug

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

## SPECIFICATIONS\*

Engine Type	Air-Cooled, 4-Cycle
Displacement	1.95 in. <sup>3</sup> (32 cc)
Operating RPM	6,500–7,500 rpm
Idle Speed RPM	3,800–4,400 rpm
Blower Velocity	up to 150 mph (240 kmh)
Blower Air Output	up to 500 cfm (14.2 cmm)
Valve clearance	0.003–0.006 in. (0.076–0.152 mm)
Spark Plug Gap	0.025 inch (0.635 mm)
Lubrication	SAE 30 Oil
Crankcase Oil Capacity	3.04 oz (90 ml)
Fuel	Unleaded
Fuel Tank Capacity	26 oz (768 ml)

\* All specifications are based on the latest product information available at the time of printing. We reserve the right to make changes at any time without notice.

# MANUFACTURER'S LIMITED WARRANTY FOR:



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

Troy-Bilt 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 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) or [www.troybilt.ca](http://www.troybilt.ca), check for a listing in the Yellow Pages, call **1-800-828-5500** or **1-800-668-1238** in Canada, or write to P.O. Box 361131, Cleveland, OH 44136-0019. No product returned directly to the factory will be accepted unless prior written permission has been extended by the Customer Service Department of Troy-Bilt.

**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, Saw Chains, Guide Bars, Cultivator Tines.
- C. Troy-Bilt 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 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 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 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 **1-800-828-5500** in the United States or **1-800-668-1238** in Canada.

**Troy-Bilt LLC**  
P.O. Box 361131  
Cleveland, OH 44136-0019