



# WHEELED TRIMMER

**WT160S** 160 cc SELF-PROPELLED

**WT160T** 160 cc PUSH W/TILT

**WT190** 190 cc PUSH

**WT190S** 190 cc SELF-PROPELLED

**WT190T** 190 cc PUSH W/TILT

**WT190SE** 190 cc SELF-PROPELLED  
ELECTRIC



PN: 12331  
Rev. 050809  
Companion to 12330  
SN Range: 702557 - A05369

**OWNER'S MANUAL**

ENGLISH

ESPAÑOL

FRANÇAIS

# Before You Begin

## DEAR ECHO BEAR CAT CUSTOMER

Thank you for purchasing a ECHO Bear Cat product. The ECHO Bear Cat line is designed, tested, and manufactured to give years of dependable performance. To keep your machine operating at peak efficiency, it is necessary to adjust it correctly and make regular inspections. The following pages will assist you in the operation and maintenance of your machine. Please read and understand this manual before operating your machine.

If you have any questions or comments about this manual, please call us toll-free at 1-800-247-7335.

If you have any questions or problems with your machine, please call or write your local authorized ECHO Bear Cat Dealer.

This document is based on information available at the time of its publication. ECHO Bear Cat is continually making improvements and developing new equipment. In doing so, we reserve the right to make changes or add improvements to our product without obligation for equipment previously sold.

## PLEASE SEND US YOUR WARRANTY CARD

A warranty card is included in your owner's kit packaged with your machine. Please take the time to fill in the information requested on the card. When you send your completed card to us, we will register your machine and start your coverage under our limited warranty.

## FOR MACHINE SERVICE OR PARTS:

For service assistance, contact your nearest authorized ECHO Bear Cat dealer or the factory. For parts, contact your authorized dealer. The parts manual for your machine is available at <http://bearcatproducts.com/main/support/index.html>. Your dealer will need to know the serial number of your machine to provide the most efficient service. See below for information on how to identify and record the serial number for your machine.

## FOR ENGINE SERVICE OR PARTS:

For engine service or parts, contact your nearest authorized engine dealer. ECHO Bear Cat does not handle any parts, repairs or warranties for engines.

## ORDERING PARTS

Only genuine ECHO Bear Cat replacement parts should be used to repair the machine. Replacement parts manufactured by others could present safety hazards, even though they may fit on this machine. Replacement parts are available from your ECHO Bear Cat dealer.

### Provide the following when ordering parts:

The SERIAL NUMBER of your machine.

The PART NUMBER of the part.

The PART DESCRIPTION.

The QUANTITY needed.

## SERIAL NUMBER LOCATION

Please record the serial number in the space provided and on the warranty and registration card.

MANUFACTURED BY CRARY INDUSTRIES  
WEST FARGO, NORTH DAKOTA 58078 U.S.A.  
SERIAL NUMBER   
MANUFACTURED IN U.S.A.

## SERIAL NUMBER

## HOW TO CONTACT ECHO BEAR CAT

ADDRESS	PHONE	E-MAIL	HOURS
237 NW 12th Street P.O. Box 849 West Fargo, ND 58078	800-247-7335 701-282-5520 FAX: 701-282-9522	opesales@crary.com service@crary.com	Monday - Friday, 8 am to 5 pm Central Time

\*Original Instruction

## LIMITED WARRANTY

This warranty applies to all AG and Outdoor Power Equipment manufactured by Crary Industries.

Crary Industries warrants to the original owner each new Crary Industries product to be free from defects in material and workmanship, under normal use and service. The warranty shall extend 1 year from date of delivery for income producing (commercial) applications and 2 years from date of delivery for non-income producing (consumer) use of the product. The product is warranted to the original owner as evidenced by a completed warranty registration on file at Crary Industries. Replacement parts are warranted for (90) days from date of installation.

**THE WARRANTY REGISTRATION MUST BE COMPLETED AND RETURNED TO CRARY INDUSTRIES WITHIN 10 DAYS OF DELIVERY OF THE PRODUCT TO THE ORIGINAL OWNER OR THE WARRANTY WILL BE VOID.**

In the event of a failure, return the product, at your cost, along with proof of purchase to the selling Crary Industries dealer. Crary Industries will, at its option, repair or replace any parts found to be defective in material or workmanship. Warranty on any repairs will not extend beyond the product warranty. Repair or attempted repair by anyone other than a Crary Industries dealer as well as subsequent failure or damage that may occur as a result of that work will not be paid under this warranty. Crary Industries does not warrant replacement components not manufactured or sold by Crary Industries.

1. This warranty applies only to parts or components that are defective in material or workmanship.
2. This warranty does not cover normal wear items including but not limited to bearings, belts, pulleys, filters and chipper knives.
3. This warranty does not cover normal maintenance, service or adjustments.
4. This warranty does not cover depreciation or damage due to misuse, negligence, accident or improper maintenance.
5. This warranty does not cover damage due to improper setup, installation or adjustment.
6. This warranty does not cover damage due to unauthorized modifications of the product.
7. Engines are warranted by the respective engine manufacturer and are not covered by this warranty.

Crary Industries is not liable for any property damage, personal injury or death resulting from the unauthorized modification or alteration of a Crary product or from the owner's failure to assemble, install, maintain or operate the product in accordance with the provisions of the Owner's manual.

Crary Industries is not liable for indirect, incidental or consequential damages or injuries including but not limited to loss of crops, loss of profits, rental of substitute equipment or other commercial loss.

This warranty gives you specific legal rights. You may have other rights that may vary from area to area.

Crary Industries makes no warranties, representations or promises, expressed or implied as to the performance of its products other than those set forth in this warranty. Neither the dealer nor any other person has any authority to make any representations, warranties or promises on behalf of Crary Industries or to modify the terms or limitations of this warranty in any way. Crary Industries, at its discretion, may periodically offer limited, written enhancements to this warranty.

**CRARY INDUSTRIES RESERVES THE RIGHT TO CHANGE THE DESIGN AND/OR SPECIFICATIONS OF ITS PRODUCTS AT ANY TIME WITHOUT OBLIGATION TO PREVIOUS PURCHASERS OF ITS PRODUCTS.**

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# 1 SAFETY

## Section

### 1.1 SAFETY ALERT SYMBOL



The Owner/Operator's manual uses this symbol to alert you of potential hazards. Whenever you see this symbol, read and obey the safety message that follows it. Failure to obey the safety message could result in personal injury, death or property damage.

The engine on your power equipment, like most outdoor power equipment, is an internal combustion engine that burns gasoline or diesel fuel (hydrocarbons). Therefore, your power equipment must be equipped with a spark arrester muffler in continuous effective working order. The spark arrester must be attached to the engine exhaust system in such a manner that flames or heat from the system will not ignite flammable material.

Failure of the owner/operator of the equipment to comply with this regulation is a misdemeanor under California law and may also be a violation of other state and/or federal regulations, laws, ordinances, or codes. Contact your local fire marshal or forest service for specific information about which regulations apply in your area.

The standard muffler installed on the engine is not equipped with a spark arrester. One must be added before using this machine in an area where a spark arrester is required by law. Contact the local authorities if these laws apply to you. See your authorized engine dealer for spark arrester options.



### DANGER



Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury.



### WARNING



Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury.

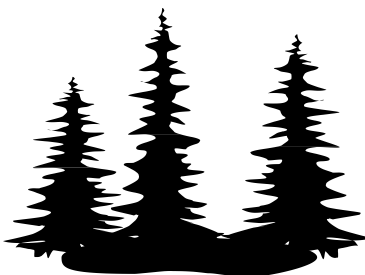


### CAUTION



Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury.

### 1.2 EMISSION INFORMATION

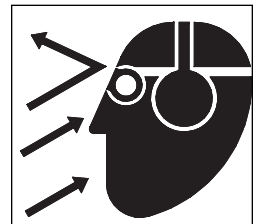


Under California Law and the laws of several other states, you are not permitted to operate an internal combustion engine using hydrocarbon fuels on any forest covered, brush covered or grass covered land or on land covered with grain, hay or other flammable agricultural crops, without an engine spark arrester in continuous effective working order.

### 1.3 BEFORE OPERATING



1. Read and understand this owner's manual. Be completely familiar with the controls and the proper use of this equipment.
2. Familiarize yourself with all of the safety and operating decals on this equipment and on any of its attachments or accessories.
3. Keep safety decals clean and legible. Replace missing or illegible safety decals.
4. Obtain and wear safety glasses and use hearing protection at all times when operating this machine.
5. Avoid wearing loose fitted clothing. Never operate this machine while wearing clothing with drawstrings that could wrap around or get caught in the machine.
6. Do not operate this machine if you are under the influence of alcohol, medications, or substances that can affect your vision, balance or judgment. Do not operate if tired or ill. You must be in good health to operate this machine safely.



7. Do not operate this equipment in the vicinity of bystanders. Keep the area of operation clear of all persons, particularly small children. It is recommended that bystanders keep at least 50 feet (15 meters) away from the area of operation.
8. Do not allow children to operate this equipment.
9. Use only in daylight or good artificial light.
10. Do not run this equipment in an enclosed area. Engine exhaust contains carbon monoxide gas, a deadly poison that is odorless, colorless and tasteless. Do not operate this equipment in or near buildings, windows or air conditioners.
11. Always use an approved fuel container. Do not remove gas cap or add fuel when engine is running. Add fuel to a cool engine only.
12. Do not fill fuel tank indoors. Keep open flames, sparks, smoking materials and other sources of combustion away from fuel.
13. Do not operate machine without shields in place. Failure to do so may cause serious injury or death.
14. Keep all guards, deflectors, and shields in good working condition.
15. Before inspecting or servicing any part of this machine, shut off the machine and make sure all moving parts have come to a complete stop. Disconnect the battery and remove the ignition key where applicable.
16. Check that all screws, nuts, bolts, and other fasteners are secured, tightened and in proper working condition before starting the machine.

## 1.4 OPERATION SAFETY

1. Set up your work site so you are not endangering traffic and the public. Take great care to provide adequate warnings.
2. Keep the machine clear of debris and other accumulations.
3. On electric start models, disconnect cables from battery before doing any inspection or service.
4. When the trimmer bail is engaged, the trimmer disk is rotating. Do not attempt to inspect or service the machine while the trimmer disk is rotating.

## 1.5 MAINTENANCE AND STORAGE SAFETY

1. Before inspecting, servicing, storing, or changing an accessory, shut off the machine and make sure all moving parts have come to a complete stop. Disconnect the battery and remove the ignition key where applicable.
2. Replace any missing or unreadable safety decals. Refer to the safety decal section for part numbers.
3. Allow machine to cool before storing in an enclosure.
4. Store the machine out of reach of children and where fuel vapors will not reach an open flame or spark.
5. Never store this machine with fuel in the fuel tank inside a building where fumes may be ignited by an open flame or spark. Ignition sources can be hot water and space heaters, furnaces, clothes dryers, stoves, electric motors, etc.
6. Drain the fuel and dispose of it in a safe manner for storage periods of three months or more.

## 1.6 BATTERY SAFETY

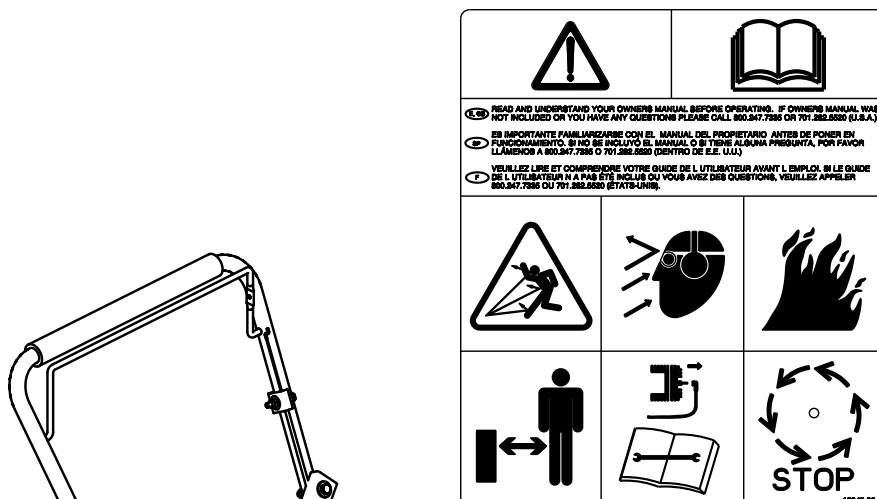
Improper use and care of the battery on electric start models can result in serious personal injury or property damage. Always observe the following safety precautions.

Poison/Danger - Causes Severe Burns. The battery contains sulfuric acid. Avoid contact with skin, eyes or clothing. Keep out of reach of children.

- ANTIDOTE-External Contact: Flush immediately with water.
  - ANTIDOTE-Internal: Drink a large amount of water or milk. Follow with milk of magnesia, beaten egg or vegetable oil. Call a physician immediately.
  - ANTIDOTE-Eye Contact: Flush with water for 15 minutes. Get prompt medical attention.
1. The battery produces explosive gases. Keep sparks, flame or cigarettes away. Ventilate area when charging battery. Always wear safety goggles when working near battery.
  2. The battery contains toxic materials. Do not damage battery case. If case is broken or damaged, avoid contact with battery contents.
  3. Neutralize acid spills with a baking soda and water solution. Properly dispose of a damaged or worn-out battery. Check with local authorities for proper disposal methods.
  4. Do not short circuit battery. Severe fumes and fire can result.
  5. Before working with electrical wires or components, disconnect battery ground (negative) cable first. Disconnect positive cable second. Reverse this order when reconnecting battery cables.

## 1.7 SAFETY DECAL LOCATIONS

Familiarize yourself with all of the safety and operational decals on the machine and the associated hazards. See the engine owner's manual or contact the engine manufacturer for engine safety instructions and decals. Make certain that all safety and operating decals on this machine are kept clean and in good condition. Decals that need replacement must be applied to their original locations.



P/N 18949-00

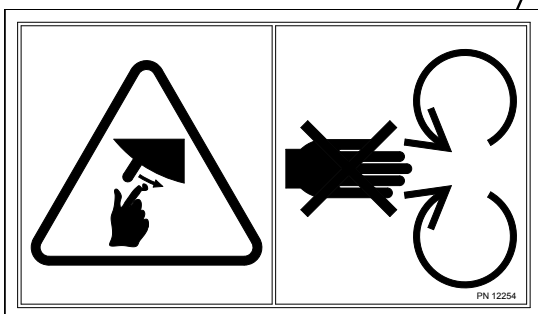
KEEP FACE AND BODY AWAY FROM DISCHARGE AREAS.

KEEP MACHINE CLEAR OF DEBRIS AND OTHER ACCUMULATIONS. BUILD UP OF DEBRIS ON MACHINE CAN CAUSE A FIRE.

OBTAIN AND WEAR SAFETY GLASSES AND USE HEARING PROTECTION AT ALL TIMES WHEN OPERATING THIS MACHINE.

BEFORE INSPECTING OR SERVICING ANY PART OF THIS MACHINE, SHUT OFF POWER SOURCE, DISCONNECT SPARK PLUG WIRE FROM SPARK PLUG AND MAKE SURE ALL MOVING PARTS HAVE COME TO A COMPLETE STOP.

DO NOT OPERATE THIS EQUIPMENT IN THE VICINITY OF BYSTANDERS. DO NOT ALLOW CHILDREN TO OPERATE THIS EQUIPMENT. ALWAYS STAND CLEAR OF DISCHARGE AREA WHEN OPERATING THIS MACHINE.



P/N 12254

DO NOT ALLOW HANDS OR ANY PART OF BODY OR CLOTHING NEAR ANY MOVING PART TO AVOID SERIOUS PERSONAL INJURY.

ENGLISH

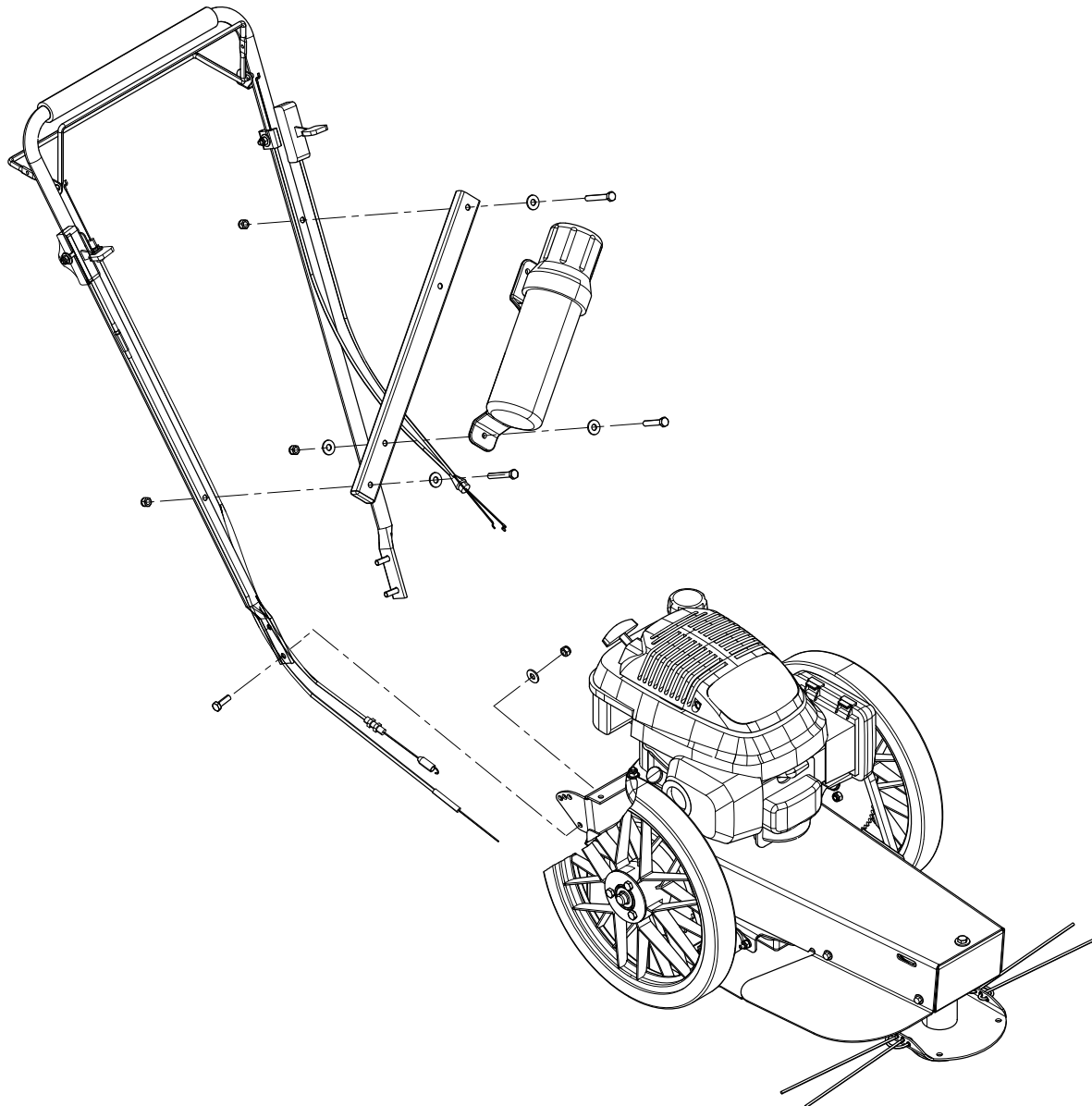
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# ASSEMBLY

## Section

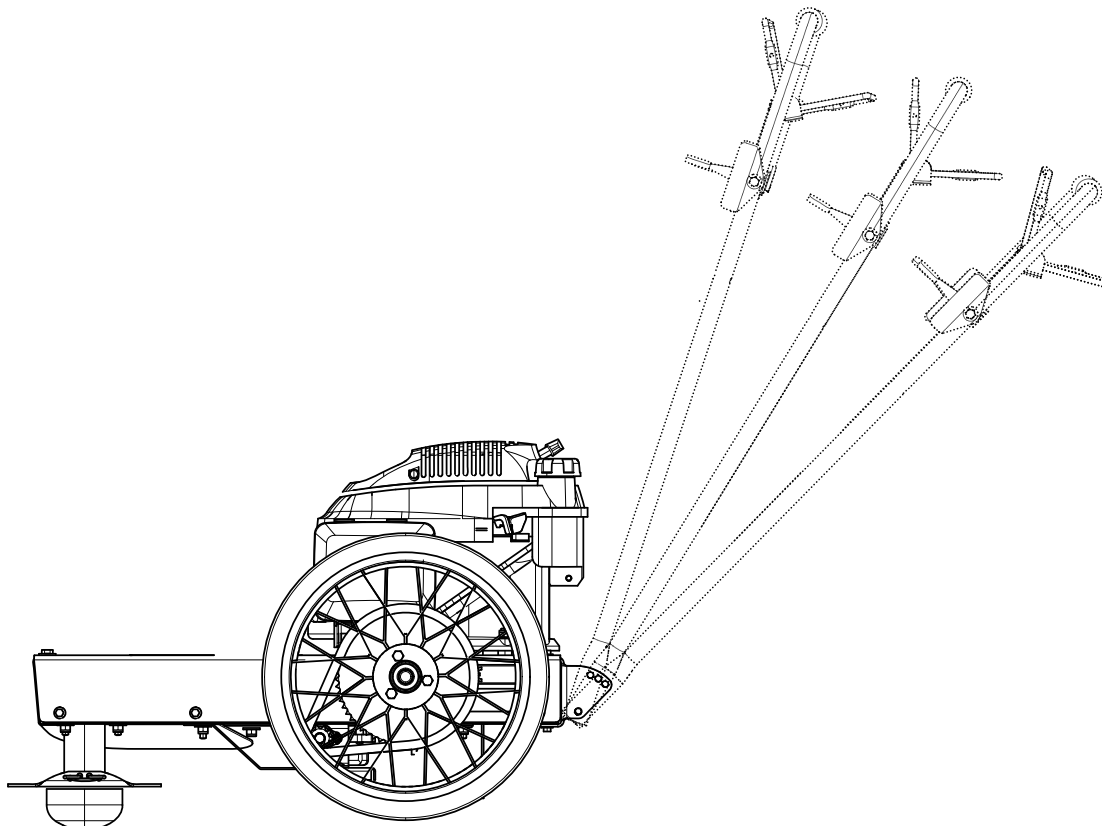
### 2.1 INSTALL THE HANDLEBAR

1. Remove the trimmer and handlebar from the shipping box and pallet.
2. The manual container is partially assembled on one side of the handlebar. If necessary, loosen the bolt securing the manual container to the handlebar. Rotate the container and attach the remaining end to the opposite side of the handlebar using one 5/16" x 2-1/4 bolt, washer and nut. DO NOT TIGHTEN BOLTS AT THIS TIME.
3. Stand handlebar upright. Align the bottom hole on the handlebar with the bottom hole on the handlebar support channel located on the trimmer and attach with two 5/16" x 1" bolts, washers and nuts. DO NOT TIGHTEN BOLTS AT THIS TIME.





4. Adjust the handlebar height by rotating the handlebar until the top hole on the handlebar is aligned with a corresponding hole on the handlebar support channel and attach using two 5/16" x 1" bolts, washers and nuts. **DO NOT TIGHTEN BOLTS AT THIS TIME.**
5. Tighten the bolts securing the manual container to the handlebar.
6. Tighten all remaining bolts.
7. Use the two ties provided in the owner's kit to tie the wires to the handlebar.



## 2.2 ADD OIL

Check the oil level and, if needed, fill the engine crankcase with the type and amount of oil specified in the engine owner's manual.

## 2.3 FILL THE FUEL TANK



### WARNING



Gasoline and diesel fuels are highly flammable and their vapors are explosive. To prevent personal injury or property damage:

Store fuel only in approved containers, in well ventilated, unoccupied buildings, away from sparks or flames. A container with a capacity of 2 gallons or less with a pouring spout is recommended. Do not fill the fuel tank while the engine is hot or running, since spilled fuel could ignite if it comes in contact with hot parts or sparks from ignition. Do not start the engine near spilled fuel. Never use fuel as a cleaning agent. **DO NOT MIX OIL WITH FUEL.**

Use only those types of fuels that are recommended in your engine owner's manual.

To add fuel:

1. Stop engine, wait for all parts to stop moving and disconnect spark plug wire. Remove key from key switch. Allow the engine and muffler to cool for at least three minutes.
2. Clean area around fuel fill cap and remove cap.
3. Using a clean funnel, fill fuel tank to 1/2" below bottom of filler neck to provide space for any fuel expansion. Install fuel fill cap securely and wipe up any spilled gasoline.

# 3 FEATURES & CONTROLS

## Section

The following descriptions define the features and controls of your machine.

Refer to Figure 3.1 for feature locations.

REFER TO ENGINE OWNERS MANUAL FOR FURTHER ENGINE OPERATING INSTRUCTIONS.

### FUEL SHUT OFF VALVE

ALL MODELS

The fuel shut off valve opens and closes the connection between the fuel tank and the carburetor. If the engine is equipped with a fuel shut off valve, turn it to the ON position for starting. When the engine is not in use, leave the fuel valve lever in the OFF position.

### ENGINE THROTTLE

MODELS: ALL 190CC MODELS

Changes engine speed. Move throttle to the FAST position for starting. Move throttle to the SLOW position to shut engine off. The engine is intended to run at full RPM. Operate engine with the throttle in the FAST position.

### ENGINE CHOKE

MODELS: ALL 160CC MODELS

The throttle lever opens and closes the choke valve in the carburetor and enriches the fuel mixture for starting a cold engine. Move the throttle lever to the CHOKE position for starting. When mowing or trimming, the throttle lever should be in the RUN position.

### PRIMER BULB

MODELS: ALL 190CC MODELS

Use when starting a cold engine. Firmly push the primer bulb 3 times before starting.

### TRIMMER BAIL

ALL MODELS

To start the trimmer, pull up the trimmer bail located under the handlebar. When the trimmer bail is engaged, the trimmer disk is rotating. Release the trimmer bail to stop the mower. Wait until the trimmer disk has stopped rotating to inspect or service the mower.

### RECOIL STARTER

MODELS: ALL RECOIL MODELS

Used to start engine. Grasp handle and slowly pull until resistance is felt. After resistance is felt, pull the cord quickly to start the engine and prevent kickback.

### SELF-PROPELLED BAIL

MODELS: ALL SELF-PROPELLED MODELS

Engages the self-propel mode. Pull up the self-propel bail located under the handlebar to start the self-propel mode.

### SHIFT LEVER

MODELS: ALL SELF-PROPELLED MODELS

Used to adjust the trimmer speed. Position 1 is the slowest and position 3 is the fastest. The ground speed ranges from 1-2 mph.

### TILT CONTROL HANDLE

MODELS: ALL TILT MODELS

Used to adjust the degree of tilt for the trimmer head and body when using the Off Center Tilt (OCT) feature.

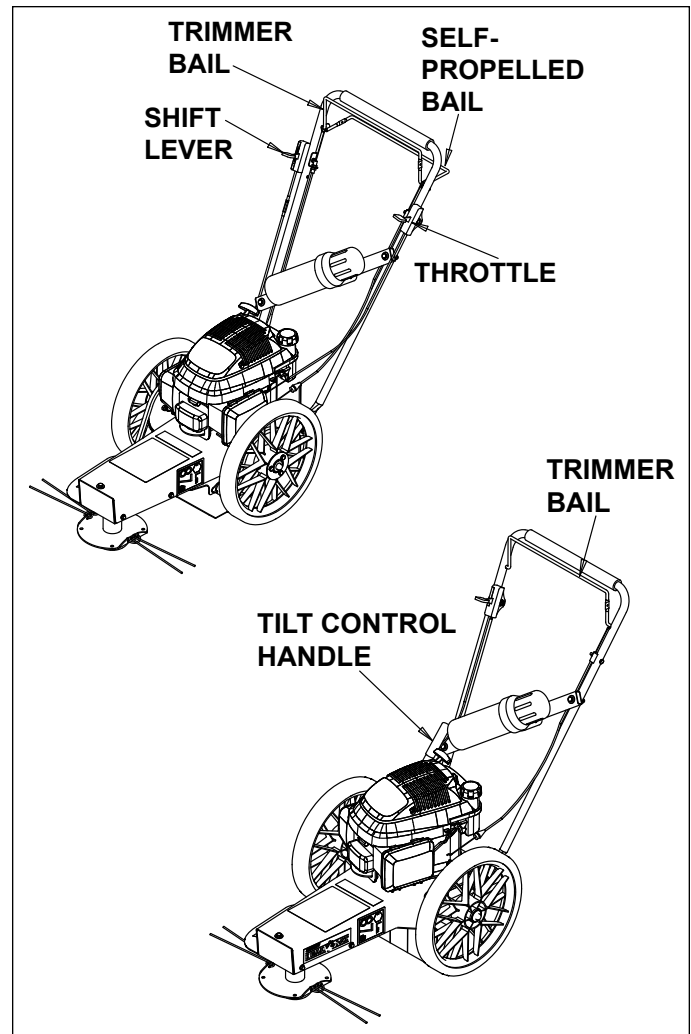


Figure 3.1 - Feature Locations

# 4 OPERATION

## Section

As with any other piece of outdoor power equipment, getting the feel for how your machine operates and getting to know the best techniques for particular jobs are important to overall good performance.

### TRIMMING OPERATION

The trimming operation takes place under the body of the trimmer, where trimmer string is mounted to a rotating disk. Material is trimmed and propelled out the edges of the trimmer.



### WARNING



Before operating your machine, be sure you read and understand all safety, controls and operating instructions in this owner's manual and on your machine. Failure to follow these instructions can result in serious injury or property damage.

### 4.1 STARTING THE MOWER

Move the machine to a clear, level area outdoors before starting. Do not operate in the vicinity of bystanders. Make sure the engine is clean and debris has not accumulated around the muffler.

1. Check engine oil level before starting (see Engine Owners Manual).
2. Open the fuel shut-off valve.
3. Place the throttle in the FAST position. Operate engine in the FAST position.
4. Firmly push the primer bulb 3 times before starting OR if the engine is equipped with a choke, move the throttle lever to the CHOKE position.
5. Pull trimmer bail back.
6. **For Recoil Models:** Grasp the recoil starter cord handle and slowly pull until resistance is felt, then pull quickly to start the engine and prevent kickback. Repeat if necessary.

**For Electric Models:** Turn key to START.

7. Allow engine to warm up. Slowly adjust the throttle lever (if equipped) from the CHOKE position to the RUN position.

### 4.2 STOPPING THE MOWER

1. Move the throttle (if equipped) to the SLOW position, then release the trimmer bail OR move the throttle to the STOP position.
2. Close the fuel shut off valve.



### WARNING



Allow the machine to come to complete stop before inspection or servicing. You can tell when the machine has come to a complete stop when the trimmer disk is not rotating.

### 4.3 TRIMMING GUIDE

The intended use of the Wheeled Trimmer is trimming, mowing and edging. The following guidelines can help you get started.

1. Run unit at full operating speed before starting to trim, mow or edge.
2. To begin trimming, start the engine, place the trimmer head on the ground and begin walking slowly.
3. The wheels should remain on the ground at all times to prevent undue pressure on the trimmer head.
4. The cutting radius is dependant on the amount of cutting string used and type of application.
5. For difficult conditions and edging, using less than the full cutting radius is recommended.



### WARNING



Inspect and clean engine before each use. Debris accumulation around the muffler can cause a fire.

#### 4.4 SELF-PROPELLED OPERATION

Models: All self-propelled models

The Wheeled Trimmer can be used in either push or self-propelled mode.

1. Pull up the self-propelled bail located under the handlebar to start the self-propelled mode.
2. Adjust the trimmer speed with the shift lever. Position 1 is the slowest and position 3 is the quickest. The ground speed ranges from 1-2 mph.
3. Operate mower safely and as intended.
4. To stop the mower release the self-propelled bail.
5. To stop the engine, release the trimmer bail.

#### 4.5 PARALLEL TRIMMING FOR PUSH TRIMMERS

The Wheeled Trimmer can be adjusted to mow at an angle. This allows the machine to trim in hard to reach places. Parallel trimming is adjustable on this model to the left 2". The trimmer body pivots on the axle. To adjust the parallel trimming setting:

1. Loosen the right axle nut located on the bottom of the trimmer directly behind the axle shaft (Figure 4.1).
2. Lift the right wheel and pull back. The wheel and axle will rotate backwards due to a slot cut in the bottom of the trimmer frame.
3. Tighten the nut loosened in Step 1.
4. When finished using the parallel trimming feature, loosen the right axle nut, and push the axle forward to the original position.
5. Tighten the right axle bolt and resume regular trimming or mowing.

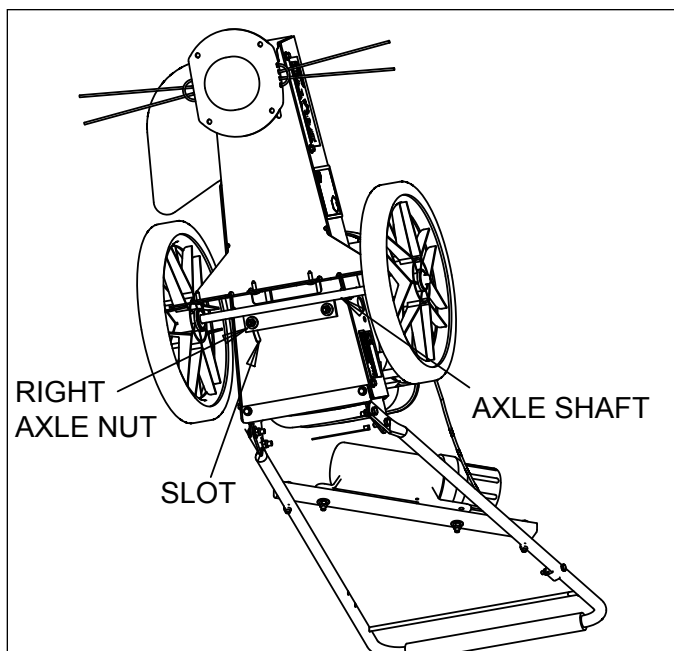


Figure 4.1 - Adjusting the Mower

#### 4.6 PARALLEL TRIMMING FOR SELF-PROPELLED MODELS

The Wheeled Trimmer can be adjusted to mow at an angle. This allows the machine to trim in hard to reach places. Parallel trimming is adjustable on this model 2" to the left or the right. To adjust the parallel trimming setting:

1. Loosen the two nuts on the bottom of the trimmer as shown in Figure 4.2; the first (A) is located behind the trimmer spindle, while the other (B) is located behind the trimmer flap on the transmission support plate. Do not adjust parallel trimming with the trimmer axle. This will cause the drive chains to fall out of adjustment.
2. Pivot the trimmer body, on the slotted holes, 2" to the left or right.
3. Tighten the nuts loosened in Step 1.
4. When finished using the parallel trimming feature, loosen bolts A & B and place the trimmer body in the original position.
5. Tighten the bolts and resume regular trimming or mowing.

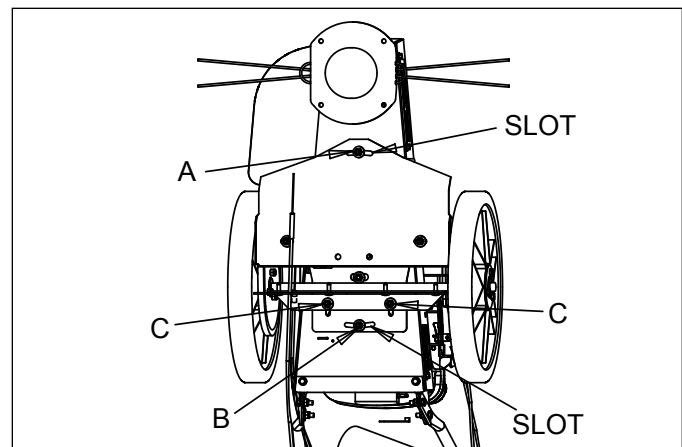


Figure 4.2 - Adjusting the Mower

#### 4.7 OFF CENTER TILT FEATURE (OCT)

Models: All tilt models

The OCT feature is used to trim in hard to reach places. This feature enables both the trimmer head and body to tilt for trimming close to the ground. The degree of tilt is dependent on the setting selected on the height adjustment handle located on the right side of the Wheeled Trimmer. To engage the OCT feature, simply move the handle into one of the four settings that are available.

1. **Level:** The height adjustment handle is set in the position closest to the rear of the trimmer.
2. **5.4 degrees:** The height adjustment handle is set in the second position from the rear of the trimmer.
3. **10.3 degrees:** The height adjustment handle is set in the third position from the rear of the trimmer.
4. **13 degrees:** The height adjustment handle is set in the position closest to the front of the machine for maximum tilt.

# 5

## Section

# SERVICE & MAINTENANCE

### 5.1 MAINTENANCE SCHEDULE

The items listed in this service and maintenance schedule are to be checked, and if necessary, corrective action taken. This schedule is designed for units operating under normal conditions. If the unit is operating in adverse or severe conditions, it may be necessary for the items to be checked and serviced more frequently.

**SEE ENGINE OWNER'S MANUAL FOR FURTHER ENGINE MAINTENANCE AND TROUBLESHOOTING INFORMATION.**

COMPONENT	MAINTENANCE REQUIRED	FREQUENCY			
		REFER TO ENGINE OPERATOR'S MANUAL	BEFORE EACH USE	EVERY 8 HOURS	EVERY YEAR
AIR CLEANER	CHECK AND CLEAN (1)	●			
ENGINE OIL	CHANGE (1) (3)	●			
SPARK PLUG	CHECK CONDITION AND GAP	●			
ENGINE OIL	CHECK/FILL (1) (3)		●		
FUEL TANK	CHECK/FILL		●		
ALL INTERNAL AND EXTERNAL NUTS AND BOLTS	CHECK TIGHTNESS		●		
BATTERY CONNECTIONS	CHECK		●		
ENTIRE MACHINE	CLEAN			●	
COOLING SHROUDS	CLEAN (1) (2)				●
STARTER DRIVE	SERVICE (2)				●

(1) Perform more frequently in dusty, dirty or severe usage conditions.

(2) Have a Briggs or Honda engine service dealer perform this service.

(3) Change oil after first 5 to 8 hrs of use, then every 50 hours or every season.

**As the Limited Warranty states, failure by the Owner to perform normal maintenance will void the machine's warranty.**

### 5.2 CUTTING HEIGHT ADJUSTMENT

The standard cutting height is 2-3/4 inches. The cutting height can be adjusted down approximately 3/4 inch by turning the trimmer head disk over. To adjust the cutting height:

1. Insert a 9/16" open end wrench into the trimmer frame (Figure 5.1).
2. Rotate the trimmer head until the wrench engages with the trimmer shaft.
3. While holding the wrench, twist the trimmer head weldment counterclockwise to remove. Use a channel lock or pipe wrench if necessary.
4. Turn trimmer head disk over and replace on trimmer spindle.
5. Return trimmer head weldment and turn clockwise to tighten.

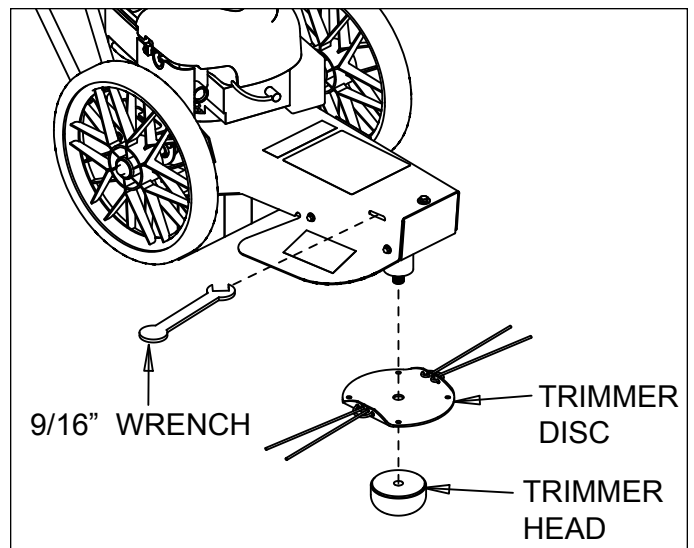


Figure 5.1 - Cutting Height Adjustment



**WARNING**



BEFORE INSPECTING OR SERVICING ANY PART OF THIS MACHINE, SHUT OFF POWER SOURCE, DISCONNECT SPARK PLUG WIRE FROM SPARK PLUG AND MAKE SURE ALL MOVING PARTS HAVE COME TO A COMPLETE STOP.

### 5.3 CUTTING STRING REPLACEMENT

Cutting string is available in two thicknesses, 130 mil (standard) and 155 mil (heavy duty). The type of string selected is dependent on the conditions and material being cut.

String heavier than 155 mil can be used by making the holes in the trimmer head larger. The decision to drill the holes bigger may shorten the life of 130 mil and 155 mil string if used again.

Cutting string can be wrapped in a variety of ways. Refer to Figures 5.2, 5.3 and 5.4 for examples. The wrapping method and cutting string thickness chosen is ultimately based on what is determined the best for the operator.

To wrap the cutting string in the standard configuration, follow the steps below.

1. Feed the cutting string through the second hole on either end of the trimmer head leaving approximately 8 inches for the cutting surface. Total recommended string length is 20-1/2 inches.
2. Continue by weaving the cutting string through the first hole directly beside the second hole used in Step 1. Pull the cutting string tight.
3. Loop the cutting string back and feed through the first hole on the opposite end of the trimmer head.
4. Feed through the remaining second hole and pull the cutting string tight. The cutting strings in the middle two holes should be the same length. If the length differs, cut to an even length.

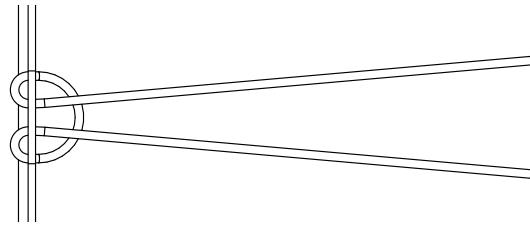


Figure 5.2 Wrapping the Cutting String

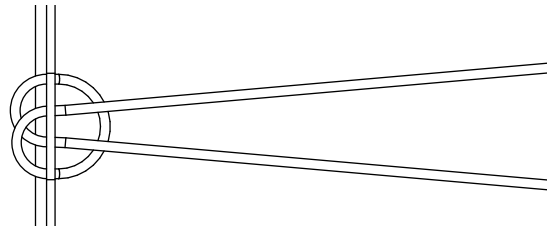


Figure 5.3 Optional Wrapping Method

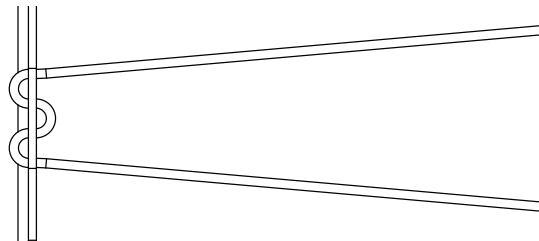


Figure 5.4 Optional Wrapping Method

### 5.4 DRIVE CHAIN ADJUSTMENT

Models: All self-propelled models

Self-propelled models operate with a drive chain. Periodically, this chain will need to be adjusted. To adjust:

1. Loosen the two 5/16" nuts (C) (Figure 4.2) located under the trimmer axle.
2. Slide the trimmer axle back to tighten the chains. Slide the trimmer forward to loosen the chains.
3. Retighten the nuts.
4. Tighten the chains until they have 1/4" (6.36 mm) deflection.

### 5.5 ENGINE MAINTENANCE

Maintenance is essential in preserving engine life. Clean the engine periodically to remove grass and buildup. The engine owners manual addresses cleaning the air filter and changing the oil. Service engine according to the maintenance schedule in your engine owners manual.

Remember to inspect and clean engine cooling fins as needed.



**WARNING**



Clean grass and buildup from the engine periodically. Dusty conditions will require frequent cleaning.

# 6 TROUBLESHOOTING

## Section

Before performing any of the corrections in this troubleshooting chart, refer to the appropriate information contained in this manual for the correct safety precautions and operating or maintenance procedures. Contact your dealer or the factory for service problems with the machine.

PROBLEM	POSSIBLE CAUSE	REMEDY
Trimmer disk does not turn.	<ol style="list-style-type: none"> <li>1. Broken off or damaged belts.</li> <li>2. Broken spindle.</li> <li>3. Failed bearings.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace belts.</li> <li>2. Repair spindle.</li> <li>3. Repair bearings.</li> </ol>
Cutting is slow or rough.	<ol style="list-style-type: none"> <li>1. Cutting string is too weak.</li> <li>2. Growth is too thick or heavy.</li> <li>3. Engine not running at full RPM.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace with heavier cutting string (.155).</li> <li>2. Reduce the trimming area by half or raise the trimmer head off the ground.</li> <li>3. Speed up engine to full throttle.</li> </ol>
Trimmer requires excessive power or stalls.	<ol style="list-style-type: none"> <li>1. Cutting string is too long.</li> <li>2. Drive belt is loose or worn.</li> <li>3. Growth is too thick or heavy.</li> <li>4. Belt too tight</li> </ol>	<ol style="list-style-type: none"> <li>1. Reduce cutting string length.</li> <li>2. Replace drive belt.</li> <li>3. Reduce the trimming area by half or raise the trimmer head slightly off the ground.</li> <li>4. Move spindle hub assembly towards the rear of the trimmer.</li> </ol>
Drive belt squealing or smoking.	<ol style="list-style-type: none"> <li>1. Drive belt is loose or worn.</li> <li>2. Worn or damaged pulley.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace drive belt.</li> <li>2. Replace pulley.</li> </ol>
Engine won't start or is hard to start.	<ol style="list-style-type: none"> <li>1. Gas tank is empty.</li> <li>2. Spark plug wire is disconnected.</li> <li>3. Spark plug is defective.</li> <li>4. Gas line is obstructed</li> <li>5. Dirty, stale, water-contaminated gas.</li> <li>6. Flooded engine.</li> <li>7. Dirty or plugged air cleaner or engine cooling fins.</li> <li>8. Trimmer bail not engaged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Fill gas tank.</li> <li>2. Connect loose wire to the spark plug.</li> <li>3. Replace spark plug.</li> <li>4. Remove gas line at carburetor and check for obstruction. Drain gas tank and refill with fresh gasoline.</li> <li>5. Drain tank and fill with fresh gasoline.</li> <li>6. Put throttle control in run position and crank engine several times to clear out excess gas.</li> <li>7. Clean or replace air cleaner. Clean cooling fins and shroud area of engine.</li> <li>8. Engage trimmer bail</li> </ol>
Drive belt rolling or falling off pulleys.	<ol style="list-style-type: none"> <li>1. Pulley not aligned.</li> <li>2. Belt not tensioned properly.</li> <li>3. Spindle bearing failed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Align pulleys.</li> <li>2. Tension belt with 70 lbs of force.</li> <li>3. Replace bearing.</li> </ol>
Drive chain falling off self-propelled models.	<ol style="list-style-type: none"> <li>1. Loose chain.</li> <li>2. Worn chain.</li> <li>3. Worn sprocket.</li> <li>4. Sprocket not aligned.</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten chain.</li> <li>2. Replace chain.</li> <li>3. Replace sprocket.</li> <li>4. Align drive sprocket and wheel clutch assembly with washers.</li> </ol>

# 7 SPECIFICATIONS

## Section




### 7.1 SIZE SPECIFICATIONS

	MODEL					
	WT190SE	WT160S	WT160T	WT190	WT190S	WT190T
ENGINE	B & S Quantam	Honda OHC	Honda OHC	B & S Quantum	B & S Quantum	B & S Quantum
ENGINE CAPACITY	190cc	160cc	160cc	190cc	190cc	190cc
DRIVE	3-Spd Self-Prop	3-Spd Self-Prop	Push	Push	3-Spd Self-Prop	Push
CUTTING WIDTH	24"	24"	24"	24"	24"	24"
WHEEL SUP-PORT	Ball Bearings	Ball Bearings	Ball Bearings	Ball Bearings	Ball Bearings	Ball Bearings
CUTTING HEIGHT	1-7/8" & 2-3/4"	1-7/8" & 2-3/4"	1-7/8" & 2-3/4"	1-7/8" & 2-3/4"	1-7/8" & 2-3/4"	1-7/8" & 2-3/4"
NYLON CUTTING STRING	.155 Heavy Duty .130 Optional	.155 Heavy Duty .130 Optional	.155 Heavy Duty .130 Optional	.155 Heavy Duty .130 Optional	.155 Heavy Duty .130 Optional	.155 Heavy Duty .130 Optional
PARALLEL TRIMMING	Manual	Manual	Standard	Manual	Manual	Standard
TILT HEAD	No	No	Mechanical	No	No	Mechanical
WEIGHT	84 lbs.	86 lbs.	82 lbs.	77 lbs.	85 lbs.	77 lbs.
OVERALL LENGTH	50"	50"	50"	50"	50"	50"
OVERALL HEIGHT	38"	38"	38"	38"	38"	38"
OVERALL WIDTH	21"	21"	21"	21"	21"	21"
FRAME MATERIAL	Solid steel	Solid steel	Solid steel	Solid steel	Solid steel	Solid steel
HANDLEBARS AND BAIL	Powder baked paint with foam grip	Powder baked paint with foam grip	Powder baked paint with foam grip	Powder baked paint with foam grip	Powder baked paint with foam grip	Powder baked paint with foam grip
START	Electric	Recoil	Recoil	Recoil	Recoil	Recoil
FUEL CAPACITY	1.5 qt.	1.2 qt.	1.2 qt.	1.5 qt.	1.5 qt.	1.5 qt.
UNIT WARRANTY	2 yr. consumer; 1 yr. commercial.	2 yr. consumer; 1 yr. commercial.	2 yr. consumer; 1 yr. commercial.	2 yr. consumer; 1 yr. commercial.	2 yr. consumer; 1 yr. commercial.	2 yr. consumer; 1 yr. commercial.
ENGINE WARRANTY	See engine owners manual.	See engine owners manual.	See engine owners manual.	See engine owners manual.	See engine owners manual.	See engine owners manual.
CONTROL VIBRATION LEVEL	<2.5 m/s2	<2.5 m/s2	<2.5 m/s2	<2.5 m/s2	<2.5 m/s2	<2.5 m/s2
NOISE LEVEL	101 dB	98 dB	98 dB	101 dB	101 dB	101 dB







## 7.2 BOLT TORQUE

The tables below are for reference purposes only and their use by anyone is entirely voluntary, unless otherwise noted. Reliance on their content for any purpose is at the sole risk of that person and any loss or damage resulting from the use of this information is the responsibility of that person.

SAE Grade and Head Markings	SAE - 2	SAE - 5	SAE - 8	BOLT DIAMETER
				

BOLT DIAMETER (A)	ENGLISH					
	BOLT TORQUE *					
	SAE 2		SAE 5		SAE 8	
	N.m	Ft-lb.	N.m	Ft-lb.	N.m	Ft-lb.
1/4"	7.5	5.5	11	8	16	12
5/16"	15	11	23	17	34	25
3/8"	27	20	41	30	61	45
7/16"	41	30	68	50	95	70
1/2"	68	50	102	75	149	110
9/16"	97	70	149	110	203	150
5/8"	122	90	203	150	312	230
3/4"	217	160	353	260	515	380
7/8"	230	170	542	400	814	600
1"	298	220	786	580	1220	900
1-1/8"	407	300	1085	800	1736	1280
1-1/4"	570	420	2631	1940	2468	1820

METRIC Grade and Head Markings	4.8	8.8	10.9	12.9	BOLT DIAMETER
					

BOLT DIAMETER (A)	METRIC							
	BOLT TORQUE *							
	4.8		8.8		10.9		12.9	
	N.m	Ft-lb.	N.m	Ft-lb.	N.m	Ft-lb.	N.m	Ft-lb.
M3	0.5	0.4	-	-	-	-	-	-
M4	3	2.2	-	-	-	-	-	-
M5	5	4	-	-	-	-	-	-
M6	6	4.5	11	8.5	17	12	19	14.5
M8	15	11	28	20	40	30	47	35
M10	29	21	55	40	80	60	95	70
M12	50	37	95	70	140	105	165	120
M14	80	60	150	110	225	165	260	190
M16	125	92	240	175	350	255	400	300
M18	175	125	330	250	475	350	560	410
M20	240	180	475	350	675	500	800	580
M22	330	250	650	475	925	675	1075	800
M24	425	310	825	600	1150	850	1350	1000
M27	625	450	1200	875	1700	1250	2000	1500

\* Torque value for bolts and capscrews are identified by their head markings.

Torque figures indicated above are valid for non-greased or non-oiled threads and heads unless otherwise specified. Therefore, do not grease or oil bolts or capscrews unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

## Declaration of Conformity

The undersigned manufacturer:

**Crary Industries, Inc.**  
**237 NW 12<sup>th</sup> Street**  
**P.O. Box 849**  
**West Fargo, ND 58078-0849**

Declares that hereunder specified:

### **WALK BEHIND TRIMMER**

**Brand: ECHO Bear Cat**  
**Type: Engine driven Walk Behind Trimmer**  
**Model Numbers: WT160S**

Complies with the requirements of:

Machinery Directive 2006/42/EC

Emission of Gaseous and Particulate Pollutants Directive 2002/88/EC

Noise Emissions Directive 2000/14/EC

-Conformity Assessment Procedure: Annex V  
(Use of harmonized standard EN ISO 3744:2010)

Sound Power Level: 84 dB L<sub>PA</sub>

Guaranteed Sound Power Level: 98 dB L<sub>WA</sub>

**WT160S** Serial number 703605 and up

West Fargo, ND 58078-0849  
June 29, 2011  
CRARY INDUSTRIES, INC.



---

**Arlan Mathias**  
**Senior Project Engineer**

The authorized representative in Europe who is authorized to compile the technical file:

Company: Atlantic Bridge Limited

Address: Atlantic House, PO Box 4800  
Earley, Reading RG5 4GB, United Kingdom

**Mr. Phillip Wicks**

Data contained in this document pertains only to machines sold in areas that require CE compliance standards. To identify if your machine is CE compliant, it will have the following CE mark decal:



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The undersigned manufacturer:

**Crary Industries, Inc.**  
**237 NW 12<sup>th</sup> Street**  
**P.O. Box 849**  
**West Fargo, ND 58078-0849**

Declares that hereunder specified:

### **WALK BEHIND TRIMMER**

**Brand: ECHO**  
**Type: Engine driven Walk Behind Trimmer**  
**Model Numbers: WT160SXE**

Complies with the requirements of:

Machinery Directive 2006/42/EC

Emission of Gaseous and Particulate Pollutants Directive 2002/88/EC

Noise Emissions Directive 2000/14/EC

-Conformity Assessment Procedure: Annex V  
(Use of harmonized standard EN ISO 3744:2010)

Sound Power Level: 84 dB L<sub>PA</sub>

Guaranteed Sound Power Level: 98 dB L<sub>WA</sub>

**WT160SXE** Serial number 703605 and up

West Fargo, ND 58078-0849  
June 29, 2011  
CRARY INDUSTRIES, INC.



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**Senior Project Engineer**

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**West Fargo, ND 58078-0849**

Declares that hereunder specified:

### **WALK BEHIND TRIMMER**

**Brand: Crary Bear Cat**  
**Type: Engine driven Walk Behind Trimmer**  
**Model Numbers: WT160SXS**

Complies with the requirements of:

Machinery Directive 2006/42/EC

Emission of Gaseous and Particulate Pollutants Directive 2002/88/EC

Noise Emissions Directive 2000/14/EC

-Conformity Assessment Procedure: Annex V  
(Use of harmonized standard EN ISO 3744:2010)

Sound Power Level: 84 dB L<sub>PA</sub>

Guaranteed Sound Power Level: 98 dB L<sub>WA</sub>

**WT160SXS** Serial number 703605 and up

West Fargo, ND 58078-0849  
June 29, 2011  
CRARY INDUSTRIES, INC.



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**237 NW 12<sup>th</sup> Street**  
**P.O. Box 849**  
**West Fargo, ND 58078-0849**

Declares that hereunder specified:

### **WALK BEHIND TRIMMER**

**Brand: ECHO Bear Cat**  
**Type: Engine driven Walk Behind Trimmer**  
**Model Numbers: WT160T**

Complies with the requirements of:

Machinery Directive 2006/42/EC

Emission of Gaseous and Particulate Pollutants Directive 2002/88/EC

Noise Emissions Directive 2000/14/EC

-Conformity Assessment Procedure: Annex V  
(Use of harmonized standard EN ISO 3744:2010)

Sound Power Level: 84 dB L<sub>PA</sub>

Guaranteed Sound Power Level: 98 dB L<sub>WA</sub>

**WT160T** Serial number 700825 and up

West Fargo, ND 58078-0849  
June 29, 2011  
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**P.O. Box 849**  
**West Fargo, ND 58078-0849**

Declares that hereunder specified:

### **WALK BEHIND TRIMMER**

**Brand: ECHO**  
**Type: Engine driven Walk Behind Trimmer**  
**Model Numbers: WT160TXE**

Complies with the requirements of:

Machinery Directive 2006/42/EC

Emission of Gaseous and Particulate Pollutants Directive 2002/88/EC

Noise Emissions Directive 2000/14/EC

-Conformity Assessment Procedure: Annex V  
(Use of harmonized standard EN ISO 3744:2010)

Sound Power Level: 84 dB L<sub>PA</sub>

Guaranteed Sound Power Level: 98 dB L<sub>WA</sub>

**WT160TXE** Serial number 700825 and up

West Fargo, ND 58078-0849  
June 29, 2011  
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**Brand: Crary Bear Cat**  
**Type: Engine driven Walk Behind Trimmer**  
**Model Numbers: WT160TXS**

Complies with the requirements of:

Machinery Directive 2006/42/EC

Emission of Gaseous and Particulate Pollutants Directive 2002/88/EC

Noise Emissions Directive 2000/14/EC

-Conformity Assessment Procedure: Annex V  
(Use of harmonized standard EN ISO 3744:2010)

Sound Power Level: 84 dB L<sub>PA</sub>

Guaranteed Sound Power Level: 98 dB L<sub>WA</sub>

**WT160TXS** Serial number 700825 and up

West Fargo, ND 58078-0849  
June 29, 2011  
CRARY INDUSTRIES, INC.



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**P.O. Box 849**  
**West Fargo, ND 58078-0849**

Declares that hereunder specified:

### **WALK BEHIND TRIMMER**

**Brand: ECHO Bear Cat**  
**Type: Engine driven Walk Behind Trimmer**  
**Model Numbers: WT190**

Complies with the requirements of:

Machinery Directive 2006/42/EC

Emission of Gaseous and Particulate Pollutants Directive 2002/88/EC

Noise Emissions Directive 2000/14/EC

-Conformity Assessment Procedure: Annex V  
(Use of harmonized standard EN ISO 3744:2010)

Sound Power Level: 87 dB L<sub>PA</sub>  
Guaranteed Sound Power Level: 101 dB L<sub>WA</sub>

**WT190** Serial number 707258 and up

West Fargo, ND 58078-0849  
June 29, 2011  
CRARY INDUSTRIES, INC.



**Arlan Mathias**  
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**237 NW 12<sup>th</sup> Street**  
**P.O. Box 849**  
**West Fargo, ND 58078-0849**

Declares that hereunder specified:

### **WALK BEHIND TRIMMER**

**Brand: ECHO**  
**Type: Engine driven Walk Behind Trimmer**  
**Model Numbers: WT190XE**

Complies with the requirements of:

Machinery Directive 2006/42/EC

Emission of Gaseous and Particulate Pollutants Directive 2002/88/EC

Noise Emissions Directive 2000/14/EC

-Conformity Assessment Procedure: Annex V  
(Use of harmonized standard EN ISO 3744:2010)

Sound Power Level: 87 dB L<sub>PA</sub>  
Guaranteed Sound Power Level: 101 dB L<sub>WA</sub>

**WT190XE** Serial number 707258 and up

West Fargo, ND 58078-0849  
June 29, 2011  
CRARY INDUSTRIES, INC.



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**West Fargo, ND 58078-0849**

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### **WALK BEHIND TRIMMER**

**Brand: Crary Bear Cat**  
**Type: Engine driven Walk Behind Trimmer**  
**Model Numbers: WT190XS**

Complies with the requirements of:

Machinery Directive 2006/42/EC

Emission of Gaseous and Particulate Pollutants Directive 2002/88/EC

Noise Emissions Directive 2000/14/EC

-Conformity Assessment Procedure: Annex V  
(Use of harmonized standard EN ISO 3744:2010)

Sound Power Level: 87 dB L<sub>PA</sub>

Guaranteed Sound Power Level: 101 dB L<sub>WA</sub>

**WT190XS** Serial number 707258 and up

West Fargo, ND 58078-0849  
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**P.O. Box 849**  
**West Fargo, ND 58078-0849**

Declares that hereunder specified:

### **WALK BEHIND TRIMMER**

**Brand: ECHO Bear Cat**  
**Type: Engine driven Walk Behind Trimmer**  
**Model Numbers: WT190S**

Complies with the requirements of:

Machinery Directive 2006/42/EC

Emission of Gaseous and Particulate Pollutants Directive 2002/88/EC

Noise Emissions Directive 2000/14/EC

-Conformity Assessment Procedure: Annex V  
(Use of harmonized standard EN ISO 3744:2010)

Sound Power Level: 87 dB L<sub>PA</sub>  
Guaranteed Sound Power Level: 101 dB L<sub>WA</sub>

**WT190S** Serial number 702033 and up

West Fargo, ND 58078-0849  
June 29, 2011  
CRARY INDUSTRIES, INC.



**Arlan Mathias**  
**Senior Project Engineer**

The authorized representative in Europe who is authorized to compile the technical file:

Company: Atlantic Bridge Limited  
Address: Atlantic House, PO Box 4800  
Earley, Reading RG5 4GB, United Kingdom

**Mr. Phillip Wicks**

Data contained in this document pertains only to machines sold in areas that require CE compliance standards. To identify if your machine is CE compliant, it will have the following CE mark decal:



## Declaration of Conformity

The undersigned manufacturer:

**Crary Industries, Inc.**  
**237 NW 12<sup>th</sup> Street**  
**P.O. Box 849**  
**West Fargo, ND 58078-0849**

Declares that hereunder specified:

### **WALK BEHIND TRIMMER**

**Brand: ECHO**  
**Type: Engine driven Walk Behind Trimmer**  
**Model Numbers: WT190SXE**

Complies with the requirements of:

Machinery Directive 2006/42/EC

Emission of Gaseous and Particulate Pollutants Directive 2002/88/EC

Noise Emissions Directive 2000/14/EC

-Conformity Assessment Procedure: Annex V  
(Use of harmonized standard EN ISO 3744:2010)

Sound Power Level: 87 dB L<sub>PA</sub>  
Guaranteed Sound Power Level: 101 dB L<sub>WA</sub>

**WT190SXE** Serial number 702033 and up

West Fargo, ND 58078-0849  
June 29, 2011  
CRARY INDUSTRIES, INC.



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**Crary Industries, Inc.**  
**237 NW 12<sup>th</sup> Street**  
**P.O. Box 849**  
**West Fargo, ND 58078-0849**

Declares that hereunder specified:

### **WALK BEHIND TRIMMER**

**Brand: Crary Bear Cat**  
**Type: Engine driven Walk Behind Trimmer**  
**Model Numbers: WT190SXS**

Complies with the requirements of:

Machinery Directive 2006/42/EC

Emission of Gaseous and Particulate Pollutants Directive 2002/88/EC

Noise Emissions Directive 2000/14/EC

-Conformity Assessment Procedure: Annex V  
(Use of harmonized standard EN ISO 3744:2010)

Sound Power Level: 87 dB L<sub>PA</sub>  
Guaranteed Sound Power Level: 101 dB L<sub>WA</sub>

**WT190SXS** Serial number 702033 and up

West Fargo, ND 58078-0849  
June 29, 2011  
CRARY INDUSTRIES, INC.



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The undersigned manufacturer:

**Crary Industries, Inc.**  
**237 NW 12<sup>th</sup> Street**  
**P.O. Box 849**  
**West Fargo, ND 58078-0849**

Declares that hereunder specified:

### **WALK BEHIND TRIMMER**

**Brand: ECHO Bear Cat**  
**Type: Engine driven Walk Behind Trimmer**  
**Model Numbers: WT190T**

Complies with the requirements of:

Machinery Directive 2006/42/EC

Emission of Gaseous and Particulate Pollutants Directive 2002/88/EC

Noise Emissions Directive 2000/14/EC

-Conformity Assessment Procedure: Annex V  
(Use of harmonized standard EN ISO 3744:2010)

Sound Power Level: 87 dB L<sub>PA</sub>  
Guaranteed Sound Power Level: 101 dB L<sub>WA</sub>

**WT190T** Serial number 700096 and up

West Fargo, ND 58078-0849  
June 29, 2011  
CRARY INDUSTRIES, INC.



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The undersigned manufacturer:

**Crary Industries, Inc.**  
**237 NW 12<sup>th</sup> Street**  
**P.O. Box 849**  
**West Fargo, ND 58078-0849**

Declares that hereunder specified:

### **WALK BEHIND TRIMMER**

**Brand: ECHO**  
**Type: Engine driven Walk Behind Trimmer**  
**Model Numbers: WT190TXE**

Complies with the requirements of:

Machinery Directive 2006/42/EC

Emission of Gaseous and Particulate Pollutants Directive 2002/88/EC

Noise Emissions Directive 2000/14/EC

-Conformity Assessment Procedure: Annex V  
(Use of harmonized standard EN ISO 3744:2010)

Sound Power Level: 87 dB L<sub>PA</sub>  
Guaranteed Sound Power Level: 101 dB L<sub>WA</sub>

**WT190TXE** Serial number 700096 and up

West Fargo, ND 58078-0849  
June 29, 2011  
CRARY INDUSTRIES, INC.



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**Crary Industries, Inc.**  
**237 NW 12<sup>th</sup> Street**  
**P.O. Box 849**  
**West Fargo, ND 58078-0849**

Declares that hereunder specified:

### **WALK BEHIND TRIMMER**

**Brand: Crary Bear Cat**  
**Type: Engine driven Walk Behind Trimmer**  
**Model Numbers: WT190TXS**

Complies with the requirements of:

Machinery Directive 2006/42/EC

Emission of Gaseous and Particulate Pollutants Directive 2002/88/EC

Noise Emissions Directive 2000/14/EC

-Conformity Assessment Procedure: Annex V  
(Use of harmonized standard EN ISO 3744:2010)

Sound Power Level: 87 dB L<sub>PA</sub>  
Guaranteed Sound Power Level: 101 dB L<sub>WA</sub>

**WT190TXS** Serial number 700096 and up

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