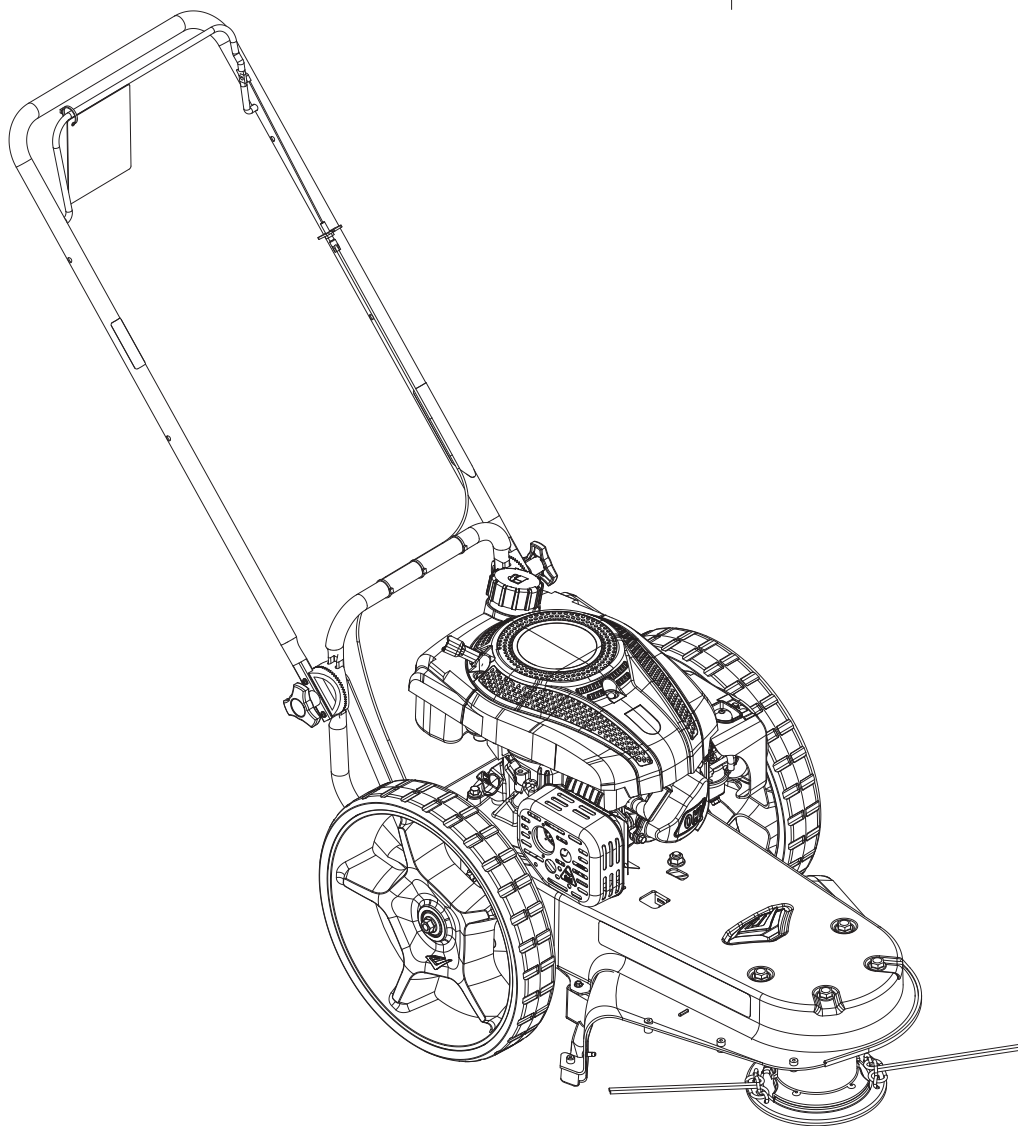




Operator's Manual
String Mower
28463

SN



Includes Model:
28463

Get parts online at
www.GetEarthquake.com



P/N: 28475
ECN: 11768
REV1: 09/21/2017
© 2017 Ardisam, Inc.
All Rights Reserved

INTRODUCTION

Congratulations on your investment in quality. Thank you for purchasing an Earthquake™ String Mower. We have worked to ensure that the string mower meets the highest standards for usability and durability. With proper care, your string mower will provide many years of service.

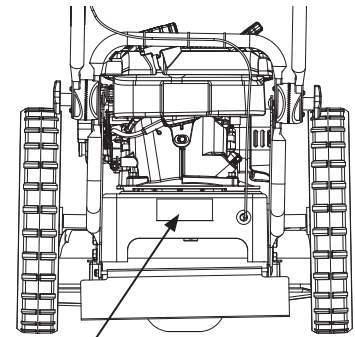
Please read this entire manual before installation and use. Earthquake™ reserves the right to change, alter or improve the product and this document at any time without prior notice.

CONTENTS

Registration	2
Warnings and Safety Precautions.....	3-6
Features	7
Assembly	8-9
Operation	9-10
Maintenance, Service and Storage	11-17
<i>Maintenance</i>	11
<i>Servicing and Adjustment</i>	12-15
<i>Storage</i>	15
Troubleshooting	15-16
Slope Guide	17
Parts Breakdown.....	18-21
Warranty	23

REGISTRATION, SERVICE AND MAINTENANCE LOG

Record the model number and serial number in the space provided for easy reference. Warranty is valid only if the completed registration is received by Earthquake™ within 30 days of purchase. You can register your warranty online by visiting www.getearthquake.com. If you do not have a computer, call our customer service department at (800) 345-6007 Mondays through Fridays from 8 a.m. to 5 p.m. CST.



MODEL AND SERIAL
NUMBER LOCATION

OWNERSHIP RECORDS		
Owner's Name:		
Owner's Address:		
City:	State/Province:	Zip Code/Postal Code:
Model Number:	Serial Number:	
Date of Purchase:		
Notes:		

This manual may contain information for several models. Read and keep this manual for future reference. This manual contains important information on SAFETY, ASSEMBLY, OPERATION, AND MAINTENANCE. The owner must be certain that all the product information is included with the unit. This information includes the MANUAL, the REPLACEMENT PARTS and the WARRANTIES. This information must be included to make sure state laws and other laws are followed. All persons to whom rent/loan this unit must have access to and understand this information. This manual should remain with the product even if it is resold.

WARNINGS AND SAFETY PRECAUTIONS

OWNER'S RESPONSIBILITY

Accurate assembly and safe and effective use of the string mower is the owner's responsibility.

- Read and follow all safety instructions.
- Carefully follow all assembly instructions.
- Maintain the string mower according to directions and schedule included in this Earthquake™ operator's manual.
- Ensure that anyone who uses the string mower is familiar with all controls and safety precautions.

SPECIAL MESSAGES

Your manual contains special messages to bring attention to potential safety concerns, machine damage as well as helpful operating and servicing information. Please read all the information carefully to avoid injury and machine damage.

NOTE: General information is given throughout the manual that may help the operator in the operation or service of the machine.



This symbol points out important safety instructions which if not followed could endanger your personal safety. Read and follow all instructions in this manual before attempting to operate this equipment.

BEFORE OPERATING ENGINE:

Please read this section carefully. Read entire operating and maintenance instructions AND the entire engine manual which accompanies this product. Failure to follow instructions could result in serious injury or death. Operate the string mower according to the safety instructions outlined here and inserted throughout the text. Anyone who uses this string mower must read the instructions and be familiar with the controls.

INTENDED USE / FORESEEABLE MISUSE

This is a motorized string mower that cuts long grasses and weeds. It is pedestrian-controlled, but not self-propelled. It has a petrol-fuelled internal combustion engine that powers the cutting head. It shall not be used for any other purpose.



WARNING

WARNING INDICATES A HAZARD WHICH, IF NOT AVOIDED, COULD RESULT IN DEATH OR SERIOUS INJURY AND/OR PROPERTY DAMAGE.



CAUTION

CAUTION INDICATES YOU CAN BE HURT OR YOUR EQUIPMENT DAMAGED IF THE SAFETY INSTRUCTIONS THAT FOLLOW THIS SIGNAL WORD ARE NOT OBEYED.



IMPORTANT

INDICATES HELPFUL INFORMATION FOR PROPER ASSEMBLY, OPERATION, OR MAINTENANCE OF YOUR EQUIPMENT.



WARNING

CALIFORNIA PROPOSITION 65 WARNING

ENGINE EXHAUST FROM THIS PRODUCT CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS, OR OTHER REPRODUCTIVE HARM.



WARNING

THIS CUTTING MACHINE IS CAPABLE OF THROWING OBJECTS.



WARNING

DEBRIS THROWN FROM THE MOWER CAN RESULT IN FOREIGN OBJECTS BEING THROWN INTO THE EYES, WHICH CAN CAUSE SEVERE EYE DAMAGE AND INJURY. ALWAYS WEAR SAFETY GLASSES OR EYE SHIELDS WHEN OPERATING THE MOWER.

IF YOU WEAR EYE GLASSES, PUT A WIDE VISION SAFETY MASK OVER THEM.

GENERAL SAFETY RULES

- Read, understand, and follow all instructions on the machine and in the manual(s). Be thoroughly familiar with the controls and the proper use of the mower before starting.
- Familiarize yourself with all of the safety and operating decals on this equipment and on any of its attachments or accessories.
- Do not put hands or feet near or under rotating parts.
- Only allow responsible individuals, who are familiar with the instructions, to operate the mower.
- Thoroughly inspect the area where the machine is to be used and remove all foreign objects. Your equipment can propel small objects at high speed causing personal injury or property damage. Stay away from breakable objects, such as house windows, automobile, greenhouses, etc.
- Keep the area of operation clear of all persons, particularly small children, and pets.
- Wear appropriate clothing such as a long-sleeved shirt or jacket. Also wear long trousers or slacks. Do not wear shorts.
- Do not wear loose clothing or jewelry. They can get caught in moving parts.
- Always wear safety goggles or safety glasses with side shields when operating mower to protect your eyes from foreign objects which can be thrown from the unit.
- Always wear work gloves and sturdy footwear. Wear footwear that will improve footing on slippery surfaces. Leather work shoes or short boots work well for most people. These will protect the operator's ankles and shins from small sticks, splinters, and other debris.
- It is advisable to wear protective headgear to prevent the possibility of being struck by small flying particles, or being struck by low hanging branches, twigs, or other objects which may be unnoticed by the operator.
- Do not operate the mower without proper guards or other safety protective devices in place.
- Use this equipment for its intended purpose only.
- See manufacturer's instructions for proper operation and installation of accessories. Only use accessories approved by the manufacturer.
- Operate only in daylight or good artificial light.
- Do not operate product when fatigued or under the influence of alcohol, drugs or other medication which can cause drowsiness or affect your ability to operate this machine safely.
- Never operate mower in wet grass. Always be sure of your footing; keep a firm hold on the handle and walk; never run.
- Before each use, inspect the throttle control lever and cable. Make sure that the cable is free and that the lever is not damaged. Also check the cable linkage running to the carburetor for kinks, loose fittings, and obstructions. Verify that the control bail is working properly.
- Stop the rotating mower head when crossing gravel drives, walks, or roads. Wait for the cutting lines to stop rotating.
- Watch for traffic when operating near, or when crossing roads.
- Stop the engine whenever you leave the equipment, before cleaning, repairing or inspecting the unit, be sure the mower head and all moving parts have stopped. Let the engine cool, disconnect the spark plug wire and move it away from the spark plug.
- If the equipment should start to vibrate abnormally, stop the engine, disconnect the spark plug wire and prevent it from touching the spark plug. Check immediately for cause. Vibration is generally a warning of trouble.
- After striking a foreign object, stop the engine. Remove the wire from the spark plug. Inspect the mower for damage. If damaged, repair before starting and operating the mower.
- Never leave the mower unattended when the engine is running. Remove the wire from the spark plug.
- Regularly inspect the mower. Make sure parts are not bent, damaged or loose.
- Allow muffler and engine areas to cool before touching. Never pick up or carry the mower while the engine is running.
- Prolonged exposure to noise and vibration from gasoline engine powered equipment should be avoided. Take intermittent breaks and/or wear ear protection from engine noise as well as heavy work gloves to reduce vibration in the hands.
- Check local regulations for age restrictions on use of this machine.
- If the noise or vibrations of the machine increase, stop immediately and perform an inspection.
- The fuel used in this machine is considered extremely flammable and should be handled with care. When storing extra fuel be sure that it is in an appropriate container and away from any fire hazards.

SLOPE OPERATION

Slopes are a major factor related to slip and fall accidents which can result in severe injury. All slopes require extra caution. If you feel uneasy on a slope, do not mow it. Do mow across the face of slopes; never up and down. Do not mow excessively steep slopes (maximum 15 degrees) or areas where the ground is very rough. See the "Slope Guide" in the back of this manual to check a slope. Exercise extreme caution when changing direction on slopes.

- Remove objects such as rocks, tree limbs, etc.
- Watch for holes, ruts, or bumps. Tall grass can hide obstacles.
- Do not mow near drop-offs, ditches, or embankments. The operator could lose footing or balance.
- Do not mow excessively steep slopes.
- Do not mow on wet grass. Reduced footing could cause slipping.

CHILDREN

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the mower and the mowing activity. Never assume that children will remain where you last saw them.

- Keep children out of the mowing area and under the watchful care of a responsible adult.
- Be alert and turn mower off if children enter the area.
- Before and while moving backwards, look behind and down for small children.
- Never allow children to operate the mower.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.

SERVICE

- Use extra care in handling gasoline and other fuels. They are flammable and vapors are explosive.
- Use only an approved container.
- Never remove gas cap or add fuel with the engine running. Allow engine to cool before refueling. Do not smoke while refueling.
- Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors or near appliances with pilot lights, heaters, or other ignition sources. Replace fuel cap securely. If fuel is spilled, do not start the engine but move product and fuel container from area. Clean up spilled fuel and allow to evaporate.
- Never store the machine or fuel container inside where there is an open flame (such as a water heater), or other ignition source.
- If the fuel has to be drained, this should be done outdoors. The drained fuel should be stored in a container specifically designed for fuel storage or it should be disposed of carefully.

- **Engines give off carbon monoxide, an odorless, colorless, poison gas. Breathing carbon monoxide can cause nausea, fainting or death.** Always start and run engine outdoors. Do not start or run engine in an enclosed area, even if doors or windows are open.
- Never make adjustments or repairs with the engine (motor) running. Disconnect the spark plug wire, and keep the wire away from the plug to prevent accidental starting (remove the ignition key if equipped with an electric start). Always wear eye protection when you make adjustments or repairs.
- Check the mower head and engine mounting bolts at frequent intervals for proper tightness.
- Keep all nuts and bolts tight and keep equipment in good condition. Check mounting hardware on mower head every time you change mower line and prior to each use.
- Never tamper with safety devices. Check their proper operation regularly.
- When servicing or repairing the mower, do not tip the machine over or up unless specifically instructed to do so in this manual. Service and repair procedures can be done with the mower in an upright position. Some procedures will be easier if the machine is lifted on a raised platform or working surface.
- To reduce fire hazard, keep mower free of grass, leaves, or other debris build-up. Clean up oil or fuel spillage. Allow mower to cool before storing.
- Stop and inspect the equipment if you strike an object. Repair, if necessary, before restarting.
- Always disconnect spark plug wire before cleaning, repairing, or adjusting.
- Do not change the engine governor setting or over-speed the engine.
- Clean and replace safety and instruction decals as necessary.
- To guard against engine over-heating, always have engine debris filter mounted and clean.
- Inspect mower before storage. When not in use, disconnect spark plug lead and store indoors in a dry place locked or otherwise inaccessible to children.
- Use only original equipment or authorized replacement parts.
- Never replace the cutting lines with metal parts.
- When storing gasoline or equipment with fuel in the tank, store away from furnaces, stoves, water heaters or other appliances that have a pilot light or other ignition source because they can ignite gasoline vapors.

SAFETY DECALS AND WARNINGS

Pictured below are safety and hazard symbols on the unit or in this manual. Before you operate your unit, learn and understand the purpose for each symbol.



Avoid Serious Injury Or Death.

Read And Follow Owner's Manual. Do Not Operate When Children Or Others Are Around. Remove Objects That Could Be Thrown By The Cutting Lines. Do Not Service Or Adjust Cutting Head Or Other Moving Parts, Unless Engine Is Stopped And Spark Plug Wire Is Disconnected. Wear Safety Approved Eye Protection When Operating. Go Across Slopes, Not Up And Down. Keep Safety Devices, Such As Guards And Deflectors In Place And Operating. Look Down And Behind Before And While Moving Backwards.

Danger de blessure grave ou de mort.

Lire et suivre le manuel de l'utilisateur. Ne pas utiliser en présence d'enfants ou autres personnes. Enlever les objets susceptibles d'être projetés par les lignes de coupe. Ne pas effectuer l'entretien ou le réglage de la tête de coupe ou d'autres pièces en mouvement avant d'avoir coupé le moteur et débranché le câble de bougie. Porter une protection oculaire homologuée pour la sécurité durant l'utilisation. Traverser les pentes latéralement, pas de haut en bas. Maintenir les dispositifs de sécurité, tels que les carter de protection et les déflecteurs, en place et en état de marche. Regarder vers le bas et l'arrière avant et durant les déplacements en marche arrière.

- A: Warning!
- B: Read Owner's Manual Before Operating Machine.
- C: Do Not Operate While Others Are Around.
- D: Remove Objects that Could Be Thrown By This Machine.
- E: Never Operate Machine Up and Down Slopes, ALWAYS Operate Mower Across Slopes.
- F: Be Aware of Moving and Rotating Parts.
- G: Wear Ear and Eye Protection At All Times.
- H: Do Not Service or Adjust Moving Parts Unless Engine is Stopped and Spark Plug Wire is Disconnected.
- I: Direction of Rotating Mower Lines.
- J: Toxic Fumes—Do Not Operate in Unventilated Areas.
- K: Hot Surfaces.
- L: Fire Hazards.
- M: Do Not Use In Thunderstorms--For severe weather, stop operation of this machine and seek shelter.
- N: Team Lift--For your safety, always have at least two people when lifting this machine.
- O: Never Fit Metal Cutting Parts--Do not attach any metal parts to the cutting head of this machine.
- P: Do Not Operate When Children Or Others Are Around.

Part No. 28353
String Mower Warning Decal

FEATURES

Read this owner's manual and safety rules before operating your mower. Take time to compare the following illustration with the mower to familiarize yourself with the product and its controls. **SEE FIGURE 1**

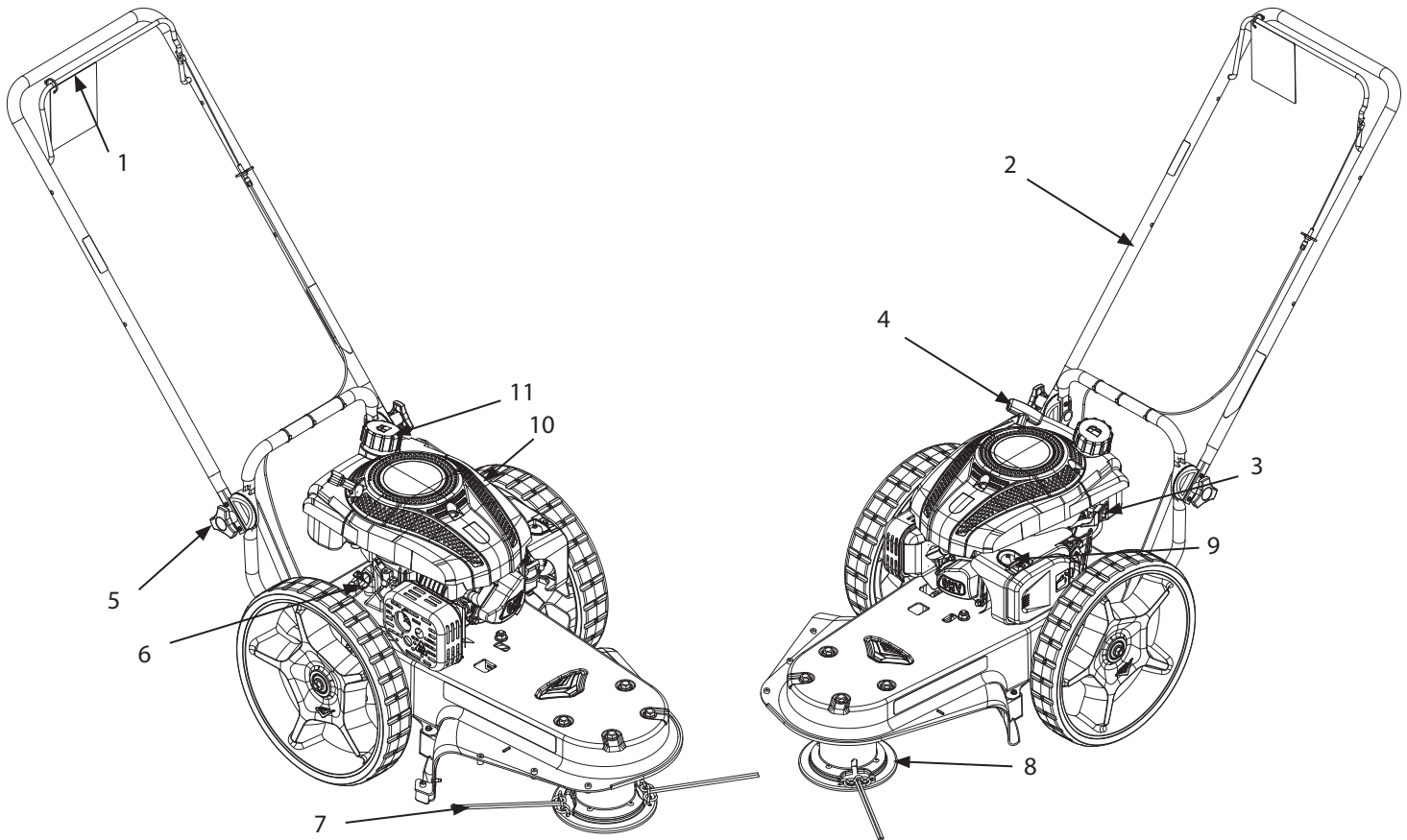


FIGURE 1: String Mower Features

1. Mower Head Drive Lever - Engages rotation of Mower Head
2. Upper Handle
3. Engine ON/OFF Switch
4. Recoil Starter Pull Handle - Easy Pull Recoil Starter
5. Handle Adjustment Knob
6. Oil Level Indicator Dip Stick and Fill Port
7. Mower Line
8. Mower Head
9. Primer Bulb - Injects fuel directly into the carburetor for easy starting
10. Debris Screen
11. Fuel Cap and Fill Port

Specifications:

Mower Line Diameter:	0.155 inches
Mower Line Length:	21.5 inches
Mower Cutting Diameter:	22 inches
Wheel Diameter:	14 inches

ASSEMBLY

Contents of Parts Bag

- Owner's manual
- Engine manual
- Warranty card
- Replacement mower line
- L-handle allen wrench
- Spark plug wrench

To Remove the Mower from the Carton

1. Remove any of the loose parts in packaging, including the parts bags, from the carton.
2. Remove the packing material positioned around the unit.
3. Cut down all four corners of the carton and lay the side panels flat.
4. Pull the mower out of the carton. **SEE FIGURE 2**

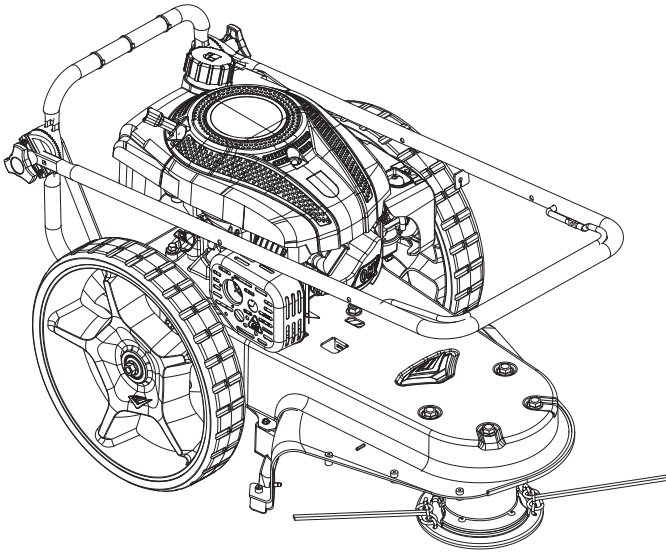


FIGURE 2: Your new mower as it is shipped to you.

How to Raise the Handle

1. Hold the handle with one hand and loosen both handle adjustment knobs until the ratchet teeth are disengaged. Do not remove the handle adjustment knobs.
2. Raise the handle to the operating position.
3. Stand in the operator's position behind the mower. Put the handle in a comfortable position. Make sure both sides of the handle are level.

NOTE: Make sure the cables are not caught between the upper and lower handle.

4. Tighten the handle adjustment knobs. Make sure the handle pivots are locked in place.

NOTE: The handle height is adjustable. See "How To Adjust The Height Of The Handle" in the Service and Adjustment section.

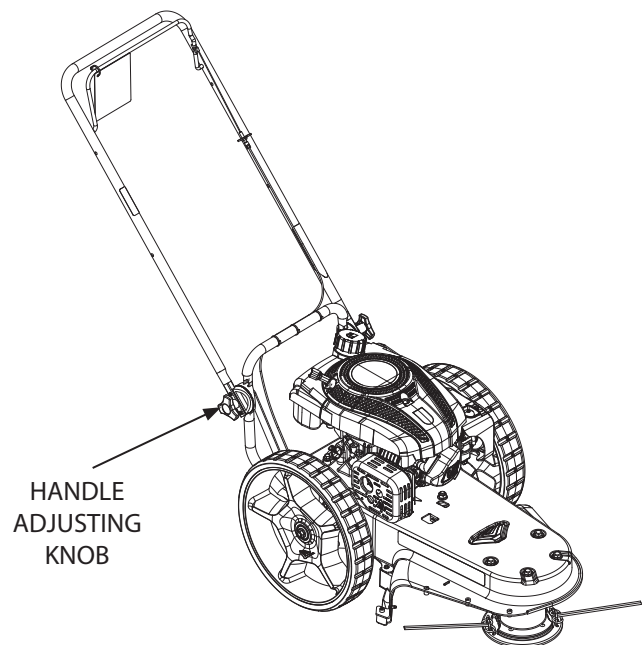


FIGURE 3: Adjusting the Handle Bars.



WARNING

USE THE CORRECT PERSONAL PROTECTION. WEAR SAFETY GLASSES OR EYE SHIELDS WHILE ASSEMBLING OR OPERATING THE STRING MOWER.

REMOVE SPARK PLUG WIRE FROM SPARK PLUG BEFORE DOING ANY ASSEMBLY OR MAINTENANCE TO THE STRING MOWER.

WARNING

- **FOLLOW THE ENGINE MANUFACTURER'S INSTRUCTIONS FOR THE TYPE OF GASOLINE AND OIL TO USE.**
- **ALWAYS USE A SAFETY GASOLINE CONTAINER. DO NOT SMOKE WHEN ADDING GASOLINE TO THE ENGINE.**
- **WHEN INSIDE AN ENCLOSURE, DO NOT FILL WITH GASOLINE. BEFORE YOU ADD GASOLINE, STOP THE ENGINE. LET THE ENGINE COOL FOR SEVERAL MINUTES.**

ENGINE PREPARATION

See the engine manufacturer's instructions for the type of gasoline and oil to use. Before you use the unit, read the information on safety, operation, maintenance, and storage.

NOTE: Engine does not contain OIL or GASOLINE when shipped from the factory. You must service the engine before operation.

Fill Crankcase With Oil

1. Remove the oil dipstick. Fill the crankcase to the **FULL** line on dipstick. **DO NOT OVERFILL. SEE FIGURE 4**
2. Install the oil dipstick and tighten securely.

Fill Fuel Tank With Gasoline

See the engine manufacturer's instructions for the type of gasoline to use.

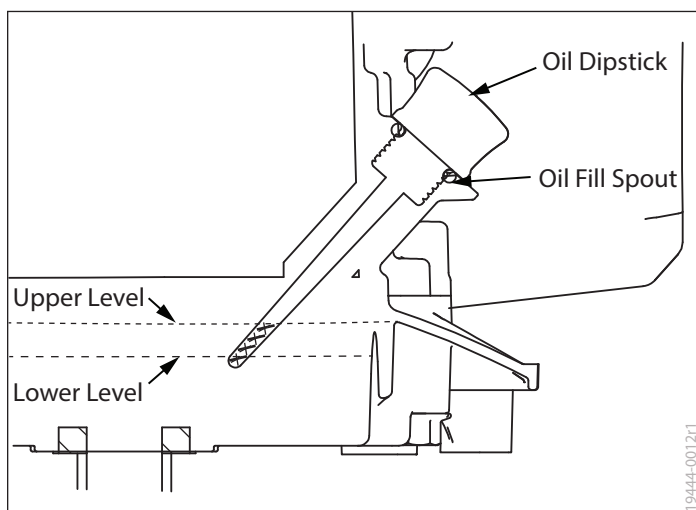


FIGURE 4: Filling Engine with Fuel and Oil.

OPERATION

How to Stop the Mower Head

Release the control lever. It will return to its open position and disengage the mower head.

How to Stop the Engine

Set the ON/OFF Switch to the OFF position.

How to Use the Mower Head Control Lever

1. To engage the mower head, hold the control lever against the handle. The faster the engine runs, the faster the mower head will rotate. **SEE FIGURE 5**
2. Once the mower head is rotating, push the mower forward to mow.

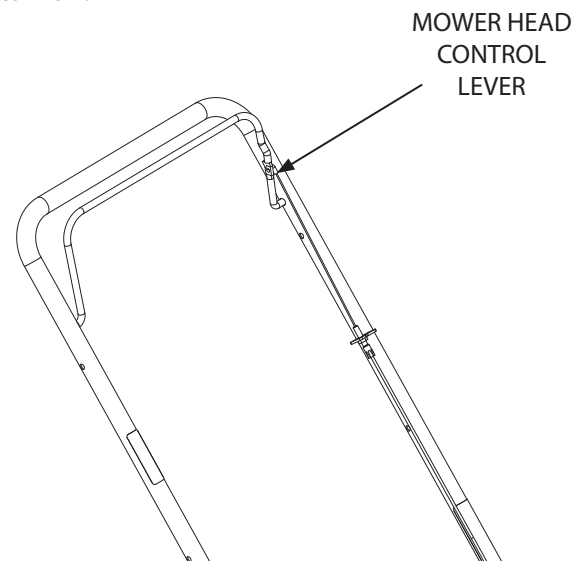


FIGURE 5: Using The Mower Head Drive Lever.

WARNING

BE CAREFUL AROUND MOVING PARTS. THE MOWER HEAD WILL CONTINUE TO ROTATE FOR SEVERAL SECONDS AFTER THE ENGINE HAS STOPPED.

CAUTION

- **IMPROPER TREATMENT OF THE STRING MOWER CAN DAMAGE IT AND SHORTEN ITS LIFE.**
- **DO NOT ATTEMPT TO CRANK OR START THE ENGINE BEFORE IT HAS BEEN PROPERLY SERVICED WITH THE RECOMMENDED OIL. THIS MAY RESULT IN AN ENGINE FAILURE.**

Engine Throttle Control

The engine throttle speed is a factory setting. It is designed to ensure proper speed of your string mower during all operating conditions.

How to Use the Primer Bulb

1. Push the primer bulb three times. Wait approximately two seconds between each push. **SEE FIGURE 6**

NOTE: Do not use the primer bulb to restart a warm engine after a short shutdown. Over priming can cause the engine to flood.

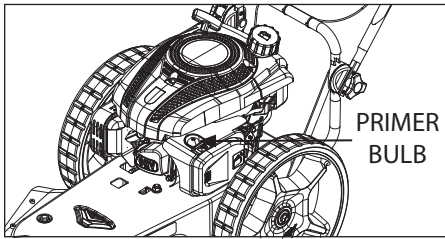


FIGURE 6: Primer Bulb Location.

How to Start the Engine

NOTE: Your engine will smoke the first time it is started. It is burning off the protective coating that is on the internal engine parts.

1. Before each use, remove debris from the debris screen. **SEE FIGURE 1 IN "FEATURES" SECTION.** Debris can cause the engine to overheat. Wipe the debris screen with a cloth or paper towel.
2. Set ON/OFF Switch to ON.
3. To start a cold engine, push the primer bulb three times. Wait two seconds between each push of the primer bulb. **SEE FIGURE 6**

NOTE: Do not use the primer to start a warm engine.

4. Firmly hold the recoil starter handle with your right hand.
5. Pull back sharply on the recoil starter handle.

NOTE: Do not allow the starter roper to snap back. Let the starter rope slowly rewind as you hold the recoil starter handle.

TIP: If the engine fails to start after three pulls, push the primer bulb two times and pull the recoil starter handle again.

WARNING

- **DO NOT LEAVE THE STRING MOWER UNATTENDED WHILE THE ENGINE IS RUNNING. WAIT FOR THE MOWER LINES TO STOP ROTATING.**
- **NEVER RUN THE ENGINE INDOORS OR IN A POORLY VENTILATED AREA. ENGINE EXHAUST CONTAINS CARBON MONOXIDE, AN ODORLESS AND DEADLY GAS. KEEP HANDS, FEET, HAIR AND LOOSE CLOTHING AWAY FROM THE MOWER AND ANY MOVING PARTS ON THE ENGINE. AVOID TOUCHING THE MUFFLER AND SURROUNDING AREAS. TEMPERATURES MAY EXCEED 150 DEGREES FAHRENHEIT.**
- **DEBRIS SUCH AS STICKS, GRAVEL OR ROCKS CAN BE THROWN WITH SUFFICIENT FORCE TO CAUSE PERSONAL INJURY OR PROPERTY DAMAGE.**

Mower Tips

- If the weeds or grass are tall and thick, operate the mower at a slower walking speed.
- Frequently clean the underside of the mower to remove any grass build up. See the "Maintenance, Service and Storage" section for details.
- For best results and longer lasting line, use the ends of the line to do the cutting. This is easily done by moving slowly through very thick or heavy weeds.
- If the mower lines become too short, it will take longer to complete the job. If the mower lines are worn to less than half their original length, change to a new mower line. See more on how to replace the mower line in the "Maintenance, Service and Storage" section.
- Do not mow on excessively steep slopes. If a slope is difficult to stand on, do not mow. Do not mow on slopes when the ground is slippery or wet. Mow across the face of a slope, not up and down.
- Mower head contact to concrete, asphalt and harder surfaces may create premature wear to the height guide.

MAINTENANCE, SERVICE, AND STORAGE

NOTE: *Maintenance, replacement or repair of the emissions control devices and systems may be performed by any non-road engine repair establishment or individuals. However, items must be serviced by an authorized dealer to obtain “no charge” emissions control service. Good maintenance is essential to help reduce air pollution and for safe, economical and trouble-free operation.*

Maintenance Schedule

Service Records	Before Each Use	Every 25 Hours	As Noted	Service Date
Check engine oil level	X			
Check mower lines	X		1	
Check mower head engagement	X			
Engine/machine cleaning	X		2	
Check nuts and bolts	X			
Check spark plug		X		
Change engine oil*		X		
Service air filter*		X	3	
Lubricate jackshaft assembly		X		
Lubricate wheel bearings		X		

Note 1 - *When old line is half the original length, replace with new line.*

Note 2 - *Clean daily if used in extremely dusty or dirty conditions.*

Note 3 - *Change more often if used in extremely dusty or dirty conditions.*

***** *To service the air filter and change the oil you must remove the wheels on the string mower.*

General Recommendations

The warranty on this mower does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, the operator must maintain the mower as instructed in this manual.

Some adjustments must be made periodically to properly maintain your mower. All adjustments in the “Service and Adjustments” section of this manual must be checked at least once each season.

SERVICE AND ADJUSTMENT

How to Change Engine Oil

Be sure the engine is not operating and is located on a level surface before checking or refilling oil. Engine should be warm for easy removal of oil.

1. Detach spark plug wire and move away from spark plug. If the engine uses a battery, disconnect at negative terminal.
2. Remove dipstick and carefully tip the engine toward the dipstick side to empty oil from oil fill area. Empty oil into a suitable oil container and dispose of oil properly. **SEE FIGURE 7**
3. Tip engine back onto a level surface and fill with appropriate oil to the top of the marking on the dipstick (**SEE FIGURE 8**). **DO NOT OVERFILL.** For proper oil capacity, see the engine manufacturer's instructions.
4. Reinsert dipstick and tighten. **SEE FIGURE 8**

How to Replace the Mower Line on Standard Head

For the best performance, use a heavy gauge (0.155" diameter) mower line. Cut the length of the mower line to 21.5". Use the length guide, located on the shield, to make sure the mower line is the correct length. Place one end of the mower line at location "A" and bend it along the raised portion of the shield. Cut line at location "B". **SEE FIGURE 9**

Do not allow the length of the lines to vary more than 1". This is important to make sure the mower head is balanced and does not vibrate.

NOTE: To extend the life of the mower line, keep the mower line moist. If not kept moist, the nylon mower line will become dry and brittle. Keep extra mower line in a can of water. The line will then stay flexible and easy to change. A flexible line will also last much longer.

1. Stop the engine. Wait for all moving parts to stop.
2. Remove the worn mower line from the line retainer.
3. First, thread the ends of the new mower line through the outside loops. **SEE FIGURE 10**
4. Next, take the ends of the line, cross over the line retainer, and thread the ends through the center hold. **SEE FIGURE 11**
5. Then, check to make sure that the ends of the line are even. **SEE FIGURE 12**

WARNING

BEFORE YOU INSPECT, CLEAN OR SERVICE THE MOWER, STOP THE ENGINE. MAKE SURE THAT ALL MOVING PARTS HAVE STOPPED. DISCONNECT THE WIRE FROM THE SPARK PLUG.

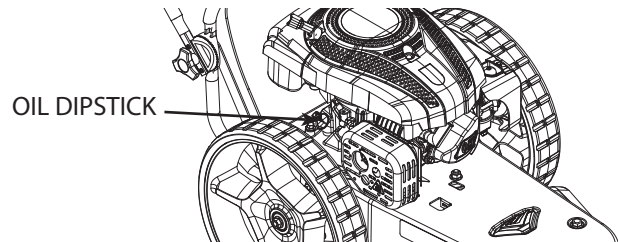


FIGURE 7: Oil Dipstick Location

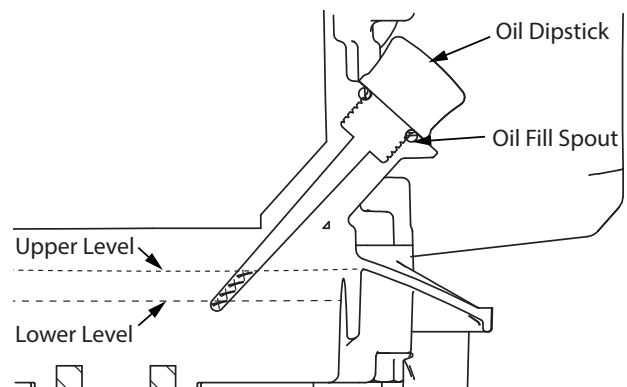


FIGURE 8: Dipstick And Oil Levels.

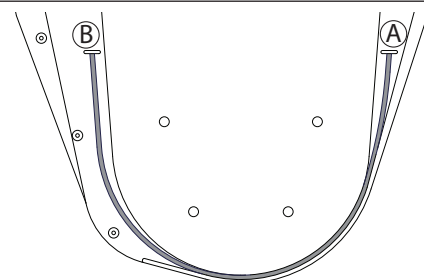


FIGURE 9: Mower Line 21.5" Measurement Guide

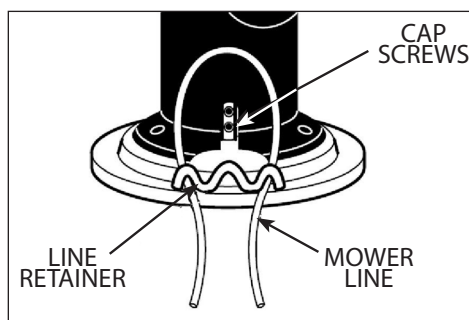


FIGURE 10: Threading The New Mower Line.

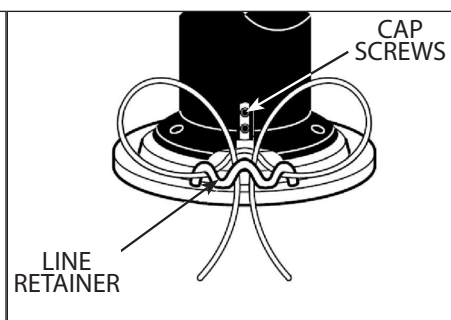


FIGURE 11: Threading Mower Line Through Center Hold.

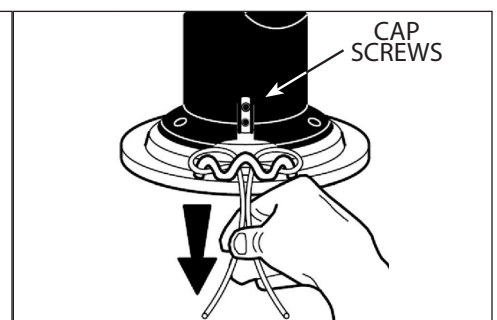


FIGURE 12: Check Ends Of Line.

MOWER HEAD SERVICE AND ADJUSTMENT, SLIDE-THROUGH VERSION

Replace Mower Line on Slide-Through Version

For the best performance, use a heavy gauge (0.155" diameter) mower line. Cut the length of the mower line to 15". Use the length guide, located on the shield, to make sure the mower line is the correct length. Place one end of the mower line at location "A" and bend it along the raised portion of the shield. Cut line at location "B". **SEE FIGURE 13**

NOTE: Do not allow the length of the lines to vary more than one inch. This is important to make sure the mower head is balanced and does not vibrate.

To extend the life of the mower line, keep the mower line moist. If not kept moist, the nylon mower line will become dry and brittle. Keep extra mower line in a can of water. The line will then stay flexible and easy to change. A flexible line will also last much longer.

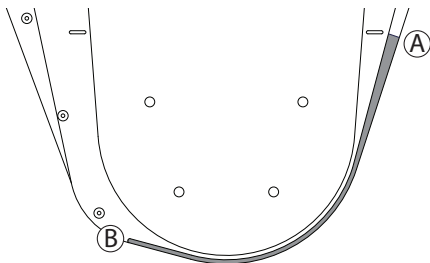


FIGURE 13: Mower Line 15" Measurement Guide

Familiarize yourself with the mower head. (**SEE FIGURE 14**) Mower head has four small exit holes and four large entrance holes. Properly loaded mower line will have 1" exposed out the small exit hole and the remaining portion of the line sticking out of the large entrance hole.

1. Before replacing the mower line make sure the engine is stopped and wait for all moving parts to come to a stop.
2. Remove worn mower line from the line retainer by pulling on exposed 1" line from outfeed hole. **SEE FIGURE 15**
3. Push one end of the new mower line through the insertion hole in the head. **SEE FIGURE 16**
4. Push the line in until approximately 1" is exposed on the outfeed side.
5. Repeat for each of the four locations. Make sure the line length is the same at all four locations.



WARNING

BEFORE YOU INSPECT, CLEAN OR SERVICE THE MOWER, STOP THE ENGINE. MAKE SURE THAT ALL MOVING PARTS HAVE STOPPED. DISCONNECT THE WIRE FROM THE SPARK PLUG.

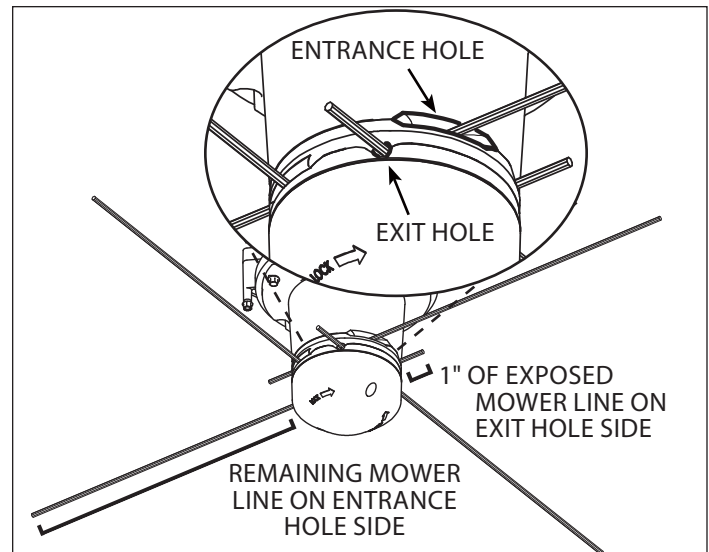


FIGURE 14: Mower head and mower line

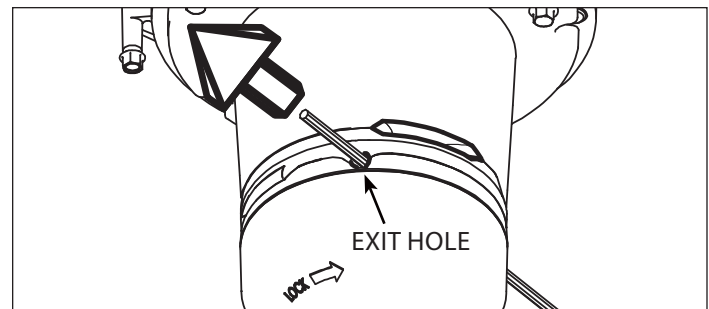


FIGURE 15: Pull old mower line out through exit hole

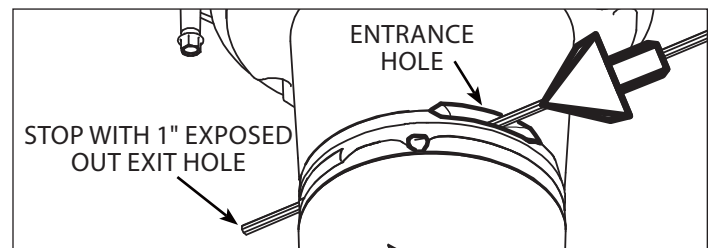


FIGURE 16: Insert new mower line into entrance hole

To Detach the Wheels

To detach the wheels, loosen the axle nuts and remove the wheel, spacer and lockwasher. Reverse instructions to reattach tire. **SEE FIGURE 17**

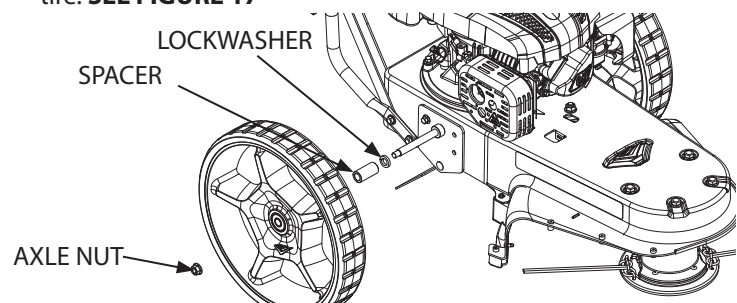


FIGURE 17: Removing the Wheels.

How to Adjust the Height/Angle of the Handle

Use the knobs on each side of the handle to adjust the height of the handle. **SEE FIGURE 18**

1. Hold the handle with one hand and loosen both knobs until the ratchet teeth are disengaged. Do not remove the bolts.
2. Move the handle up or down to the desired position, then align the ratchet teeth. Make sure both sides of the handle are level.
3. Tighten (lock) the knobs.

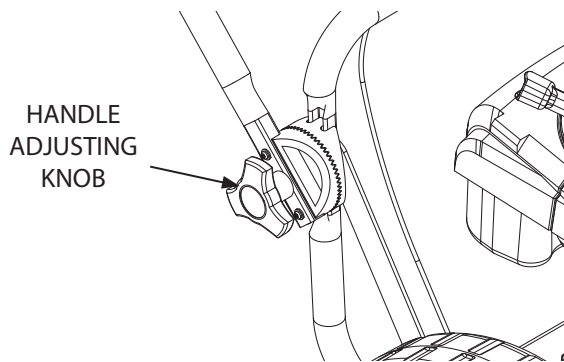


FIGURE 18: Adjusting The Height Of The Handle. (Lever shown in OPEN position)

How to Set the Height of the Cut

The height of the cut can be set from 1-1/2 inches to three (3) inches. The recommended cutting height for the average yard is two (2) inches. **SEE FIGURE 19**

1. Use the L-handle wrench found in the parts bag to loosen the socket head cap screws shown in the figure below.
- NOTE: There are two socket head cap screws.**
2. Set the mower head at the desired height.
 3. Tighten the socket head cap screws.

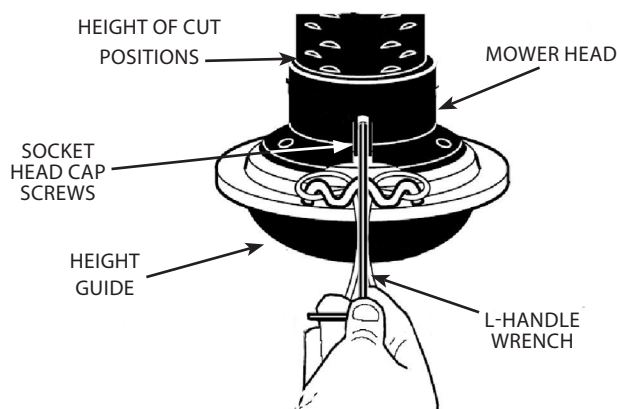


FIGURE 19: Setting the height of your cut.

! WARNING

BEFORE YOU SET THE HEIGHT OF THE CUT, STOP THE ENGINE. WAIT FOR ALL MOVING PARTS TO STOP. ALLOW THE ENGINE TO COOL AND DISCONNECT THE SPARK PLUG WIRE.

How to Replace the Drive Belt

To replace the drive belt, the mower head and shield must be removed as follows: **SEE FIGURES 20 AND 21**

1. Remove the two fasteners that hold the rear of the shield to the mower housing.
2. Remove the four fasteners that hold the front of the shield and mower head to the mower housing.
3. Raise the front of the mower housing and remove the drive belt.
4. Remove the "V" pulley from the idler bracket.

NOTE: On some models, it is necessary to loosen the mounting bolt for the drive pulley to remove the drive belt. Do not bend the belt guides. Use only OEM replacement belts.

5. To assemble the drive belt, reverse the above steps. Make sure all fasteners are tight. Make sure the mounting bolt for the drive pulley is tight.
6. Check the routing of the drive belt. Make sure the drive belt is inside of all belt guides as shown.

! WARNING

BEFORE YOU REMOVE THE DRIVE BELT, DISCONNECT THE WIRE FROM THE SPARK PLUG.

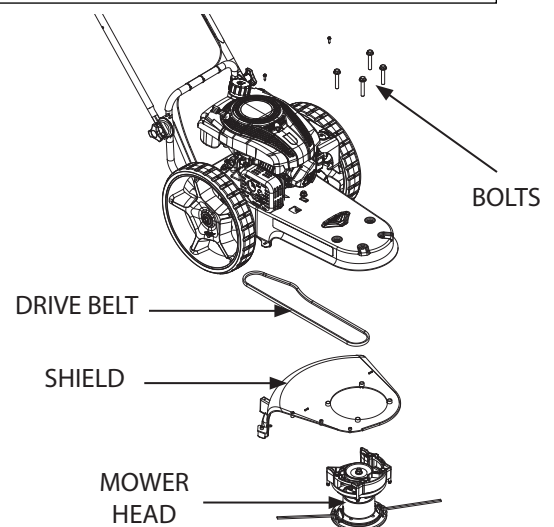


FIGURE 20: Mower Head Housing and Shield

! IMPORTANT

TEST THE DRIVE SYSTEM. START THE ENGINE AND ENGAGE AND DISENGAGE THE MOWER HEAD SEVERAL TIMES. WHEN DISENGAGED, MAKE SURE THE MOWER HEAD COMPLETELY STOPS WHEN RESTING ON THE GROUND. IF THE MOWER HEAD CONTINUES TO ROTATE, TAKE THE MOWER TO AN AUTHORIZED SERVICE CENTER.

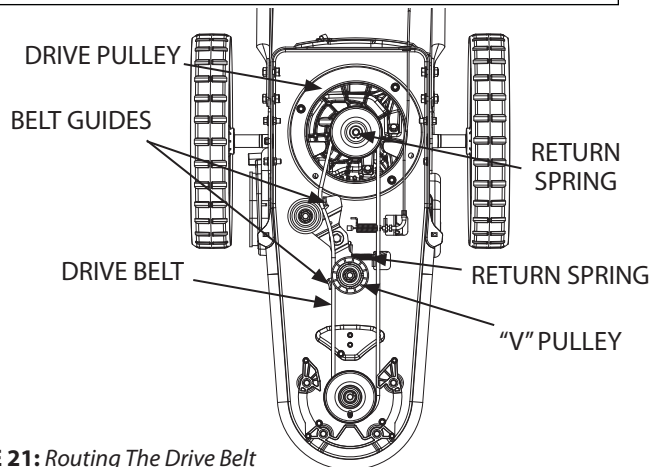


FIGURE 21: Routing The Drive Belt

STORAGE

When the mower is put in storage for thirty days or more, follow the steps below to make sure the mower is in good condition the following season.

Mower:

Completely clean the mower

Remove and discard line or store in a sealed container. Put the mower in a building that has good ventilation.

NOTE: A yearly check-up or tune-up at an authorized service dealer will ensure that the mower will provide maximum performance for the next season.

Engine:

IMPORTANT NOTE: It is important to prevent gum deposits from forming in fuel system parts such as the carburetor, fuel filter, fuel hose, and tank during storage. Also, using alcohol blended fuels (called gasohol, ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage.

1. Drain all gasoline from the fuel tank. Let the engine run until it is out of gasoline. If you do not want to remove gasoline, add a fuel stabilizer to any gasoline left in the tank. A fuel stabilizer will minimize the formation of gum deposits and acids. If the tank is almost empty, mix the fuel stabilizer

with fresh gasoline in a separate container and add the mixture to the tank. Always follow the instructions on the stabilizer container. Run the engine at least ten minutes after stabilizer is added to allow the mixture to reach the carburetor.

2. Drain the oil from a warm engine. Fill the engine crankcase with new oil.
3. Remove the spark plug from the cylinder. Pour one ounce of oil into the cylinder. Slowly pull the recoil starter handle so that the oil will protect the cylinder. Install a new spark plug in the cylinder.
4. Completely clean the mower, including dirt and debris from the cylinder cooling fins and the engine housing.
5. When not in use, disconnect spark plug lead and store in a well-ventilated area inaccessible to children.

! WARNING

DO NOT REMOVE GASOLINE WHILE INSIDE A BUILDING, NEAR A FIRE, OR WHILE YOU SMOKE. GASOLINE FUMES CAN CAUSE AN EXPLOSION OR A FIRE.

TROUBLESHOOTING & REPAIR

At Earthquake™, we build quality and durability into the design of our products; but no amount of careful design by us, and careful maintenance by you, can guarantee a repair-free life for your Earthquake™ String Mower. Most repairs will be minor, and easily fixed by following the suggestions in the troubleshooting guide in this section.

The guide will help you pinpoint the causes of common problems and identify remedies.

For more complicated repairs, you may want to rely on an authorized service center. A parts breakdown is located toward the end of this manual.

We will always be glad to answer any questions you have, or help you find suitable assistance. To order parts or inquire about warranty, call or email us using the contact information found below.

ORDERING REPLACEMENT PARTS

Parts can be obtained from the store where the string mower was purchased or direct from the factory. To order parts visit www.getearthquake.com or call 1-800-345-6007.

For other general questions, you can e-mail us at info@getearthquake.com.

Please include the following information with your order:

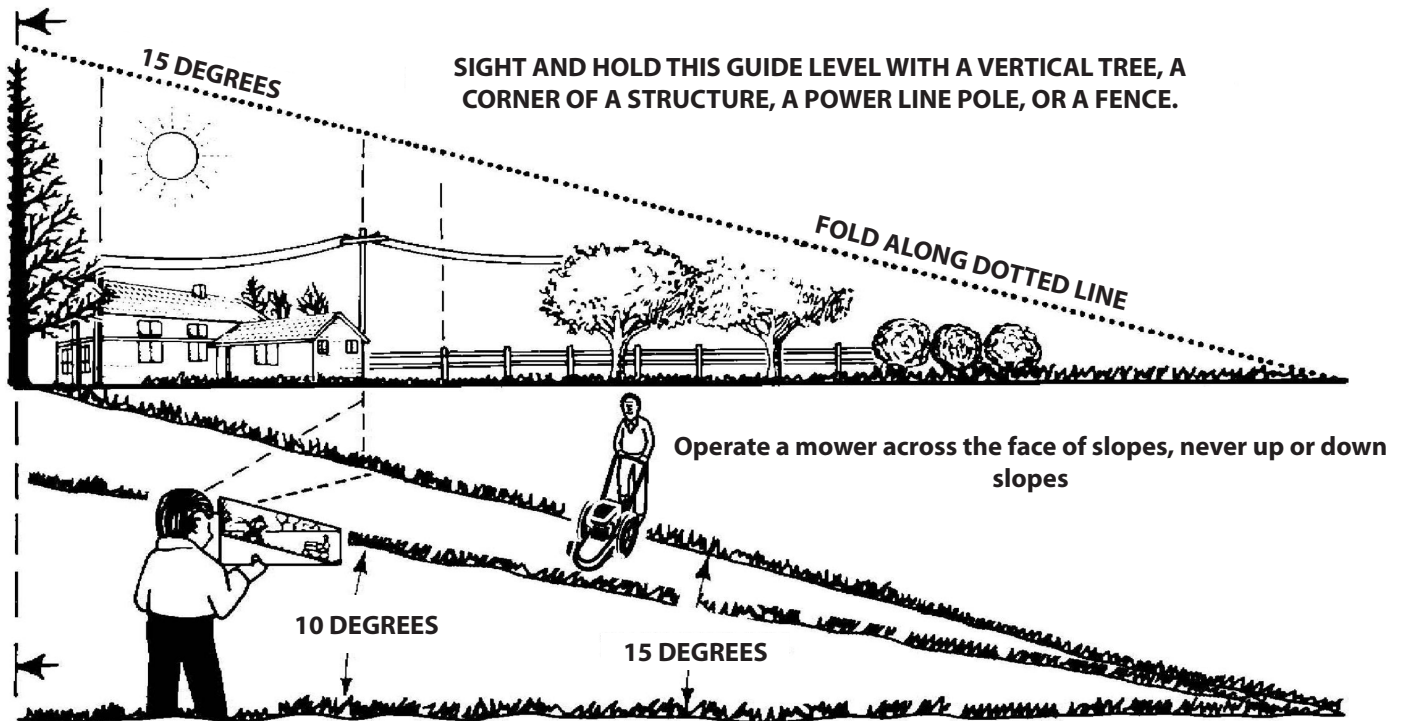
- 1) Part numbers
- 2) Part description
- 3) Quantity
- 4) Model number and serial number

TROUBLESHOOTING GUIDE

Trouble	Cause	Correction
Engine does not start	Spark plug wire disconnected	Connect spark plug wire
	Engine not primed	Prime engine
	Defective or incorrectly gapped spark plug	Inspect or replace spark plug
	Fuel tank empty	Add fuel
	Dirty carburetor or fuel line	Clean carburetor or fuel line
	Dirty air filter	Replace air filter
	Carburetor out of adjustment	For carburetor adjustment, take the unit to an authorized service center
	Engine flooded	Wait several minutes before starting
	ON/OFF Switch in incorrect position	Move Switch to ON position
	Stale gasoline	Drain old gasoline and add fresh gas
	Defective ON/OFF Switch or wire	Inspect and replace damaged parts
Engine runs poorly	Bad spark plug	Replace spark plug
	Dirty air filter	Replace air filter
	Carburetor out of adjustment	For carburetor adjustment, take the unit to an authorized service center
	Stale gasoline	Drain old gasoline and add fresh gas
	Engine cooling system clogged	Clean debris screen and engine cooling fins
Engine overheats	Engine cooling system clogged	Clean debris screen and engine cooling fins
	Carburetor out of adjustment	For carburetor adjustment, take the unit to an authorized service center
	Oil level is low	Add oil
Engine will not stop running	ON/OFF Switch failed	Inspect and replace damaged parts
	Wire disconnected from ON/OFF Switch	Inspect, repair, or replace damaged parts
Poor mowing performance	Mower line length is too short	Correct line length is 21.5 inches. When the line is less than 1/2 of this length, replace the line.
Mower vibrates	Socket head cap screws for the mower head are loose	Tighten socket head cap screws with L-handle wrench
	Mower line lengths are substantially different	Adjust mower line to approximately equal lengths
	Loose nuts or bolts	Check all bolts and nuts, including engine bolts
	Broken mower head	Replace broken part
Mower head does not retain line	Mower line not properly attached	Follow instructions on decal or in the "Maintenance, Service and Storage" section of the owner's manual
	Broken line retainer	Replace mower head assembly
	Mower line not correct size	Use a 0.155" diameter mower line

NOTE: Please see the engine manual for a full troubleshooting guide for any engine issues.

SLOPE GUIDE



Use this guide and do not mow on a slope greater than 15 degrees.

A 10 degree slope is a hill that increases in height at approximately 1.76 feet in 10 feet.

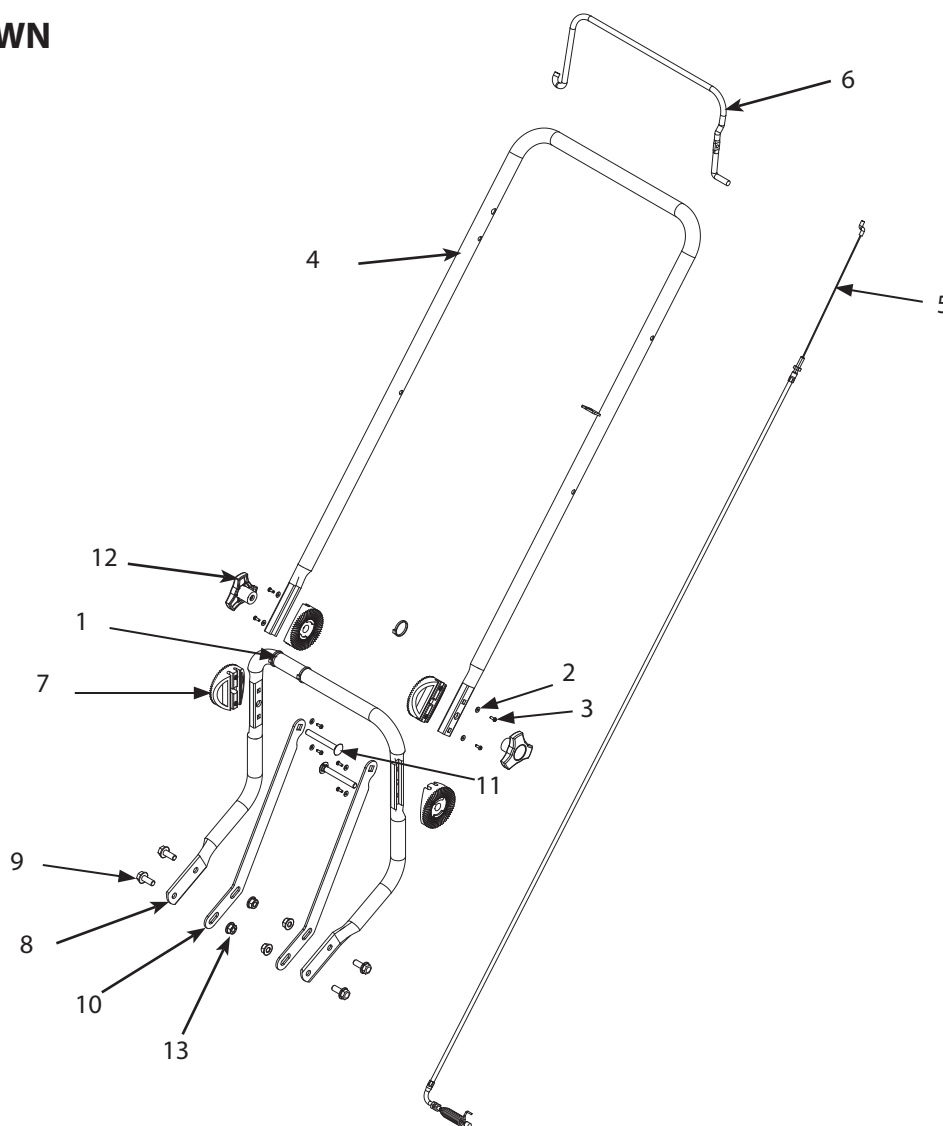
A 15 degree slope is a hill that increases in height at approximately 2.68 feet in 10 feet.

WARNING

USE EXTREME CARE AT ALL TIMES AND AVOID SUDDEN TURNS OR MANEUVERS. FOLLOW OTHER INSTRUCTIONS IN THIS MANUAL FOR SAFETY IN MOWING ON SLOPES. OPERATE A MOWER ACROSS THE FACE OF SLOPES, NEVER UP OR DOWN SLOPES. USE EXTRA CARE WHEN OPERATING ON OR NEAR SLOPES AND OBSTRUCTIONS.

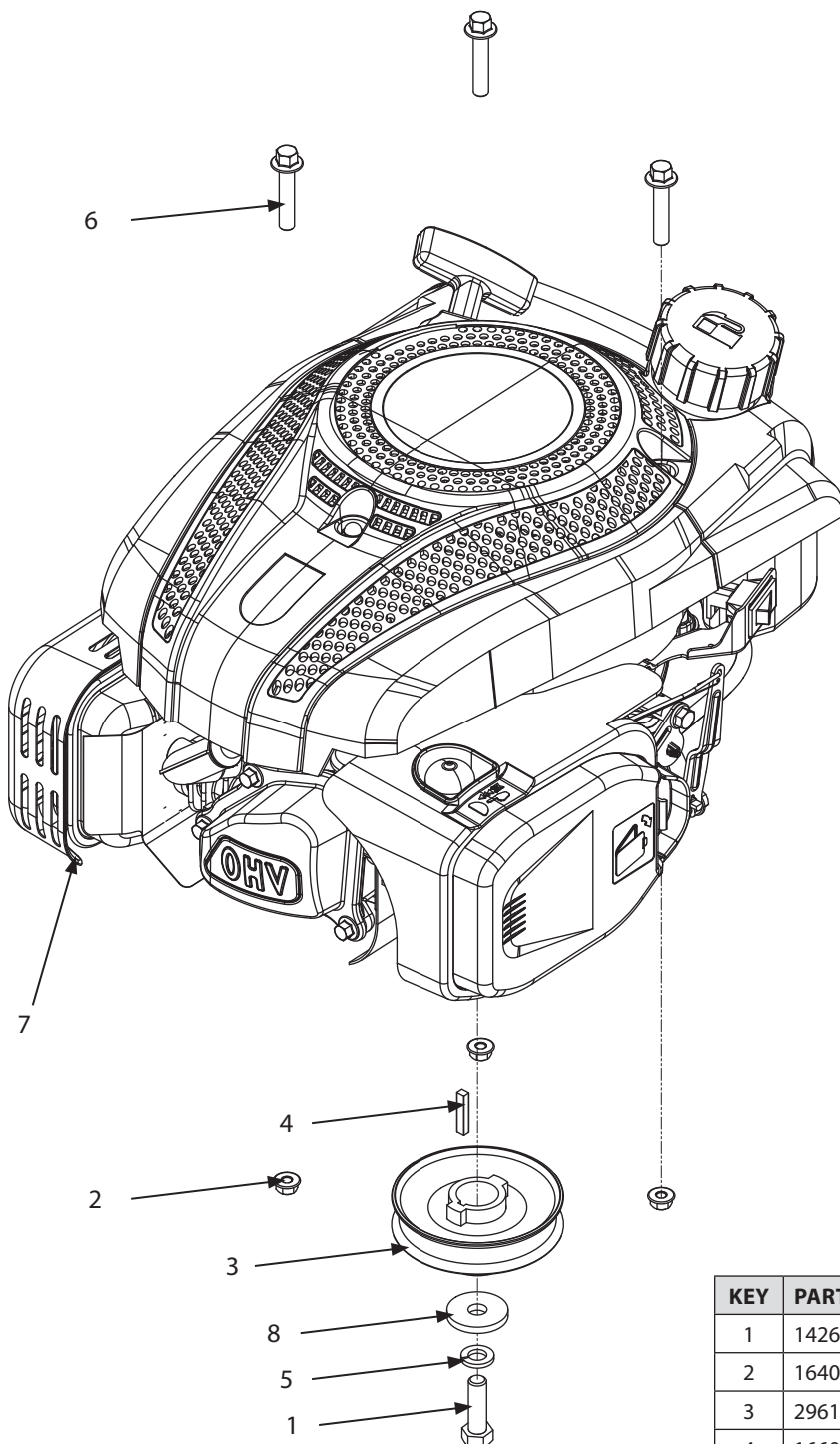
PARTS BREAKDOWN

Handlebars



KEY	PART #	DESCRIPTION	QTY.
1	106	ZIP TIE 5.75 IN	3
2	16360	WASHER M3	8
3	16397	SCREW M3-10	8
4	17526	UPPER HANDLEBAR	1
5	17527	CABLE	1
6	17528	ENGAGEMENT LEVER	1
7	19912	HANDLE PIVOT	4
8	19941	LOWER HANDLEBAR	1
9	19945	BOLT M8 X 20	4
10	27683	HANDLEBAR BRACE	2
11	27800	BOLT M8 X 65	2
12	28354	KNOB	2
13	64132	NUT M8	4

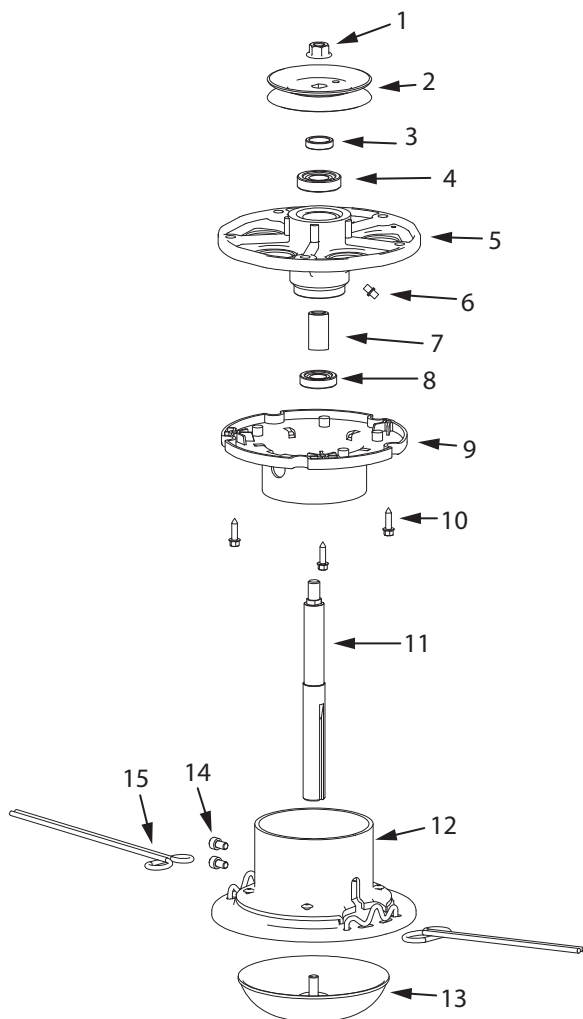
Engine and Pulley Attachment



KEY	PART #	DESCRIPTION	QTY.
1	1426	BOLT 3/8-16 X 1-1/4	1
2	16400	NUT M8	3
3	29610	ENGINE PULLEY	1
4	16602	KEY 4M X 5M	1
5	1916965	WASHER 3/8 IN	1
6	19922	BOLT M8 X 40	3
7	27787	ENGINE 150CC RV150	1
8	331040	WASHER M10	1

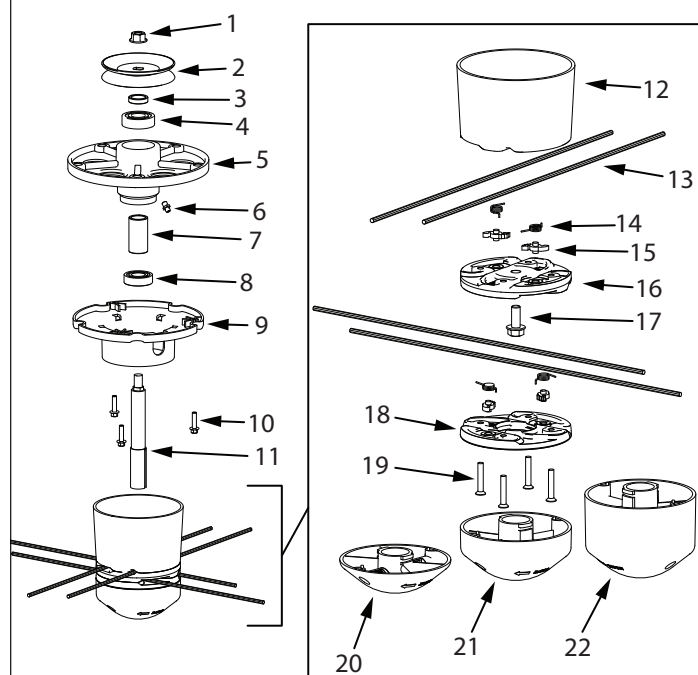
Mower Head - Standard Version

KEY	PART #	DESCRIPTION	QTY.
1	16903	NUT M10	1
2	16595	PULLEY	1
3	19925	SPACER M17.5 X 23.5 X 6	1
4	19966	BEARING 17 X 40 X 12 MM	1
5	16317	JACKSHAFT HOUSING	1
6	16598	GREASE FITTING M6 X 1.0	1
7	19960	JACKSHAFT SPACER	1
8	19959	BEARING 17 X 35 X 10 MM	1
9	16337	WEED WRAP GUARD	1
10	16779	BOLT M5 X 20	3
11	19928	JACKSHAFT	1
12	19924	CUTTER HEAD	1
13	19923	BUMP HEAD	1
14	19919	BOLT M6 X 10	2
15	21884	LINE 0.155 INCH	1

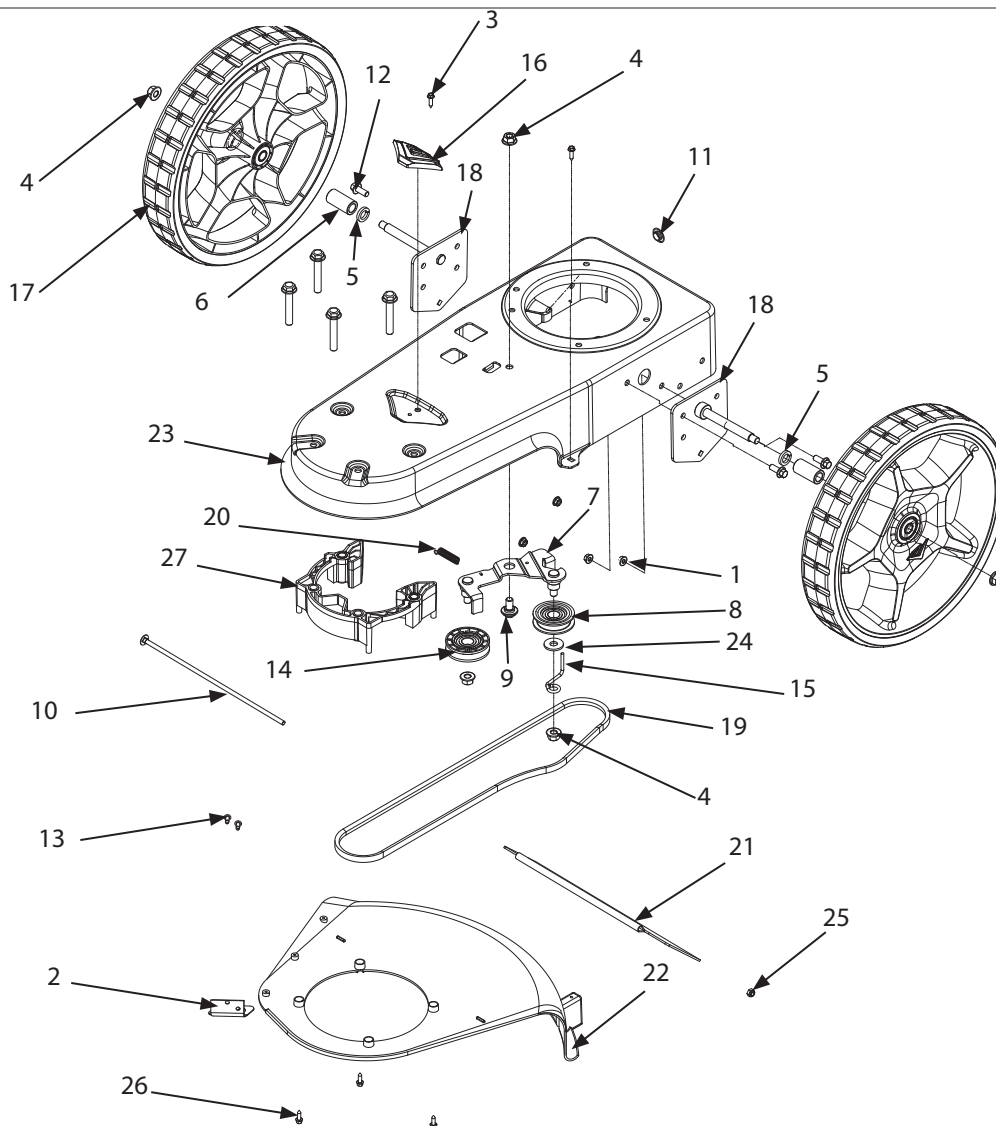


Mower Head - Slide-Through Version

KEY	PART #	DESCRIPTION	QTY.
1	16903	NUT M10	1
2	16595	PULLEY	1
3	19925	SPACER M17.5 X 25.5 X 6	1
4	19966	BEARING 17 X 40 X 12 MM	1
5	16317	JACKSHAFT HOUSING	1
6	16598	GREASE FITTING M6 X 1.0	1
7	19960	JACKSHAFT SPACER	1
8	19959	BEARING 17 X 35 X 10 MM	1
9	16337	WEED WRAP GUARD	1
10	16779	BOLT M5 X 20	3
11	16321	JACKSHAFT	1
12	16662	CUTTER BODY	1
13	21884	LINE 21-1/4 IN	1
14	16670	CUTTER HEAD SPRING	4
15	16669	CUTTER HEAD CAM	4
16	16663	UPPER STRING PLATE	1
17	19945	BOLT M8 X 20	1
18	16664	LOWER STRING PLATE	1
19	16817	BOLT M5 X 30	4
20	16665	BUMP HEAD 1	1
21	16666	BUMP HEAD 2	1
22	16668	BUMP HEAD 3	1



Base Unit



KEY	PART #	DESCRIPTION	QTY.
1	16400	NUT M8	4
2	16540	LINE CUTTER	1
3	16889	SCREW 4.8-1.6 X 20	2
4	16903	NUT M10	5
5	18898	WASHER M14	2
6	19904	WHEEL SPACER	2
7	19932	IDLER PULLEY BRACKET	1
8	19934	PULLEY	1
9	19936	BOLT M10 X 20	1
10	19937	BOLT M6 X 285	1
11	19944	BUSHING	1
12	19945	BOLT M8 X 20	4

KEY	PART #	DESCRIPTION	QTY.
13	19953	RIVET M5 X 10	2
14	19968	IDLER PULLEY	1
15	25038	BELT GUIDE	1
16	28215	EARTHQUAKE E BADGE	1
17	28321	WHEEL	2
18	28515	AXLE	2
19	60005003	BELT 10 X 1160 TYPE 3L	1
20	60005008	SPRING	1
21	60005018	TRAILING SHIELD	1
22	60005021	SHIELD	1
23	60005058	DECK	1
24	W1200126	WASHER M10	1
25	W1265V0913	NUT M6 X 1.0 HNYLK GR8.8 ZN	1
26	19931	SCREW M5 X 15	4
27	16318	JACKSHAFT SPACER	1

NOTES

[illegible]

NOTES

[illegible]



Earthquake®, Division of Ardisam, Inc.

1160 8th Avenue, PO Box 666

Cumberland, WI 54829

800-345-6007 | Fax 715-822-2223

E-mail: info@getearthquake.com

All weights, specifications and features are approximate and are subject to change without notice. Due to continuous product improvements, product images may not be exact. Items used for props not included. Some assembly may be required.

Check for parts online at **www.getearthquake.com** or call 800-345-6007 M-F 8-5