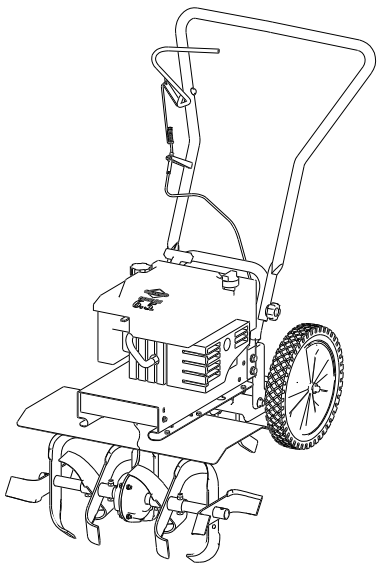


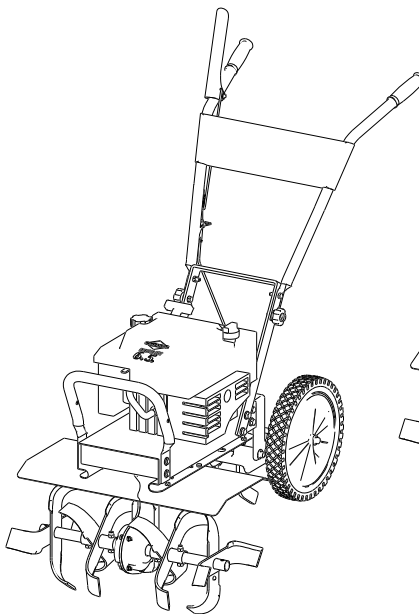
# Earthquake<sup>®</sup>

## **OPERATING INSTRUCTIONS & PARTS EXPLOSIONS FRONT TINE ROTOTILLERS**

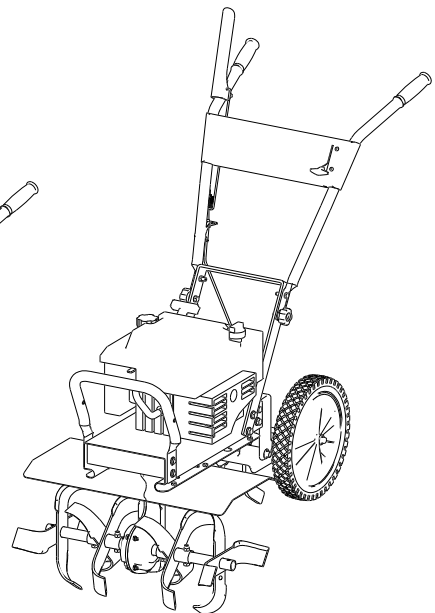


**3365 BRIGGS & STRATTON  
5.50 FT-LBS  
GROSS TORQUE**

**3365CE BRIGGS & STRATTON  
5.50 FT-LBS  
GROSS TORQUE**



**3365PS BRIGGS & STRATTON  
5.50 FT-LBS  
GROSS TORQUE**



**R3355H 5.5 HP HONDA**



**GetEarthquake.com**



OMFT08

Rev. 12/13/07

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## INTRODUCTION

### THANK YOU . . .

for purchasing an Earthquake® forward rotating front tine rototiller from Ardisam, Inc. We have worked to ensure that this front tine rototiller meets high standards for usability and durability. With proper care, your rototiller will provide many years of service. Please take the time to read this manual carefully to learn how to correctly operate and maintain your rototiller. This manual should be considered a permanent part of your rototiller. Due to continuous effort to perfect our product, certain procedures and specifications are subject to change without notice. Congratulations on your investment in quality.

### CONTENTS

Registration & Warranty.....	3
Safety .....	4
Unpacking and Assembly .....	7
Features .....	8
Controls .....	9
Operation.....	10
Maintenance & Storage .....	12
Troubleshooting & Repair .....	16
Certificate of Conformity.....	17
Parts Explosions.....	18

## REGISTRATION

Record your model number and serial number in the space provided for easy reference. Fill out and mail the registration card located in your parts packet. Warranty is valid only if your completed registration card is received by Ardisam, Inc., within two weeks of the purchase date.

Model Number \_\_\_\_\_

Serial Number \_\_\_\_\_

Engine Serial Number \_\_\_\_\_

Date of Purchase \_\_\_\_\_

Place of Purchase \_\_\_\_\_

## SAFETY

### OWNER'S RESPONSIBILITY

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

- Read and follow all safety instructions.
- Carefully follow all assembly instructions.
- Maintain the tiller according to directions and schedule included in this Earthquake operator's manual.
- Ensure that anyone who uses the tiller 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.

### IMPORTANT SAFETY PRECAUTIONS

**Please read this section carefully.** Operate the tiller according to the safety instructions and recommendations outlined here and inserted throughout the text. Anyone who uses this tiller must read the instructions and be familiar with the controls. Your tiller is equipped with a safety device that enables you to stop the wheels and tines quickly in an emergency. Learn how the drive safety control lever operates and how to control the tiller at all times.



**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.**

- Do not allow children to operate this rototiller. Keep small children away from the area being tilled. Do not allow adults to operate the tiller without proper instruction.

### PREPARATION

- Dress appropriately when operating the tiller. Always wear sturdy footwear. Never wear sandals, sneakers, or open shoes, and never operate the tiller with bare feet. Do not wear loose clothing that might get caught in moving parts.
- Carefully inspect the area to be tilled and remove all foreign objects. Do not till above underground water lines, gas lines, electric cables, or pipes. Do not operate the tiller in soil with large rocks and foreign objects which can damage the equipment.
- Disengage all clutches and leave all control levers in the neutral position before starting the engine.
- Handle fuel with care; it is highly flammable.
  - a. Use an approved fuel container.
  - b. Never add fuel to a running engine or hot engine.

### DANGER

DANGER INDICATES A SERIOUS INJURY OR FATALITY WILL RESULT IF THE SAFETY INSTRUCTIONS THAT FOLLOW THIS SIGNAL WORD ARE NOT OBEYED.

### WARNING

WARNING INDICATES A SERIOUS INJURY OR FATALITY COULD RESULT IF THE SAFETY INSTRUCTIONS THAT FOLLOW THIS SIGNAL WORD ARE NOT OBEYED.

### CAUTION

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

### IMPORTANT

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

### WARNING

YOU MUST READ, UNDERSTAND AND COMPLY WITH ALL SAFETY AND OPERATING INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO SETUP AND OPERATE YOUR ROTOTILLER.

FAILURE TO COMPLY WITH ALL SAFETY AND OPERATING INSTRUCTIONS CAN RESULT IN LOSS OF MACHINE CONTROL, SERIOUS PERSONAL INJURY TO YOU AND/OR BYSTANDERS, AND RISK OF EQUIPMENT AND PROPERTY DAMAGE. THE TRIANGLE IN THE TEXT SIGNIFIES IMPORTANT CAUTIONS OR WARNINGS WHICH MUST BE FOLLOWED.

**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.

- c. Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors.
- d. Replace gasoline cap securely and clean up spilled fuel before restarting.
- Never attempt to make any adjustments while the engine is running.

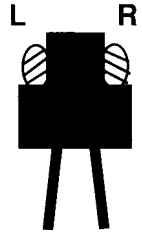
### OPERATION

- Do not operate the tiller under the influence of alcohol or drugs.
- Never operate the tiller without guards, covers, and hoods in place.
- Keep hands, feet, and clothing away from rotating parts. Keep clear of tiller tines at all times.
- Tines rotate when tiller is engaged, tines rotate when the drive safety control lever is pulled down. Releasing the drive safety control lever to **neutral** stops the tines.
- Use extreme caution when operating on or crossing gravel drives, walks, or roads. Stay alert for hidden hazards or traffic.
- After striking a foreign object, stop the engine, remove the wire from the spark plug, thoroughly inspect the tiller for any damage, and repair the damage before restarting and operating the tiller.
- If vegetation clogs the tines, **STOP THE ENGINE AND DISCONNECT THE SPARK PLUG WIRE** before removing vegetation by hand.
- Engine muffler will be hot from operation. Do not touch it with bare skin or a severe burn may result.
- If the unit should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
- Do not run the engine indoors; exhaust fumes are deadly.
- Do not overload the machine capacity by attempting to till too deep at too fast a rate.
- Never allow bystanders near the unit.
- Never operate the tiller without good visibility or light.
- Be careful when tilling in hard ground. The tines may catch in the ground and propel the tiller forward. If this occurs, let go of the handlebars and do not restrain the machine.
- Take all possible precautions when leaving the machine unattended. Disengage all control levers, stop the engine, wait for all moving parts to stop, and make certain guards and shields are in place.
- When leaving the operating position for any reason:
  - shut off the engine.
  - wait for all moving parts to stop.

### IMPORTANT

THE RIGHT AND LEFT SIDES OF YOUR ROTOTILLER ARE DETERMINED FROM THE OPERATING POSITION AS YOU FACE THE DIRECTION OF FORWARD TRAVEL.

ENGINE IS SHIPPED FROM FACTORY WITHOUT OIL. YOU MUST ADD ENGINE OIL BEFORE STARTING ENGINE.



### MAINTENANCE AND STORAGE

- Keep machine, attachments, and accessories in safe working condition.
- Check shear bolts, engine mounting bolts, and other bolts at frequent intervals for proper tightness to be sure the equipment is in safe working condition.
- To prevent accidental starting, always disconnect and secure the spark plug wire from the spark plug before performing tiller maintenance.
- Never run the engine indoors. Exhaust fumes are deadly.
- Always allow muffler to cool before filling fuel tank.
- Never store equipment with gasoline in the tank inside a closed building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any building.
- Always refer to the operator's guide instructions for important details if the tiller is to be stored for an extended period.

### SAFETY DECALS

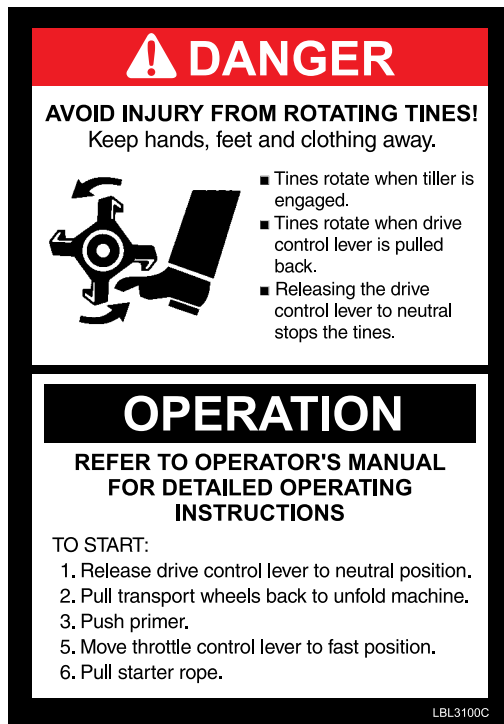
This rototiller unit has been designed and manufactured to provide you with the safety and reliability you would expect from an industry leader in outdoor power equipment manufacturing.

Although reading this manual and the safety instructions it contains will provide you with the necessary basic knowledge to operate this equipment safely and effectively, we have placed several safety labels on the tiller to remind you of this important information while you are operating the unit.

These important safety labels are illustrated below, and are shown here to help familiarize you with the location and content of the safety messages you will see as you perform normal tilling operations. Please review these labels now. If you have any questions regarding their meaning or how to comply with these instructions, reread the complete safety instruction text on the preceding pages, or contact your local dealer.

Should any of the safety labels become unreadable because of being worn, faded, or otherwise damaged during the use of your tiller, please use the part number information provided to order a replacement label from your local authorized dealer.

The safety labels are easily applied, and will act as a constant visual reminder to you, and others who may use the equipment. Follow the safety instructions necessary for safe, effective operation of your rototiller.



Part No. LBL3100C  
TINES DANGER/OPERATION  
Hood Decal



Part No. LBL821B  
HOOD WARNING  
Hood Decal



Part No. LBL516C  
WARNING  
Belt Cover Decal



Part No. LBL3100H  
WARNING  
Pivot Mount Decal



Part No. LBL3100D  
CLUTCH ENGAGE  
Handlebar Decal

## UNPACKING AND ASSEMBLY

### UNPACK TILLER & ASSEMBLE

1. Open top of carton and remove handlebar assembly.
2. Find parts packet. Parts packet for 3365/3365CE contains:

6- 5/16-18 x 1-3/4" bolts  
6- 5/16" spring lockwashers  
2- hand knobs  
4- locknuts  
2- 1/2" push nuts  
1- detent pin

Parts packet for 3365PS/R3365H contains:

2- 3/8-16 x 1" bolts  
2- 3/8-16 biway locknuts  
2- 5/16-18 x 1" bolts  
4- 5/16-18 x 1-3/4" bolts  
6- 5/16" spring lockwashers  
2- hand knobs  
4- 5/16" locknuts  
2- 1/2" push nuts  
1- detent pin

3. Cut open end of carton and remove machine:
  - a. Install wheels on each end of axle, tap on push nuts with a hammer.
  - b. Assemble tines to unit, inside tines first. Sharp edge of tine will be away from operator at top or face down at front of machine.
  - c. Outside tines have two positions- wide 21" & narrow 16". For narrow width - assemble with short side of tine holder pipe towards center of machine.
  - d. For wide width - move left tine to right side and right to left side. Assemble with long half of tine pipe towards machine.
  - e. Slide top handle of handlebar over lower loop. Put 5/16-18 x 1-3/4" bolts thru both holes from inside out, put on 5/16" spring lockwashers and tighten with hand knobs. Model 3365PS/R3365H will use 3/8-16 x 1" bolts with nuts and 5/16-18 x 1" bolts with hand knobs. See parts explosion on page 19.
  - f. Check upper and lower jam nuts for tightness. See page 9, Belt Tension Adjustment.
  - g. Add and check engine oil.

### INSTALL DEPTH REGULATOR LEVER

1. Install the depth regulator lever through hole in bracket from the bottom up with curve to rear of unit and secure with detent pin.

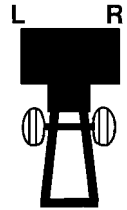
### FILL ENGINE CRANKCASE

1. Add oil according to engine manual. **Do not overfill.** Use a clean, high quality detergent oil. Container must be marked A.P.I. Service SF - SJ. Use no special additives with recommended oils. **Do not mix oil with gasoline.** Oil level must be full. Check the oil level by removing oil fill plug. Oil level should be up to the bottom of the fill plug opening.
2. Always check oil level before starting engine. Refer to engine manual for capacity and type of oil to use.

### IMPORTANT

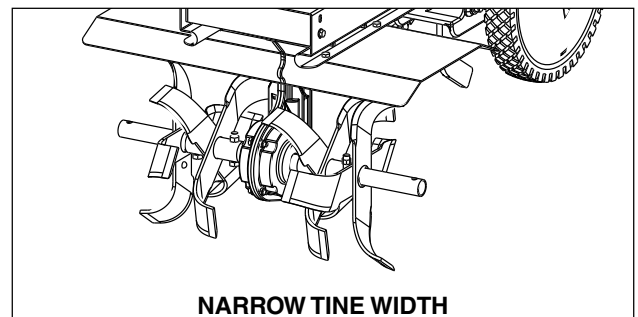
THE RIGHT AND LEFT SIDES OF YOUR ROTOTILLER ARE DETERMINED FROM THE OPERATING POSITION AS YOU FACE THE DIRECTION OF FORWARD TRAVEL.

ENGINE IS SHIPPED FROM FACTORY WITHOUT OIL. YOU MUST ADD ENGINE OIL BEFORE STARTING ENGINE.

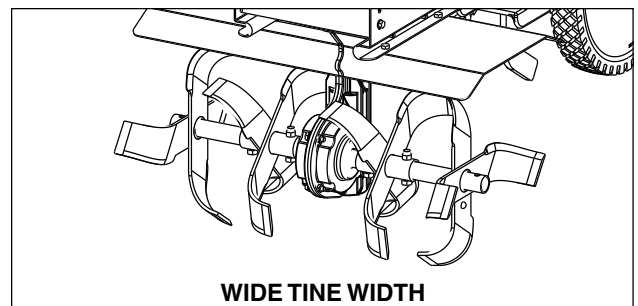


### CAUTION

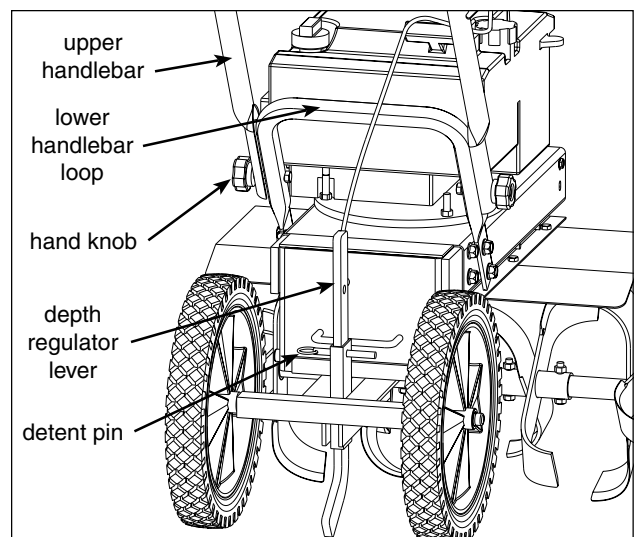
DO NOT TRY TO LIFT THE ROTOTILLER FROM THE CARTON.



NARROW TINE WIDTH



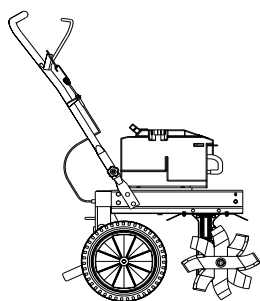
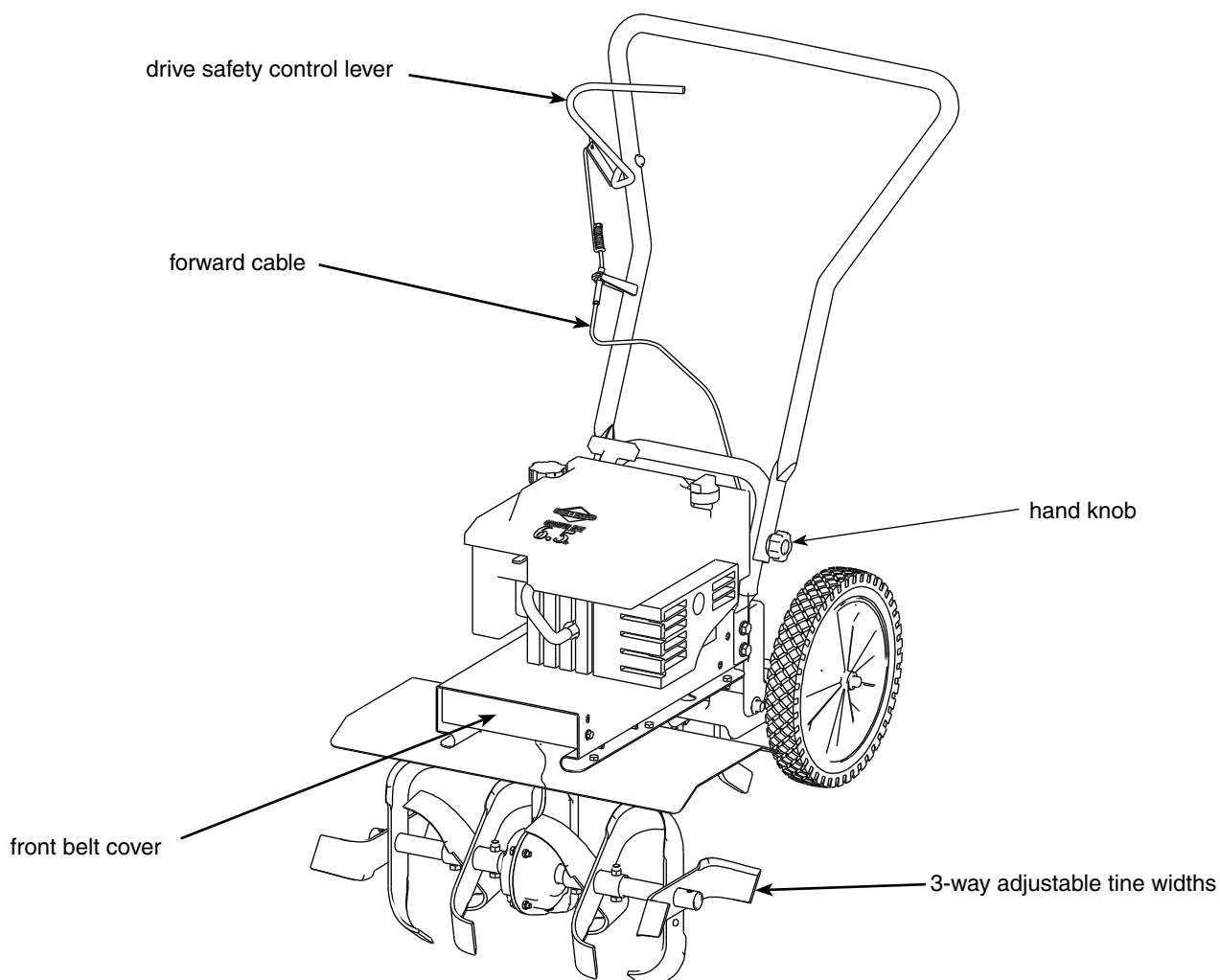
WIDE TINE WIDTH



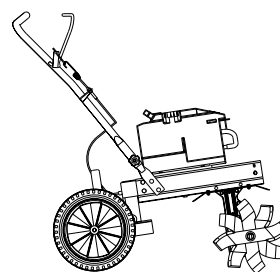


### FEATURES (3365/3365CE)

The advantage of the **EARTHQUAKE® BADGER™ gear drive rototiller** over other front tine tillers, is the exclusive unfolding and flexible drag bar. This gives the **Earthquake® Badger™ gear drive tiller** its stability and its versatility. For easy transport, fold the wheels under the engine. During operation, the wheels unfold back and the drag bar folds down. The long length between the tines and the drag bar make this the most comfortable front tine tiller on the market.



**Transport Position**



**Operating Position**



## CONTROLS

### DRIVE SAFETY CONTROL LEVER

*Engage tines into forward, releasing returns machine to neutral.*

Pulling down on drive safety control lever engages the tines. Releasing the drive safety control lever disengages the tines to a neutral position.

### BELT TENSION ADJUSTMENT

Proper belt tension is critical to good performance. After 1/2 hour of operation, all cables may have to be adjusted due to initial stretch. Thereafter, check tension after every 2 hours of operation.

#### To increase belt tension:

1. Loosen upper jam nut. Turn nut up cable in 1/8" increments.
2. Tighten lower jam nut.
3. Check adjustment.

This procedure can be repeated until conduit adjustment bolts have no more adjustment left. If no more adjustment can be made, belt may have to be replaced.

### DEPTH REGULATOR LEVER

*Tilling depth is controlled by the height of the depth regulator lever.*

To adjust tilling depth.

1. Remove detent pin.
2. Raise the depth regulator lever to position tines at chosen tilling depth.
3. Align hole in depth regulator lever with hole in depth regulator bracket and replace detent pin.

## ⚠ CAUTION

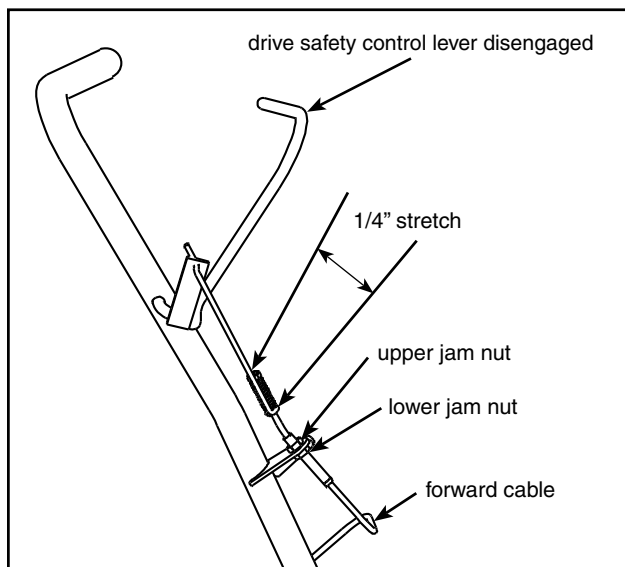
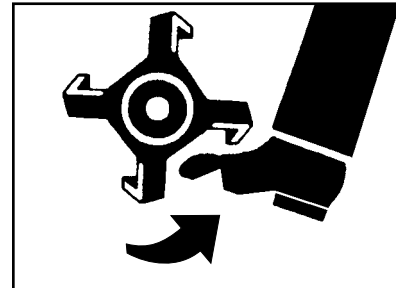
THIS INFORMATION IS PROVIDED HERE ONLY TO INTRODUCE THE CONTROLS. DO NOT START THE ENGINE AT THIS TIME. STARTING AND OPERATING INSTRUCTIONS ARE GIVEN ON PAGE 10. PLEASE READ THIS SECTION AND ALL OPERATING AND SAFETY INSTRUCTIONS BEFORE STARTING YOUR TILLER.

- AS A SAFETY PRECAUTION, THE DRIVE SAFETY CONTROL LEVER WILL NOT LOCK IN THE FORWARD POSITION.
- TO STOP THE WHEELS AND TINES AT ANY TIME RELEASE THE DRIVE SAFETY CONTROL LEVER.

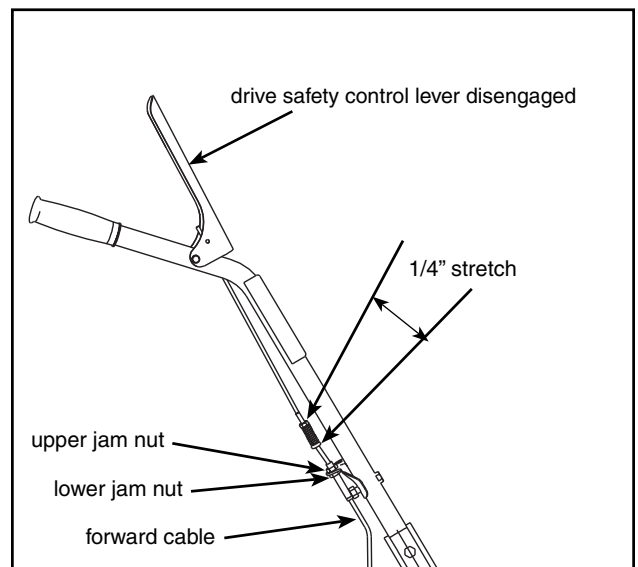
## ⚠ WARNING

ENGINE SHOULD BE OFF BEFORE ADJUSTING ANY CONTROLS.

DO NOT ADJUST TILLING DEPTH UNLESS DRIVE SAFETY CONTROL LEVER IS RELEASED TO THE NEUTRAL POSITION.



Model 3365/3365CE Handlebar



Model 3365PS/R3365H Handlebar

## OPERATION

### PRE-START INSPECTION

1. Make sure all safety guards are in place and all nuts and bolts are secure.
2. Check oil level in engine crankcase. See your engine manual for procedure and specifications.
3. Inspect air cleaner for cleanliness. See your engine manual for procedure.
4. Check the fuel supply. Fill the fuel tank no closer than 1 inch from top of tank to provide space for expansion. See your engine manual for fuel recommendations.
5. Be sure spark plug wire is attached and spark plug is tightened securely.
6. Check position of wheels.
7. Check depth regulator lever position.
8. Examine underneath and around engine for signs of oil or fuel leaks.
9. Inspect fuel hoses for tightness and fuel seepage.
10. Look for signs of engine damage.
11. Remove excessive debris from muffler area and recoil starter.

### START-UP

The controls required to start and run the rototiller are located on the engine and are marked "Choke" and "Throttle".

A more detailed description of engine operation and all related precautions and procedures can be found in the engine manufacturer's manual that accompanies each tiller.

#### **COLD STARTS**

1. Move choke lever to full choke position.
2. Move throttle lever to "start".
3. Pull starting rope out slowly one time and allow to return normally.
4. Pull starting rope out rapidly, and allow rope to return normally.
5. When engine starts, gradually move choke lever to "no choke" position and increase throttle speed.

#### **RESTARTING A WARM ENGINE**

Restarting an engine that is already warm from previous running does not normally require use of the choke.

1. Move throttle lever to "start" position.
2. Pull starting rope out rapidly until engine starts. Allow rope to return normally. Repeat until engine starts.
3. Adjust throttle speed to "high" for best tiller action.

### IMPORTANT

**ENGINE IS SHIPPED FROM FACTORY WITHOUT OIL. YOU MUST ADD ENGINE OIL BEFORE STARTING ENGINE.**

**PRACTICE OPERATING THE CONTROLS AND TILLER WITH TINES OUT OF GROUND BEFORE BEGINNING TO TILL. IT IS IMPORTANT THAT YOU KNOW HOW TO USE THE TILLER PROPERLY, KEEP CONTROL AT ALL TIMES, STOP THE TINES AND WHEELS FROM TURNING, AND STOP THE ENGINE IF NECESSARY. IF YOU DO NOT KNOW HOW TO DO THESE THINGS, READ THE CONTROLS AND SAFETY SECTIONS BEFORE PROCEEDING.**

### ⚠ CAUTION

**PLEASE DO NOT START YOUR TILLER UNTIL YOU HAVE READ THE MANUAL THAT CAME WITH YOUR ENGINE, AND THE SECTIONS IN THIS MANUAL TITLED CONTROLS AND SAFETY. IF YOU HAVE READ THESE, FOLLOW THE STEPS BELOW TO START YOUR TILLER. ALWAYS PERFORM THIS PRE-START CHECKLIST BEFORE STARTING THE ENGINE.**

### ⚠ WARNING

**GASOLINE IS HIGHLY FLAMMABLE AND MUST BE HANDLED WITH CARE. NEVER FILL THE TANK WHEN THE ENGINE IS HOT OR RUNNING. ALWAYS MOVE OUTDOORS TO FILL THE TANK.**

**TEMPERATURE OF MUFFLER AND NEAR BY AREAS MAY EXCEED 150° F. AVOID THESE AREAS.**

**DO NOT MOVE CHOKE CONTROL TO CHOKE TO STOP ENGINE. BACKFIRE OR ENGINE DAMAGE MAY OCCUR.**

**TO STOP THE ENGINE AT ANY TIME, MOVE THROTTLE CONTROL TO THE OFF POSITION. TO STOP TINES AT ANY TIME, RELEASE DRIVE SAFETY CONTROL LEVER TO THE NEUTRAL POSITION.**

**ALWAYS RELEASE DRIVE SAFETY CONTROL LEVER TO THE NEUTRAL POSITION BEFORE ADJUSTING THE DEPTH OF THE REGULATOR LEVER.**

### OPERATING SPEED

For normal tilling, set the throttle lever to “fast”.

### SHUTTING DOWN

To stop the engine at any time, move throttle control to the off position. To stop wheels and tines at any time, release the drive safety control lever to the neutral position.

### TILLING

1. Adjust the depth regulator lever to desired tilling depth.

**NOTE:** *Raise depth regulator lever up one hole at a time, testing tiller operation after each raise. Raising depth regulator lever too high can result in loss of control of tiller!*

2. Move the throttle control to **fast**.
3. Place the tiller in motion by pushing down on the drive safety control lever--this will engage the tines.

### WARNING

EXTREME CAUTION MUST BE TAKEN IN SELECTING TILLING DEPTH. IF YOU ATTEMPT TO TILL TOO DEEPLY FOR SOIL CONDITIONS, THAT IS, WITH THE DRAG STAKE IN TOO HIGH A POSITION, LOSS OF CONTROL COULD RESULT.

IF REMOVING MATERIAL FROM THE TINES BY HAND, STOP ENGINE AND REMOVE SPARK PLUG WIRE FIRST.

### DANGER

ENGINE AND SURROUNDING PARTS BECOME EXTREMELY HOT DURING NORMAL USE AND WILL CAUSE SERIOUS BURN INJURIES IF TOUCHED BEFORE THE ENGINE HAS COOLED.

ALLOW ENGINE TO COOL COMPLETELY BEFORE TOUCHING THESE HOT SURFACES.

ALWAYS KEEP HANDS AND FEET CLEAR OF ROTATING MACHINE PARTS.

## MAINTENANCE AND STORAGE

### MAINTENANCE SCHEDULE

Your rototiller has been designed and produced by the industry's leading manufacturer of outdoor power equipment to provide you with years of reliable operation.

Keeping your tiller in top running condition will prolong its life, and help you obtain optimum performance.

Please read this normal care schedule, and note the recommended care operating intervals to extend the life of your unit.

Maintenance Operation	Page	Before Each Use	50 hours or Every Season
Change belt tension	13	X	
Change forward belt	13		X
Engine maintenance	14	X	X
Check or fill engine crankcase	14	X	2
Clean tine axle shaft	14	X	
Lubrication	14		X
Check throttle control adjustment	-		1

EM = See engine manual

**1** Adjust throttle control after first 3 hours of operation or if engine is hard to start or run-on occurs.

**2** Change oil after first 5-8 hours of use, then after every 50 hours or every season. Change oil every 25 hours when operating under heavy load or in high temperatures.

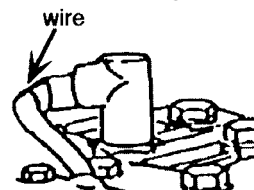
### SERVICING THE ROTOTILLER

The following information will help you make the necessary checks and perform the procedures required to follow the normal care recommendations made for your rototiller unit.

If you prefer, your local authorized dealer can make these checks and perform the required procedures for you.

#### **WARNING**

To prevent accidental starting:



Engine must be turned off and cool, and spark plug wire must be removed and secured from spark plug before checking and adjusting engine or equipment.

### CHECK BELT TENSION

Belt tension may decrease over time. It must be adjusted within the first half hour of operation, and checked after every two hours of operation. Proper adjustment will assure long belt life. Too much or too little belt tension will cause premature belt failure. To check and adjust the forward belt tension:

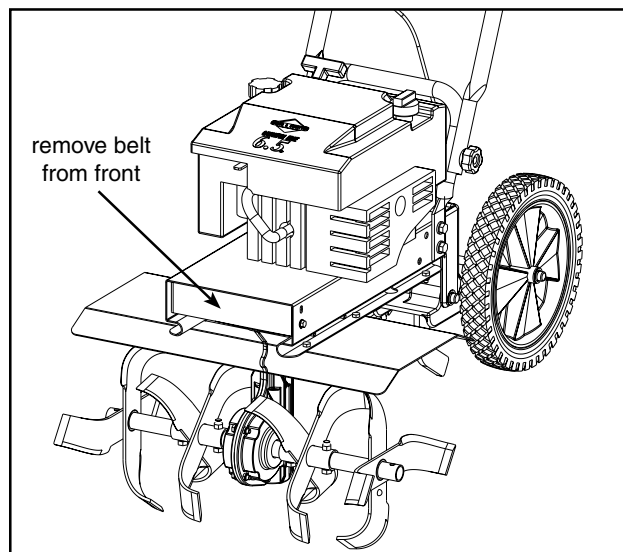
1. Turn off engine. Engine must be cool.
2. Remove spark plug wire from spark plug and secure.
3. With drive safety control lever in the neutral position, measure length of spring when in its relaxed state.
4. Pull down on drive safety control lever and measure length of spring when compressed. Ideal length would be 1/4" shorter.

### CHANGE FORWARD BELT

1. Turn off engine. Engine must be cool.
2. Remove spark plug wire from spark plug and secure.
3. Remove front belt cover.
  - remove the belt from the engine pulley:
    - gently pull the engine recoil rope to rotate the pulley.
    - with the pulley turning, force the belt out of the V-groove.
    - slide the belt free of the engine pulley.
    - pull the belt down and out of the way.
    - push the bolt forward and out front of machine.
  - install new belt:
    - place belt in transmission pulley groove.
    - gently pull the engine recoil rope to rotate the pulley while forcing the belt into the V-groove.
4. Replace front belt cover.
5. Attach spark plug wire.

### WARNING

**CHECK FORWARD BELT TENSION REGULARLY. TOO MUCH OR TOO LITTLE TENSION WILL CAUSE PREMATURE BELT FAILURE.**



### **BELT REPLACEMENT PART #:**

3370 (forward)

### ENGINE MAINTENANCE

Refer to the engine manual included in your parts packet for information on engine maintenance. Your engine manual provides detailed information and a maintenance schedule for performing the following tasks:

1. Check oil level before each use or after every 8 hours of operation.
2. Change oil after first 5-8 hours of operation. Change oil while engine is warm. Refill with new oil of recommended grade.
4. Check spark plug yearly or every 100 hours of operation.
5. Service air cleaner.
6. Keep engine and parts clean.
7. Check engine and equipment often for loose nuts and bolts, keep these items tightened.

### CHECK OR FILL ENGINE CRANKCASE

1. Add oil according to engine manual. **Do not overfill.** Use a clean, high quality detergent oil. Container must be marked A.P.I. Service SF - SJ. Use no special additives with recommended oils. **Do not mix oil with gasoline.** Oil level must be full. Check the oil level by removing oil fill plug. Oil level should be up to the bottom of the fill plug opening on most engines.
2. Always check oil level before starting engine. Refer to engine manual for capacity and type of oil to use.

### CLEAN TINE AXLE SHAFT

1. Turn off engine. Engine must be cool.
2. Remove spark plug wire and secure from spark plug.
3. Remove all vegetation, string, wire, and other material that may have accumulated on the axle between the inside set of tines and the seal on the transmission housing.
4. Replace spark plug wire.

### LUBRICATION

Proper lubrication of moving mechanical parts is critical for proper care and maintenance. Oil the moving parts using a 30 weight oil.

### IMPORTANT

**ENGINE IS SHIPPED FROM FACTORY WITHOUT OIL. YOU MUST ADD ENGINE OIL BEFORE STARTING ENGINE.**

**ENGINE CAN OVERHEAT AND BECOME DAMAGED IF DEBRIS BLOCKS THE COOLING SYSTEM OR ROTATING SCREEN.**

**NEVER RUN ENGINE WITHOUT COMPLETE AIR CLEANER INSTALLED ON ENGINE.**



### CAUTION

**DO NOT OPERATE TILLER BEFORE READING THE ENGINE MANUAL PROVIDED IN THE PARTS PACKET.**



### WARNING

**TEMPERATURE OF MUFFLER AND NEAR BY AREAS MAY EXCEED 150° F. AVOID THESE AREAS.**

## STORAGE

### PREPARE FOR STORAGE

Follow the steps below to prepare your tiller for storage. Read your engine manual for detailed instructions on preparing the engine for storage.

1. Protect wheels and axles from rust:
  - Coat the axles lightly with axle grease.
2. Drain fuel system completely following engine manufacturer's instructions or add fuel stabilizer to prevent fuel from gumming up during extended storage period.
3. While engine is still warm, drain the oil from the engine. Refill with fresh oil of the recommended grade.
4. Clean external surfaces, engine and cooling fan.
5. Remove spark plug, pour one ounce of SAE 30 oil into spark plug hole.
6. Plug hole and pull starter cord slowly to distribute oil evenly in cylinder head area.
7. Reinstall spark plug.
8. Transport unit to a suitable storage location. If you have chosen to use a fuel stabilizer and have not drained the fuel system, follow all safety instructions storage precautions in this manual to prevent the possibility of fire from the ignition of gasoline fumes. Remember, gasoline fumes can travel to distant sources of ignition and ignite, causing risk of explosion and fire.
9. If there is any possibility of unauthorized use or tampering, remove the spark plug and store it in a safe place before storing the rototiller unit. Be sure to plug the spark plug hole to prevent foreign material from entering.

### WARNING

**DO NOT STORE TILLER IN AN UNVENTILATED AREA WHERE FUEL FUMES MAY REACH FLAME, SPARKS, PILOT LIGHTS OR AN IGNITED OBJECT. DRAIN FUEL OUTDOORS AWAY FROM ANY IGNITION SOURCES. USE ONLY APPROVED FUEL CONTAINERS.**



## TROUBLESHOOTING AND REPAIR

### TROUBLESHOOTING GUIDE

While normal care and routine maintenance will extend the life of your rototiller, prolonged or constant use may eventually require that service be performed to allow it to continue operating properly. The troubleshooting guide below lists the most common problems, causes and remedies.

### WARNING

**PRACTICE SAFETY AT ALL TIMES. ENGINE MUST BE TURNED OFF AND ALLOWED TO COOL, AND SPARK PLUG WIRE MUST BE DISCONNECTED AND SECURED BEFORE ATTEMPTING ANY MAINTENANCE OR REPAIR.**

**FAILURE TO COMPLY WITH THIS SAFETY REQUIREMENT CAN RESULT IN SERIOUS PERSONAL INJURY TO YOU OR BYSTANDERS.**

PROBLEM	REMEDY/ACTION
Engine will not start	<ul style="list-style-type: none"> <li>• Add gas to gas tank.</li> <li>• Connect spark plug wire to spark plug</li> <li>• Throttle must be positioned at choke for a cold start</li> </ul>
Engine runs rough, floods during operation	<ul style="list-style-type: none"> <li>• Clean or replace air cleaner</li> </ul>
Engine is hard to start	<ul style="list-style-type: none"> <li>• Drain old fuel and replace with fresh. Use gas stabilizer at end of season</li> <li>• Make sure spark plug wire is securely attached to spark plug</li> <li>• Drive safety control lever must be released to neutral to start the engine</li> </ul>
Engine misses or lacks power	<ul style="list-style-type: none"> <li>• Raise the tines for shallow tilling by raising the depth regulator lever</li> <li>• Clean or replace air cleaner</li> <li>• Improper carburetor adjustment, take to authorized engine service center</li> <li>• Replace spark plug and adjust gap</li> <li>• Drain and refill gas tank and carburetor</li> </ul>
Engine will not stop when throttle control is positioned at stop	<ul style="list-style-type: none"> <li>• See engine manual to check and adjust throttle linkage</li> </ul>
Tiller moves forward during starting	<ul style="list-style-type: none"> <li>• Drive safety control lever must be released to neutral to start the engine</li> </ul>
Tiller is difficult to control when tilling (machine jumps or lurches forward)	<ul style="list-style-type: none"> <li>• Lower engine speed in hard ground</li> <li>• Raise the tines for shallower tilling by lowering the depth regulator lever</li> </ul>
Belts squeal in neutral	<ul style="list-style-type: none"> <li>• Adjust forward belt guide: <ul style="list-style-type: none"> <li>- turn engine off and allow muffler to cool</li> <li>- disconnect spark plug wire and secure from spark plug</li> <li>- pull down on drive safety control lever</li> <li>- manually bend forward belt guide so there is 1/16 inch or less clearance between belt guide and belt</li> <li>- replace spark plug wire</li> </ul> </li> </ul>
Belts squeal in forward operation	<ul style="list-style-type: none"> <li>• Turn engine off and allow muffler to cool</li> <li>• Disconnect spark plug wire and secure from spark plug</li> <li>• Release drive safety control lever to neutral</li> <li>• Adjust engage cable</li> <li>• Replace spark plug wire</li> </ul>
Excessive heat build up in transmission/tine area during tilling	<ul style="list-style-type: none"> <li>• Remove vegetation</li> <li>• Check transmission fluid and fill if needed</li> </ul>

### 3365CE CERTIFICATE OF CONFORMITY

#### DECLARATION OF CONFORMITY      DECLARATION DE CONFORMITE      ÜBEREINSTIMMUNGSERKLÄRUNG KONFORMITÄTSEKLAERING      VERKLARING VAN OVEREENKOMST DICHIARAZIONE DI CONFORMITÀ

**Ardisam Manufacturing, Inc. • 1690 Elm Street • Cumberland, WI U.S.A. 54829**

Declares that products listed below comply to 98/37/EC + 89/336/EEC  
 Déclare que les produits énumérés ci-dessous sont conformes à: 98/37/EC + 89/336/EC  
 Erklärt, dass die unten aufgeführten Produkte mit den Vorschriften übereinstimmen 98/37/EC + 89/336/EC  
 Erklärer, at nedenslænde produktet opfylder ... 98/37/EC + 89/336/EC  
 Declara que los productos relacionados mas abajo cumplen con: 98/37/EC + 89/336/EC  
 Verklaart dat onderstaande producten overeenkomen met: 98/37/EC + 89/336/EC  
 Si dichiara che i prodotti sotto elencati sono conformi a: 98/37/EC + 89/336/EC

PRODUCT NO. N° DE FABRICATION	GUARANTEED SOUND-POWER LEVEL NIVEAU DE PUISSANCE	MEASURED SOUND-POWER LEVEL MESURER NIVEAU DE PUISSANCE
PRODUCT-NR. PRODUKTION-NR.	ACOUSTIQUE GARANTI: GARANTIEERD SCHALLSTERKUNGSPEL: GARANTEEERD STÖJNIVEAU:	ACOUSTIQUE TAILLE: GEMESSEN SCHALLSTERKUNGSPEL: MALE LYSTYRKE BELOB:
N° DE PRODUCTO PRODUKT-NR.	GARANZIA UN NIVEL DE SONORIDAD: GEGARANDEERD GELUIDSNIVO:	AFGEMETEN GESEVENS GELUIDSSTERKTE AARTAL:
MODELLO NR.	LIVELLO DI EMISSIONI ACUSTICHE GARANITTO A:	MISURATO EMISSIONI SONORA IMPORTO:

3365CE	EARTHQUAKE	Front Tine Rototiller	95	93	108
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Signed \_\_\_\_\_ Date August 23, 2006  
 Kirk Hyatt  
 Product Development Manager  
 Ardisam, Inc.  
 Cumberland, WI USA

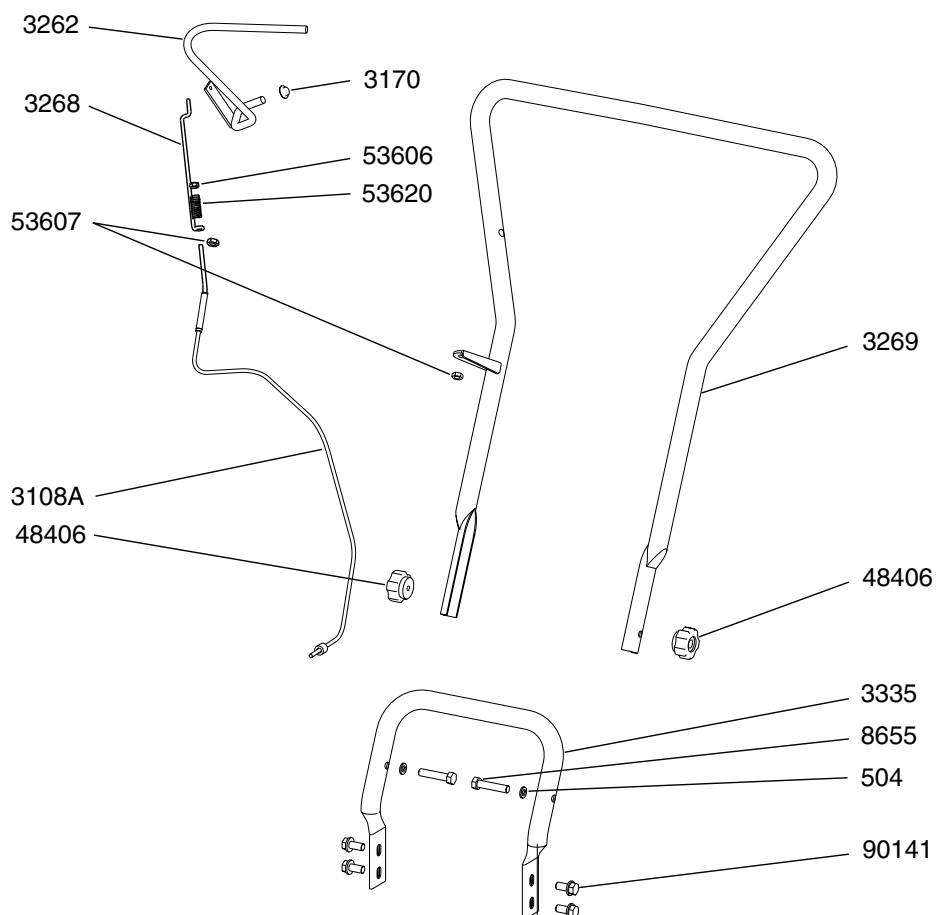
FORM NO. 3365CE

DOCFT

## NOTES

This image shows a single page of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page, leaving small margins at the top and bottom. There are no vertical margin lines, no text, and no other markings on the page. It appears to be a standard piece of notebook paper.

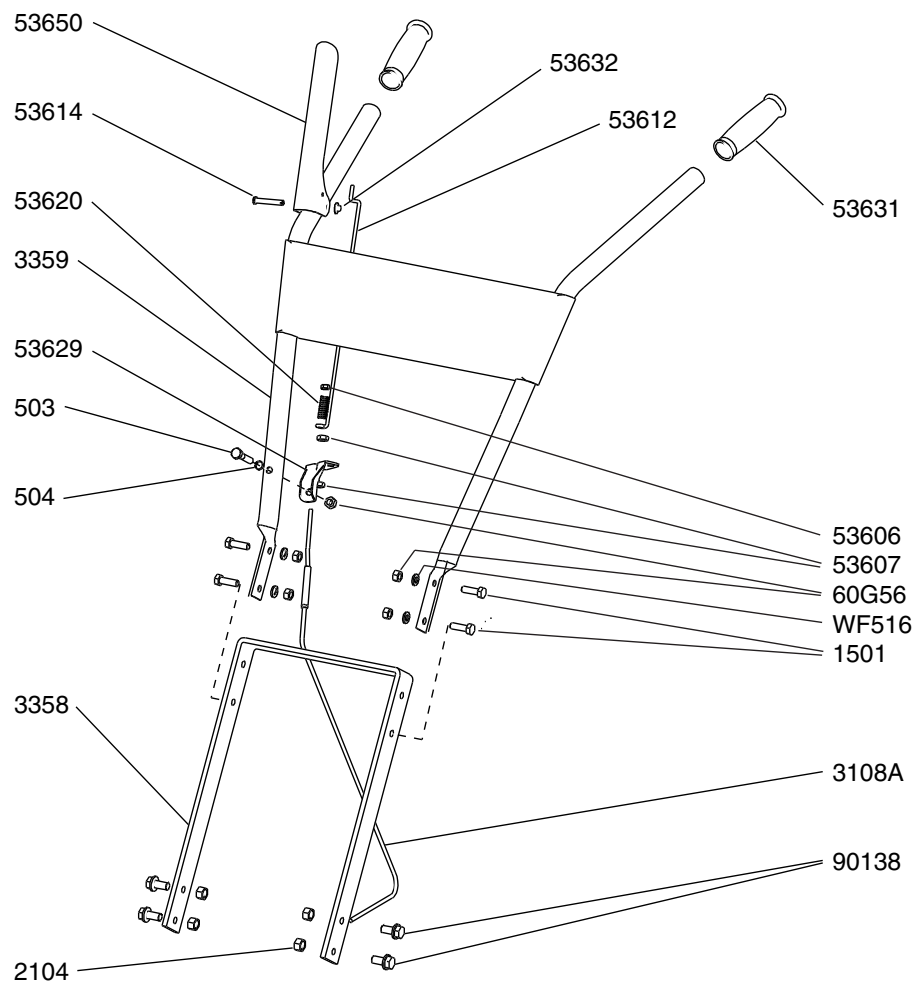
### 3365/3365CE HANDLEBAR PARTS



PART #	DESCRIPTION	QTY.
3108A	CABLE ASSEMBLY W/FERREL	1
3170	NUT, PUSH 3/8" DIA.	1
3262	DRIVE SAFETY CONTROL LEVER	1
3268	LINK, 5-3/4" LONG	1
3269	HANDLE, TOP	1
3335	HANDLE, BOTTOM	1
48406	KNOB, FIVE-STAR 5/16-18	2

PART #	DESCRIPTION	QTY.
504	LOCKWASHER, SPRING 5/16"	2
53606	NUT, HEX NYLOC 10-24	1
53607	NUT, HEX JAM 5/16-24	2
53620	SPRING, COMPRESSION	1
8655	BOLT, HEX HD 5/16-18 X 1-3/4"	2
90141	BOLT, SFHH W/PATCH 3/8-16 X 1" GR5	4

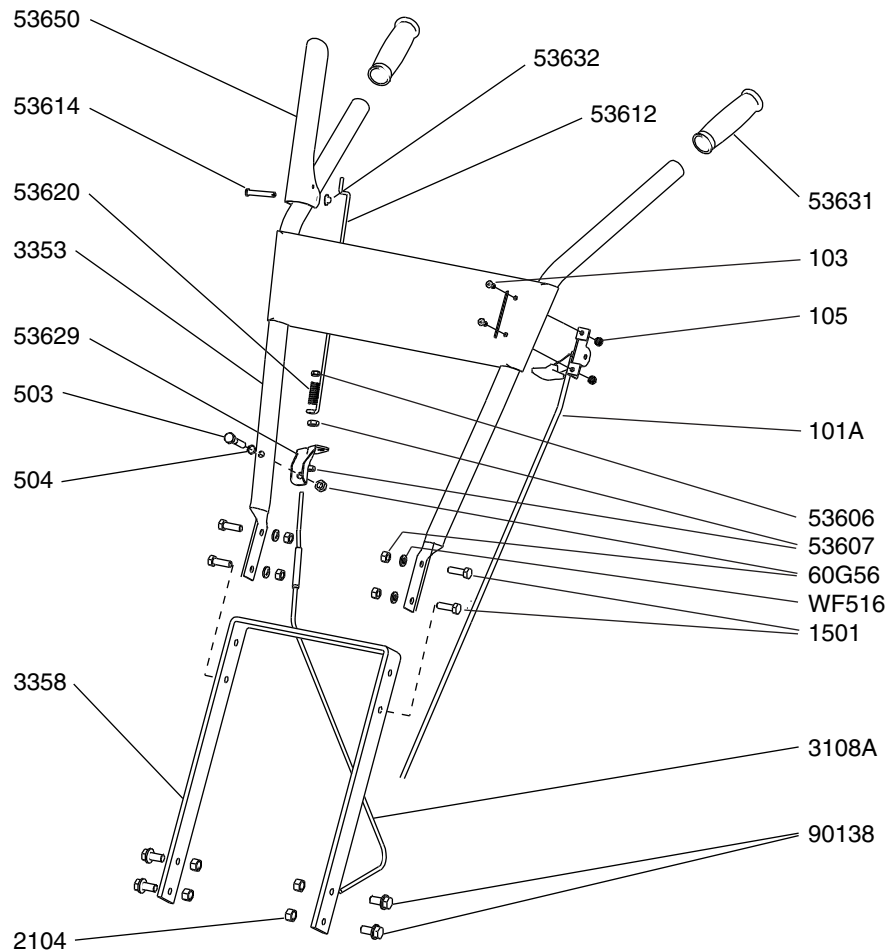
### 3365PS HANDLEBAR PARTS



PART #	DESCRIPTION	QTY.
1501	BOLT, SOC FLG HEX HD 5/16-18 X 3/4" GR5	4
2104	NUT, BI-WAY HEX LOCK 3/8-16	4
3108A	CABLE ASSEMBLY W/FERREL	1
3358	MOUNT, HANDLEBAR	1
3359	HANDLEBAR WELDMENT	1
503	BOLT, HH 5/16-18 X 1-1/2"	1
504	LOCKWASHER, SPRING 5/16"	2
53606	NUT, HEX NYLOC 10-24	1
53607	NUT, HEX JAM 5/16-24	2

PART #	DESCRIPTION	QTY.
53612	LINK 11-5/8" LONG	1
53614	PIN, CLEVIS 1/4 X 1-1/2"	1
53620	SPRING, COMPRESSION	1
53629	BRACKET, CABLE MOUNT	1
53631	GRIP, HANDLEBAR 1" ID FLANGELESS	2
53632	NUT, PUSH 1/4"	1
53650	LEVER, CONTROL	1
60G56	NUT, BI-WAY LOCK 5/16-18	5
90138	BOLT, SFHH 3/8-16 X 3/4"	4
WF516	WASHER, FLAT 5/16"	4

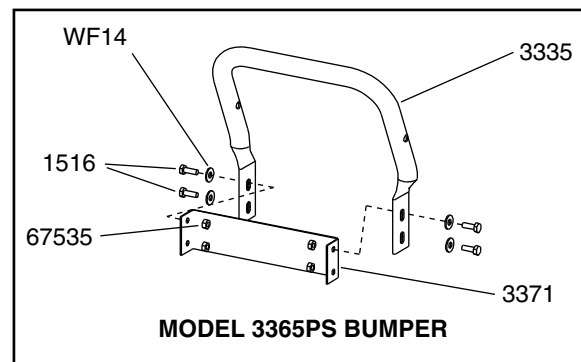
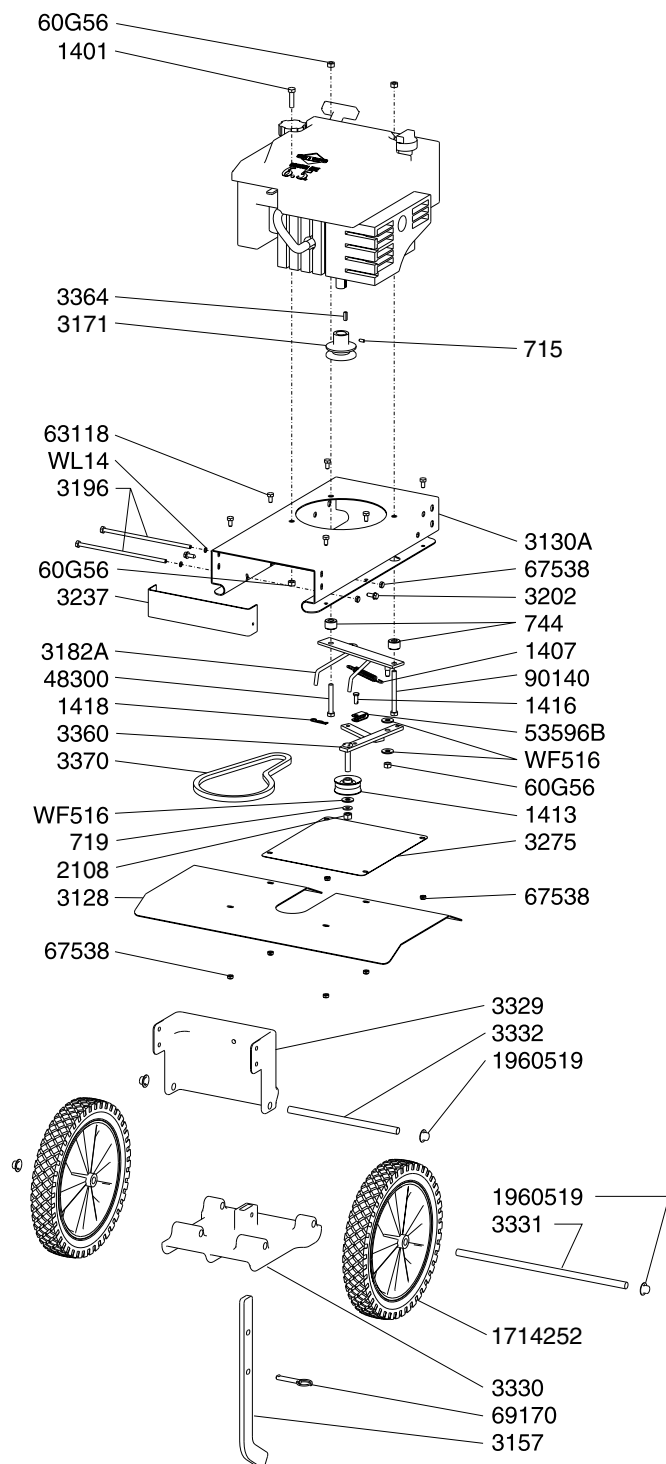
### R3355H HANDLEBAR PARTS



PART #	DESCRIPTION	QTY.
101A	THROTTLE CONTROL W/ KNOB	1
103	BOLT, SLOTTED RND HD 10-32 X 1/2"	2
105	NUT, HEX NYLOCK 10-32	2
1501	BOLT, SOC FLG HEX HD 5/16-18 X 3/4" GR5	4
2104	NUT, BI-WAY HEX LOCK 3/8-16	4
3108A	CABLE ASSEMBLY W/FERREL	1
3353	MOUNT, HANDLEBAR	1
3359	HANDLEBAR WELDMENT	1
503	BOLT, HH 5/16-18 X 1-1/2"	1
504	LOCKWASHER, SPRING 5/16"	2
53606	NUT, HEX NYLOC 10-24	1

PART #	DESCRIPTION	QTY.
53607	NUT, HEX JAM 5/16-24	2
53612	LINK 11-5/8" LONG	1
53614	PIN, CLEVIS 1/4 X 1-1/2"	1
53620	SPRING, COMPRESSION	1
53629	BRACKET, CABLE MOUNT	1
53631	GRIP, HANDLEBAR 1" ID FLANGELESS	2
53632	NUT, PUSH 1/4"	1
53650	LEVER, CONTROL	1
60G56	NUT, BI-WAY LOCK 5/16-18	5
90138	BOLT, SFHH 3/8-16 X 3/4"	4
WF516	WASHER, FLAT 5/16"	4

### 3365\_3365CE\_3365PS MOTOR MOUNT & HOOD PARTS





### 3365\_3365CE\_3365PS MOTOR MOUNT & HOOD PARTS

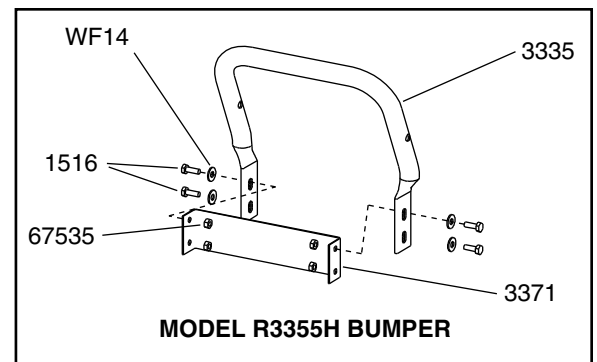
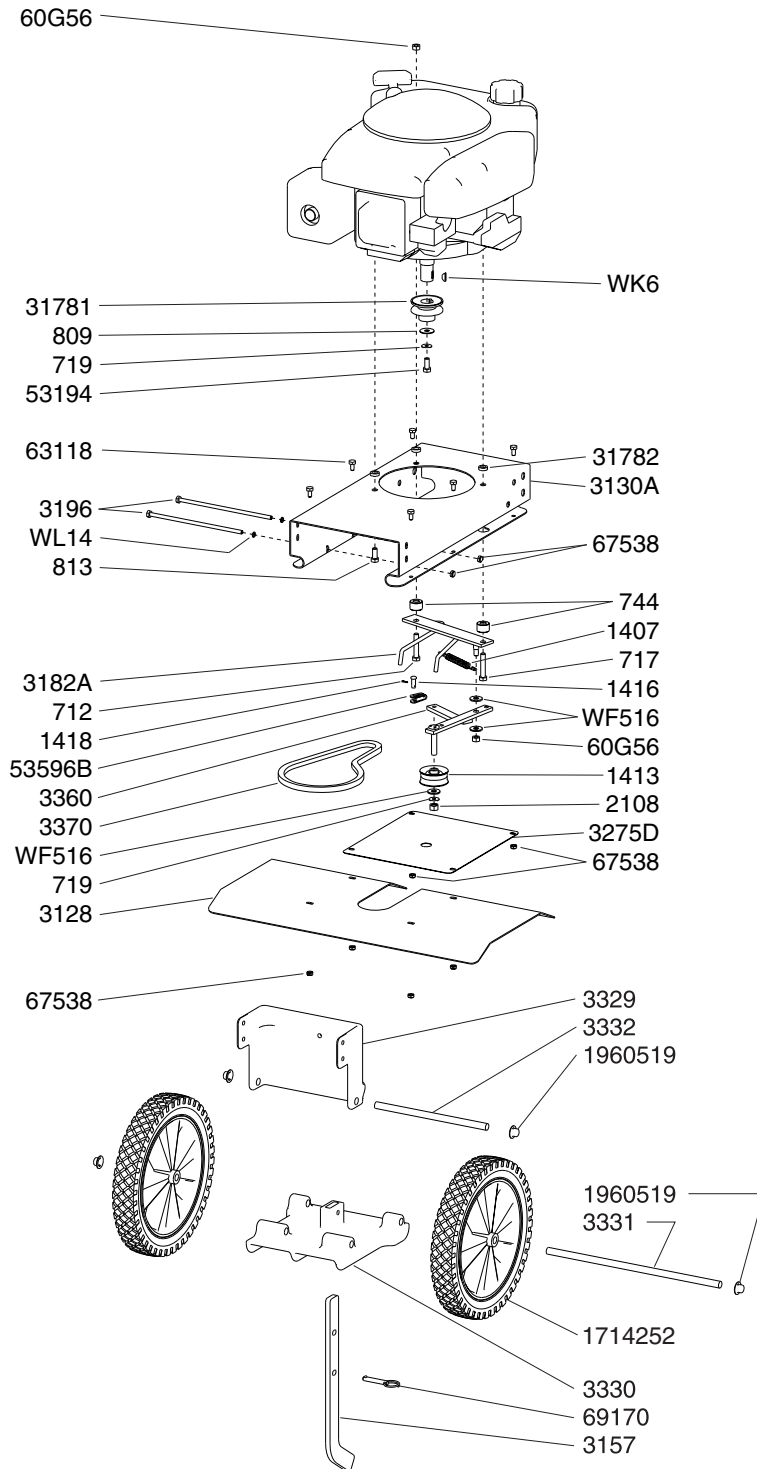
PART #	DESCRIPTION	QTY.
1401	BOLT, HHCS 5/16-18 X 1-1/4" GR5	1
1407	SPRING, FORWARD ARM	1
1413	PULLEY, FORWARD IDLER	1
1416	PIN, LINK	1
1418	PIN, COTTER	1
1714252	WHEEL & TIRE ASSY 11.0 X 1.75	2
1960519	PUSH NUT 1/2" DIA.	4
2108	NUT, NON-LOCKING HEX 3/8-16	1
3128	SHIELD, TINE	1
3130A	FRAME, ENGINE MOUNT	1
3157	LEVER, DEPTH REGULATOR	1
3171	PULLEY, ENGINE, SINGLEGROOVE 3/4" ID	1
3182A	BELT GUIDE & MOUNT	1
3196	BOLT, HHCS 1/4-20 X 7-1/2" GR5	2
3202	SCREW, SHEET METAL 1/4 X 3/4"	2
3237	COVER, FRONT BELT (3365, 3365CE)	1
3275	SHIELD, DIRT	1
3306	ENGINE, 5.50 T.R. BRIGGS (3365, 3365PS)	1
3306CE	ENGINE, 5.50 T.R. BRIGGS (3365CE)	1
3329	TAIL MOUNT, UPPER	1
3330	TAIL MOUNT, LOWER	1
3331	SHAFT, WHEEL 1/2"	1

PART #	DESCRIPTION	QTY.
3332	SHAFT, TAIL MOUNT HINGE 1/2"	1
3360	IDLER ARM, FORWARD	1
3364	KEY, SQUARE 3/16" X 5/8"	1
3370	BELT, FORWARD	1
48300	BOLT, HHCS 5/16-18 X 2-1/4" GR5	1
53596B	YOKE, CABLE	1
60G56	NUT, BI-WAY LOCK 5/16-18	4
63118	BOLT, HHCS 1/4-20 X 1/2"	6
67538	NUT, HEX NYLOC 1/4-20	8
69170	PIN, DETENT 5/16" X 2"	1
715	SET SCREW 1/4-20 X 1/4"	2
719	WASHER, SPRING LOCK 3/8"	1
744	SPACER, BELT GUIDE	2
90140	BOLT, HEX HD 5/16-18 X 3-1/4"	1
WF516	WASHER, FLAT 5/16"	3
WL14	WASHER, SPRING LOCK 1/4"	2

#### MODEL 3365PS BUMPER GUARD PARTS

1516	BOLT, SOC FLANGE HEX HD, 1/4-20 X 3/4"	4
3335	ARM LOWER HANDLEBAR	1
3371	COVER, FRONT 4-HOLE (replaces 3237)	1
67535	BOLT, SBHCS SS 1/4-20 X 1-1/2"	4
WF14	WASHER, FLAT 1/4"	4

## R3355H MOTOR MOUNT & HOOD PARTS

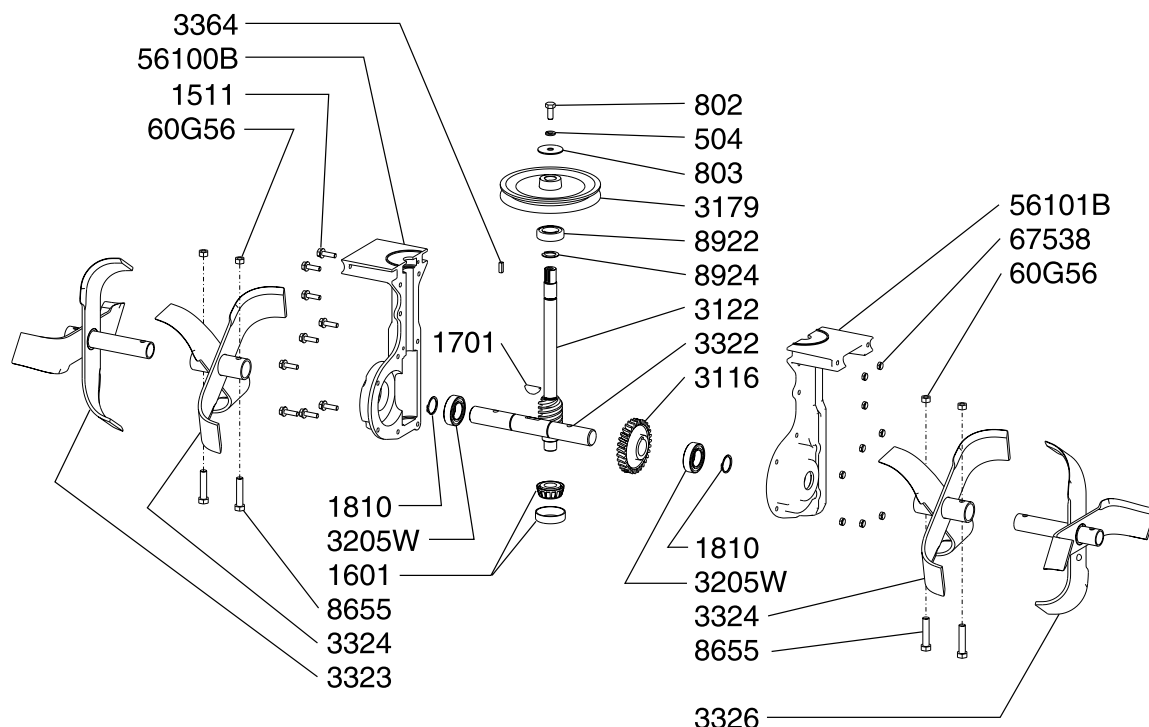


### R3355H MOTOR MOUNT & HOOD PARTS

PART #	DESCRIPTION	QTY.
1407	SPRING, FORWARD ARM	1
1413	PULLEY, FORWARD IDLER	1
1416	PIN, LINK	1
1418	PIN, COTTER	1
1714252	WHEEL & TIRE ASSY 11.0 X 1.75	2
1960519	PUSH NUT 1/2" DIA.	4
2108	NUT, NON-LOCKING 3/8-16	1
3128	SHIELD, TINE	1
3130A	FRAME, ENGINE MOUNT	1
3157	LEVER, DEPTH REGULATOR	1
31781	PULLEY, ENGINE, SINGLEGROOVE 3/4" ID MODIFIED	1
31782	SPACER, ENGINE	3
3182A	BELT GUIDE & MOUNT	1
3196	BOLT, HEX HD CAP SCR 1/4-20 X 7-1/2" GR5	2
3275D	SHIELD, DIRT W/HOLE	1
33055	ENGINE, 5.5 HP HONDA	1
3329	TAIL MOUNT, UPPER	1
3330	TAIL MOUNT, LOWER	1
3331	SHAFT, WHEEL 1/2"	1
3332	SHAFT, TAIL MOUNT HINGE 1/2"	1
3360	IDLER ARM, FORWARD	1
3370	BELT, FORWARD	1

PART #	DESCRIPTION	QTY.
53194	BOLT, HEX HD FULL THRD 3/8-24 X 1" GR5	1
53596B	YOKE, CABLE	1
60G56	NUT, BI-WAY LOCK 5/16-18	4
63118	BOLT, HEX HD CAP SCR 1/4-20 X 1/2"	6
67538	NUT, HEX NYLOC 1/4-20	8
69170	PIN, DETENT 5/16" X 2"	1
712		1
717	BOLT, HEX HD 5/16-24 X 1-3/4"	1
719	WASHER, SPRING LOCK 3/8"	2
744	SPACER, BELT GUIDE	2
809	WASHER, FLAT 1" OD X 5/16" X .047" THICK	1
813	BOLT, HEX HD 5/16-24 X 1-1/4"	1
WF516	WASHER, FLAT 5/16"	3
WK6	KEY, WOODRUFF #6	1
WL14	WASHER, SPRING LOCK 1/4"	2
<b>MODEL R3355H BUMPER GUARD PARTS</b>		
1516	BOLT, SOC FLANGE HEX HD 1/4-20 X 3/4"	4
3335	ARM LOWER HANDLEBAR	1
3371	COVER, FRONT 4-HOLE	1
67535	BOLT, SOC BUTTON HD CAP SCR SS 1/4-20 X 1-1/2"	4
WF14	WASHER, FLAT 1/4"	4

### TINES & TRANSMISSION PARTS



PART #	DESCRIPTION	QTY.
1511	BOLT, SFHH 1/4-20 X 7/8"	9
1601	BEARING, TAPERED (includes cone & race)	1
1701	KEY, HALF MOON 1/4 X 1"	1
1810	SNAP RING, EXTERNAL	2
3116	GEAR, BRASS 1" ID	1
3122	SHAFT, DRIVE	1
3179	PULLEY, SINGLE GROOVE	1
3205W	BEARING, SEALED 1" ID (replaces 3205 bearing & 747 spacer)	2
3322	SHAFT, TINE 1"	1
3323	TINE SET, OUTSIDE RIGHT	1
3324	TINE SET, INSIDE	2
3326	TINE SET, OUTSIDE LEFT	1

PART #	DESCRIPTION	QTY.
3364	KEY 3/16 X 1/2"	1
504	LOCKWASHER, SPRING 5/16"	1
56100B	CASTING, RIGHT SIDE	1
56101B	CASTING, LEFT SIDE	1
60G56	NUT, BI-WAY LOCK 5/16-18	4
67538	NUT, NYLOC 1/4"	9
802	SCREW, HEX HD 5/16-24 X 3/4"	1
803	WASHER 5/16" ID X 1-5/8" OD	1
8655	BOLT, HEX HD 5/16-18 X 1-3/4"	4
8922	BEARING, BALL R12	1
8924	SNAP RING, EXTERNAL 3/4"	1
3310TRAN	TRANSMISSION, COMPLETE	1
3334	KIT, TINES W/ DRAG STAKE (not shown)	1

# Earthquake®

## FRONT TINE ROTOTILLERS

### 1-YEAR LIMITED WARRANTY

#### Terms and Conditions

Ardisam, Inc., a manufacturing company, warrants this **EARTHQUAKE® FRONT TINE ROTOTILLER** to be free from defects in the material or workmanship for a period of one year from the date of purchase. During the one year warranty of this product, Ardisam will furnish 100% parts and labor to correct any defect caused by faulty material or workmanship. Items subject to normal wear and tear, such as belts, batteries, tines, shear bolts and tires, due to the nature of their function are not covered under this warranty. Any unit used in a commercial application is covered for a period of 90 days after purchase. The engine is covered under a separate warranty issued by the engine manufacturer as stated in the engine manual.

If warranty work needs to be done, contact your place of purchase or Ardisam, Inc. for an authorized service center in your area. Ardisam will make the necessary repairs if a service center is not available. **To obtain warranty service and/or replacement instructions, you must have prior approval from Ardisam before shipping your package to us by calling our customer service department at 800-345-6007 for a return material authorization number (RMA#).** All items must be shipped prepaid. Ardisam, Inc. will at no charge, repair or replace, at their discretion, any defective part which falls under the conditions stated above.

Ardisam retains the right to change models, specifications and price without notice. This product if used as intended, will give you years of trouble free service. We hope you will enjoy the quality of our products for years to come.

**For replacement parts, phone 800-345-6007 or go online to [www.GetEarthquake.com](http://www.GetEarthquake.com).**

*This warranty applies to the original owner with a proof of purchase and is not transferable. It supersedes all other warranties either expressed or implied and all other obligations to liabilities on our part. Ardisam, Inc. does not assume, and does not authorize any other person to assume for us, any liability in connection with the sale of our products.*

*The warranty applies only to products which have not been subjected to negligent use, misuse, alteration, accident or repairs made by anyone not certified by Ardisam, Inc. This guarantee is void unless the warranty card is properly filled out and received by Ardisam, Inc., within 30 days of purchase or go to [www.GetEarthquake.com](http://www.GetEarthquake.com) for online registration.*



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