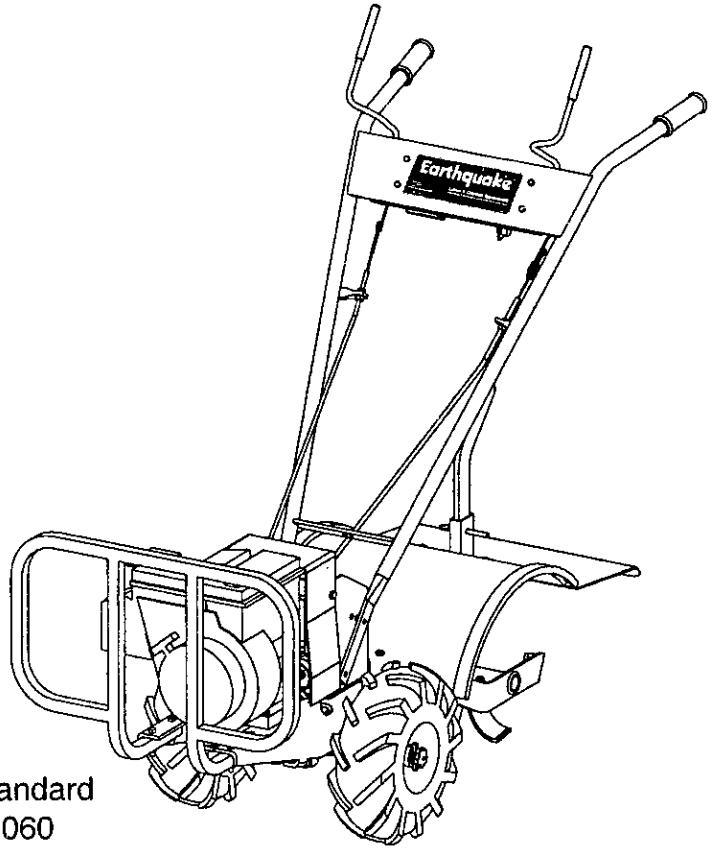
Earthquake®

Gear Drive Rototiller

Operator's Manual



Bumper Guard is a standard feature on Model 7060

Includes Models

7060, 7055, 7055

Kodiak Series

OM7060
Rev. 2/02

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MODEL IDENTIFICATION

Record your model number, manufacturer number and serial number in the space provided for easy reference. The model and manufacturer numbers can be found on the unit I.D. plate. Refer to the Engine Owner's Manual for location of engine serial number.

If you have a service problem requiring special assistance, contact a local dealer for help.

ROTOTILLER REFERENCE DATA	
Model Description/Number	
M/N (Manufacturer's Number)	S/N (Serial Number)
Dealer Name	Date Purchased
ENGINE REFERENCE DATA	
Engine Make/Model	Engine ID/Serial Number

⚠ 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.

⚠ WARNING

Engine exhaust from this product contains chemicals known, in certain quantities, to cause cancer, birth defects, or other reproductive harm.

Thank You . . .

for purchasing an Earthquake® Kodiak™ series rear tine rototiller. We guarantee that this rear tine rototiller conforms to applicable North American safety standards, and have worked to ensure that it will meet your exacting standards for usability and durability. With proper care, your rototiller will provide many years of service.

Please take time to read this manual carefully to learn how to operate and service your rototiller correctly. Failure to do so could result in personal injury or equipment damage. This manual should be considered a permanent part of your rototiller. Congratulations on your investment in quality.

TWO YEAR
LIMITED WARRANTY

The Ardisam, Inc., Manufacturing Company warrants this rototiller to be free from defects in material or workmanship. Conditions of this warranty include:

What is covered under warranty:

For the first year from the date of purchase, Ardisam will furnish 100% parts and labor to correct any defect caused by faulty material or workmanship. During the second year of ownership, Ardisam will furnish 100% of the parts to correct any defect caused by faulty material or workmanship. All repairs made under warranty must have prior approval from Ardisam, Inc. 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.

What is not covered under warranty:

This warranty applies only to products which have not been repaired or altered outside our factory. It covers only defects resulting from normal use, and does not cover defects arising from misuse, alteration, negligence, or accident. This warranty applies only to the original purchaser, and is not transferrable.

This warranty supersedes all other warranties either expressed or implied and all other obligations or 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. This guarantee is void unless the warranty card is properly filled out and returned to Ardisam, Inc., Cumberland, Wisconsin, within two weeks of the purchase date.

ARDISAM, INC.
1360 1st Avenue; P.O. Box 666
Cumberland, Wisconsin 54829
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SAFETY RULES

OWNER'S RESPONSIBILITY

Safe and effective use of the rototiller is the owner's responsibility.

1. Read and follow all safety instructions.
2. Maintain the tiller according to directions and schedule included.
3. Ensure that anyone who uses the tiller is familiar with all controls and safety precautions.

GENERAL

⚠ The Safety Alert symbol shown here is used to alert you to important safety information that must be read, fully understood, and followed at ***all*** times when handling, transporting, operating, servicing, or storing your rototiller unit.

Each safety alert symbol is followed by a "signal word" that advised you of the relative intensity, or level, of the hazard the safety alert instructions pertain to.

The following list of signal words is being provided to help you understand the intensity levels associated with each signal word used in this manual.

⚠ **DANGER**

The signal word "DANGER" is used when a serious injury or fatality will result if the safety instructions that follow this signal word are not obeyed.

⚠ **WARNING**

The signal word "WARNING" is used when a serious injury or fatality could result if the safety instructions that follow this signal word are not obeyed.

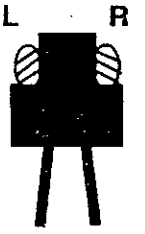
⚠ **CAUTION**

The signal word "CAUTION" is used when personal injury, or property or equipment damage could result if the safety instructions that follow this signal word are not obeyed.

- **CAREFULLY READ THIS MANUAL AND FOLLOW ALL INSTRUCTIONS.**
- Be familiar with all controls before operating the tiller. 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 works and how to control the tiller at all times.
- Never allow children to operate the tiller. Keep small children away from the area being tilled. Do not allow adults to operate the tiller without proper instruction.

IMPORTANT

The right and left sides of your rototiller are determined from the operating position as you face the direction of forward travel.



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 shift into neutral 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.
  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.

IMPORTANT

Engine is shipped from factory without oil. You must add engine oil before starting engine.

OPERATION

- Never operate the tiller without guards, covers, and hoods in place.
- Never start the engine or operate the tiller with the wheels in the free-wheel position. Make sure the wheel lockouts or lockpins are engaged through wheel hubs and wheel axle. The wheels act as a brake to keep the tiller at a controlled speed. Disengage wheels to permit free-wheeling only when engine is stopped.
- Keep hands, feet, and clothing away from rotating parts. Keep clear of tiller tines at all times.
- Tines and wheels rotate when tiller is engaged in ***forward*** or ***reverse***-- in ***forward***, tines and wheels rotate when the drive safety control levers are pulled down; in ***reverse***, wheels and tines rotate when the reverse handle is pulled back towards the operator. Releasing the drive safety control levers to ***neutral*** stops the wheels and tines.
- Be extremely cautious when operating in ***reverse***. Take extra care to avoid slipping or falling, and to keep feet clear of tines.
- Exercise 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, raise the handlebars to elevate the tines, and run the tiller in ***reverse***. If this does not clean clogged vegetation from 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 dangerous.
- Do not overload the machine capacity by attempting to till too deep at too fast a rate.
- Never operate the machine at high transport speeds on slippery surfaces. Look behind and use care when backing.
- Never allow bystanders near the unit.
- Use only attachments and accessories approved by the manufacturer of the tiller.
- 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 controls 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.

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

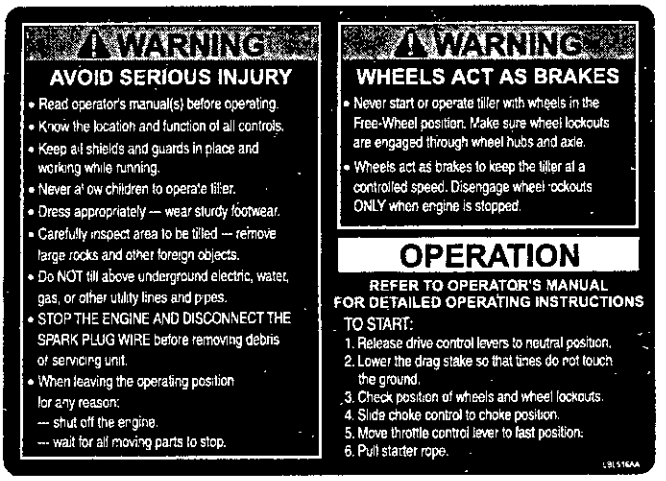
This rototiller unit has been designed and manufactured to provide you with the safety and reliability you would expect from an industry leader in outdoor power equipment manufacturing.

Although reading this manual and the safety instructions it contains will provide you with the necessary basic knowledge to operated 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, and 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 these 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.

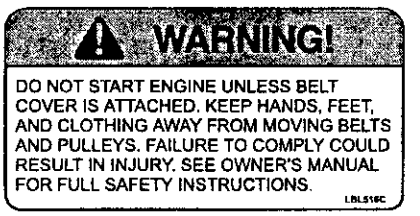
These labels are easily applied, and will act as a constant visual reminder to you, and others who may use the equipment, to follow the safety instructions necessary for safe, effective operation of your rototiller.



Part No. LBL516AA
OPERATING INSTRUCTIONS-WARNING / Hood Decal

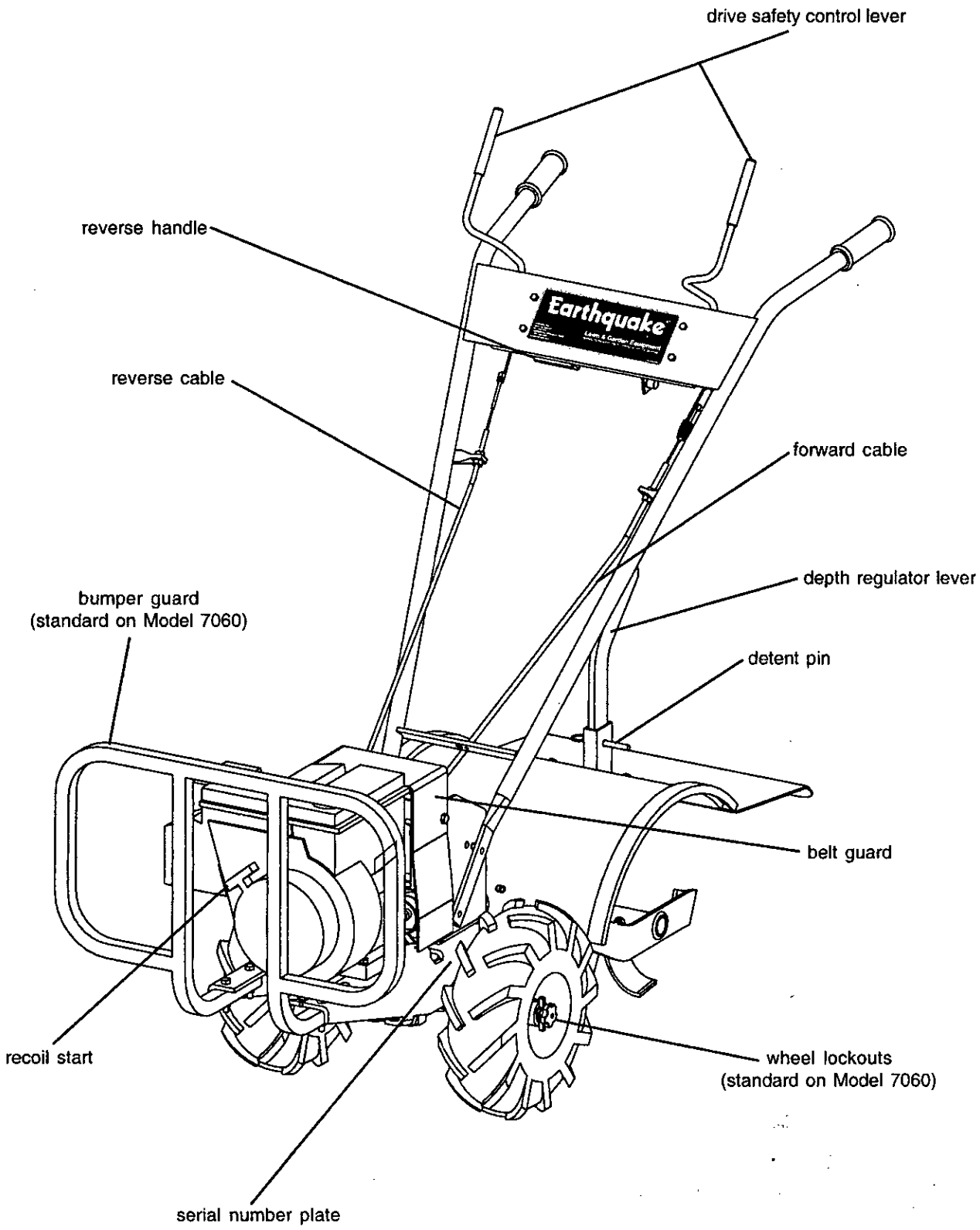
Part No. 1716839
FREE HAND / Bumper Guard Decal

Part No. 1716840
TINES DANGER / Hood Flap Decal



Part No. 1716800
WARNING / Belt Cover Decal

MODEL 7060

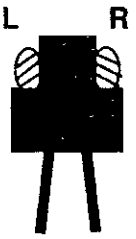

drive safety control lever
reverse handle
reverse cable
forward cable
depth regulator lever
bumper guard
(standard on Model 7060)
detent pin
belt guard
recoil start
wheel lockouts
(standard on Model 7060)
serial number plate
Earthquake

UNPACKING AND ASSEMBLY

Your rototiller comes fully assembled except for a few parts. The following instructions will help you unpack your tiller and assemble and adjust your tiller's depth regulator lever, cable tension and handlebar height. You will need 2- 9/16" wrenches.

IMPORTANT

The right and left sides of your rototiller are determined from the operating position as you face the direction of forward travel.



UNPACK TILLER

1. Open top of carton and remove handlebar assembly.

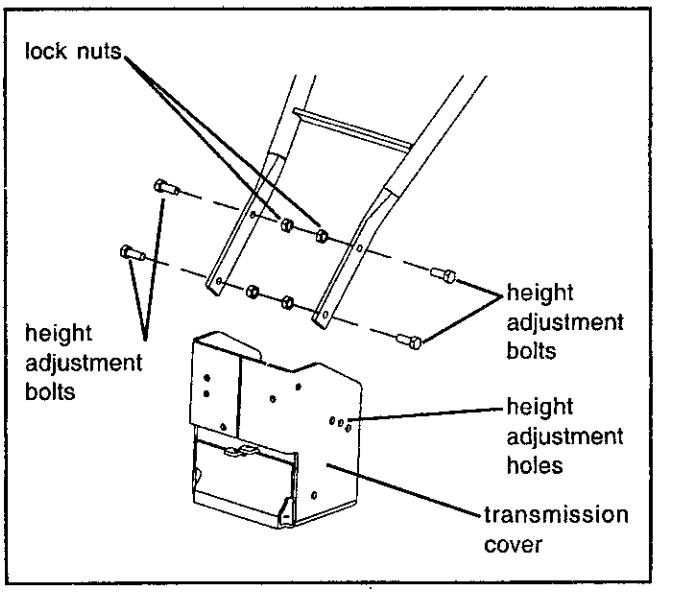
⚠ CAUTION

Do not try to lift the rototiller from the carton.

2. Find parts packet. Parts packet contains:
   - 4- 3/8"-16 x 1" hex head bolts
   - 4- 3/8"-16 locknuts
   - 1- detent pin
3. Cut open end of carton and remove machine by:
   a. Removing lockouts on wheels.
   b. Roll tiller from carton.

ATTACH HANDLEBAR TO TILLER

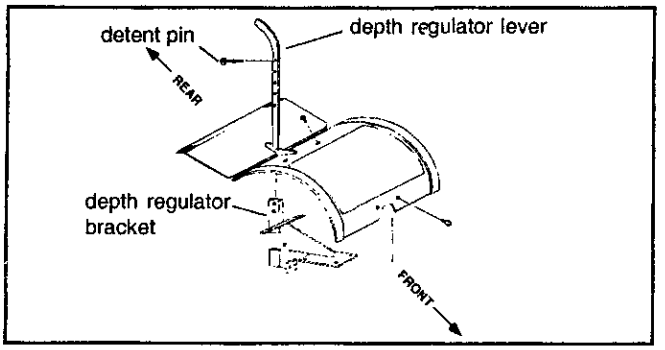
1. Place handlebar stems on outside of transmission cover and align lower holes.
2. Insert one 3/8"-16 x 1" bolt for each side in lower holes.
3. Start 3/8"-16 nuts on each bolt.
4. Insert one 3/8"-16 x 1" bolt for each side in upper holes at desired handlebar height.
5. Tighten all 3/8"-16 nuts.



INSTALL THE DEPTH REGULATOR LEVER

1. Install the depth regulator lever into the top of the depth regulator bracket with handle facing rearward.
2. Insert detent pin through depth regulator bracket and top hole of depth regulator lever--tines should clear the ground.

NOTE: The rototiller is now in the transport position.



FILL ENGINE CRANKCASE

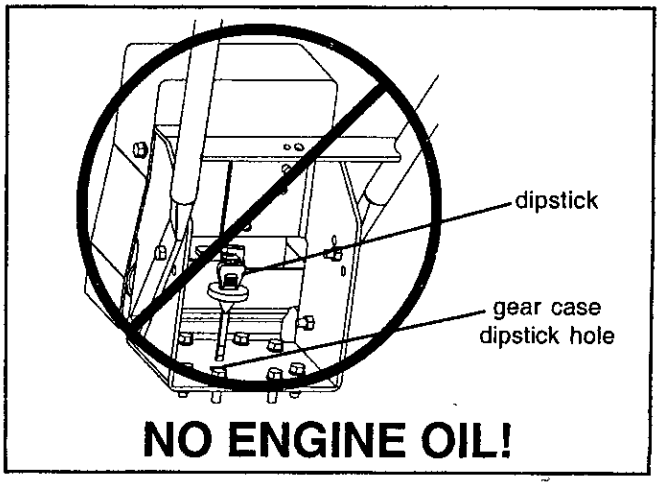
IMPORTANT

Engine is shipped from factory without oil. You must add engine oil before starting engine.

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.

⚠ CAUTION

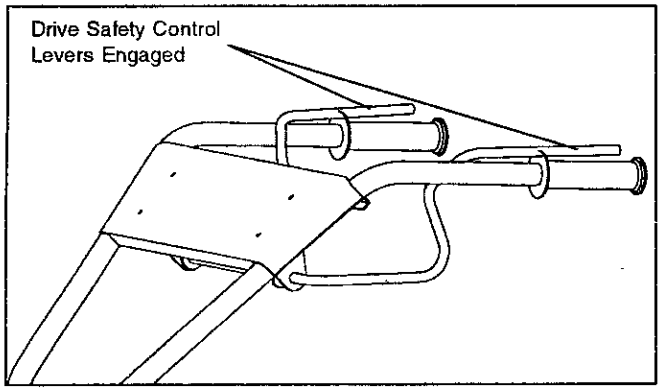
Do not add engine oil into gear case dipstick hole.



DRIVE SAFETY CONTROL LEVERS

Engage wheels and tines into forward, releasing returns machine to neutral.

Pulling down on drive safety control levers engage the wheels and tines. Releasing drive safety control levers disengages the wheels and brings the tiller to a complete stop. It is now in the neutral position.



⚠ 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 12. Please read this section and all operating and safety instructions before starting your tiller.

⚠ WARNING

ENGINE SHOULD BE OFF BEFORE ADJUSTING ANY CONTROLS.

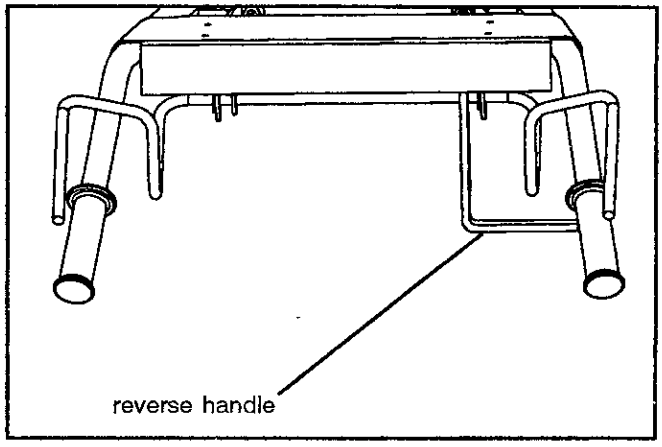
⚠ CAUTION

- **As a safety precaution, the drive safety control levers will not lock in the forward position.**
- **To stop the wheels and tines at any time release the drive safety control levers.**

REVERSE HANDLE

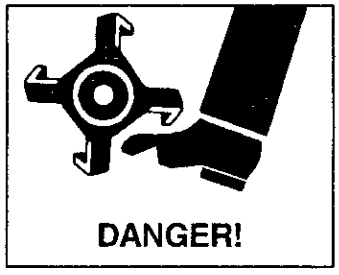
Engages wheels and tines in reverse.

Pulling reverse handle back towards operator reverses tiller.



⚠ WARNING

Extreme caution should be used when operating rototiller in the reverse direction.



DANGER!

⚠ CAUTION

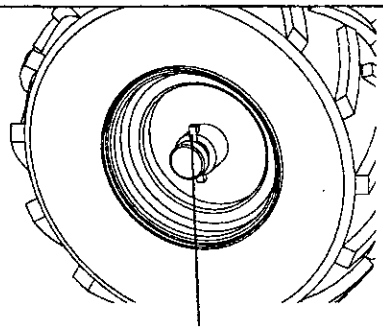
- **As a safety precaution, the reverse handle will not lock in reverse.**
- **To stop the wheels and tines at any time, release the reverse handle.**
- **Do not operate both the reverse handle and drive safety control levers at the same time.**

WHEEL LOCKOUTS (7060)

Place wheels in tilling position.

1. Pull knob in center of wheel out, away from machine.
2. Rotate knob and lockout to align with slot on axle, release knob. Rotate wheel to align slot in wheel hub with lockout.
3. Wheel and axle should be firmly locked together before tilling.
4. Repeat for other wheel.

Model 7060



Wheel lockout in tilling position.
(hub & axle slot)

NOTE: Always have both wheel lockouts in or out. Do not operate tiller with only one wheel locked.

To place wheels in free-wheel position.

1. Pull knob in center of wheel out, away from machine.
2. Rotate knob and lockout to align lockout with detent in end of axle. Release knob.
3. Wheel should turn freely on axle.

WHEEL LOCKPINS (7055/7050)

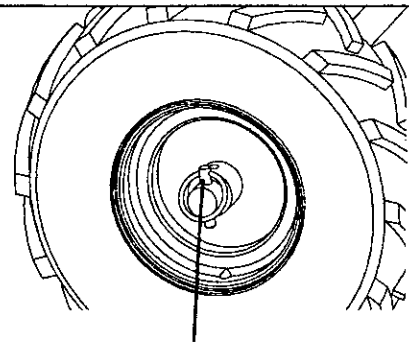
Place wheels in tilling position.

1. Remove lockpin. Align hole in axle with hole in wheel hub.
2. Insert lockpin through holes, fold lockpin ring to secure pin to axle.
3. Wheel and axle should be firmly locked together before tilling.
4. Repeat for other wheel.

⚠ WARNING

Never start engine or operate tiller with wheels in free-wheel position. The free-wheel position is for transporting the tiller long distances over level ground--do not attempt to move the tiller up or down steep grades in the free-wheel position.

Models 7055/7050



Wheel lockpin in free-wheel position.
(axle hole only)

NOTE: Always have both wheel lockouts in or out. Do not operate tiller with only one wheel locked.

To place wheels in free-wheel position.

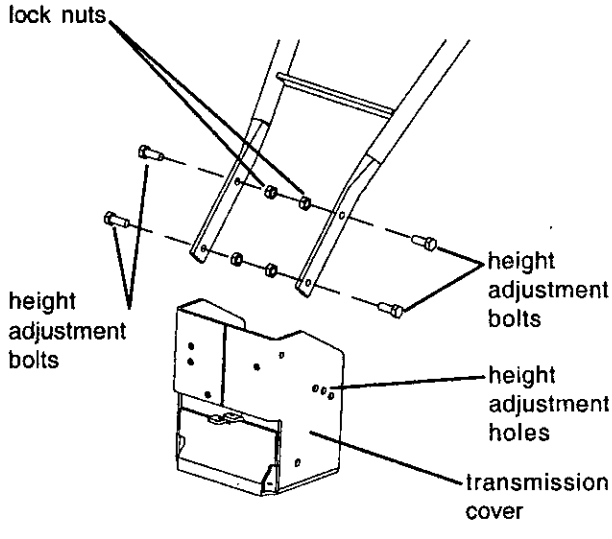
1. Remove lockpin. Slide wheel inward toward machine.
2. Insert pin in axle only.
3. Wheel should turn freely on axle.

HANDLEBAR HEIGHT ADJUSTMENT

Adjust handlebar height.

The ideal height of the handlebar varies with operator height and the depth of tilling. To adjust handlebar height:

1. Unscrew nuts and remove top bolt on each side until handlebar moves freely up and down.
2. Align handlebar to desired hole on the transmission cover.
3. Install bolts and nuts. Retighten.



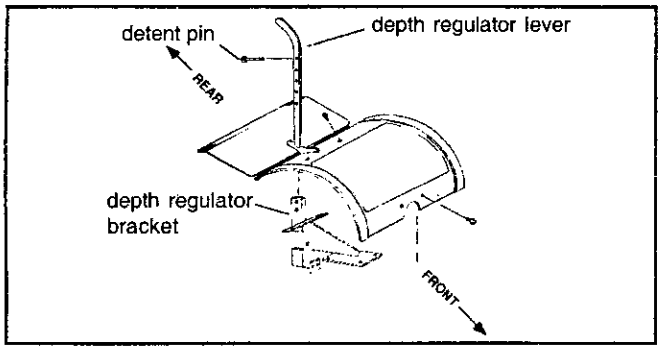
ADJUSTMENTS

DEPTH REGULATOR LEVER

Tilling depth is controlled by the height of the depth regualtor 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.



Depth Regulator Lever Down = Shallower tilling. Place the detent pin in the top hole of the depth regulator lever for shallowest tilling.

Depth Regulator Lever Up = Deeper tilling. Place the detent pin in the bottom hole of the depth regulator lever for deepest tilling.

⚠ WARNING

Always set the depth regulator lever in the transport position before starting engine, that is, place the detent pin in the highest hole of the depth regulator lever.

⚠ WARNING

Do not adjust tilling depth unless drive safety control levers are released to neutral position.

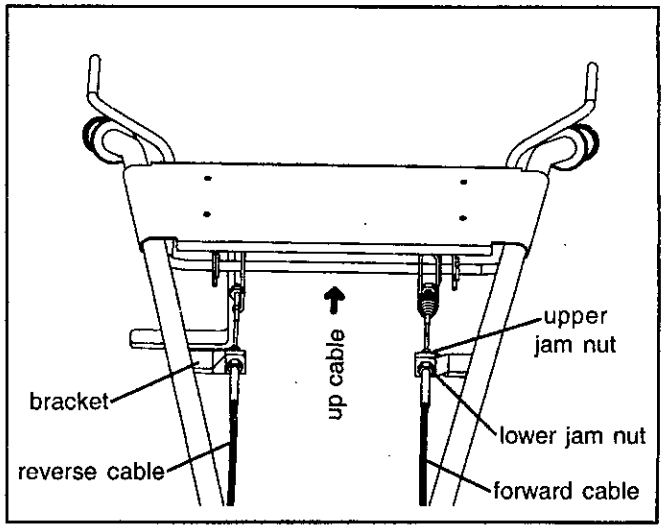
BELT TENSION ADJUSTMENT

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.



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 and wheel lockouts.
7. Check depth regulator lever position.

⚠ 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, Adjustments 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.

⚠ WARNING

Wheels must always be locked in the TILLING position when engine is running. Do not operate the tiller with the wheel lockouts unlocked. Always set the wheels in tilling position before starting engine.

⚠ WARNING

Always put the depth regulator lever in the transport position before starting engine. Tines should clear the ground.

IMPORTANT

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

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, gruadually 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.
3. Adjust throttle speed to "high" for best tiller action.

Idle Speed

Use the "low" position on the throttle lever to reduce stress on the engine when tilling is not being performed. Lowering the engine speed to "idle" the engine will help extend the life of the motor, as well as conserve fuel and reduce the noise level of the equipment.

Operating Speed

For normal tilling, set the throttle lever to "fast".

⚠ DANGER

Always keep hands and feet clear of rotating machine parts.

⚠ WARNING

Temperature of muffler and near by areas may exceed 150° F. Avoid these areas.

⚠ WARNING

Do not move choke control to CHOKE to stop engine. Backfire or engine damage may occur.

SHUTTING DOWN

⚠ 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.

⚠ WARNING

To stop the engine at any time, move throttle control to the off position. To stop wheels and tines at any time, release drive safety control levers to 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 ***forward*** by pushing down on the drive safety control levers--this will engage the wheels and tines.

NOTE: You can slow the tiller's forward advance at any time by putting slight downward pressure on the handlebars, or you can stop the tiller by releasing the drive safety control levers to the neutral position.

⚠ WARNING

To stop wheels and tines at any time, release drive safety control levers to neutral position.

⚠ WARNING

Always release drive safety control levers to neutral position before adjusting the depth regulator lever.

IMPORTANT

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, how to keep control at all times, how to stop the tines and wheels from turning, and how to stop the engine if necessary. If you do not know how to do these things, read the Controls, Adjustments and Safety sections before proceeding.

TILLING TIPS

The key to successful tilling is to begin with a shallow cut on the first pass, and then work an inch or two deeper on each successive pass.

- Tilling depth will vary with ground conditions.
- When beginning to till in unbroken ground or in extremely hard soil, set the detent pin in the highest hole of the drag stake (follow instructions under Tilling on previous page). This will allow for shallow tilling. With the drag stake in this position, make several light passes over the area to be tilled. Reset for deeper depths with successive passes.
- If tiller jumps or skids uncontrollably, lower the drag stake by placing the detent pin in a higher hole. This will allow for shallower tilling. Hold firmly to the handlebars to control sudden lurches.
- If weeds, tall grasses, vines, or other materials clog or jam the tines, reverse the tiller to unwind vegetation.

Immediately release the drive control levers if the tines jam or you strike a foreign object. With drive control levers in neutral, push throttle control to ***stop*** *position to stop the engine. Disengage the spark plug wire. When tines have stopped, remove foreign objects and check for damage.*

CULTIVATING TIPS

If you plan to use your tiller for cultivating:

- Plant rows on 20" - 22" centers for ease of turning.
- Set the depth regulator lever with the detent pin in one of the higher holes. This will allow the shallow cultivation necessary to turn over weeds, and break up and aerate the soil.

⚠ 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.

⚠ WARNING

If removing material from the tines by hand, stop engine and remove spark plug wire first.

NORMAL CARE

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 whenever you wish to till your garden.

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

Maintenance Operation	*Page*	*Before Each Use*	*50 hrs or Every Season*
Check forward/reverse belt tension	*16*	*X*	
Change forward/reverse belt	*17*		*X*
Engine maintenance	*18*	*X*	*X*
Check or fill engine crankcase	*18, EM*	*X*	*2*
Check tiller transmission grease	*19*	*X*	
Check tire pressure	*19*	*X*	
Lubrication	*19*	*X*	
Clean tine axle shaft	*19*	*X*	
Lubricate wheel axle shaft	*20*		*X*
Check throttle control adjustment	*EM*		*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

General

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.

Check Forward Belt Tension

Forward 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:

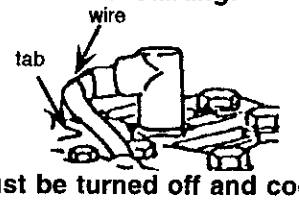
1. Turn off engine. Engine must be cool.
2. Remove and secure spark plug wire from spark plug.
3. With drive safety control levers in neutral position, measure length of spring when compressed.
4. Pull down on drive safety control levers and remeasure length of spring when stretched out. Ideal length would be 1/4" longer.

Check Reverse Belt Tension

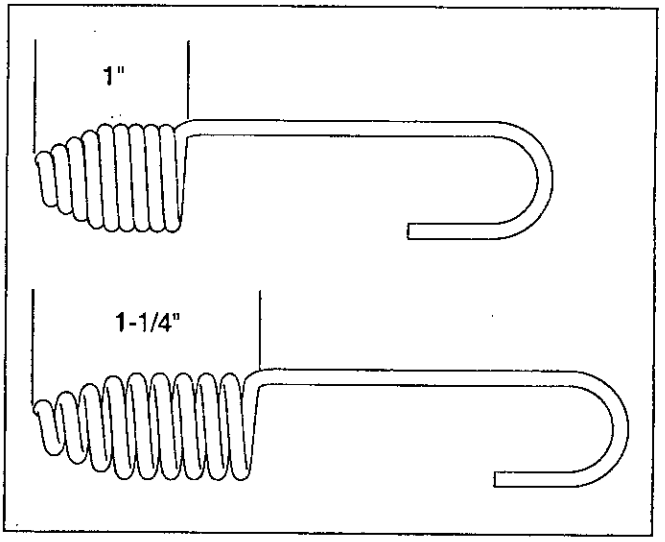
Reverse belt tension is not adjustable.

⚠ 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.

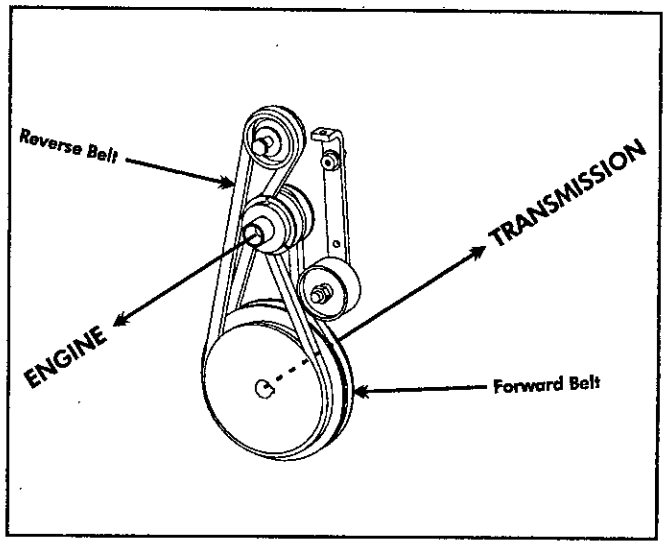


⚠ WARNING

Check forward belt tension regularly. Too much or too little tension will cause premature belt failure.

Change Forward/Reverse Belt

1. Turn off engine. Engine must be cool.
2. Remove spark plug wire and secure from spark plug.
3. Remove belt guard.
   - ✯ remove the forward belt from the forward engine pulley:
     - gently pull the engine recoil rope to rotate the pulley.
     - with the pulley turning, force the forward belt out of the V-groove.
     - slide the belt free of the engine pulley.
     - pull the forward belt down and out of the way.
   - ✯ remove the reverse belt from the reverse engine pulley:
     - gently pull the engine recoil rope to rotate the pulley.
     - with the pulley turning, force the reverse belt out of the V-groove.
     - slide the belt free of engine pulleys and reverse belt guides.
     - pull belt down and away from transmission pulley.
   - ✯ install new reverse belt:
     - thread belt up from bottom.
     - place belt around transmission pulley in groove.
     - place belt under reverse belt guides.
     - gently pull engine recoil rope while forcing the belt over the edge of the engine pulley into the V-groove.
   - ✯ install new forward belt:
     - place forward belt in transmission pulley groove.
     - gently pull the engine recoil rope to rotate the pulley while forcing the forward belt into the V-groove.
4. Replace belt guard.
5. Attach spark plug wire.



BELT REPLACEMENT PART #'S:

727A (forward)

730 (reverse)

⚠ 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.

IMPORTANT

Engine can overheat and become damaged if debris blocks the cooling system or rotating screen.

IMPORTANT

Never run engine without complete air cleaner installed on engine.

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:

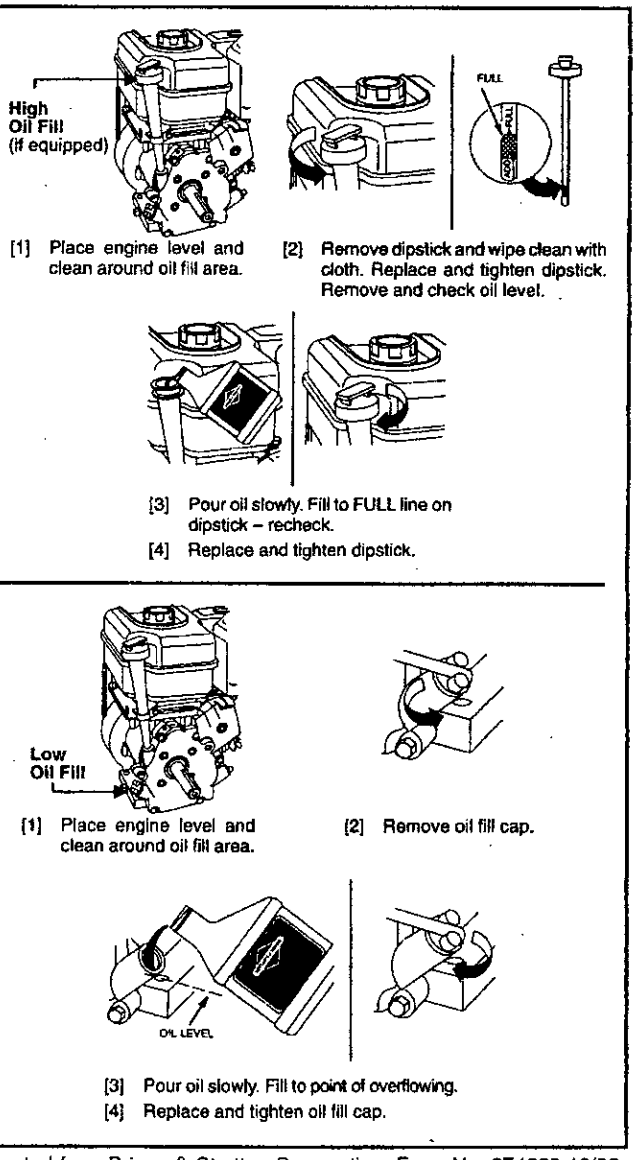
1. Check oil level before each use or after every 8 hours of operation.
2. Change oil after first 5-8 hours of operation. Change oil while engine is warm. Refill with new oil of recommended grade.
4. Check spark plug yearly or every 100 hours of operation.
5. Service air cleaner.
6. Keep engine and parts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

IMPORTANT

Engine is shipped from factory without oil. You must add engine oil before starting engine.

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.
2. Always check oil level before starting engine. Refer to engine manual for capacity and type of oil to use.



[1] Place engine level and clean around oil fill area.

[2] Remove dipstick and wipe clean with cloth. Replace and tighten dipstick. Remove and check oil level.

[3] Pour oil slowly. Fill to FULL line on dipstick – recheck.

[4] Replace and tighten dipstick.

[1] Place engine level and clean around oil fill area.

[2] Remove oil fill cap.

[3] Pour oil slowly. Fill to point of overflowing.

[4] Replace and tighten oil fill cap.

Adapted from Briggs & Stratton Corporation, Form No. 274263-10/99.

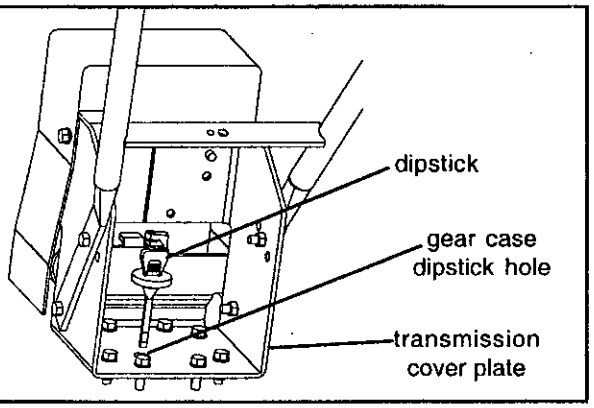
Check Tiller Transmission Grease

IMPORTANT

TILLER TRANSMISSION IS SHIPPED FROM FACTORY WITH THE PROPER AMOUNT OF LIQUID GREASE.

Check the grease level annually. To check the grease level:

1. Move tiller to level ground.
2. Remove grease level dipstick located between the handlebar mounts in the front transmission cover. Correct grease level is indicated between the high and low levels on the dipstick.
3. Replace grease level dipstick in the filler hole.
4. Note that the front wheel transmission and rear tine transmission are one common reservoir. When you add to the front transmission, you must wait a short period of time for the grease to flow rearward and equalize in both front and rear. The dipstick will read correctly on level ground for both gear units.



IMPORTANT

When replacing grease, the tiller transmission holds 18-22 ounces. DO NOT OVERFILL.

Check Tire Pressure

Recommended tire pressure is 20 PSI. If tires do not have equal pressure, tiller will pull to one side.

Lubrication

Proper lubrication of moving mechanical parts of your rototiller is a very important part of care and maintenance. You should oil the moving parts shown at 10 hour intervals using a 30 weight oil.

Clean Tine Axle Shaft

1. Turn off engine. Engine must be cool.
2. Remove spark plug wire and secure from spark plug.
3. Tip the tiller forward. Block the tiller in position so that it rests on the engine mount and the tines are exposed.
4. 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.
5. Tip the tiller back to a level position.
6. Replace spark plug wire.

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:
   - Loosen locking bolt inside wheel. Slide wheel toward machine.
   - Coat the axles lightly with axle grease.
   - Move wheel back into position and snug locking bolt. Back off locking bolt 1/16 turn and lock jam nut.
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 and 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 away. 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.

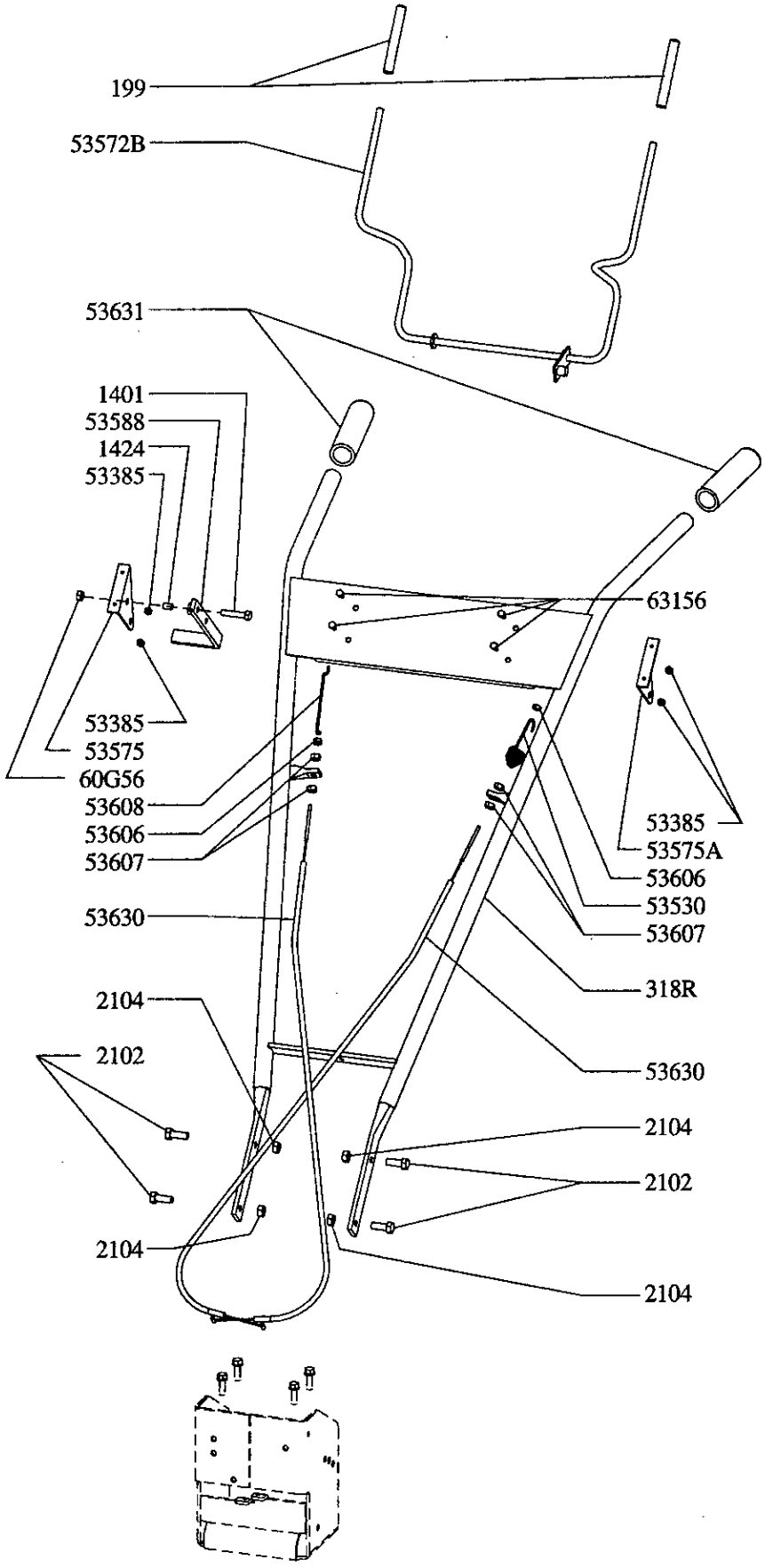
Failure to comply with this safety requirement can result in serious personal injury to you or bystanders.

PROBLEM	REMEDY/ACTION
Engine will not start	• Add gas to gas tank. • Connect spark plug wire to spark plug • Throttle must be positioned at choke for a cold start
Engine runs rough, floods during operation	• Clean or replace air cleaner
Engine is hard to start	• Drain old fuel and replace with fresh. Use gas stabilizer at end of season • Make sure spark plug wire is securely attached to spark plug • Drive safety control levers must be released to ***neutral*** to start the engine
Engine misses or lacks power	• Raise the tines for shallower tilling by lowering the depth regulator lever • Remove and clean fuel tank • Clean or replace air cleaner • Improper carburetor adjustment, take to authorized Briggs & Stratton service center • Replace spark plug and adjust gap • Drain and refill gas tank and carburetor
Engine will not stop when throttle control is positioned at stop	• See engine manual to check and adjust throttle linkage
Tiller moves forward during starting	• Drive safety control levers must be released to ***neutral*** to start the engine
Tiller is difficult to control when tilling (machine jumps or lurches forward)	• Lock wheels in tilling position • Raise the tines for shallower tilling by lowering the depth regulator lever
Tines turn, wheels do not turn	• Lock wheels in tilling position • Internal transmission failure, see your dealer
Tines turn, wheels turn, tiller does not move	• Lower the tines for deeper tilling by raising the depth regulator lever

PROBLEM	REMEDY/ACTION
Belts squeal in neutral and/or reverse	• Adjust forward belt guide: - turn engine off and allow muffler to cool - disconnect spark plug wire and secure from spark plug - remove belt guard - pull down on drive safety control levers - manually bend forward belt guide so there is 1/16 inch or less clearance between belt guide and belt - replace belt guard and spark plug wire
Belts squeal in forward operation	• Adjust tabs on the reverse belt guide - turn engine off and allow muffler to cool - disconnect spark plug wire and secure from spark plug - release drive safety control levers to ***neutral*** - remove belt guard - adjust tabs of reverse belt guide: while drive safety control levers are released, bend metal tabs on reverse belt guide to 1/64 inch or less clearance from reverse belt - replace belt guard and spark plug wire
Excessive heat build up in transmission/tine area during tilling	• Remove vegetation by following instructions in Clean Tine Axle Shaft of Normal Care section. FOLLOW ALL SAFETY INSTRUCTIONS • Check transmission fluid and fill if needed

NOTES

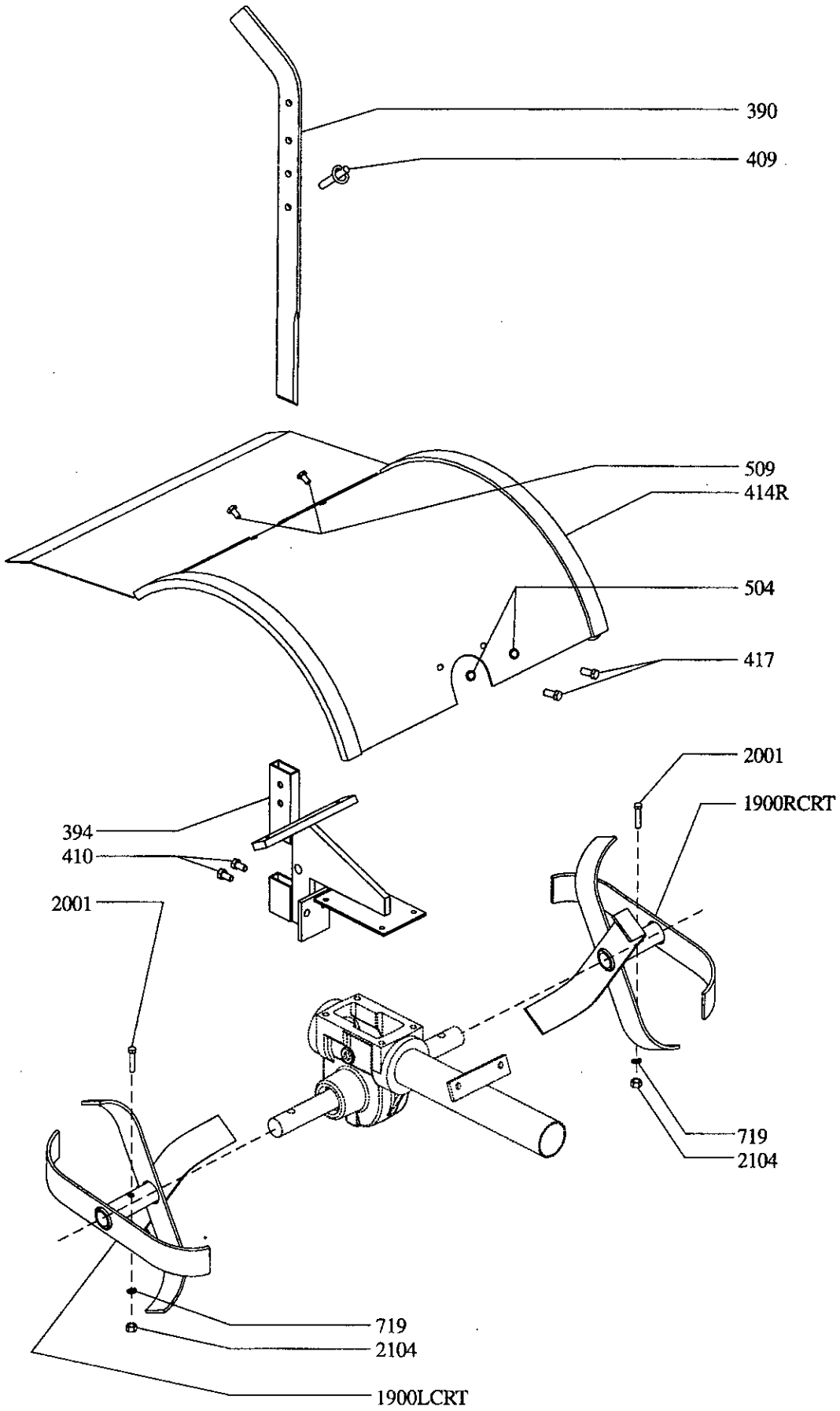
7060/7055/7050 Handlebar Assembly



7060/7055/7050 Handlebar Assembly

PART #	DESCRIPTION	QTY.
60G56	NUT-Bi-Way Lock, 5/16"-18	1
199	HANDLE GRIP-Drive Control Lever	2
318R	HANDLEBAR ASSEMBLY	1
1401	BOLT-Hex Hd, 5/16"-18 x 1-1/4"	1
1424	BUSHING-Pivot, 5/16"	1
2102	BOLT-Hex Hd, 3/8"-16 x 1", Grade 5	4
2104	NUT-Hex, 3/8"-16	4
53385	NUT-Keps, 10-24	4
53530	SPRING-Bee Hive, Forward Cable Adjust	1
53572B	DRIVE CONTROL LEVER	1
53575	BRACKET-Drive Control Lever, Right	1
53575A	BRACKET-Drive Control Lever, Left	1
53588	REVERSE HANDLE	1
53606	NUT-Nyloc, #10	2
53607	NUT-Jam, 5/16"-24	4
53608	REVERSE LINK	1
53630	CABLE ASSEMBLY	2
53631	HANDLE GRIP, No Flange, Black	2
63156	SCREW-Button Hd Torx, 10-24 x 1/2", T-25	4
LBL516B	DECAL-Forward/Reverse Instructions (Console)	1
LBL200201	DECAL-Earthquake Lawn & Garden Equipment (Handlebar Dash)	1

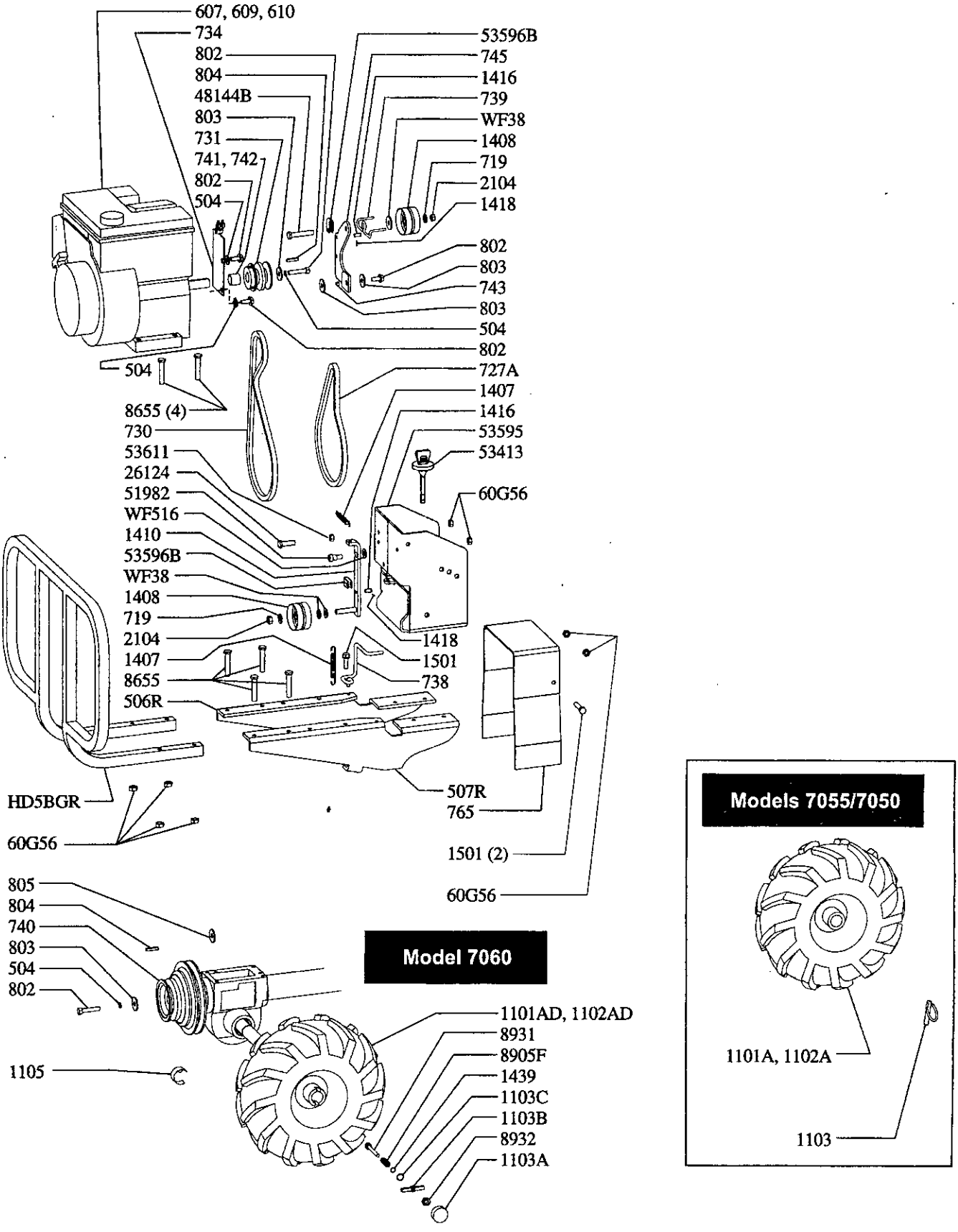
7060/7055/7050 Tines & Hood Assembly



7060/7055/7050 Tines & Hood Assembly

PART #	DESCRIPTION	QTY.
390	DEPTH REGULATOR LEVER, 4-holes	1
394	BRACKET-Depth Regulator, 2-holes	1
409	DETENT PIN, 5/16"	1
410	BOLT-Hex Flange Head, 5/16-18 x 1/2", Grade 5	2
414R	HOOD-Tiller, w/o Decals	1
417	BOLT-Hex Hd, 5/16-18 x 1/2", Grade 5	2
504	LOCKWASHER-Spring, 5/16"	2
509	BOLT-Hex Hd, 1/4-20 x 1/2"	2
719	LOCKWASHER-Spring, 3/8"	2
1900LCRT	BOLO TINE SET-Double, Left Side, Complete Assembly	1
1900RCRT	BOLO TINE SET-Double, Right Side, Complete Assembly	1
2001	BOLT-Hex Hd, 3/8-16 x 1-3/4"	2
2104	LOCKNUT-Hex, 3/8-16	2
LBL516AA	DECAL, Operating Instructions (Tine Hood)	1
LBL516E	DECAL, Tine Danger (Tine Hood Flap)	1
LBL200207	DECAL-Kodiak 7055/7050 (Tine Hood Flap)	1
LBL200208	DECAL-Kodiak Plus 7060 (Tine Hood Flap)	1

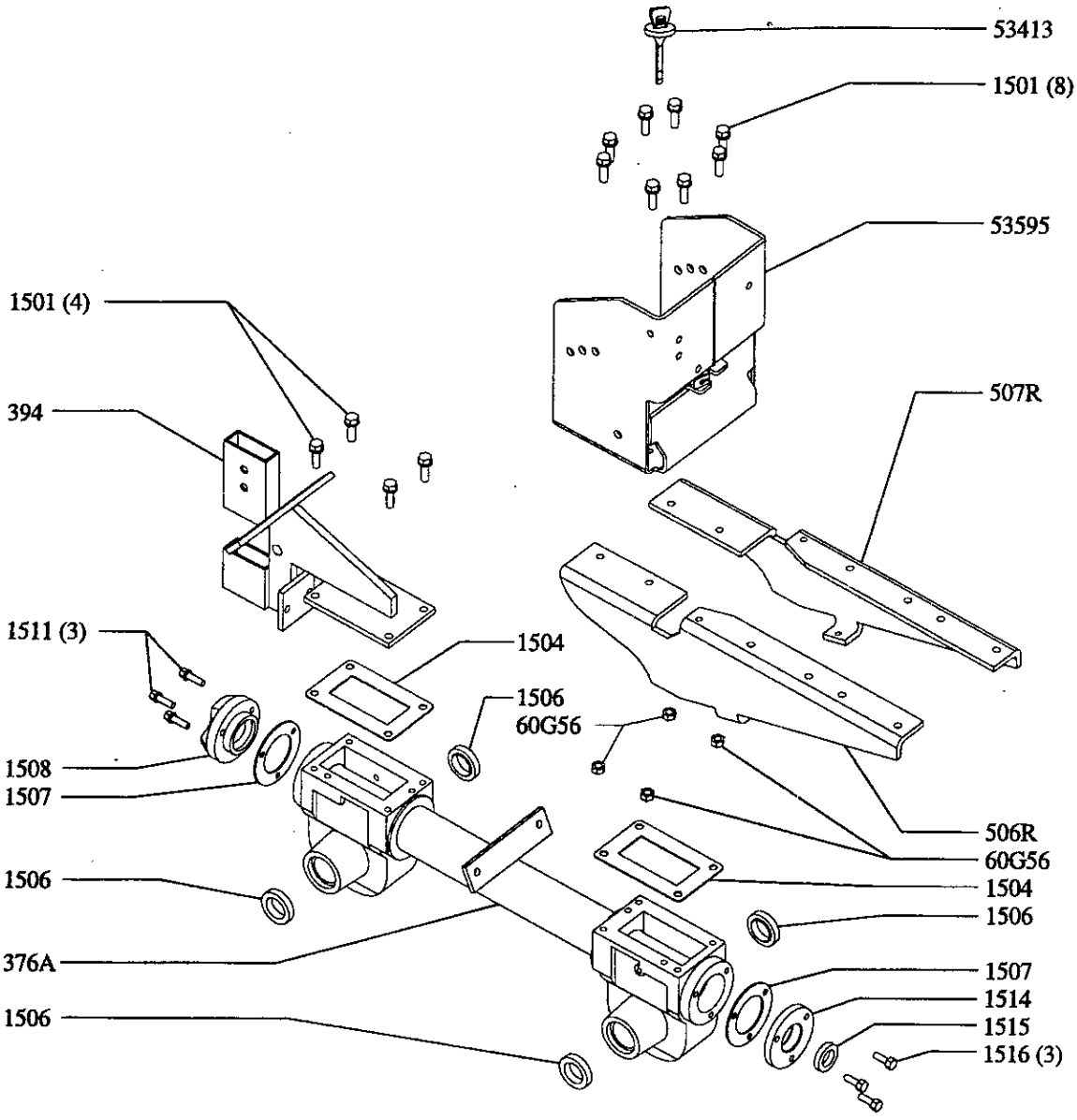
7060/7055/7050 Motor Mount Assembly



7060/7055/7050 Motor Mount Assembly

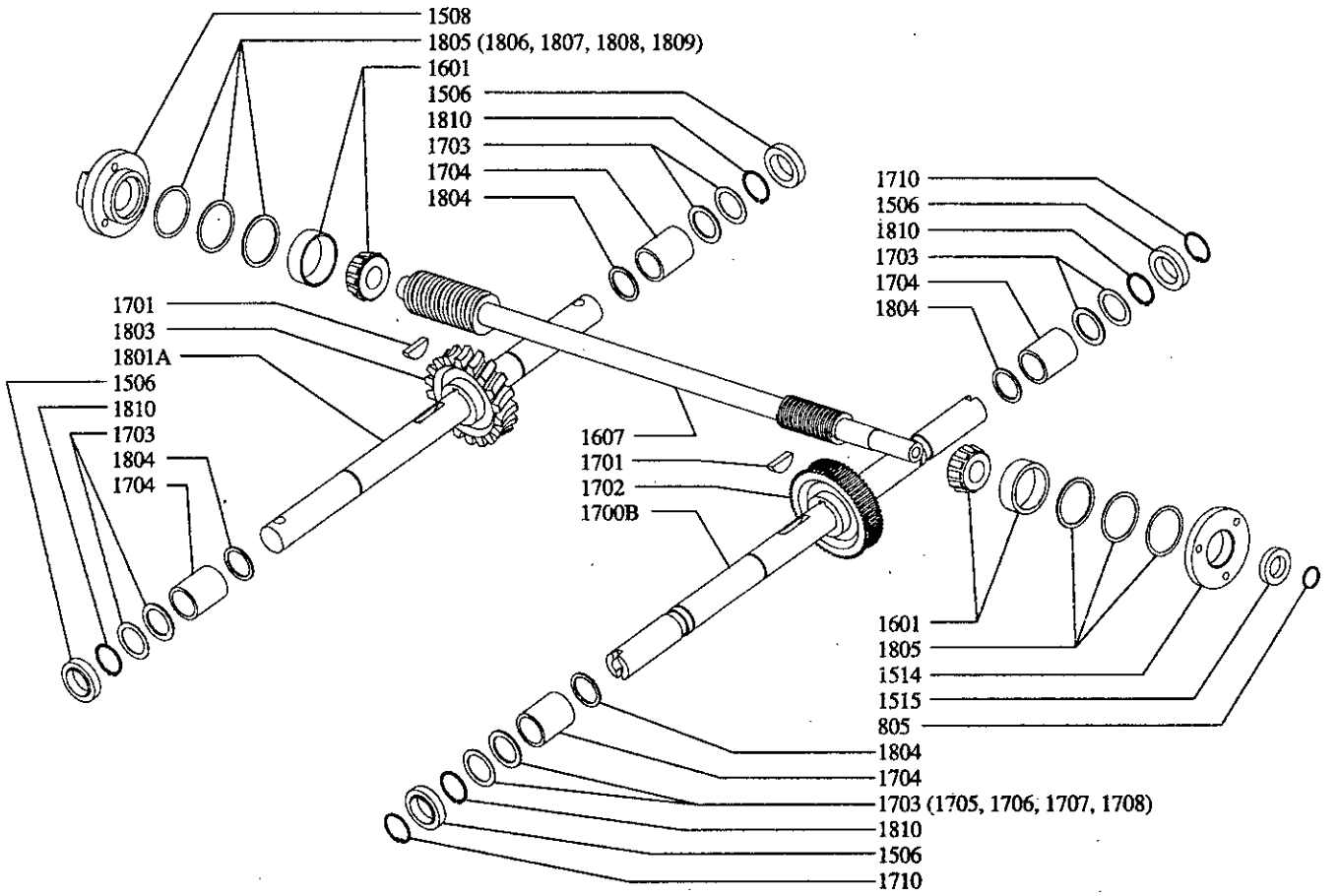
PART #	DESCRIPTION	QTY.
60G56	NUT-Bi-Way Lock, 5/16-18	8
504	LOCKWASHER-Spring, 5/16"	4
506R	BRACKET-Motor Mount, Right	1
507R	BRACKET-Motor Mount, Left	1
607	ENGINE, 5-hp Tecumseh Enduro (7050)	1
609	ENGINE, 6-hp Tecumseh Enduro (7060)	1
610	ENGINE, 5.5-hp Briggs & Stratton Intek (7055)	1
719	LOCKWASHER-Spring, 3/8"	2
727A	BELT-Forward	1
730	BELT-Reverse	1
731	PULLEY-2 Groove, Engine	1
734	BRACKET-Engine	1
738	BELT GUIDE-Forward	1
739	BELT GUIDE-Reverse	1
740	PULLEY-2 Groove, Transmission	1
741	SPACER-Engine, Long (Tec)	1
742	SPACER-Engine, Short (Briggs)	1
743	BUSHING	1
745	PIVOT ARM-Reverse (Revised)	1
765	BELT COVER	1
802	BOLT-Hex Hd, 5/16-24 x 3/4", Grade 5	5
803	WASHER, 5/16" ID x 1-5/8" OD, Engine Pulley	4
804	KEY, 3/16 x 1"	2
805	WASHER-Flat, 11/16" ID, Transmission Pulley	1
1101A	WHEEL/TIRE ASSEMBLY, Left Side (7050, 7055)	1
1101AD	WHEEL/TIRE ASSEMBLY, Left Side (7060)	1
1102A	WHEEL/TIRE ASSEMBLY, Right Side (7050, 7055)	1
1102AD	WHEEL/TIRE ASSEMBLY, Right Side (7060)	1
1103	LOCKPIN (7050, 7055)	2
1103A	KNOB-Wheel Lockout (7060)	2
1103B	BUTTERFLY, Set of 2 (7060)	2
1103C	SNAP RING (7060)	2
1105	"C" CLAMP, Lockout Wheels (7060)	2
1407	SPRING-Idler Arm	2
1408	PULLEY-Forward/Reverse Idler	2
1410	IDLER ARM-Forward	1
1416	LINK PIN-Forward/Reverse	2
1418	COTTER PIN	2
1439	WASHER, 1/4" ID	2
1501	BOLT-Hex Flange Head, 5/16-18 x 3/4", Grade 5	3
2104	NUT-Hex, 3/8-16	2
8655	BOLT-Hex Hd, 5/16-18 x 1-3/4"	8
8905F	SPRING (7060)	2
8931	SCREW-SHCS, 1/4-20 x 2" (7060)	2
8932	NUT, 1/4-20 (7060)	2
26124	BOLT-HHCS, 5/16-18 x 1", Grade 5	1
48144B	BOLT-HHCS, 3/8-16 x 2", Grade 5, Black Zinc	1
48305B	BOLT-HHCS, 5/16-18 x 3-1/2", Grade 5, Black Zinc	1
51982	BOLT-Soc Hd Shoulder, 3/8-16 x 3/8"	1
53413	DIPSTICK	1
53595	FRONT COVER PLATE & HANDLEBAR MOUNT	1
53596B	CABLE YOKE	2
53611	NUT-Hex, 5/16"	1
HD5BGR	BUMPER GUARD, Red (standard on Model 7060)	1
LBL516C	DECAL, Belt Cover (Warning)	1
LBL516F	DECAL, Bumper Guard (Free Hand Warning)	1
OIL05	OIL, One Quart 30W	1
WF38	WASHER-Flat, 3/8"	3
WF516	WASHER-Flat, 5/16"	1

7060/7055/7050 Transmission Assembly



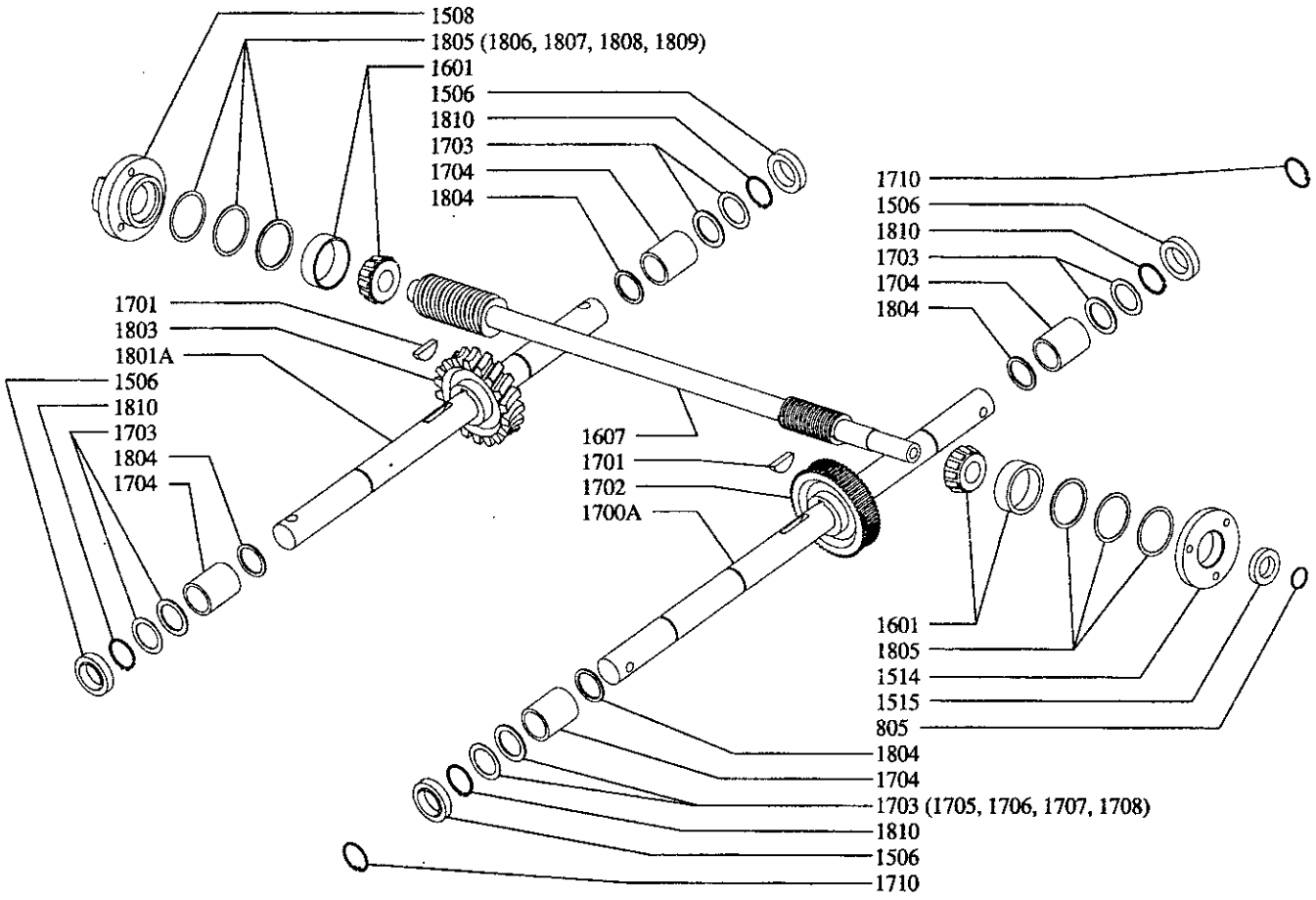
Part #	Qty.	Description
60G56	4	NUT-Bi-Way Lock, 5/16-18
376A	1	TILLER TRANSMISSION CASTING
394	1	BRACKET-Depth Regulator, Black, 2-holes
506R	1	BRACKET-Motor Mount, Right, Orange
507R	1	BRACKET-Motor Mount, Left, Orange
1500L	1	TRANSMISSION ASSEMBLY, Black, Lockout (Replacement Only)
1501	12	BOLT-Hex Flange Hd, 5/16-18 x 3/4", Grade 5
1504	2	GASKET-Tiller Housing & Transmission Cover
1506	4	SEAL-Tiller Housing
1507	2	GASKET-Front Rear Bearing Cap
1508	1	CAP-Rear Bearing, Black
1511	3	BOLT-Hex Flange Hd, 1/4-20 x 7/8"
1514	1	CAP-Front Bearing, Black
1515	1	OIL SEAL-Drive Shaft
1516	3	BOLT-Hex Flange Hd, 1/4-20 x 3/4"
1517	1	KIT-Oil Seal Gasket (Includes two #1504, four #1506, two #1507, one #1515)
1690	1	TRANSMISSION LUBE 00, 1 Qt.
53413	1	DIPSTICK, Molded 1-Pc. Rubber
53595	1	FRONT COVER PLATE & HANDLEBAR MOUNT

7060 Wheel & Tiller Shaft Assembly



PART #	DESCRIPTION	QTY.
805	WASHER-Flat, 11/16" ID	1
1506	SEAL-Tiller Housing	4
1508	CAP-Rear Bearing	1
1515	OIL SEAL-Drive Shaft	1
1601	BEARING-Tapered (Includes Cone & Race)	2
1607	MAIN DRIVE SHAFT, 23" Long	1
1700B	WHEEL SHAFT ASSEMBLY, Lockout	1
1701	KEY, 1/4" x 1"	2
1702	GEAR-Worm, Wheel Shaft	1
1703	SHIM SET-Axle Spacer Kit	4
1704	BUSHING	4
1705	SHIM, 1.375 OD x .062" thick, (as req'd.)	
1706	SHIM, 1.375 OD x .030" thick, (as req'd.)	
1707	SHIM, 1.375 OD x .015" thick, (as req'd.)	
1708	SHIM, 1.375 OD x .010" thick, (as req'd.)	
1710	SNAP RING-Retainer, External	2
1801A	TILLER SHAFT ASSEMBLY	1
1803	GEAR-Worm, Tiller Shaft	1
1804	SPACER, 1.250" x 1.000" x .062" thick	4
1805	SHIM SET-Rear Bearing Cap	2
1806	SHIM, 1.750 OD x .062" thick, (as req'd.)	
1807	SHIM, 1.750 OD x .030" thick, (as req'd.)	
1808	SHIM, 1.750 OD x .015" thick, (as req'd.)	
1809	SHIM, 1.750 OD x .010" thick, (as req'd.)	
1810	SNAP RING-Retainer, Internal	4

7055/7050 Wheel & Tiller Shaft Assembly



PART #	DESCRIPTION	QTY.
805	WASHER-Flat, 11/16" ID	1
1506	SEAL-Tiller Housing	4
1508	CAP-Rear Bearing	1
1515	OIL SEAL-Drive Shaft	1
1601	BEARING-Tapered (Includes Cone & Race)	2
1607	MAIN DRIVE SHAFT, 23" Long	1
1700A	WHEEL SHAFT ASSEMBLY, Lockpin	1
1701	KEY, 1/4" x 1"	2
1702	GEAR-Worm, Wheel Shaft	1
1703	SHIM SET-Axle Spacer Kit	4
1704	BUSHING	4
1705	SHIM, 1.375 OD x .062" thick, (as req'd.)	
1706	SHIM, 1.375 OD x .030" thick, (as req'd.)	
1707	SHIM, 1.375 OD x .015" thick, (as req'd.)	
1708	SHIM, 1.375 OD x .010" thick, (as req'd.)	
1710	SNAP RING-Retainer, External	2
1801A	TILLER SHAFT ASSEMBLY	1
1803	GEAR-Worm, Tiller Shaft	1
1804	SPACER, 1.250" x 1.000" x .062" thick	4
1805	SHIM SET-Rear Bearing Cap	2
1806	SHIM, 1.750 OD x .062" thick, (as req'd.)	
1807	SHIM, 1.750 OD x .030" thick, (as req'd.)	
1808	SHIM, 1.750 OD x .015" thick, (as req'd.)	
1809	SHIM, 1.750 OD x .010" thick, (as req'd.)	
1810	SNAP RING-Retainer, Internal	4

HOW TO ASSEMBLE AND ATTACH YOUR HILLER/FURROWER

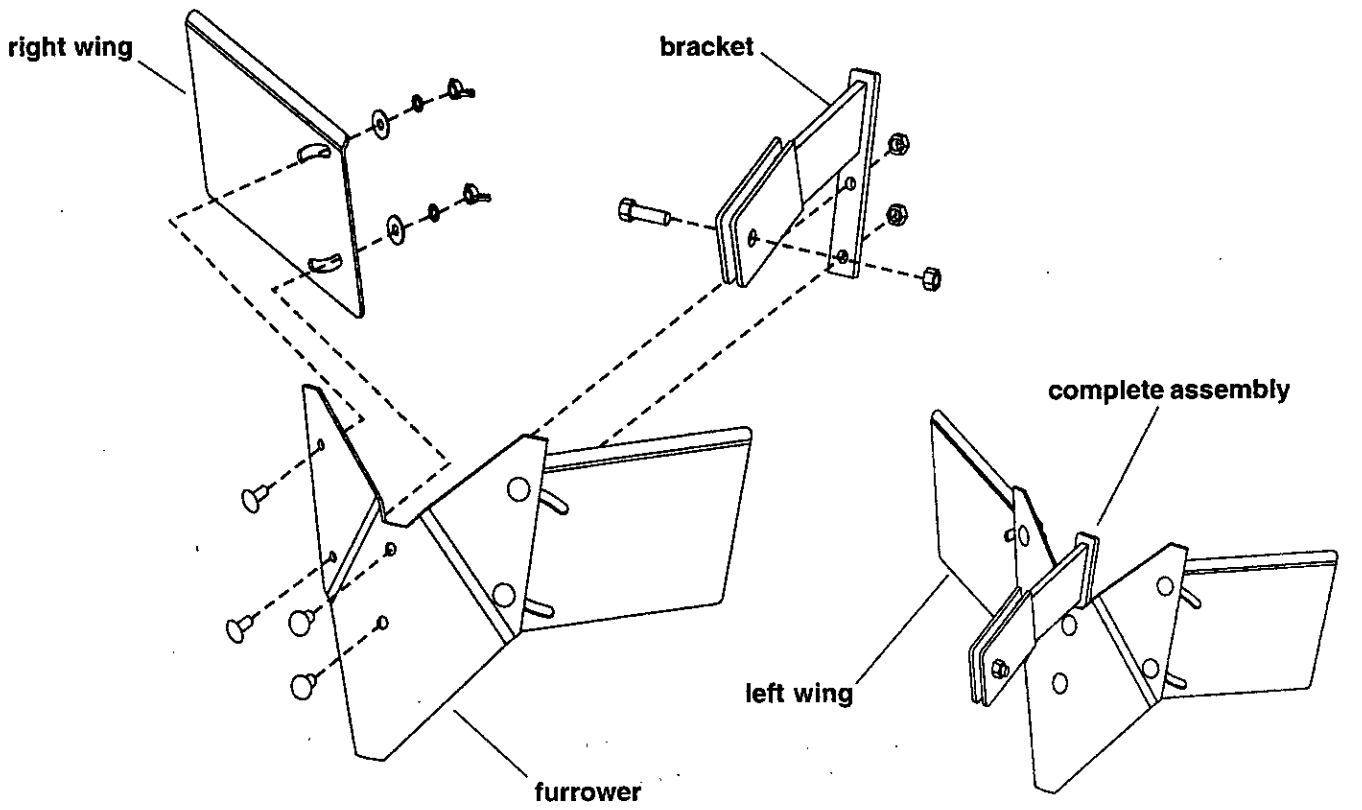
Thank you for purchasing a hiller/furrower attachment for your rototiller. We know that you will be pleased with the many worksaving uses you can accomplish with this handy tool.

To assemble, attach furrower to bracket and then wings to furrower using hardware pictured below. Follow diagram below for placement of parts. Adjust left and right wing carriage bolts in slots to get correct leveling of hills.

The furrower attaches to your tiller in just one easy step. Remove the hex bolt and nut inserted through the bracket and align with hole in drag stake holder just behind the drag stake under the hood. Insert hex bolt and nut and tighten securely.

Parts Bag Hardware

Hex Bolt (1)		Lockwasher (4)	
Carriage Bolt (6)		Nut (3)	
Flatwasher (4)		Wing Nut (4)	



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