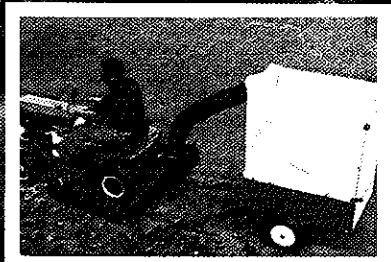
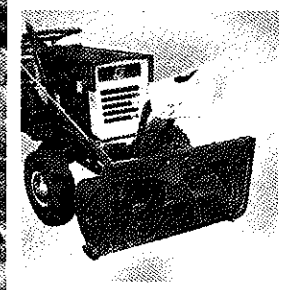


# *Simplicity*<sup>1623 #</sup>®

OWNER'S MANUAL



## CONGRATULATIONS!

... on your choice of *SIMPLICITY* equipment.

*This great new product is engineered with imagination and built with integrity to assure you maximum service and performance for years to come. To completely understand the operation of your equipment and to take full advantage of its many fine built-in features, study this instruction manual thoroughly before operating the machine. The little time you spend reading now will repay you many times over in the time you save and the satisfaction you gain in using your equipment properly and safely.*

## SAFETY FIRST

### PROTECT YOURSELF AND OTHERS BY FOLLOWING THESE SAFETY RULES

- \* **ALWAYS** inspect the area to be worked — note all grades, obstructions, wet spots and other potential hazards and pick up all foreign objects before mowing.
- \* **ALWAYS** keep children and pets a good, safe distance away.
- \* **ALWAYS** know your controls and how to stop quickly in an emergency — read the owner's manual thoroughly.
- \* **NEVER** allow anyone to operate the equipment without full instruction and knowledge of safe operating procedures.
- \* **NEVER** handle gasoline carelessly. Use an approved container and fill the tank out of doors. Wipe up spilled gasoline. Do not smoke while fueling the engine.
- \* **NEVER** add gasoline to a running engine. Stop engine and allow it to cool a few minutes before adding fuel. Replace filler cap securely.
- \* **NEVER** operate equipment unless all guards and shields are in place.
- \* **ALWAYS** keep hands, feet and clothing away from power driven parts.
- \* **ALWAYS** disengage the power take off drives, stop the engine, and remove the key (on electric start models) before leaving the machine even if only for a moment.
- \* **ALWAYS** stop the engine before servicing or adjusting machine or equipment. Remove the spark plug wire on walk behind mowers.
- \* **ALWAYS** stop the engine and inspect for damage immediately after striking an obstruction or foreign object. Repair damage before restarting.
- \* **NEVER** overspeed the engine or alter governor settings. Excessive speed is always unsafe and shortens engine life.
- \* **ALWAYS** properly maintain the equipment. Check all fasteners, guards and parts.
- \* Mow across slopes with walk behind units and up and down them with riding units. Do not use power mowers on slopes greater than 40% grade. (Four feet vertically for each 10 feet horizontally.)
- \* **ALWAYS** stop the engine on walk behind units or disengage the blade drive and raise the mower on riding units before crossing gravel drives.
- \* Do not operate the engine where carbon monoxide can collect.



**BUILT IN SAFETY FEATURES CAN BE  
EFFECTIVE ONLY IF PROPERLY  
MAINTAINED AND UTILIZED.**

**HANDLE MOUNTED CONTROLS.** Forward clutch lever, Reverse clutch lever, Throttle lever and handle position lock knob are all mounted at the handles for safe operation.

**FULL-POWER, INSTANT REVERSE GEAR CONTROL.** If an obstruction is encountered, simply release forward clutch lever and stop on a dime. Engage reverse lever and back up immediately under full power. No twisted belts, no friction wheels, no engine jitters.

**ADJUSTABLE HANDLES.** Height adjustable to three positions for greater comfort. Release the panel-mounted knob to swing handles to left or right for easy turning and increased, positive control under all conditions.

**5 H.P. BRIGGS & STRATTON EASY-SPIN ENGINE.** Four-cycle, one cylinder, air-cooled power with Lo-Tone muffler, recoil starting, mechanical governor and combined throttle on-off switch.

**ADJUSTABLE DEPTH BAR.** Pivots in reverse.

**WELDED STEEL FRAME.** Heavy duty with rugged cross-bracing, yet compact and balanced for easy tilling in high foliage.

**WHEELS.** Semi-pneumatic tires, solid wheel bearings requiring no maintenance. Adjustable wheel scrapers to prevent soil from collecting.

**WORM GEAR DRIVE.** Unique design requiring Special Worm Gear lubricant to eliminate maintenance and assure durability. Tapered roller bearings front and rear.

**TINES.** Self-sharpening, high-carbon forged steel. Non-winding design adjustable to 32-1/2 inches wide (with extensions). Slice into the hardest, baked, crusty soil to 7 inches deep, kneading the soil with smooth, spading action, leaving a crumbly texture perfect for planting.

# ROTICUL 5 H.P. ROTARY TILLER

**Mfr's. No. 549**

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## 5 H.P. ROTICUL SPECIFICATIONS

<b>ENGINE</b>	<b>MAKE:</b> BRIGGS & STRATTON	<b>■ MODEL NO:</b> 130292 <b>■ STROKE:</b> 2-7/8 Inches <b>■ CYCLES:</b> 4 <b>■ DISPLACEMENT:</b> 12.5 Cu. In. <b>■ CYLINDERS:</b> 1 <b>■ CRANKSHAFT</b> <b>■ BORE:</b> 2-9/16 Inches <b>PLANE:</b> Horizontal	
	<b>STARTER</b>	Manual Rewind Up-Angle Side Pull	
	<b>CHOKE</b>	Manual	
	<b>GOVERNOR</b>	Remote Controlled Mechanical	
	<b>IGNITION</b>	Patented, High-Tension Magneto with Ceramic Magnets	
	<b>LUBRICATION</b>	Gear Impeller System - 40% Slope Operation CRANKCASE CAPACITY: 1-1/4 Pints	
	<b>FUEL CAPACITY</b>	3 Quarts	
	<b>AIR CLEANER</b>	Sealed Joint Housing, Reusable Oiled Foam Element	
<b>MUFFLER</b>	Quiet, Low Back Pressure Type, Side Discharge		
<b>TRANSMISSION</b>	<b>TYPE</b>	Worm and Gear	
	<b>MATERIAL</b>	WORM: Carburized Steel GEAR: Bronze	
	<b>BEARINGS</b>	FRONT: Tapered Roller Bearing REAR: Tapered Roller Bearing	
	<b>SEALS</b>	Double Lip - Dirt Excluding	
	<b>LUBRICATION</b>	Special Simplicity Worm Gear Oil	
	<b>HOUSING</b>	Cast Iron	
	<b>SPEEDS</b>	One Forward, One Reverse Reverse Type - Camshaft Drive Belt	
	<b>CLUTCH</b>	Touch-O-Matic V-Belt	
<b>TINES</b>	<b>TYPE</b>	Self-Sharpening, Non-Winding	
	<b>MATERIAL</b>	Forged, High-Carbon Steel	
	<b>TILLING WIDTH</b>	22-1/2 In. Standard, 32-1/2 In. with Tine Extensions	
	<b>TILLING DEPTH</b>	0 to 7 Inches, Adjustable	
	<b>ATTACHMENT</b>	TO HUB: Bolted TO SHAFT: Pin and Spring Clip	
	<b>DRIVE</b>	INNER: Pin Type Floating Drive OUTER: Pin and Torsion Plate Floating Drive	
	<b>SPEED</b>	75 RPM at Full Engine Speed	
<b>DEPTH BAR</b>	<b>TYPE</b>	Pivots in Reverse	
	<b>ATTACHMENT</b>	Pin and Spring Clip	
	<b>ADJUSTMENT</b>	0 to 7 Inches Tilling Depth	
<b>CONTROLS</b>	<b>LOCATION</b>	FORWARD CLUTCH: Right Handle, Top REVERSE CLUTCH: Left Handle, Bottom THROTTLE: Left Handle HANDLE POSITION LOCK: Center REWIND STARTER AND CHOKE: On Engine	
	<b>HANDLES</b>	TYPE: Three-Position Swing with Lock HEIGHT: Adjustable, Three-Positions	
	<b>CHASSIS</b>	<b>FRAME</b>	Heavy-Duty, Electrically Welded with Cross-Bracing
		<b>TIRES</b>	10 x 1.75 Semi-Pneumatic
		<b>WHEEL BEARINGS</b>	Solid, Sintered Iron
		<b>WHEEL SCRAPERS</b>	Frame Mounted, Adjustable
<b>OVERALL DIMENSIONS</b>	<b>LENGTH</b>	51 Inches	
	<b>WIDTH</b>	26 Inches (Without Tine Extensions)	
	<b>HEIGHT</b>	TO TOP OF HANDLE: 38-1/4 Inches TO TOP OF ENGINE: 27-3/4 Inches	
	<b>WEIGHT</b>	NET (DRY): 133 Lbs. SHIPPING (DRY): 143 Lbs.	

## SAFETY FIRST

In addition to the basic safety rules appearing on the inside front cover, follow these safety tips.

■ Release both clutch levers and stop the engine before cleaning the tines, removing obstacles, making adjustments or when leaving the operating position.

■ Never allow children or pets to cross your path or cause distractions in the area while operating.

■ Use caution to avoid slipping or falling, especially when operating in reverse.

## CONTROLS

1. **THROTTLE LEVER:** To adjust engine speed or to stop the engine, move the lever forward or back.

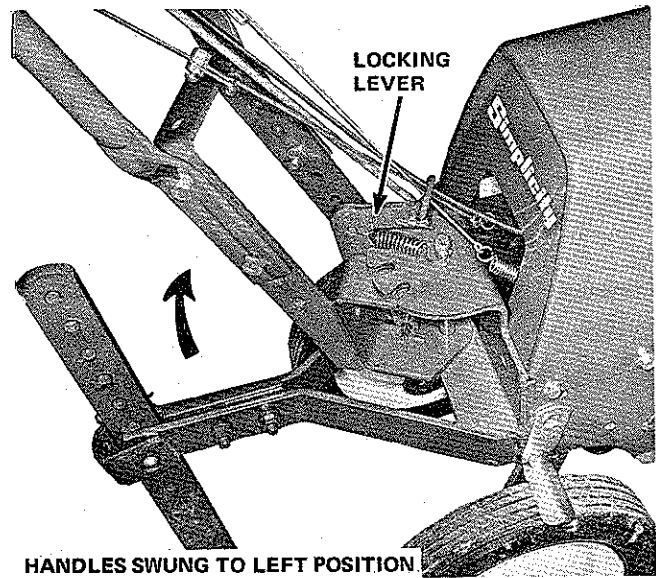
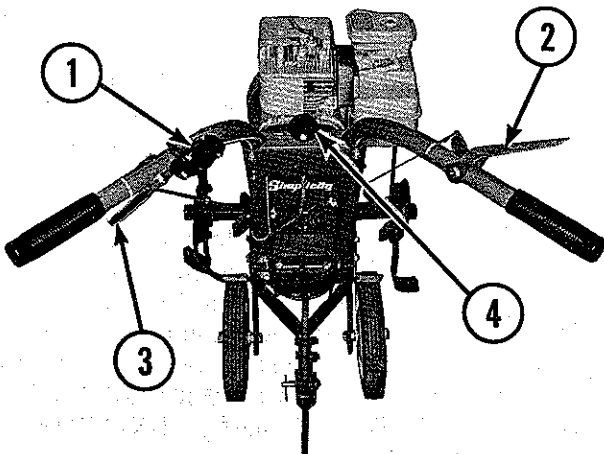
2. **FORWARD CLUTCH LEVER (RIGHT HANDLE):** Squeeze the lever to engage the forward drive, release to stop.

3. **REVERSE CLUTCH LEVER (LEFT HANDLE):** Squeeze lever to engage reverse drive only after releasing FORWARD lever.

## CAUTION

**NEVER GRIP BOTH FORWARD AND REVERSE CLUTCH LEVERS AT THE SAME TIME. SERIOUS DAMAGE MAY RESULT.**

4. **HANDLE POSITION KNOB:** Pull up on knob to swing handles to left or right position and release to lock handles in place. Be sure that locking lever is firmly engaged in the notch on the lock plate before proceeding.

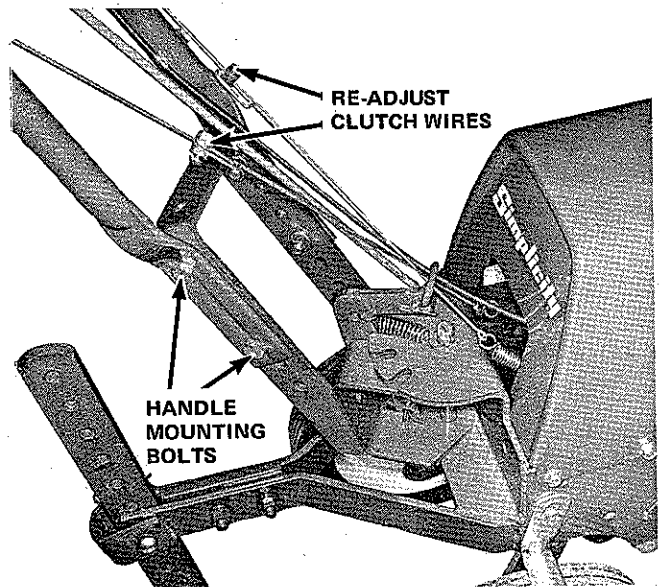


HANDLES SWUNG TO LEFT POSITION

5. **HANDLE HEIGHT:** The handle support assembly has several mounting holes to allow adjustment of the handle height to three positions. Experience will show which position is most convenient. Remove the handle mounting bolts, nuts and lockwashers to reposition handles.

## NOTE

*Whenever the handle height is changed, the forward and reverse clutch control wires must be readjusted to suit. See "Adjustments".*

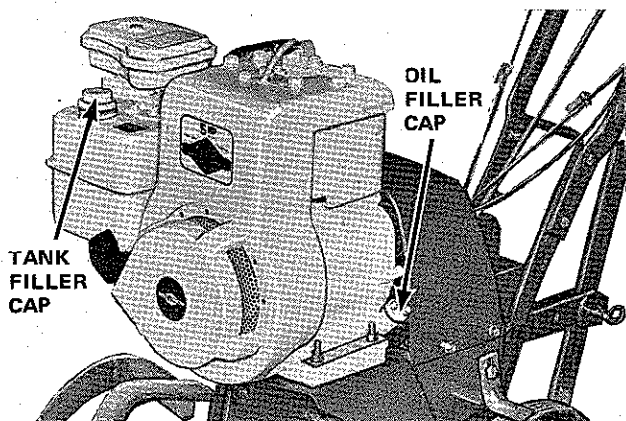


## BEFORE STARTING

Before attempting to start the engine, read the engine owner's manual thoroughly. Be sure to have on hand sufficient quantities of clean, fresh "Regular" grade gasoline and 10W-30 grade MS engine crankcase oil.

1. Remove the crankcase filler cap, located on the left side of the engine, by turning counterclockwise. Fill with 10W-30 oil until level with the top of the neck. Reinstall filler cap securely. Check the oil level every time fuel is added.

2. Remove the fuel tank filler cap and fill tank completely with clean, fresh "Regular" grade gasoline.



**DO NOT MIX OIL WITH GASOLINE.**

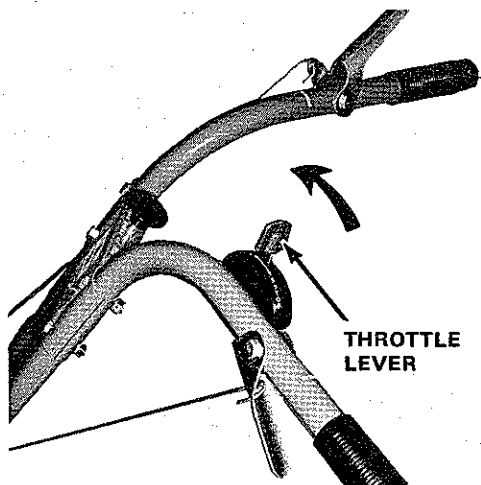
#### CAUTION

*GASOLINE IS HIGHLY INFLAMMABLE. AVOID OVERFILLING AND WIPE UP ANY SPILLED FUEL. ALLOW NO OPEN FLAME, SMOKING OR MATCHES NEAR THE AREA WHEN REFUELING.*

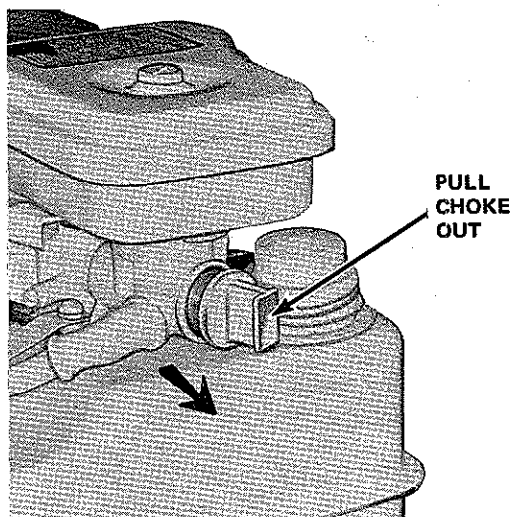
Replace the filler cap securely. Store gasoline only in small quantities - prolonged storage produces gum and harmful deposits. If it is necessary to store gasoline for long periods, add STA-BIL brand gasoline stabilizer, available at your Simplicity dealer. (See "Off-Season Storage.")

#### STARTING

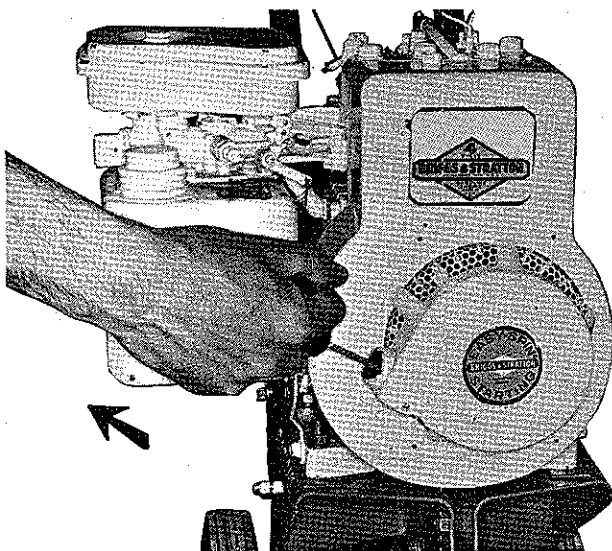
1. Move the throttle lever 1/2 way forward.



2. Pull choke plunger out to "CHOKE" position.

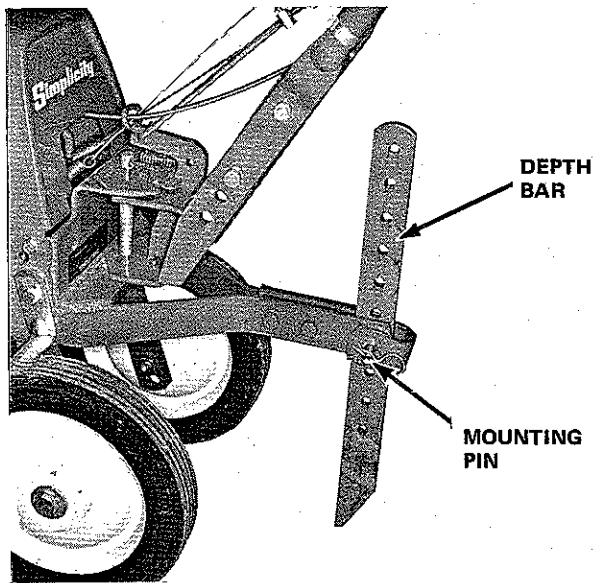


3. Grasp the recoil starter handle firmly in your right hand and pull sharply straight out to start the engine. After the engine starts, return the choke to "OFF" position. If the engine fails to start after 4 or 5 pulls it may be flooded. Return the choke to "OFF" position and pull recoil starter handle to clear the excess fuel. Always return the handle by hand - DO NOT RELEASE THE HANDLE WITH THE ROPE EXTENDED. To stop the engine, pull the throttle lever all the way back.

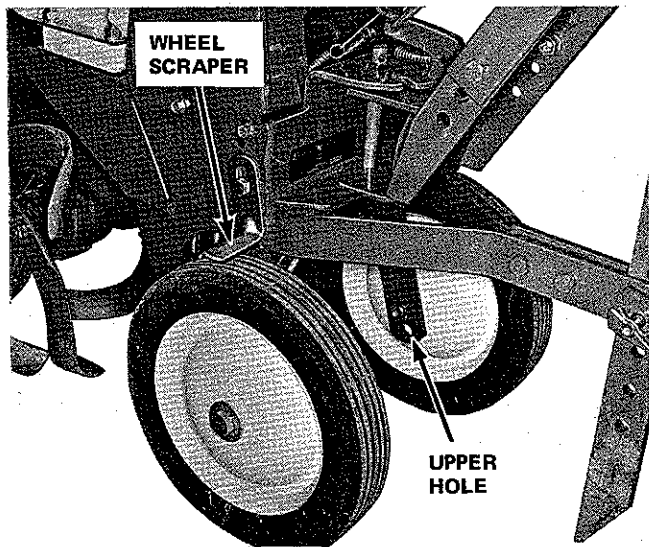


#### BEFORE OPERATING

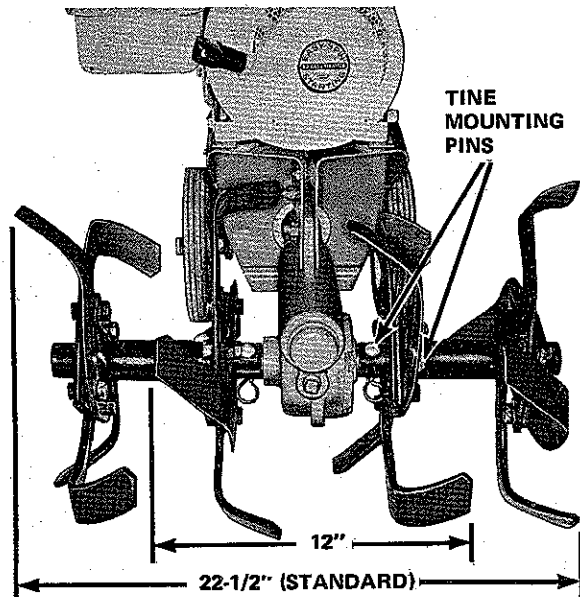
1. The depth bar setting determines the depth of tilling. To till 4 to 6 inches deep, install the bar mounting pin in the second or third hole from the TOP. Simply pull out the hairpin cotter to change pin location. Be sure to install the bar with the digging tip as shown. **THE DEEPER THE DEPTH BAR IS SET INTO THE SOIL, THE DEEPER THE TINES WILL DIG.**



2. Check to be sure that the wheels are mounted in the UPPER holes of the frame legs as shown. Adjust the wheel scrapers to clean accumulated soil from the tires. This will vary according to conditions. Loosen the mounting bolts to raise or lower the scrapers. When the best effect is obtained, tighten the bolts securely. A good initial setting is to position the scraper 1/8 in. above the tire.



3. The standard tine arrangement shown allows a tilling width of 22-1/2 inches. The two outer sets of tines can be removed to narrow the width to 12 inches if desired. Simply pull out the hairpin cotters and remove the mounting pins. Tine assemblies are left and right hand. Switch the two inner tines for an 8-1/2 inch wide path. Switch the outer tines and add them to change the width to 18-1/2 inches. Always be sure when rearranging tines that the sharpened edges face forward. A set of tine extensions is available to extend the width to 32-1/2 inches. See your Simplicity dealer.



### OPERATION

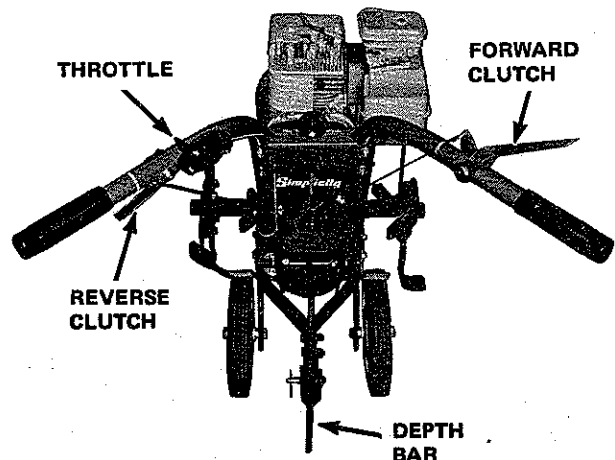
After starting, move the throttle lever to 3/4 forward.

For FORWARD motion, squeeze the RIGHT HAND clutch lever. For REVERSE motion, release the right lever and squeeze the LEFT HAND clutch lever.

### CAUTION

*NEVER GRIP BOTH FORWARD AND REVERSE CLUTCH LEVERS AT THE SAME TIME.*

Use the depth bar to furnish the necessary drag rather than pulling back on the handles. Push DOWN on the handles to LOWER the depth bar, slowing forward speed and deepening the bite of the tines. Upward thrust on the handles increases forward speed and raises tilling depth.



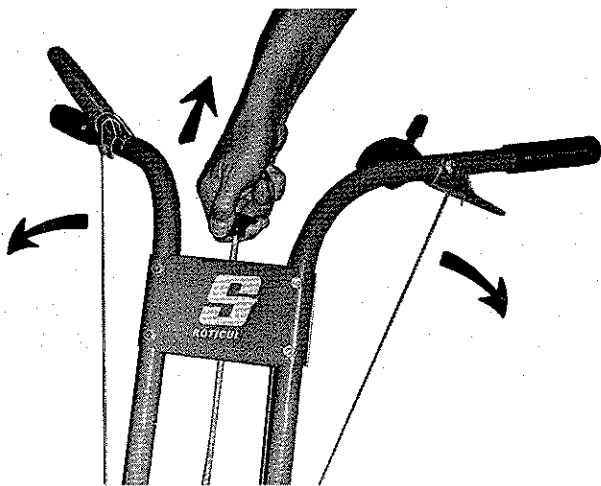
## LET THE DEPTH BAR DO THE WORK

The Roticul is scientifically designed to cultivate the soil with a minimum of physical effort on the part of the operator. When operating for the first time, proceed slowly and carefully to get the "feel". Experience will determine the best handle height for your requirements, the correct handle pressure and depth bar setting. Experiment with the clutch lever, using the quick response for positive control in close areas.

Do not till when the soil is very wet. This causes lumps which are difficult to work up. If the soil is extremely hard and dry it may be desirable to cross-till an area at shallow depth first, then till in the direction of planting rows on the second pass at the final depth.

A furrow opener shovel is available from your Simplicity dealer for use in digging furrows for crops which are planted in rows, such as potatoes. See "Accessories".

Pull the handle lock knob up and swing the handles to right or left as desired and release the knob. This allows you to walk next to the tilled area instead of in it and makes turning easier.



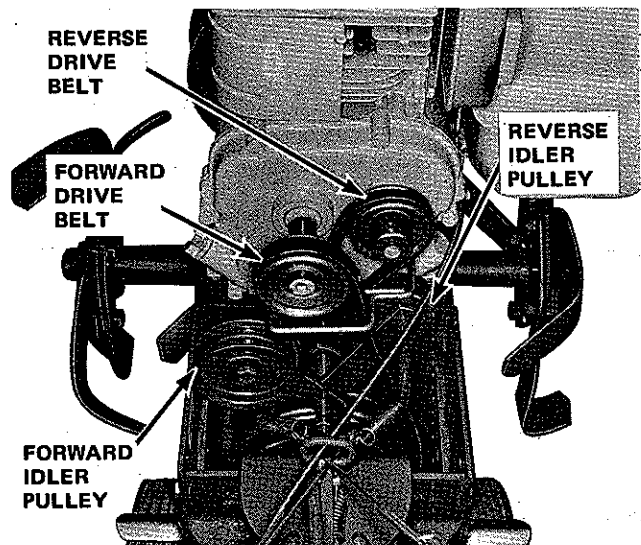
## TROUBLE SHOOTING

IF ENGINE FAILS TO START, check the following:

1. Fuel tank is full.
2. Throttle lever is set to 1/2 open.
3. Spark plug cable is securely connected.
4. Choke plunger is pulled out to "CHOKE" position or in "OFF" position (in) if engine appears to be flooded. To clear a flooded engine, push the choke in and pull the starter rope several times to clear the excess fuel.

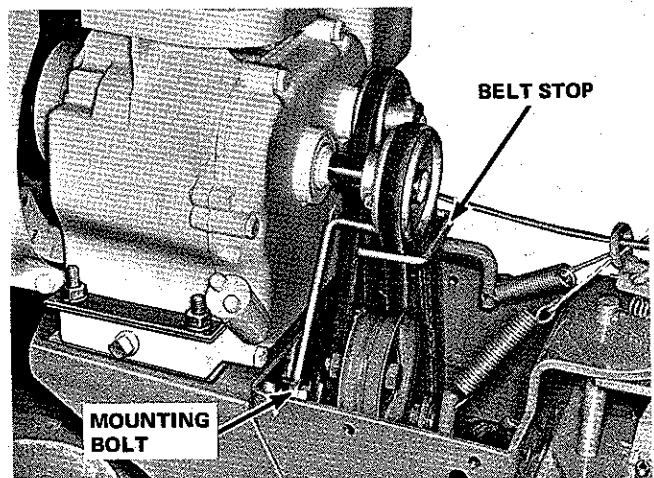
IF BELT SLIPPAGE OCCURS, check the following:

1. Belts may be stretched or worn excessively.
2. Belts may be greasy or oily. If so, use Energine or a similar cleaning fluid on a rag to clean. An alternate method is to sprinkle a handful of Drizit or Kitty-Litter compound on the belt while running.
3. Pulleys may be misaligned.
4. Belt tension may be too tight. (See "Adjustments.")



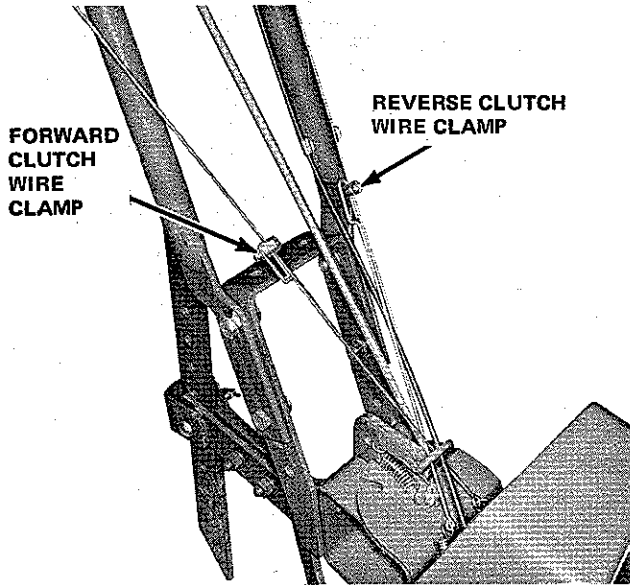
## ADJUSTMENTS

**BELT STOP:** Remove the drive belt cover at the rear of the engine. Make sure the belt stop is as near as possible to the belts when running. Loosen the stop mounting bolt to adjust position or bend the stop where necessary to within 1/8 in. of both belts when running. Replace the drive belt cover before operating.

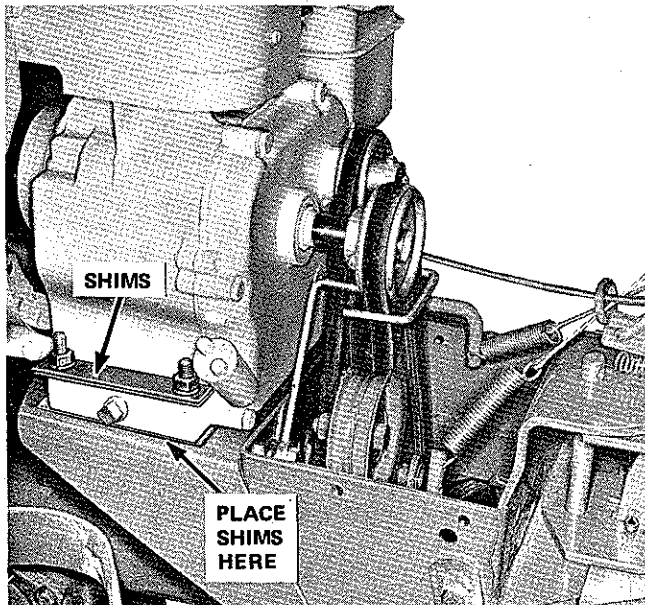




**CLUTCH ADJUSTMENT:** Check for proper clutch engagement. Belts must not be running when the clutch levers are released and must not slip when levers are engaged. If adjustment is required, loosen the round head screw in the control wire clamp and remove excess slack in the wires. Tighten the screw securely.



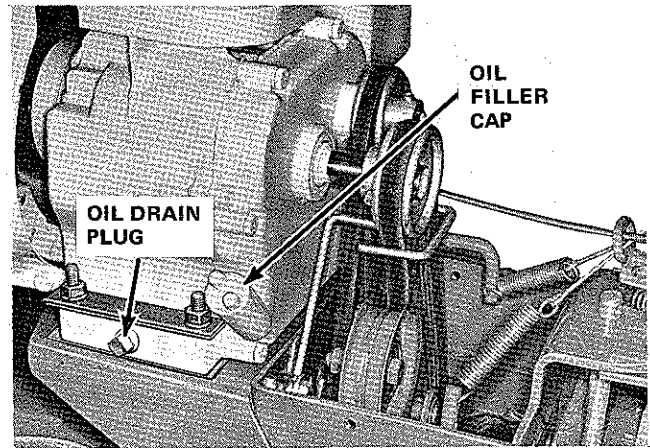
**DRIVE BELT SLACK:** After some use, the drive belts may stretch so that clutch adjustment cannot be made at the control wire clamps. If this occurs, remove the engine mounting nuts, remove the shims shown and install one or more of them under the engine. Tighten the mounting nuts securely.



### MAINTENANCE

To keep your Simplicity Rotical at peak operating efficiency, these maintenance procedures must be followed regularly:

1. Read the engine owner's manual thoroughly. Always check the engine oil level before starting. Add 10W-30 grade MS oil until level with the top of the filler neck. Change crankcase oil and re-oil the air cleaner foam element every 25 hours of operation, more often under extremely dusty or dirty conditions.



2. Turn the screw on the air cleaner cover counterclockwise to loosen. Remove the cover. Wash the foam air cleaner element in Kerosene or liquid detergent and dry it thoroughly. Saturate it with engine oil, squeeze out the excess and reinstall.

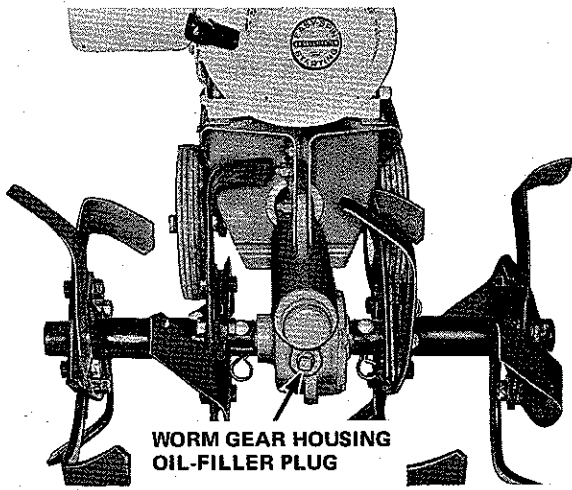
3. Clean and re-gap the spark plug every 100 hours of operation. Gap to .030 inches. DO NOT clean plug by sandblasting. Grease the plug threads before reinstalling.

**WORM DRIVE HOUSING:** The worm gear drive on the Rotical is lubricated with special worm gear oil available from your Simplicity dealer.

**DO NOT USE ORDINARY TRANSMISSION OIL.** Any other oil except Simplicity Worm Gear Oil may cause gear failure. The worm drive housing is filled at the factory, but the level must be checked every 1 to 5 hours of operation. To add oil, tip the Rotical back until the handles rest on the ground, remove the filler plug and add worm gear oil. **FILL UNTIL THE OIL IS LEVEL WITH THE PLUG HOLE WHEN THE TINES ARE RESTING ON THE GROUND. DO NOT OVERFILL.** Screw the plug back in securely.

### CAUTION

**DAMAGE TO THE WORM GEAR DRIVE WHICH RESULTS FROM USE OF ANY OTHER LUBRICANT THAN SIMPLICITY BRAND SPECIAL WORM GEAR OIL WILL AUTOMATICALLY INVALIDATE THE WARRANTY.**



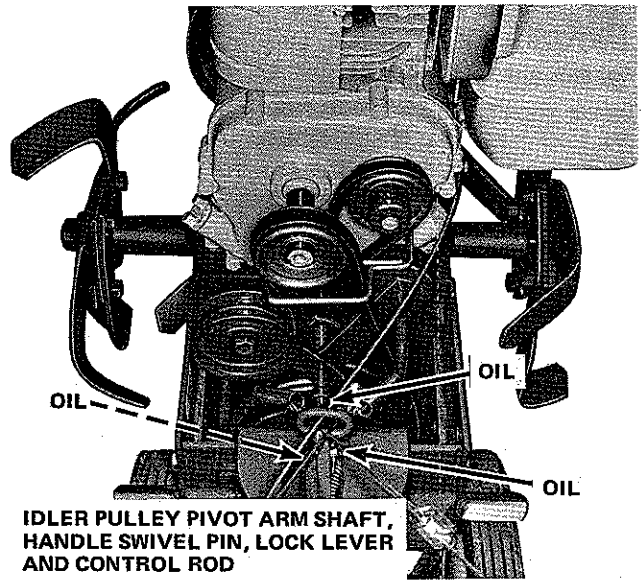
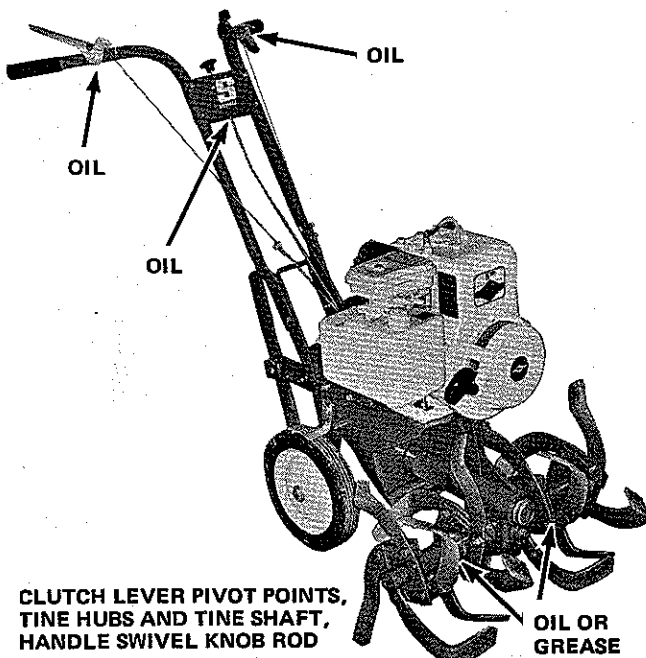
**NOTE**

*The worm drive housing may become quite warm while operating. This is completely normal and no harm to gears will occur if the housing is kept filled as specified with the special Worm Gear Oil.*

There is an Oilite bronze filter in the vent hole located at the rear of the worm drive housing. **DO NOT REMOVE** the filter for any reason.

**GENERAL LUBRICATION:** Apply light motor oil occasionally at the points indicated to reduce wear and assure free movement. Be careful not to get oil on the drive belts. **DO NOT** oil wheel bearings which are self-lubricated. Additional oil collects dirt and causes extra wear.

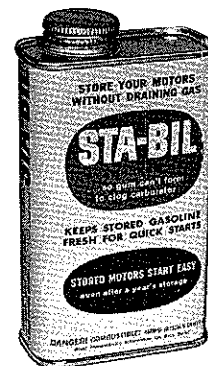
Apply a light coat of grease or oil to the inside of the tine hubs and on the tine shaft to prevent rust.



**GENERAL REPAIRS:** To prevent rust, sand off and paint any parts or areas which become chipped or damaged. Tighten all bolts, nuts and fasteners securely.

**OFF-SEASON STORAGE**

1. Drain the fuel tank completely by running the engine until it stops. If desired, fuel can be stored in containers or in the tank by using STA-BIL brand gasoline stabilizer, available at your Simplicity dealer. Add a can capful to the fuel in the tank or follow the directions on the can for containers of other capacity. This additive prevents formation of gum and varnish for up to one year, providing easier starting and a clean fuel system.



2. Drain and refill crankcase while engine is warm.

3. Remove spark plug, pour 1 oz. 10W-30 oil into cylinder through plug hole. Crank engine a few times to distribute oil. Reinstall plug.

4. Clean dirt and chaff from cylinder head fins and engine housing.

## SERVICE

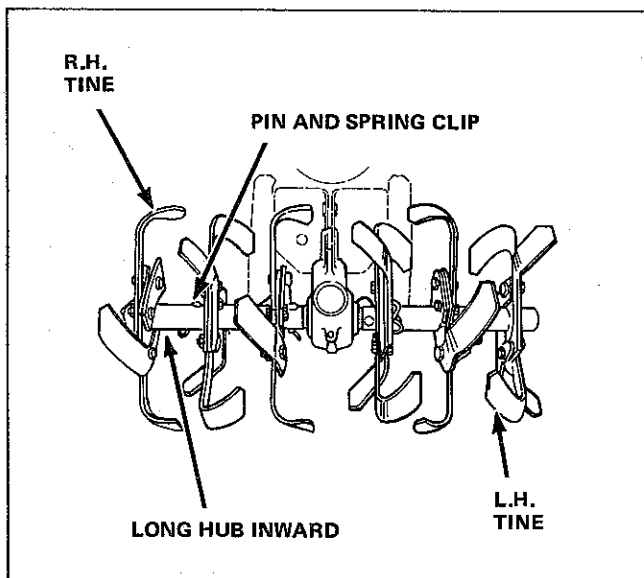
For replacement parts, engine service and machine maintenance, see your Simplicity dealer.

USE ONLY SIMPLICITY DRIVE BELTS AND REPLACEMENT PARTS.

## ACCESSORIES

AVAILABLE FROM YOUR SIMPLICITY DEALER.

**MFR'S. No. 212 - TINE EXTENSION SET.** The set consists of a left hand and a right hand tine assembly with mounting pins and spring clips. Mount the long hub of each tine over the outside end of the standard tine assembly and install the pin and spring clip. Be sure that the sharpened edges of the tines on top face forward. This set increases the effective tilling width to 32-1/2 inches.

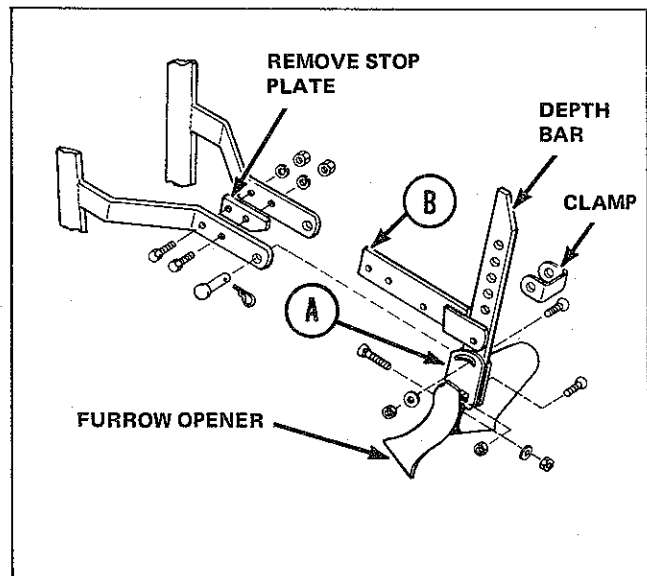


**MFR'S. NO. 340 - 8 INCH FURROW OPENER.** The furrow opener is intended for digging furrows for crops which must be planted in rows. To install, proceed as follows:

1. Remove the depth bar, turn it upside down and bolt it to the tool holder (A) with the carriage bolts, washers and nuts provided.

2. Remove the stop plate from between the frame supports and install the extension support (B) with the old hardware.

3. Position the depth bar in the extension support and reinstall the depth bar clamp using the pin and spring clip provided. Bolt the furrow opener to the tool holder as shown.



**MFR'S. NO. 281 - WORM GEAR OIL.** Case of 12 cans of special Simplicity Worm Gear Oil for Rotocults.

## SIMPLICITY'S NEW EQUIPMENT WARRANTY

The Company warrants Simplicity products to be free from defects in material and workmanship, except the Company makes no warranty, express or implied, with respect to tires, engines, generators and voltage regulators, which are warranted by their respective manufacturers. Any part covered by this warranty which is proven defective within one year (45 days for equipment used for rental, municipal or commercial purposes) under normal use, from date of purchase, will be replaced without charge, provided such part is returned to the factory, (if requested), and is found to be defective upon examination at the factory. This warranty does not apply to any Simplicity products altered outside of the Simplicity factory. THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, PERFORMANCE, OR OTHERWISE. The Company's obligation under its warranty is strictly and exclusively limited to the replacement of such parts, and in no event shall the Company be liable for any other damages, whether direct, immediate, incidental, special, or consequential. Simplicity Manufacturing Company, Inc., reserves the right to modify or change specifications without prior notification. There are no warranties which extend beyond the description of any Simplicity product.

**TINE  
WARRANTY**

Simplicity Manufacturing Company warrants rotary tiller tines against breakage for the period not to exceed the normal life of the rotary tiller; and will replace broken tines directly to the customer at no charge; provided broken tines are returned prepaid to the Company's service department, Port Washington, Wisconsin.

Should warranty service be necessary, the information below should be presented to the authorized SIMPLICITY Dealer.

Customer's Name \_\_\_\_\_

Address \_\_\_\_\_

Mfg. No. \_\_\_\_\_ Serial No. \_\_\_\_\_

Date Purchased \_\_\_\_\_

Purchased From \_\_\_\_\_

Address \_\_\_\_\_

Engine Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_ Type No. \_\_\_\_\_

To obtain replacement parts from dealer, advise quantity, part number and description.

### LUBRICATION & MAINTENANCE RECORD

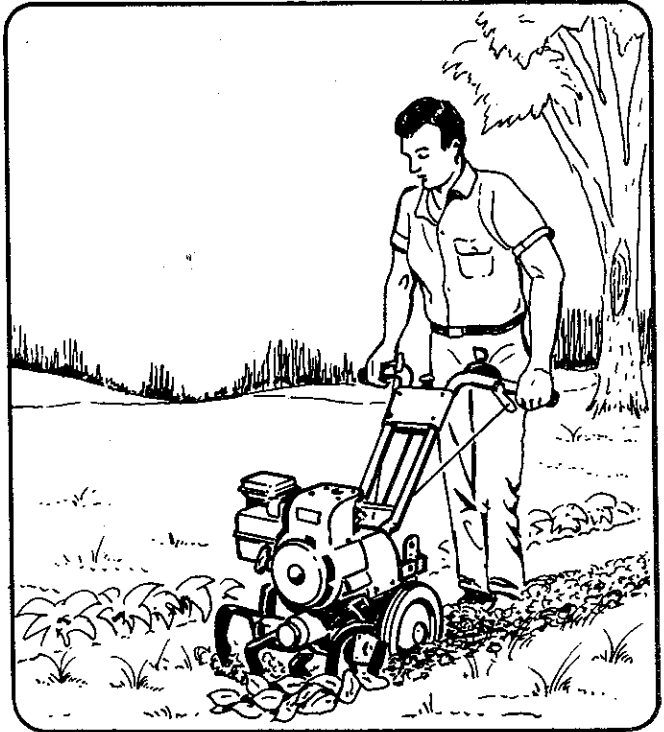
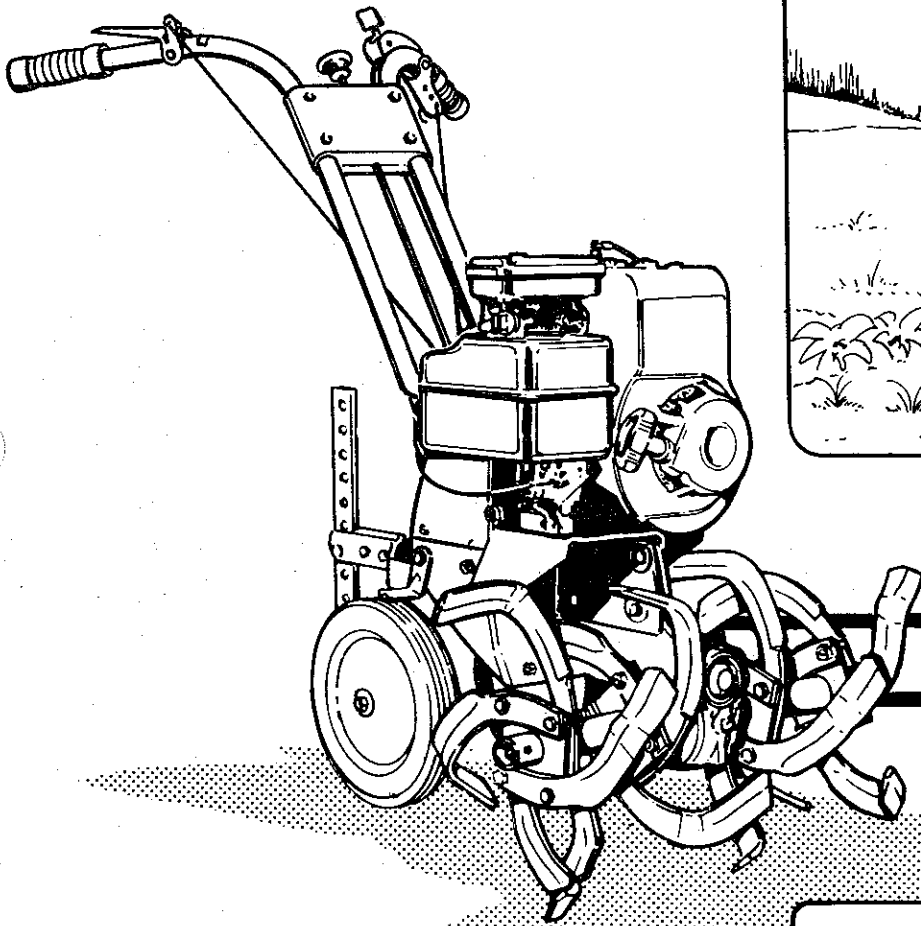
DATE PERFORMED	GREASE JOB	OIL CHANGE	TUNE UP	DESCRIPTION (OTHER MAINTENANCE)	HOURS RUN

***Simplicity***®



**SIMPLICITY MANUFACTURING COMPANY, INC.**

# ***Simplicity***®



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**Mfr's. No. 549**

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1970 PRODUCTION YEAR

**ROTICUL**

**5 H.P.**



Printed in U. S. A.

12344567890

**SIMPLICITY MANUFACTURING COMPANY, INC.**

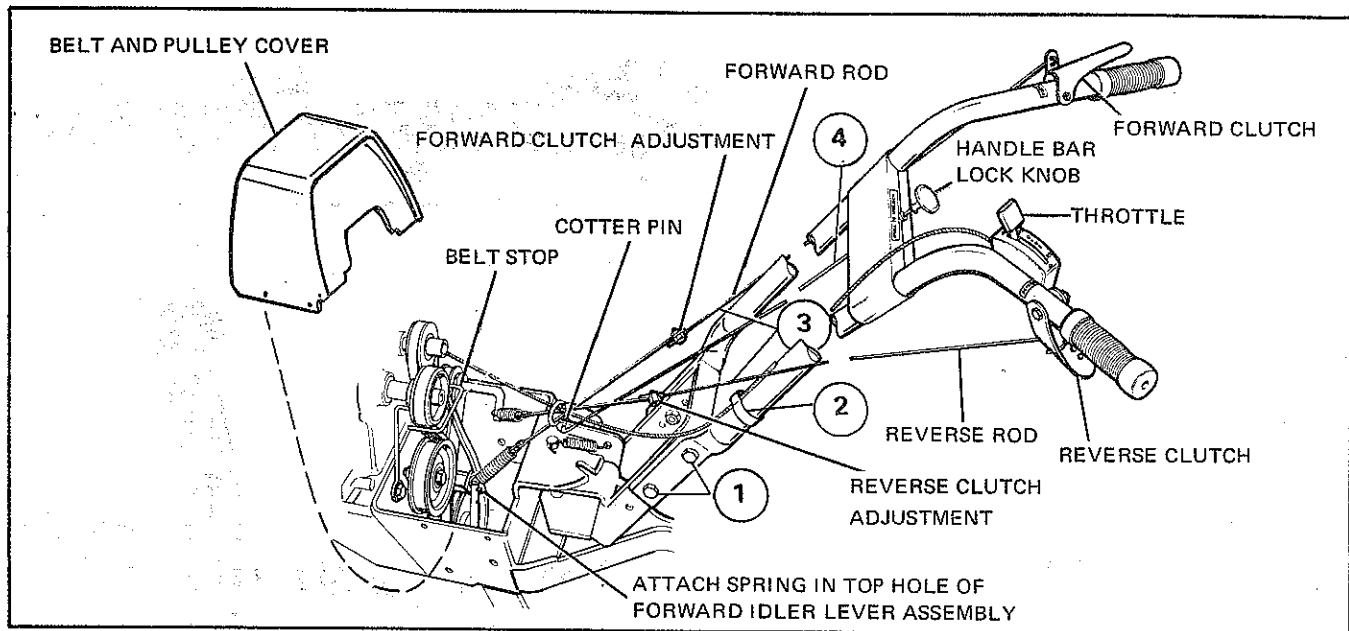


Figure 1

## PACKING

The No. 549 Roticul is delivered complete in one carton. The carton contains:

- 1 - Depth Bar
- 1 - Handle Assembly
- 1 - Engine, frame and transmission housing Assy.
- 2 - Wheel and Tire Assemblies
- 4 - Tine Assemblies
- 1 - Hardware Pack

Should shortages of any of the above items occur, advise by stating packer's number listed on green packing slip, part number and description of items missing and serial number of unit.

## ASSEMBLY

1. Remove the belt and pulley cover from the Roticul frame.
2. Attach the handle assembly to the handle support with the (4)  $\frac{3}{8}$ "-16 x 1" long capscrews,  $\frac{3}{8}$ " lockwashers and  $\frac{3}{8}$ "-16 hex nuts. See Item 1, Figure 1.
3. Attach the forward and reverse control rods as shown in Item 3, Figure 1. Refer to Clutch Adjustments for proper settings.
4. Remove the cable clip which holds the throttle cable to the left hand handle assembly. See Item 2, Figure 1. Insert the curved end of the throttle control on the engine throttle lever located on the right hand side of the engine. Loosen the engine throttle clip. Place the throttle

lever in the STOP position and the engine throttle lever in the STOP position and retighten clip.

5. Install the handle control rod and knob as shown in Item 4, Figure 1.

6. Tilt the Roticul back and attach the right and left inner tine assemblies to the shaft and secure with the pins and clips supplied in the hardware pack. The inner tine assemblies are shorter and will slide on easily if installed on the correct side. Insert clips completely through the pins to prevent loss. Then attach the outer tine assemblies in a similar manner. Check to see that the sharp edge of the upper tines face forward.

7. Tilt the Roticul forward and rest it on its engine. Insert the two (2)  $\frac{1}{2}$ "-13 x  $\frac{3}{4}$ " long capscrews with the  $\frac{1}{2}$ " plain washers on the outside of the wheel, in the wheels. Install the two (2)  $\frac{1}{2}$ " jam nuts on the wheels. Insert the wheel assembly in the upper hole on the frame upright and secure with the two (2)  $\frac{1}{2}$ " jam nuts. Tighten the jam nuts and insure the wheels turn freely with little wobble. See Figure 2. Adjust the wheel scrapers to clear the wheels  $\frac{1}{8}$ ".

8. Install the depth bar and clamp with the round end of the depth bar toward handle and secure with the pin and clip supplied in the hardware pack. See Figure 2.

9. Install cover over frame assembly behind engine and secure with four (4) screws.

10. This Roticul has an oilite bronze filter in the vent hole located at the rear of the worm drive housing. DO NOT REMOVE THIS FILTER.



## LUBRICATION – ENGINE

Prepare and maintain engine in accordance with the instructions furnished by the engine manufacturer. Be sure to fill engine crankcase with proper oil and check air cleaner as recommended.

## WORM GEAR HOUSING

THE WORM GEAR DRIVE ON THE ROTICUL IS LUBRICATED WITH SPECIAL WORM GEAR OIL AVAILABLE AT THE FACTORY.

### DO NOT USE ORDINARY TRANSMISSION OILS.

If ordinary gear oil is used, gears may fail. It is filled at the factory but should be checked before use and again after every hour to five hours of operation. To add oil to the worm gear housing, the tiller should be tipped far enough backward on the handles so the housing is as near verticle as possible. FILL WITH OIL UNTIL THE OIL SHOWS AT THE PLUG WHEN TILLER IS RESTING ON TINES. DO NOT OVER FILL. Screw plug back on tight.

### NOTE

During operation, the action of the worm gear drive may cause the housing to become quite warm. This is normal and no harm will be done to the gears as long as the housing is filled with special worm gear oil.

## MISCELLANEOUS

Lubricate the idler lever and clutch grip pivot points with SAE-30 oil frequently. CAUTION – do not oil wheel bearings. Oil will collect dirt which will accelerate wear.

## TIRES

The Roticul is supplied with two solid rubber tires permanently mounted on wheels which contain solid bearings and do not require future attention.

## ADJUSTMENT

### HANDLE ASSEMBLY

The handle support assembly has a series of holes to enable the handles to be positioned in three different positions, to obtain the desired height. This height is

best judged under operating conditions. After the handle assembly has been repositioned the two clutch rod wires must be re-adjusted as indicated under the clutch adjustments. See Figure 2.

## CLUTCH

1. Check for proper clutching action. Set the belt stop as near as possible to the belts when they are engaged. Make sure that the belts stop turning when the clutch lever is released and do not slip when gripped. If adjustment is needed, loosen the round head screw in the wire clamps and reposition the control rods. See Figure 1.

2. After some use the drive belts may stretch so that proper clutch action can not be achieved. This can be overcome by adding one or more shims between the engine and the frame housing.

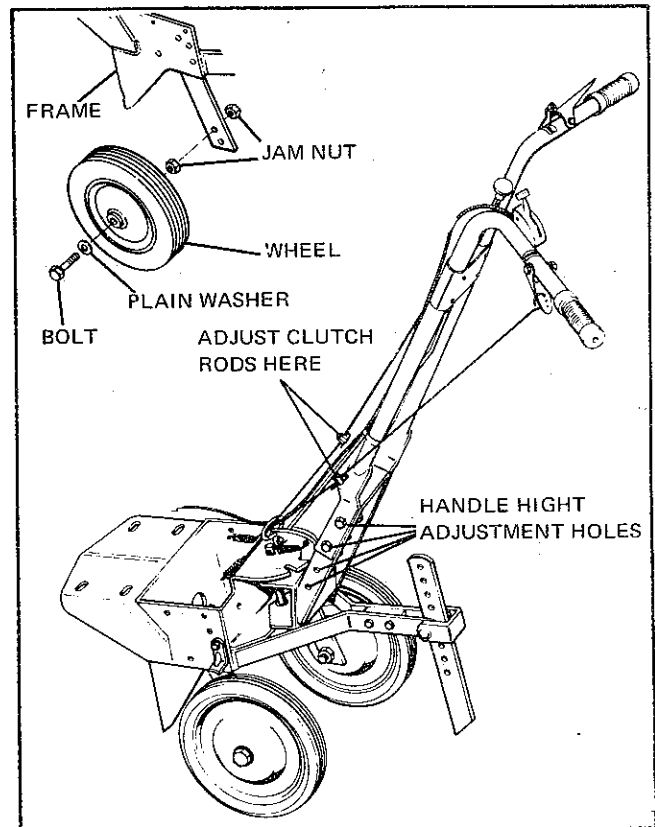


Figure 2

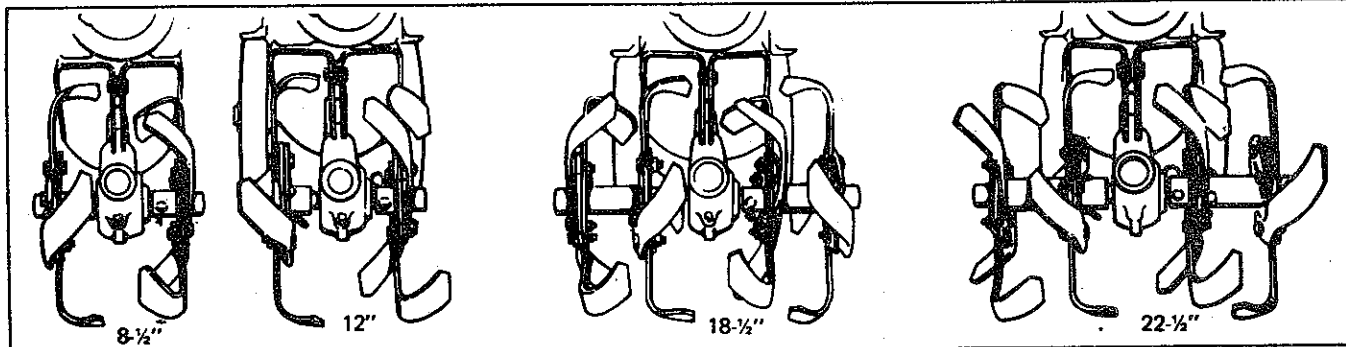


Figure 3

## WHEEL SCRAPERS

The wheel scrapers should be adjusted to allow the wheels to be cleared of the ground which will build up on them. This is accomplished by loosening the capscrew holding the scrapers and positioning as desired. This position may vary depending on the condition and type of ground being worked.

## TINES

The cover of this manual illustrates the tine arrangement as the tiller is shipped. The tiller will till 22-1/2" wide as standard. The two outer sets of tines may be removed for narrow cultivation by pulling the two spring clips and pins and sliding outer tine assembly off of the inner tine assembly. This permits narrow cultivation - 12" wide.

The tines may be further adjusted to cut additional width. By placing tines in position as shown in Figure 3, cutting widths may be adjusted to 8-1/2", 12", 18 1/2" or 22 1/2".

## OPERATION

Before putting the Roticul into operation, make sure that the engine has been serviced completely as described in the engine instruction book provided. The Roticul, if operated properly, will allow the operator to experience finger-tip ease in preparing the ground for seeding.

1. Start the Roticul engine by setting the throttle control to 1/2 to 3/4 open - open the choke and pull the starting rope. When the engine starts, close the choke and adjust the throttle to the desired speed. For tilling work, full throttle is recommended.

2. To operate the tiller in the forward direction, grip the right hand clutch lever. To reverse the tiller release the right hand clutch lever and grip the left hand clutch lever. **DO NOT ATTEMPT TO OPERATE THE ROTICUL BY FORWARD GRIPPING BOTH THE FORWARD AND THE REVERSE CLUTCH LEVERS AT ONE TIME, AS SERIOUS DAMAGE COULD RESULT.**

3. The depth bar setting will determine the depth of the tilling action. For tilling at a depth of 4 to 6 inches, install the pin through the second or third hole from the top. For a more shallow tilling action, the depth bar can be raised. Remember - the deeper the depth bar is set into the ground, the deeper the tine blades will dig into the ground.

4. To maintain easy control of the tiller, the operator should use the depth bar to furnish the necessary drag on

the Roticul, rather than pulling back on the handles. While operating the Roticul in preparing the ground, the operator needs only to press down on the handles for a deeper tilling action. Remember - a downward pressure on the handles results in a slow down of the forward movement and a deeper tilling action. An upward pressure on the handles results in an increase in the forward movement and a shallow tilling action.

5. In addition to the handle assembly being adjustable for the proper height it also may be adjusted in either of 3 sideways positions. To adjust the handle in a different position, pull back on the handle control knob and rotate the handle assembly to the desired notch, release the handle knob. See Figure 1.

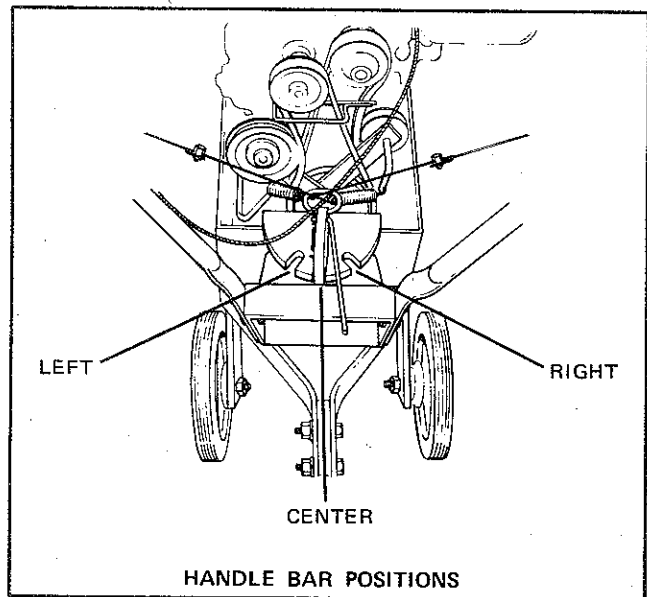


Figure 4

## LET THE DEPTH BAR DO THE WORK

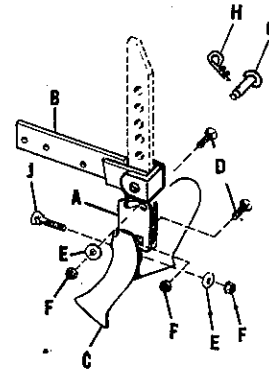
Your Simplicity Rotary Tiller is scientifically designed to prepare the soil for planting with a minimum of effort. Do not attempt to till when the soil is very wet as this may cause lumps which are difficult to work up. If the soil is extremely hard and dry you may find it desirable to cross-till to obtain the depth you want. On the first pass, till across the plot, and on the second pass, till in the direction in which the rows will run.

When operating your Simplicity rotary tiller for the first time, we suggest you try it for a short time to get the "feel". You will want to find the most comfortable handle position, the correct location of the depth bar for ease of operation, the engine speed best suited to your soil condition. You will soon find the correct pressure to apply to the handles. Experiment with the clutch lever, and notice the immediate response from "tickling" the clutch. You will find this very desirable when doing close cultivation with the tiller.

**FURROW OPENER – MFR.' NO. 340**

A furrow opener shovel is available which mounts on the depth bar. You will find this shovel very handy for digging furrows for crops such as potatoes that are planted in rows. When installing the furrow opener, turn the depth bar upside down and bolt to the tool holder with the carriage bolts, washers and nuts supplied. Remove the stop plate from between the support assemblies on the Roticut and install the extension support assembly with the same hardware. The depth bar is then positioned in this extension, the clamp installed and these pieces secured with the pin and clip supplied.

Ref. Let.	Part No.	Description
A	8271503	Tool Holder
B	118287	Extension Support Assembly
C	103010	8" Furrow Opener
D	703002	Carriage Bolt, 3/8"-16 x 1-1/4"lg.
E	719001	Plain Washer, 3/8"
F	717003	Hex.Nut, Full, 3/8"-16
G	118053	Pin
H	8161045	Spring Clip
J	704001	Plow Bolt



**TINE EXTENSION SET MFR.'S NO. 212**

The tine extension set consists of a left hand and right hand tine assembly. These additional extensions will allow an increase from the standard 22-1/2" tilling width to a width of 32-1/2" as shown in Figure 5. To install the extension tines, place long hubs of extension tines over hubs of tines previously installed, and secure with pin and spring clip. Be sure the extension tines are so mounted that the sharp edges of the tines on top face forward.

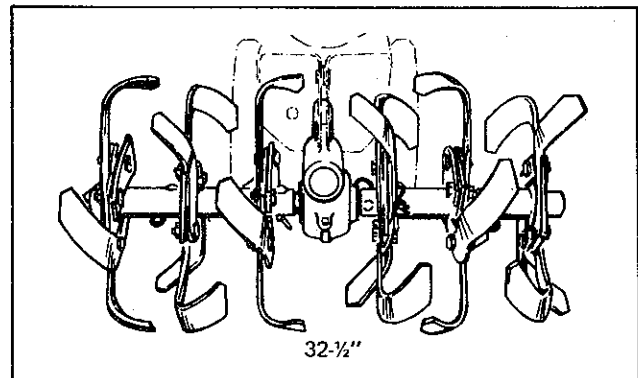
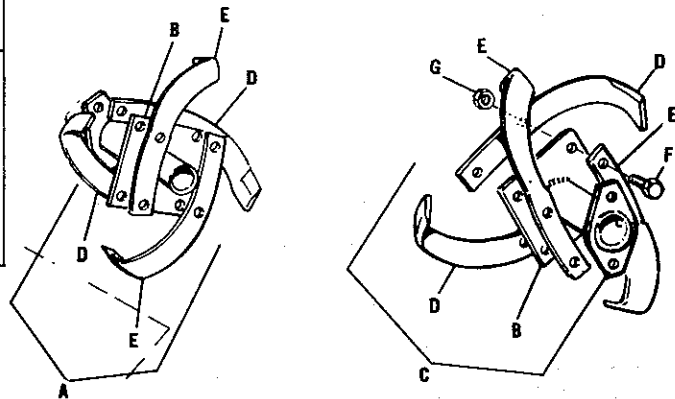
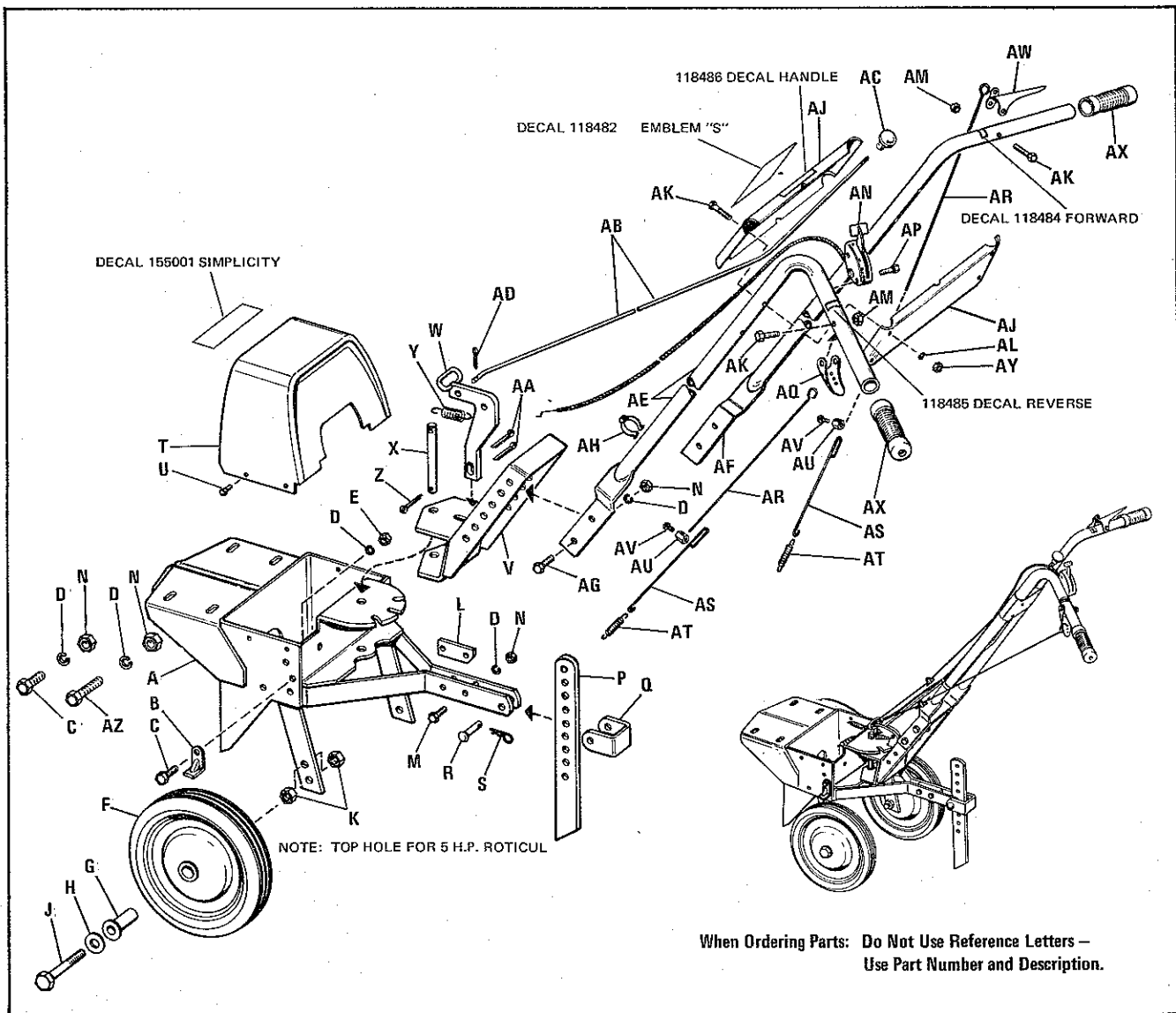


Figure 5.

Ref. Let.	Part No.	Description
A	105288	Extension, L.H. Tine Assy. Complete
B	105286	Plate Assy., Tine Extension
C	105289	Extension, R.H. Tine Assy. Complete
D	8152001	L.H. Tine Blade
E	8152002	R.H. Tine Blade
F	706009	Hex. Capscrew, 7/16"-20 x 1-1/4" lg.
G	717512	Hex. Nut, Full, 7/16"-20



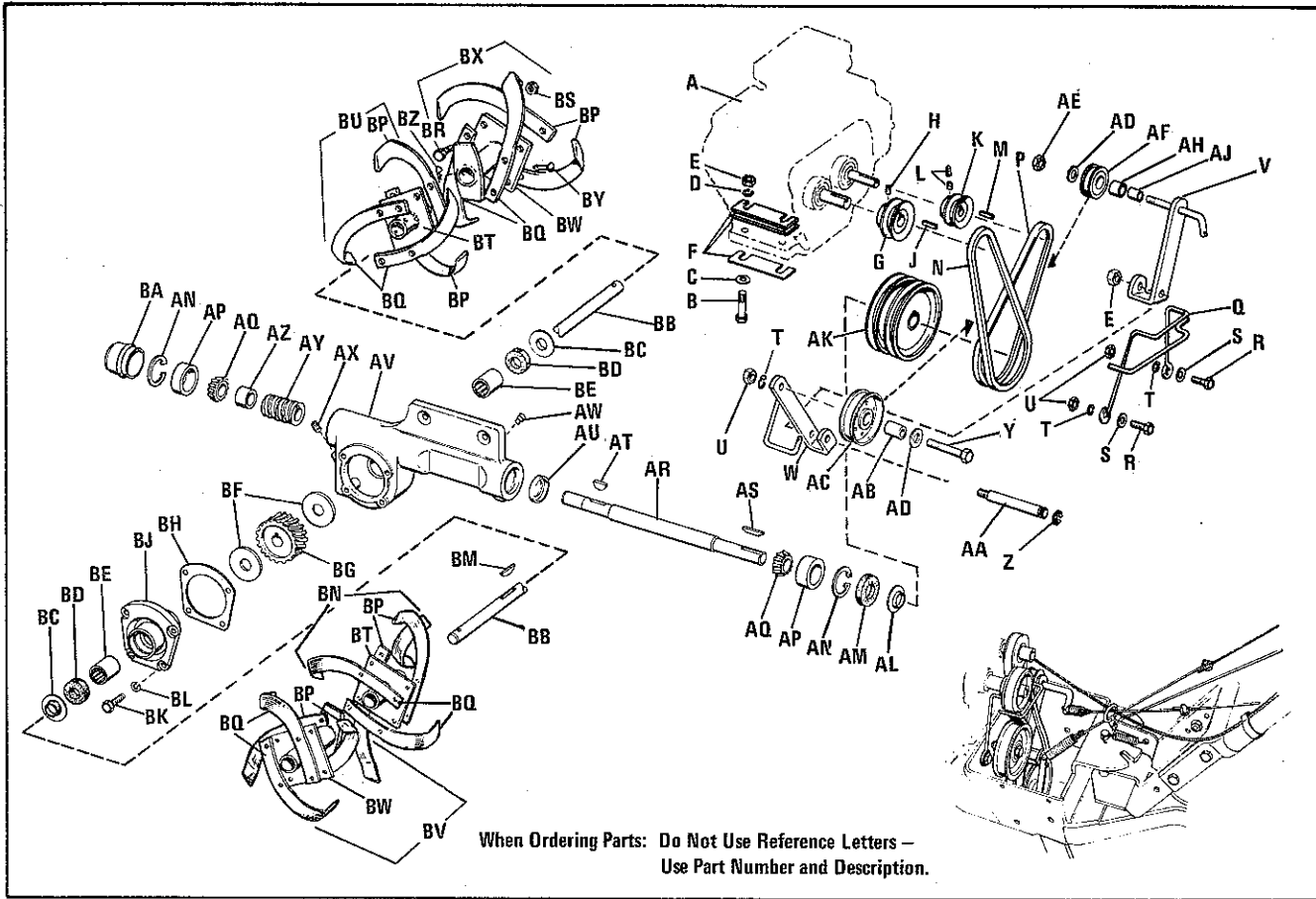
# FRAME, HANDLES and CONTROLS



Ref. Let.	Part No.	Description
A	118443	Body Assembly
B	118220	Scraper
C	705004	Hex Hd. Cap Screw 3/8"-16 N.C. x 3/4" lg.
D	720002	Lock Washer 3/8"
E	717013	Hex Nut, Full 3/8"-16
F	118030	Wheel & Tire Assembly
G	118132	Bushing, Wheel
H	719004	Plain Washer 1/2"
J	705037	Hex Hd. Cap Screw 1/2"-13 N.C. x 3-1/4" lg.
K	717017	Hex Jam Nut 1/2"-13
L	118207	Stop Plate
M	705009	Hex Hd. Cap Screw 3/8"-16 N.C. x 1 1/2" lg.
N	717003	Hex Nut 3/8"-16
P	118081	Bar-Depth
Q	118447	Clamp
R	105249	Pin
S	8161045	Spring, Clip.
T	118445	Cover
U	715067	Screw Washer Hd. Thread Forming 1/4"-20
V	118428	Handle Support Assembly
W	118454	Latch Assembly
X	118460	Pivot Rod
Y	170389	Spring
Z	722006	Cotter Pin 1/8" x 1"
AA	722011	Cotter Pin 3/16" x 1"

Ref. Let.	Part No.	Description
AB	118451	Latch Rod
AC	118104	Knob, Latch Rod
AD	722001	Cotter Pin 3/32" x 3/4"
AE	118427	Handle, L.H.
AF	118426	Handle, R.H.
AG	705005	Hex Hd. Cap Screw 3/8"-16 N.C. x 1" Lg.
AH	8061108	Clip, Cable
AJ	118298	Cover Handle Bar
AK	705025	Hex Hd. Cap Screw 1/4"-20 N.C. x 1 1/2" lg.
AL	720003	Lock Washer 1/4"
AM	717513	Hex Nut, Full Lock 1/4"-20"
AN	118446	Throttle Control Assembly
AP	715102	Screw, Self Tapping # 10-24
AQ	118449	Grip, Clutch-Reverse
AR	161090	Clutch Rod Extension
AS	118455	Wire, Extension
AT	118495	Spring
AU	161092	Clamp, Wire
AV	710006	Screw-Rd. Hd. 10-24 N.C. x 3/8 lg.
AW	118431	Grip, Clutch-Forward
AX	106558	Grip, Handle Bar
AY	717005	Hex Nut Full, 1/4"-20 N.C.
AZ	715015	Hex. Hd. Cap Screw, 3/8"-16 N. C. x 1-1/4"

# DRIVE and TINES



Ref. Let.	Part No.	Description
A		Engine B & S 5 H.P.
B	705020	Hex Hd. Cap Screw 5/16"-18 N.C. x 2" lg.
C	719002	Plain Washer 5/16"
D	720001	Lock Washer 5/16"
E	717001	Hex Nut Full 5/16"-18
F	118463	Shim
G	118027	Pulley, Engine
H	713504	Set Screw 5/16"-18 N.C. x 3/8" lg.
J	8221042	Key
K	118457	Pulley, Engine
L	713502	Set Screw 5/16"-18 N.C. x 1/4" lg.
M	725007	Key
N	118494	Belt "V" Forward
P	164146	Belt "V" Reverse
Q	118448	Belt Stop
R	705005	Hex Hd. Cap Screw 3/8" - 18 N.C. x 1" lg.
S	719001	Plain Washer 3/8"
T	720002	Lock Washer 3/8"
U	717003	Hex Nut, Full 3/8"-16
V	118408	Lever Assembly-Idler
W	118411	Lever Assembly-Idler
Y	705009	Hex Hd. Cap Screw 3/8"-16 N.C. x 1 1/2" lg.
Z	158399	Ring, Retaining
AA	118425	Pin, Pivot
AB	118415	Spacer
AC	154534	Pulley, Idler
AD	719002	Plain Washer 5/16"
AE	717524	Nut, Lock 3/8"-16 N.C.
AF	101002	Pulley, Idler Assembly w/ Bushing
AH	8161243	Bushing
AJ	8191020	Spacer
AK	118404	Pulley, Driven
AL	118400	Shield
AM	118393	Oil Seal

Ref. Let.	Part No.	Description
AN	118396	Snap Ring
AP	154393	Cup, Bearing
AQ	154486	Bearing, Roller
AR	118397	Shaft, Worm
AS	118439	Key
AT	725502	Key
AU	118399	Cup
AV	118392	Housing, Worm Drive
AW	118462	Plug, Vent
AX	726003	Plug, Pipe 3/8"
AY	118492	Worm, R.H.
AZ	118398	Spacer
BA	154487	Cup
BB	118021	Shaft, Worm Gear
BC	118403	Shield
BD	118118	Seal, Oil
BE	118020	Bearing, Needle
BF	118315	Washer, Thrust
BG	118022	Gear, Worm, R.H.
BH	118024	Gasket
BJ	118402	Cover
BK	715018	Hex Hd. Cap Screw 1/4"-20 N.C. x 5/8" lg.
BL	720003	Lock Washer 1/4"
BM	725005	Woodruff Key
BN	118083	Left Hand Inner Tine Assembly
BP	8152001	Left Hand Tine Blade
BQ	8152002	Right Hand Tine Blade
BR	706009	Hex, Capscrew, 7/16"-20 x 1-1/4"
BS	717512	Hex Nut, Full, 7/16"-20
BT	118084	Inner Tine Plate Assembly
BU	118120	Right Hand Inner Tine Blade Assembly
BV	105288	Extension, Left Hand Tine Blade Assembly
BW	105286	Plate Assembly, Tine Extension
BX	105289	Extension, Right Hand Tine Blade Assembly
BY	118053	Pin
BZ	8161045	Spring Clip

WARRANTY

The company warrants Simplicity Products to be free from defects in material and workmanship except the company makes no warranty express or implied with respect to tines, engines and engine accessories which generally are warranted by their respective manufactures. Any part covered by this warranty which is proven defective within one year, under normal use, from date of purchase, will be replaced free of charge, f.o.b. Port Washington, Wisconsin, provided such part is returned to factory transportation charges prepaid and is found to be defective upon examination at the factory. The company is not obligated under this warranty to bear cost of labor or delivery charges in replacement of defective parts. This warranty does not apply to any Simplicity Products altered outside of Simplicity's factory. Such replacement of defective parts shall be the exclusive remedy and in no event shall Simplicity be liable for consequential damages. EXCEPT AS SPECIFICALLY PROVIDED HEREIN, THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON ANY SIMPLICITY PRODUCT.

TINE  
WARRANTY

Simplicity Manufacturing Company warrants rotary tiller tines against breakage for the period not to exceed the normal life of the rotary tiller; and will replace broken tines directly to the customer at no charge; provided broken tines are returned postage prepaid to the Company's service department, Port Washington, Wisconsin.

Should warranty service be necessary, the information below should be presented to the authorized SIMPLICITY Dealer.

Customer's Name \_\_\_\_\_

Address \_\_\_\_\_

Mfg. No. \_\_\_\_\_ Serial No. \_\_\_\_\_

Date Purchased \_\_\_\_\_

Purchased From \_\_\_\_\_

Address \_\_\_\_\_

Engine Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_ Type No. \_\_\_\_\_

To obtain replacement parts from dealer, advise quantity, part number and description.

**NOTES**

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**SIMPLICITY MANUFACTURING CO., INC.**  
Port Washington, Wis. 53074, U.S.A.

