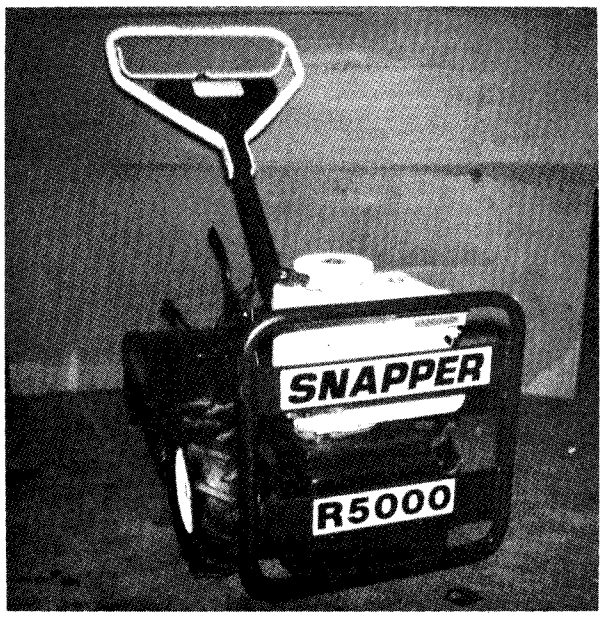
Operator's Manual & Safety Instruction for

SNAPPER®

MODEL R5000
REAR TINE TILLERS



Thank you for buying a SNAPPER product! Your Tiller was designed and built to provide long and satisfactory service. Study this manual carefully before operating the Tiller and pay particular attention to the Important Safety Instructions below. Keep in mind that a Tiller, like any other mechanical device, can be potentially dangerous if used imprudently. Following the instructions in this and the engine manual will help you continue to enjoy the trouble-free operation expected of a SNAPPER.

⚠ IMPORTANT SAFETY INSTRUCTIONS ⚠

Warning: This tilling machine is capable of causing personal injury! Failure to observe the following instructions could result in serious injury to the operator or persons in the operational area. Carefully read these instructions and be sure to question your Snapper Dealer if in doubt about anything. Should the Dealer not answer to your satisfaction, write or call the Snapper Customer Service Department at McDonough, Ga., 30253 (Phone 404-957-9141).

1. Become thoroughly familiar with all controls and learn how to stop tine rotation quickly in preparation for emergencies.
2. Never allow children or immature, uncoordinated or inexperienced persons to operate your tiller.
3. Keep everyone safely away from the area being tilled.
4. Be especially watchful for children and pets darting into the area while operating.
5. Wear protective clothing and appropriate shoes to provide best footing on uneven terrain.
6. Persons under the influence of alcohol or drugs must not be allowed to operate your tiller.
7. Stay alert, give complete and undivided attention to the job on hand.
8. Fill fuel tank only when engine is stopped and not hot. Fill outside where fumes can be safely dissipated.
9. Make sure clutch is disengaged before attempting to start.
10. Keep feet, hands and clothing safely away from tines at all times.
11. Disengage the tines and stop the engine before making any adjustments, attempting to clean or clear tines, or leaving the operator's position even momentarily!
12. Remember to avoid operating the engine in any enclosed area where deadly exhaust fumes could accumulate.

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INTRODUCTION

This manual covers the recommended operating procedures and routine service requirements for the Snapper model R5000 rear tine tiller. Specific details involving the engine are found in the separate engine owner's manual. Study these manuals before operating and keep both handy for future reference.

OPERATING INSTRUCTIONS

Be thoroughly familiar with all controls and how to use them before operating your tiller. Make the following checks and perform the services as required before each start up.

PRE-START CHECK LIST

CHECK ENGINE OIL and bring level up to full (refer to engine manual for oil specifications).

CHECK AIR CLEANER and service according to instructions in Engine Manual.

CHECK EXTERNAL SURFACES and remove dirt, dust accumulation and clean tines as needed.

CHECK GUARDS to make sure all are in proper position and securely tightened.

FILL FUEL TANK where fumes will be safely dissipated. Refer to engine manual for fuel specifications.

STARTING-STOPPING

The driving wheels and tines are engaged by moving the CLUTCH CONTROL up to the handle bar. Before attempting to start the engine, check to make sure the CLUTCH CONTROL is in disengaged position away from the handle bar. The engine starting-stopping control is locate on the front left side of the engine. Operate engine as follows:

STEP 1: On cold start, move the engine control all the way forward to FAST position.

STEP 2: Pull rope starter out in smooth steady motion until engine runs. Guide rope starter handle back to engine rather than allowing it to snap back.

STEP 3: Allow brief warm up period then move engine control rearward out of full forward (choke) position to desired speed setting.

STEP 3: To stop engine, move engine control rearward to STOP position.

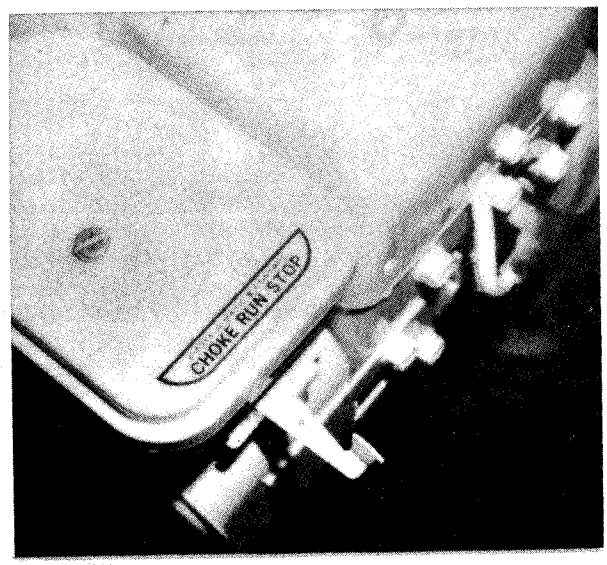

FIG. 2 - ENGINE STOP-START CONTROL

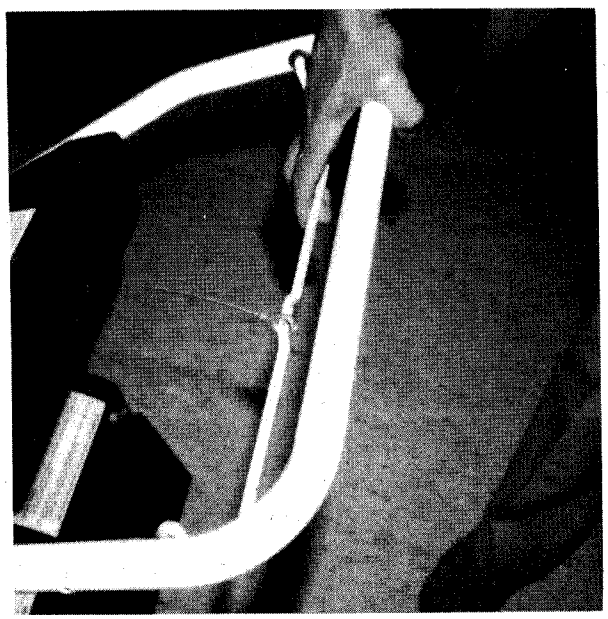

FIG. 3 - TRACTION & TINE CLUTCH CONTROL

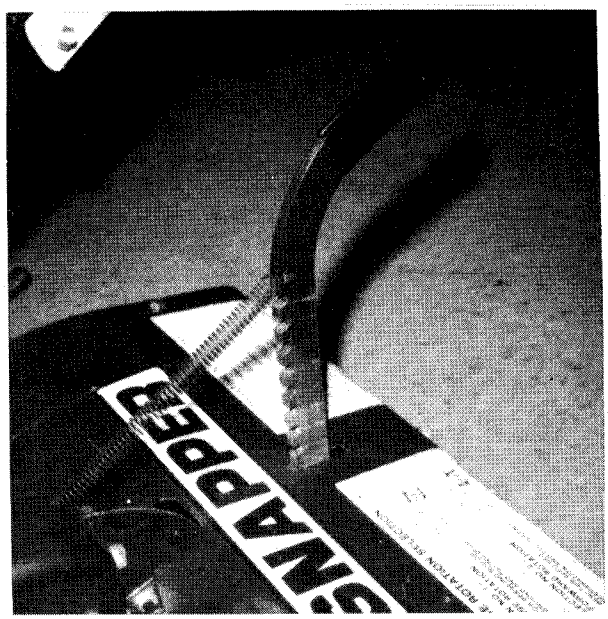

FIG. 4 - SKID ARM (DEPTH LEVER)

HANDLE BAR ADJUSTMENT

Horizontal positioning of the handle bar is changed from center position to two horizontal positions on either side as follows: Raise the horizontal position lever and swing the handle bar to desired position, align notch and release the lever. Refer to figure 6.

The handle bar is also adjustable vertically for your comfort. This adjustment requires a 5/8" box or open end wrench. To adjust vertical height, loosen the two lower bolts on the handle pivot bracket, reposition the bar to the desired height then securely tighten the two bolts. Refer to figure 6.

TRANSPORTING TO SITE

To avoid gouging the lawn or pavement while transporting, raise the tines to clear the surface by setting the skid arm in the lowest position. Do this with the CLUTCH CONTROL released. To reset the skid arm lift the rear of the tiller to take weight off the skid arm then pull the skid arm handle rearward and push down and reposition in the desired notch. Shift into the higher forward speeds then pull CLUTCH CONTROL back to the handle bar to transport to the tilling site.

TILLING PROCEDURE

The R5000 is set-up in production in the reverse tine rotation mode. In this mode, the tines rotate in the opposite direction of the wheels. Reverse rotation is best for breaking sod or untilled ground and for tilling deep. The tine rotation can be changed to forward (refer to TINE ROTATION SELECTION section) for cultivating and seed bed preparation. Prepare for tilling as follows.

1. **SET SKID ARM:** On this rear tine tiller, set the skid arm in the highest position for deepest tilling depth and intermediate notches for lesser depth. NOTE: If you are used to front tine tillers, this is the opposite of the skid arm setting.

2. **SET HANDLE BAR:** To swing the handle horizontally to either side, pull up on the release lever and swing to desired position then release the lever (Refer to HANDLE BAR ADJUSTMENT section).

3. **SET SPEED:** Shift transmission to lower ground speed setting and move engine control to fast setting. Readjust speeds later as needed to suit tilling conditions.

4. **BEGIN TILLING** by pulling the CLUTCH CONTROL back to the handle bar. Hold firmly against the handle bar to continue tilling. Release CLUTCH CONTROL to stop tine rotation and drive wheels.

5. **TILLING HINTS:** Let the tiller do the work. Don't try to hold it back. A slight down pressure on the handle bar is usually all thats required to help keep the tines firmly in the ground.

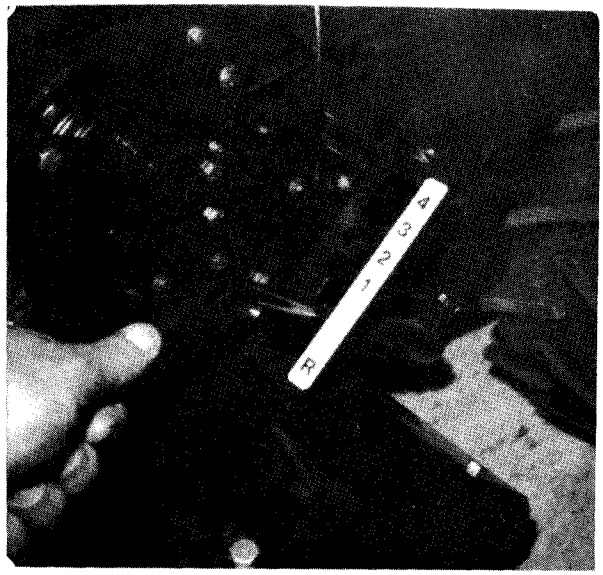

FIG. 5 - TRANSMISSION LEVER

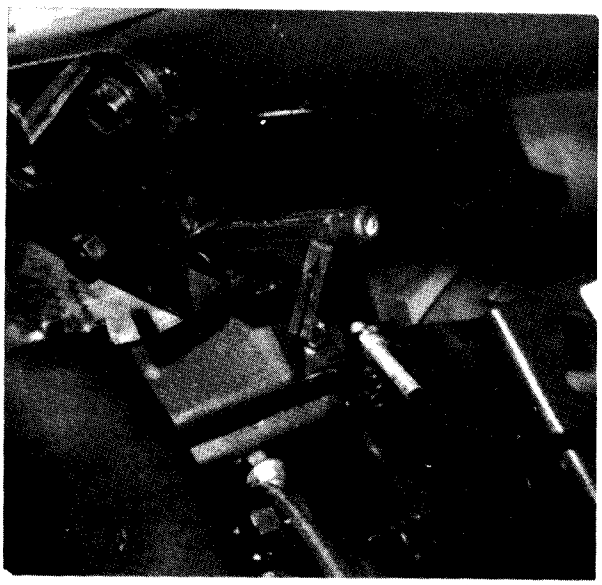

FIG. 6 - HANDLE BAR ADJUSTMENTS

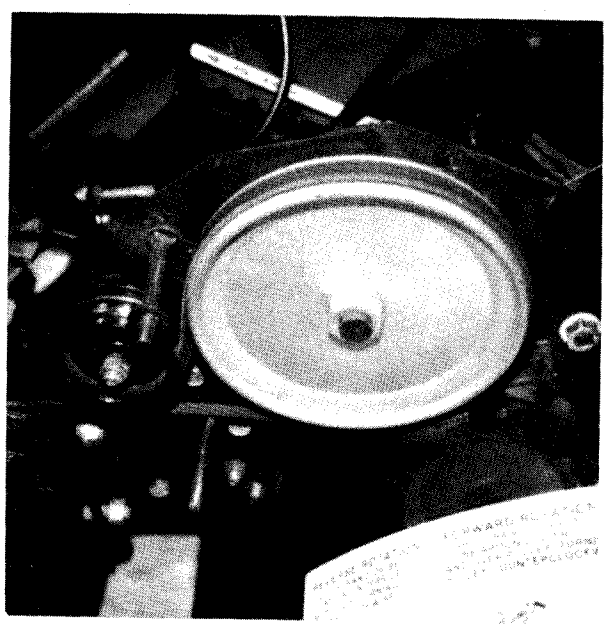

FIG. 7 - BELT COVER SWUNG AWAY

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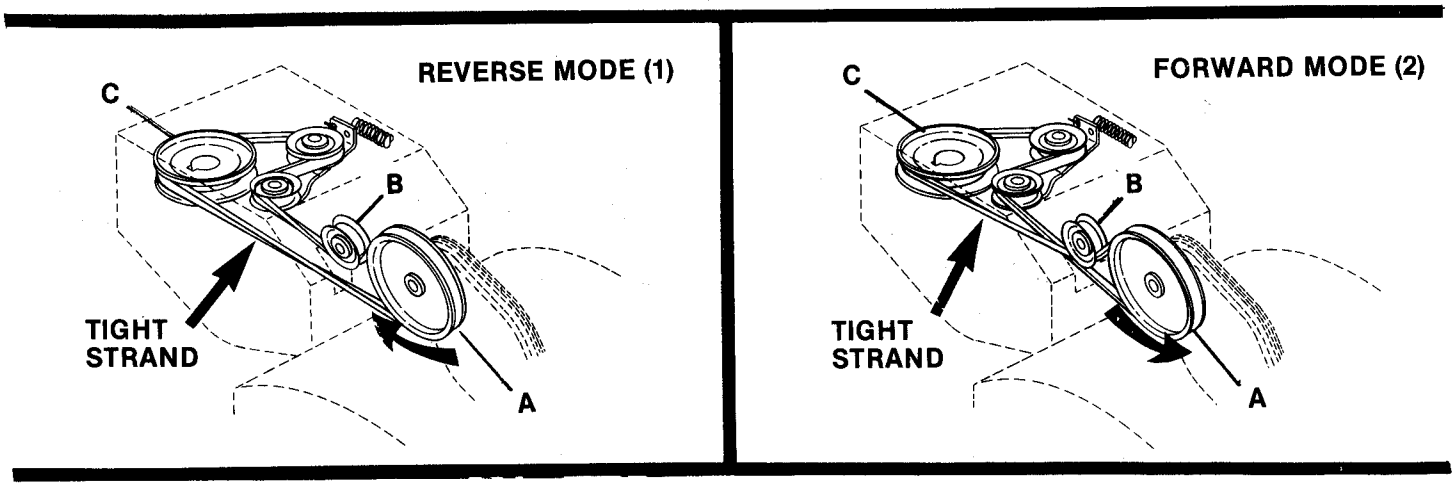


FIGURE 8 — TINE ROTATION BELT CHANGES

TINE ROTATION SELECTION

As received, the R5000 is set-up for reverse rotation which is best for breaking sod or new ground and for tilling deep. In this mode, the tines rotate in the reverse direction of the driving wheels. The direction of tine rotation is easily changed to forward mode for cultivating and seed bed preparation.

When in forward mode for cultivating between rows, the tines do not have to be switched from side to side, however, the Tiller will thus break previously tilled soil to a depth of only 1 or 2 inches. To dig untilled soil or to till deeper for seed bed preparation, switch the tines from right to left side.

CHANGE TINE ROTATION with engine off as follows: Remove the wing-nut and washer on the front stud of the belt cover, pull the cover outward over this stud then swing the cover rearward and out of the way over the belt pulley. With the clutch control released, there is sufficient slack to slip the belt off the pulley for changing the arrangement as shown in figure 8. In the original reverse rotation mode, the tight strand of the belt is between pulleys indentified A and C in the illustration while in forward mode, the tight strand is between pulleys C,B&A. After changing, swing the belt cover into position and secure with the washer and wingnut. NOTE: Extreme care must be taken to avoid double twisting the belt.

SERVICE

SERVICE PARTS & ASSISTANCE

To retain the original quality of your Tiller, use only genuine Snapper replacement parts. Specify the model and serial number as found on the nameplate of your Tiller when contacting your Snapper Dealer for parts or service assistance. Only numbers of certain routine service parts are listed in this manual. Your Snapper Dealer has a complete listing of all components. For engine parts, look for the engine manufacturer's dealers under the heading ENGINES-gasoline in the yellow pages of your telephone directory. Snapper Dealers are listed under LAWN MOWERS.

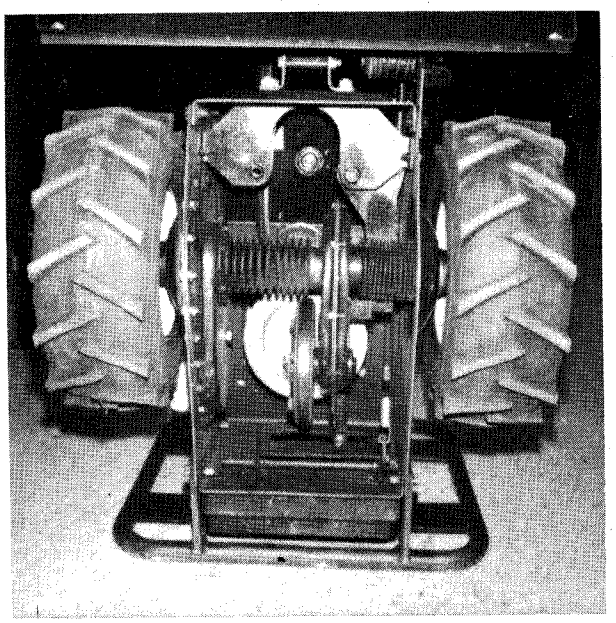


FIG. 9 - TILLER ON END

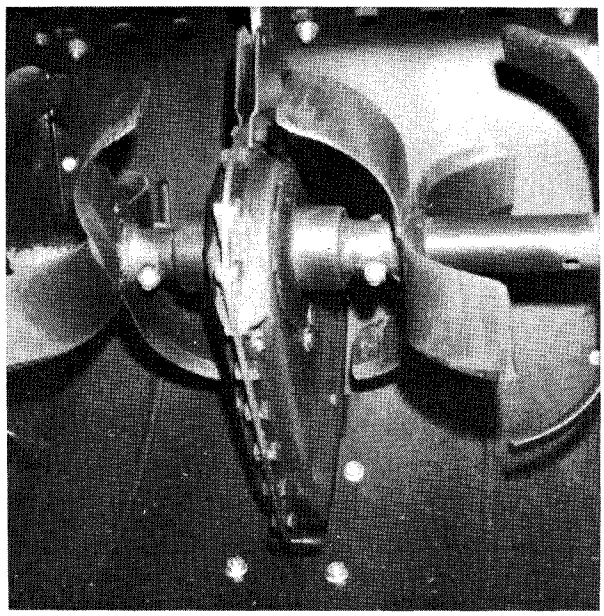


FIG. 10 - TINE DETAIL

STANDING TILLER ON END

Many of the services described in the following specify standing the tiller on end for easy access to components on the underside of the frame. The Tiller may also be stored during the off-season on the front stand-up bar. If the fuel tank is less than half full the fuel should not leak out of the filler cap. Take necessary steps to prevent fuel leakage before standing on end. If the tiller is stored on end for any length of time, check for oil leakage. CAUTION: Never stand the tiller on end with the engine running! Stop the engine and disconnect the spark plug wire to prevent accidental starting before standing on end.

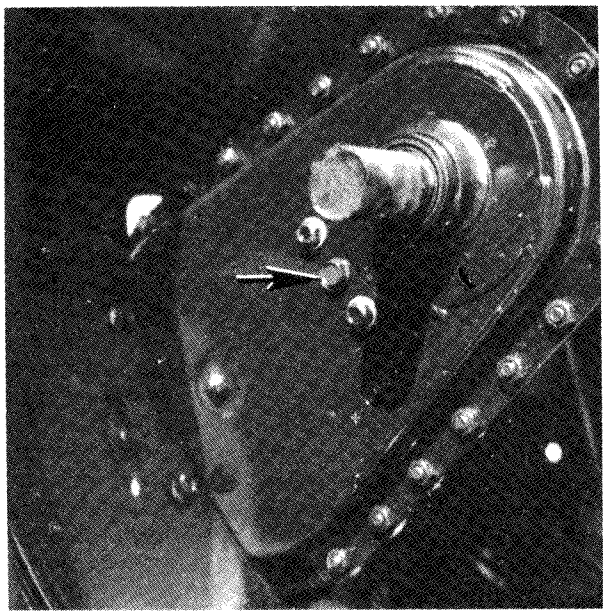


FIG. 11--CHAIN CASE OIL CHECK

SERVICE NOTE: Since a tiller normally operates under extremely dusty or dirty conditions, the air cleaner, engine oil and cooling fins must be serviced as specified in the engine manual at frequent intervals. The Tiller itself should be serviced as follows:

LUBRICATION-TILLER

CHAIN CASE: Check the level of the oil in the chain case each time the engine oil is changed. Check by removing the check plug and washer located just above the tine shaft. The level should be up to the edge of the opening. To add oil, remove the plastic plug on upper side of case, add Snapper OO grease as needed to bring level up to bottom edge of the check plug opening. The total capacity of the case is about 1 U.S. standard quart -- do not exceed this amount. Reinstall plugs and washer after checking.

REDUCTION GEAR CASE: This unit is pre-lubricated with Snapper 00 grease and will not normally require additional lubrication.

MOVING POINTS: Grease shift lever, roller and cam on traction clutch yoke and other moving surfaces twice a year.

TILLER TINES

The tines are bolted securely to the tine shaft with one special hardened bolt (Snapper #9-0166) and locknut (9-0289) on each side. Keep spares on hand in case a bolt shears off or becomes lost while tilling.

The Snapper Tines are sharpened on front and rear edge for forward or reverse rotation. The point of the tines should be the leading edge under all conditions except when used in the forward mode for cultivating (Refer to TINE SELECTION for details).

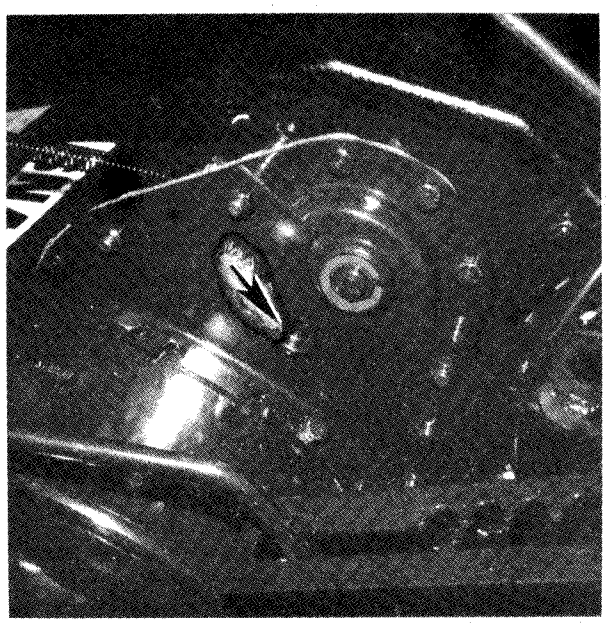


FIG. I2--CHAIN CASE OIL FILL

BELT ADJUSTMENT & REPLACEMENT

BELT TENSION ADJUSTMENT: Stand tiller on end and swing belt cover up to provide access to belt and idler. Pull clutch control to handle bar and observe where idler arm is positioned under the tiller frame. With the belt tight, the idler arm should be approximately parallel to the cross member. If at an angle, adjust idler at drive pulley by loosening capscrew and shifting position of idler until arm is pulled parallel to cross member when belt is tight. Retighten capscrew on idler after adjustment.

BELT REPLACEMENT: To replace belt, stand tiller on end, swing belt cover up to provide access to belt and idler, move shift lever between positon R and 1. Remove nut and lockwasher from the V idler under frame then slide idler down bolt to allow slipping belt on and off the pulley. Remove belt by slipppng off pulleys and pull out of the frame. To install replacement belt, thread belt thru opening in back of frame, route belt around engine pulley, idlers and belt guide then slide V idler back on bolt and secure with the lockwasher and nut removed earlier. Use care to insure that belt is kept straight over tiller pulley and idler and in desired tilling mode. Readjust belt tension as required.

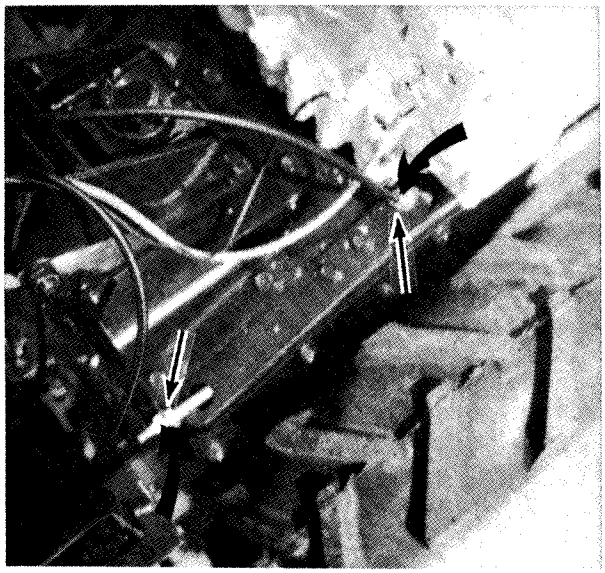


FIG. I3--CLUTCH LOWER ADJUSTMENTS

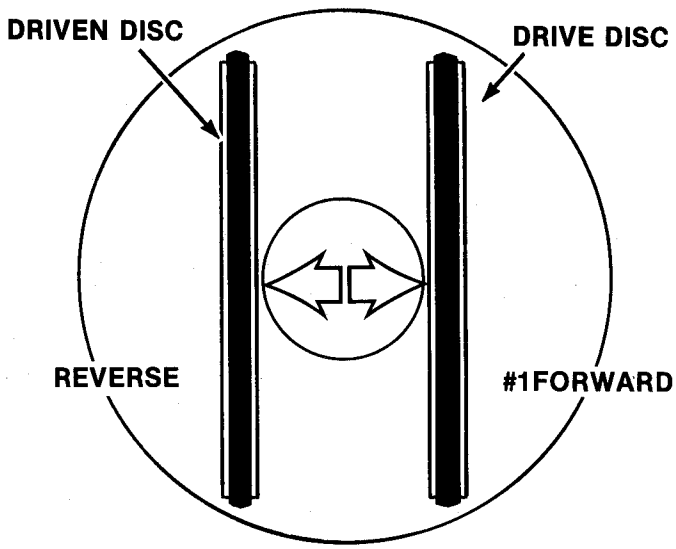


FIG. I5--DISC FORWARD & REVERSE POSITIONS

CLUTCH ADJUSTMENT

To check clutch adjustment, stand tiller on front end. Measure the length of both springs at the end of the control cables then move the CLUTCH CONTROL up to the handle bar and measure the extended length of both springs. When properly adjusted the springs should extend 1/4 to 1/2 inches when clutch is engaged. If adjustment is required, reposition the jam-nuts on the threaded ends of the cable conduits. One end of the conduit is located under the handle bar center panel and the others on the right side of the frame. The one in back is for tine rotation and the center is for wheel traction.To increase spring extension, turn the jam-nuts toward the end of cable or to decrease closer to the cable fittings. Additional clutch adjustment can be made if necessary at the idler under the belt cover--refer to BELT TENSION adjustment for this procedure.

CLUTCH TEST: Return tiller to wheels, start engine and pull CLUTCH CONTROL to handle bar then release and observe tines and wheel drive which should stop--if tines or wheels continue after clutch control is released, the clutch spring extension is too great. Readjust using the foregoing procedure.

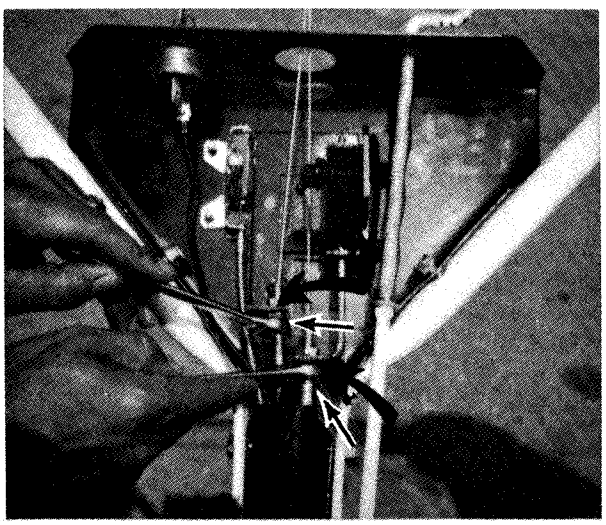


FIG. I4--CLUTCH UPPER ADJUSTMENTS

DRIVEN DISC SERVICE

If the wheels loose traction, stand the tiller on end and check the rubber driven disc. Poor traction could be caused by an excessively worn driven disc or by improper positioning of the disc. If the rubber disc appears in good condition, shift the transmission into reverse then into #1 forward position. In both settings, the rubber disc should be located outside of the indentation in the center of the metal drive disc. If the rubber disc rides on the edge of indentation in either setting, loosen the screws holding the shift detent to the frame then tilt the detent until the rubber disc is outside the edge of the indentation. Securely tighten the detent screws. The disc should be about equal distance from the outer edge of the indentation in both reverse and #1 positions when properly adjusted.

Replace the driven disc if worn unevenly or if worn down to the point where it no longer makes firm contact with the drive disc. To replace, remove the three flange nuts, slip the old disc off the hub then install the replacement and secure with the three flange nuts.

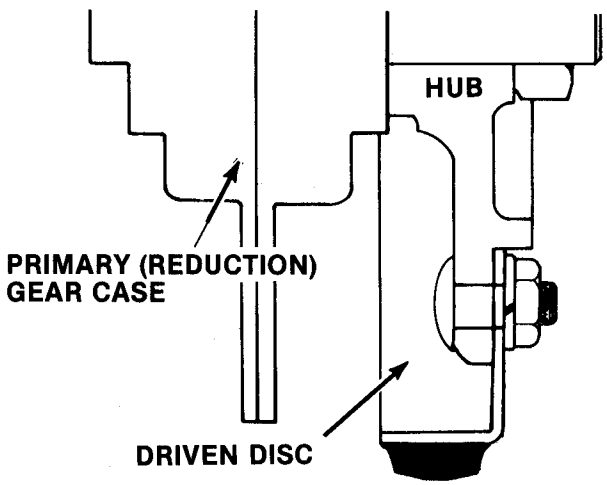


FIG. 16--DRIVEN DISC DETAIL

OFF-SEASON STORAGE

Thoroughly clean all external surfaces and tines before storing the Tiller. The Tiller may be stored on end, however, the following steps must be taken.

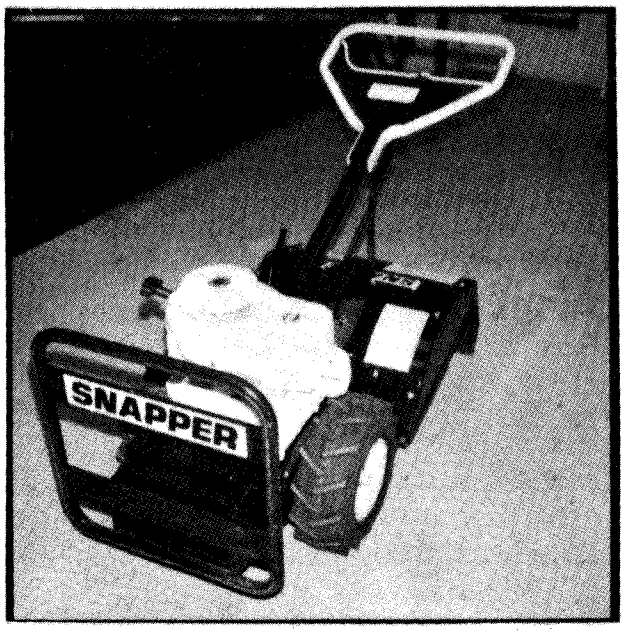
1. Drain gasoline from fuel system and drain the engine crankcase oil (refer to engine manual for details).

2. After standing the Tiller on end, check the plugs in the chain case for leakage. After extended period, some grease may seep thru upper bearing races. Place small pan or towel on frame to catch the grease.

3. At the start of the new season, replenish engine crankcase oil and add gasoline to the fuel tank after returning the Tiller to its wheels.

4. Before starting, move the ENGINE CONTROL to OFF and pull rope starter slowly several times. If excessive resistance is felt, remove the spark plug and pull rope starter rapidly to spin the engine and clear oil from the cylinder. Clean and reinstall the spark plug before attempting to start the engine.

SERVICE NOTES



TRACTOR CONVERSION & ACCESSORIES

The R5000 Tiller can be converted to a walk-behind garden tractor by detaching the tiller unit and installing the Snapper #6-0572 clevis pin hitch kit in place of the tiller. With the hitch kit installed, the tractor will accept the following garden tool accessories which are available in kit form thru your Snapper Dealers.

- CULTIVATOR, 4-SPRING SHANK (KIT #6-0562)
- CULTIVATOR, 5-SWEEP (KIT #6-0561)
- CULTIVATOR, 5-SHOVEL (KIT #6-0560)
- MIDDLE BUSTER, 10" (KIT #6-0564)
- DISC HILLER (KIT #6-0563)
- HAULING TRAY (KIT #6-0559)

Contact your Snapper Dealer for specific details on these kits.

MANUFACTURER'S 1 YEAR LIMITED WARRANTY

For 1 Year from purchase date for a non-commercial user, or for Thirty (30) days from purchase date for a commercial user, SNAPPER POWER EQUIPMENT, through any factory authorized service dealer, will replace for the original purchaser, free of charge, any part or parts found upon examination by the factory at McDonough, Georgia, to be defective in material or workmanship or both.

All transportation cost incurred by the purchaser in submitting material to an authorized service dealer for replacement under this warranty must be borne by the purchaser.

This warranty does not apply to engines and their components, as these items are warranted separately by their manufacturers. Neither does it apply to parts that have been damaged by accident, alteration, abuse, improper lubrication, normal wear, or other cause beyond our control.

There is no other express warranty.

Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to one year from purchase date for non-commercial users, and for thirty (30) days from purchase for commercial users and to the extent permitted by law any and all implied warranties are excluded. This is the exclusive remedy. Liabilities for consequential damages under any and all warranties are excluded.

Some states do not allow limitations on how long an implied warranty lasts or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

WARNING: Use of replacement parts other than genuine SNAPPER parts may impair the safety of your tiller.

IMPORTANT: Please fill out the attached Snapper Product Registration Card and mail to:

SNAPPER POWER EQUIPMENT, McDONOUGH, GEORGIA 30253

SNAPPER POWER EQUIPMENT
McDonough, GA • 30253

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