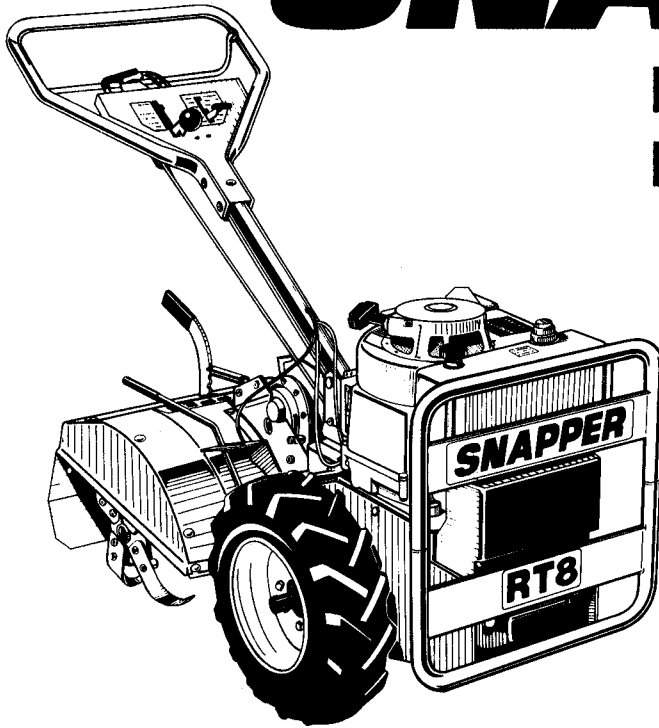


## Safety Instructions & Operator's Manual

# SNAPPER®

## MODEL RT8 & RT8S 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 improperly. 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, Georgia, 30253 (Phone: (404) 954-2500).

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 the 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.

**SNAPPER**® McDonough, GA., 30253 U.S.A.

MANUAL No. 1-4685 (Rev. 3, 8/93)

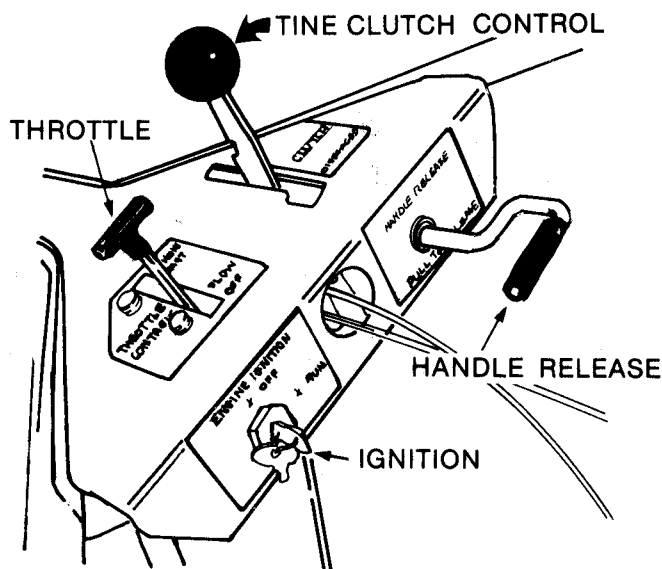


FIG. 2--PANEL CONTROLS

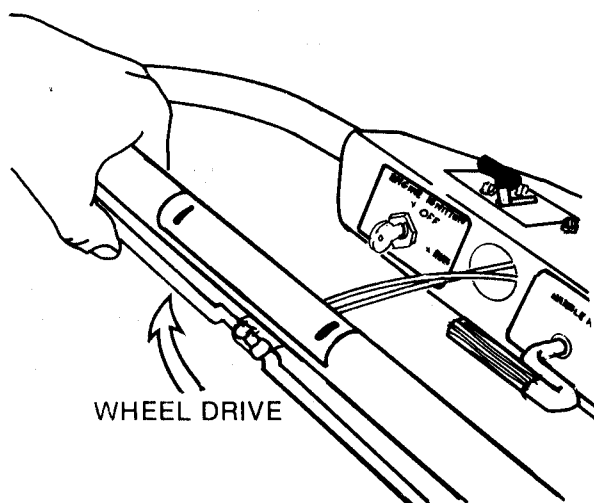


FIG. 3--CLUTCH CONTROL

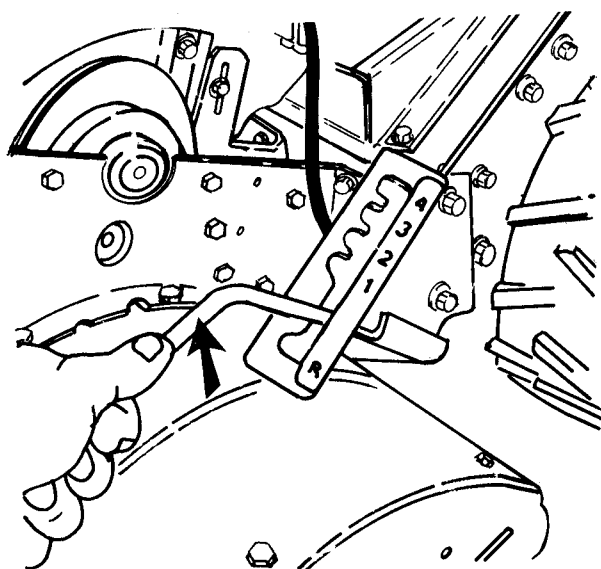


FIG. 4--TRANSMISSION SHIFT LEVER

This manual covers the recommended operating procedures and routine service requirements for the Snapper RT8 & RT8S Rear Tine Tillers. The S designation indicates electric start. 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

Know beforehand how to stop the tines, wheel drive and engine in preparation for possible emergencies. The engine is stopped by either moving the ENGINE IGNITION keyswitch to OFF or by pulling the engine THROTTLE CONTROL rearward to OFF. Tine rotation is stopped by either shifting the TINE CLUTCH control to disengaged position or by releasing the CLUTCH CONTROL which stops both the drive wheels and tine rotation even with the TINE CLUTCH in engaged position. Operate engine as follows:

**STEP 1:** Shift the transmission into #1 speed position, move the TINE CLUTCH into disengaged position and make sure CLUTCH CONTROL is in released position.

**STEP 2:** Insert the key and turn the ENGINE IGNITION switch to RUN POSITION.

**STEP 3:** On cold starts, move the engine THROTTLE CONTROL forward into CHOKE position.

**STEP 4:** Move around to right side of unit and pull ROPE STARTER on engine in smooth steady motion until engine starts. To prolong the life of the rope, guide the starter handle back to the engine rather than allowing it to snap back.

**STEP 5:** Allow brief engine warm-up period then move the engine THROTTLE CONTROL rearward to the desired FAST or SLOW speed setting. Refer to TILLING PROCEDURE section on next page.

**STEP 6:** To stop the engine, move the ENGINE IGNITION switch to OFF or pull the engine THROTTLE CONTROL rearward to OFF.

## HANDLE BAR ADJUSTMENT

The handle bar can be moved horizontally from the center position to two positions on each side by pulling the HANDLE RELEASE control rearward and swinging the handle bar to the desired position. Push the HANDLE RELEASE toward the panel to lock in position. The handle bar can be raised or lowered by loosening the bolts with a 9/16" wrench as shown in figure 6. Securely tighten the bolts after adjusting

## TRANSPORTING TO SITE

To avoid gouging the lawn or pavement, raise the tines to clear the surface before transporting the unit to the tilling site. Release the CLUTCH CONTROL and lift the rear of the tiller to take the weight off the skid arm then push it downward into the notch setting which will allow the tines to clear the surface. Pull the CLUTCH CONTROL back to the handle bar to engage the wheel drive and transport to the tilling site. Transport with TINE CLUTCH in disengaged position.

## TILLING PROCEDURE

The tiller is initially set-up in the forward tine rotation mode which is best for cultivating and seed bed preparation. Tine rotation can be quickly changed by following the instructions on page 4. Prepare for tilling as follows.

1. **SET HANDLE BAR** in desired position before engaging CLUTCH CONTROL.
2. **SET SKID ARM** in highest position for deepest tilling depth and intermediate notches for lesser depth. NOTE: If you are familiar with front tine tillers, this is opposite of the skid arm setting recommendations.
3. **SET SPEEDS** to begin tilling by shifting the transmission into #1 speed and moving the engine THROTTLE CONTROL to fast.
4. **BEGIN TILLING** by pushing TINE CLUTCH control to engaged position and pulling CLUTCH CONTROL back to handle. At the end of the row, disengage the TINE CLUTCH but hold the CLUTCH CONTROL to handle bar to continue the wheels driving while turning.
5. **TILLING HINTS:** Let the tiller do the work! Do not try to hold it back. A slight down pressure on the handle bar is usually all that is required to keep the tines firmly in the ground.
6. **ROUGH TERRAIN HINT:** If tilling over very rough, uneven ground, till at light depth setting on the first path to smooth the surface. On especially rough terrain, the tiller could hang up underneath with the wheels spinning free. Under this condition the transmission will be hard to shift. Rather than attempting to force the shift lever into reverse, lift the handle bar then turn the tiller diagonally across the rise to gain traction.

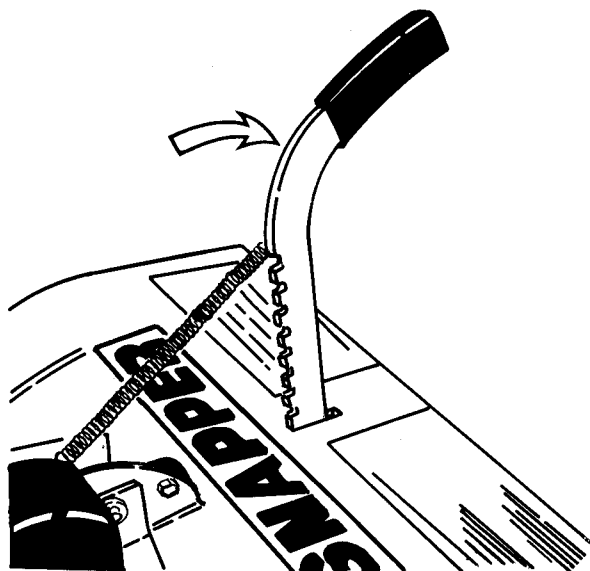


FIG. 5--SKID ARM DEPTH LEVER

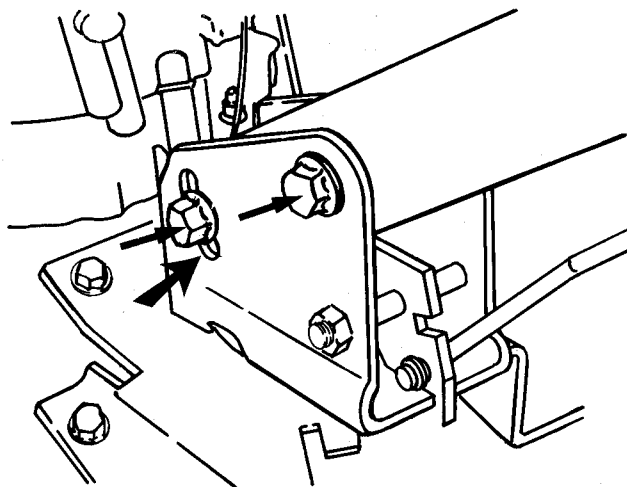


FIG. 6-- HANDLE HEIGHT ADJUSTMENT

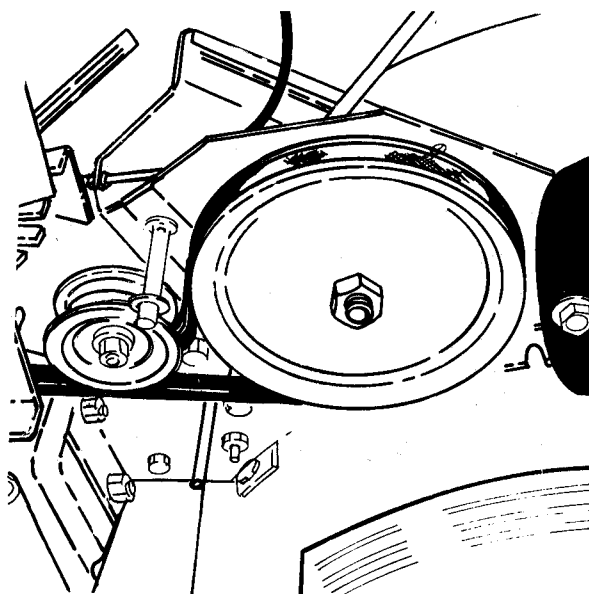


FIG. 7--BELT COVER SWUNG AWAY

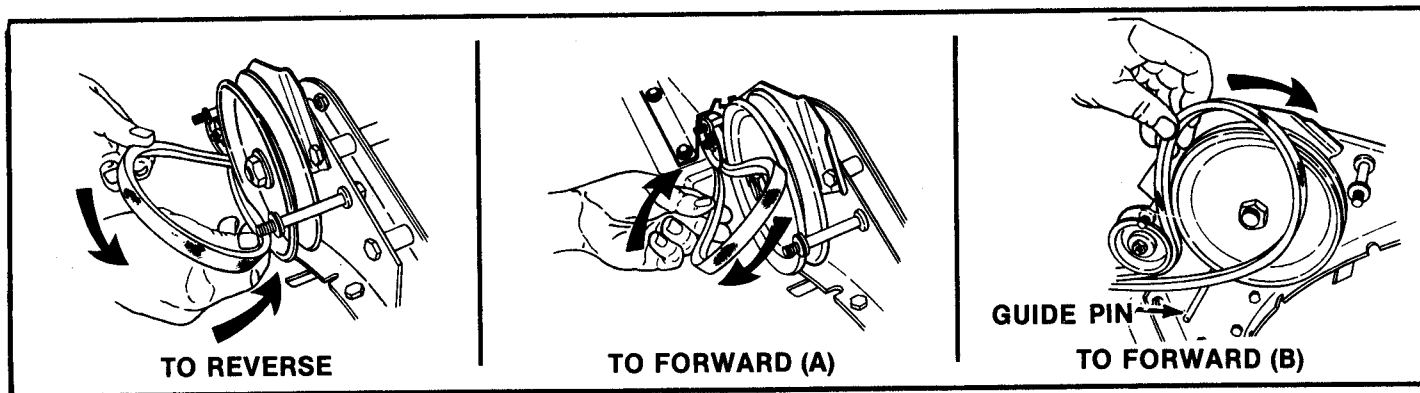


FIGURE 8 — TINE ROTATION BELT CHANGES

## TINE ROTATION SELECTION

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

**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.

**TO CHANGE FROM FORWARD TO REVERSE:** TAKE BELT OFF TOP OF BIG PULLEY, PULL TOWARD YOU AND HOLD. LIFT BELT FROM BOTTOM AND PUT IN TOP OF PULLEY.

**TO CHANGE FROM REVERSE TO FORWARD:** TAKE BELT OFF BOTTOM OF BIG PULLEY. PULL TOWARD YOU AND HOLD IN LEFT HAND. REMOVE BELT FROM TOP AND PULL DOWN. PLACE BELT (HELD BY LEFT HAND) UNDER LITTLE PULLEY AND OVER BIG PULLEY.

● **MAKE SURE BELT IS RUNNING TRUE UNDER LITTLE PULLEY, AROUND BIG PULLEY, AND ABOVE GUIDE PIN.**

● **SWING BELT COVER FORWARD & INSTALL WINGNUT.**

**SNAPPER** two way tines are sharpened on both edges and are self-adjusting to till in forward or reverse rotation without switching the tines from one side to the other. They pivot on slots in the tine hub to enter the ground at proper angle to provide maximum penetration.

## 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**.

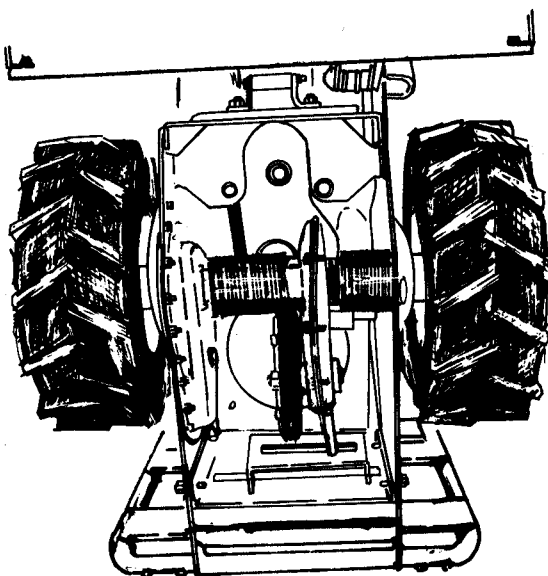


FIG. 9 - TILLER ON END

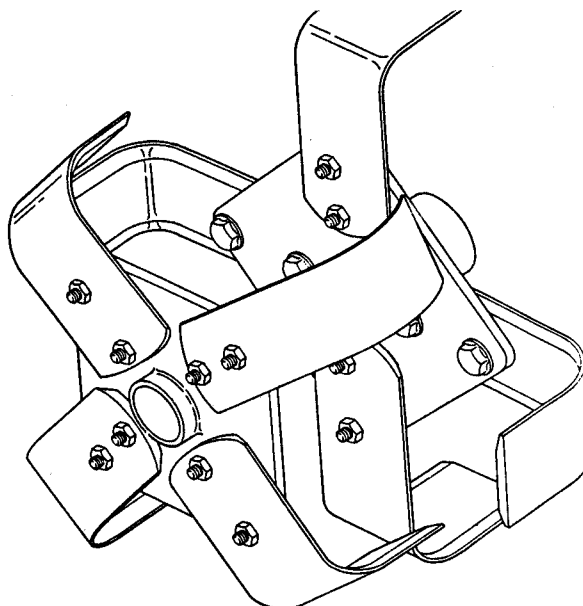


FIG. 10 - TINE DETAIL

## 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.

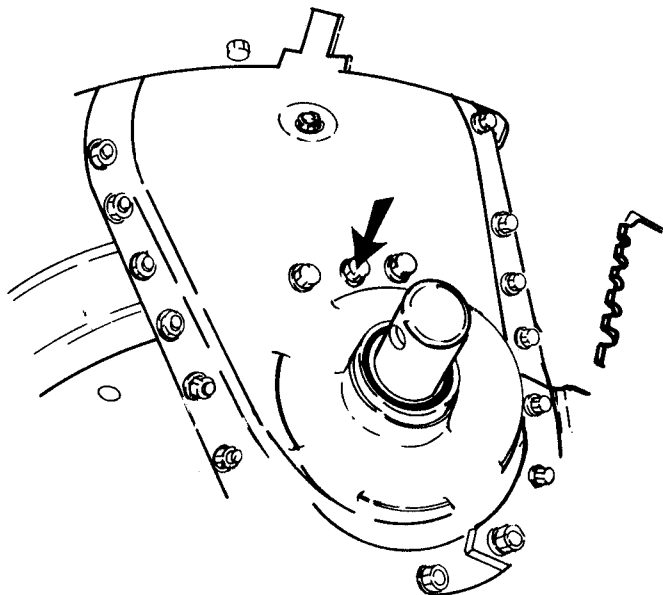


FIG. 11--CHAIN CASE OIL CHECK

**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 OO 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

**TINE SERVICE:** Snapper two-way tines are sharpened on front and rear edges to cut in either direction. Check periodically for freedom of movement of the tine blades and for loose or missing fasteners. The tine blades must be free to pivot on the hub plates. Replace tine blades when badly worn or damaged. Use Snapper #3-2424 tines and #1-4981 Shoulder bolts and 9-0524 locknuts for replacement purpose or order complete tine assembly #5-1513. The same assembly is used on both sides of the chain case.

The tines are bolted securely to the tine shaft with a special shear bolt (Snapper #1-4586) and locknut (9-0289) on each side. Keep spares on hand in case a bolt shears off or becomes lost while tilling.

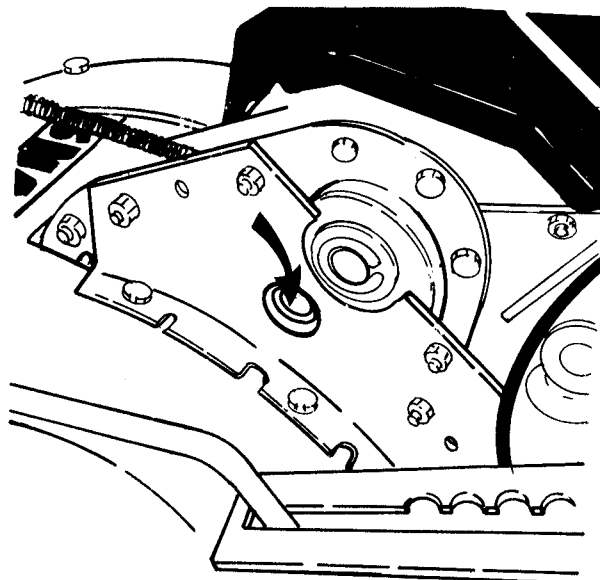


FIG. 12--CHAIN CASE OIL FILL

### 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 driven 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 position R and 1. Remove capscrew, washer 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 slipping 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 and secure with the fasteners 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.

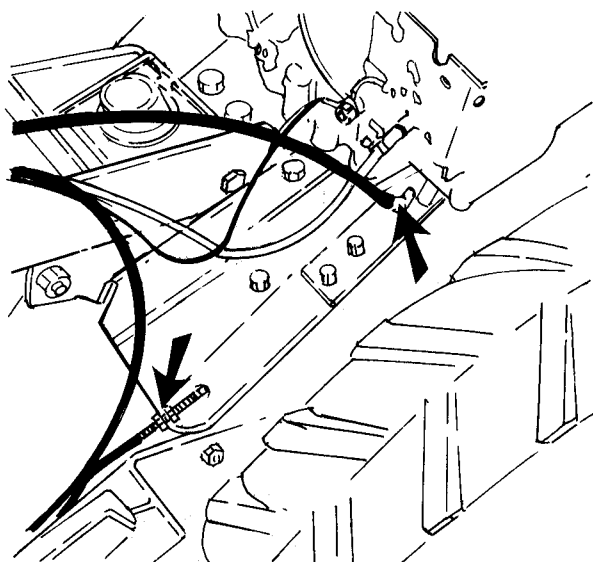


FIG. 13--CLUTCH LOWER ADJUSTMENTS

### 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.

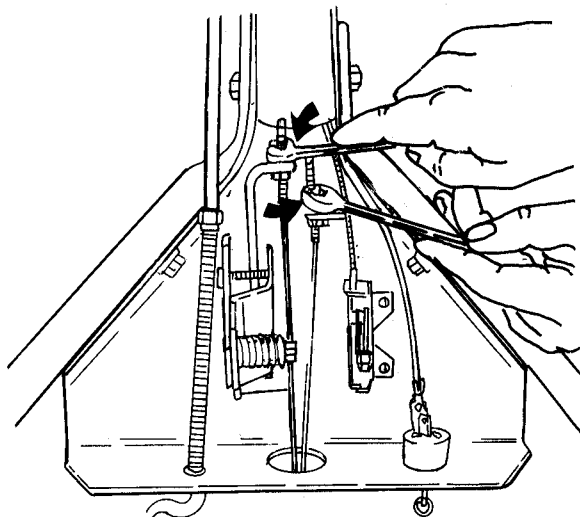


FIG. 14--CLUTCH UPPER ADJUSTMENTS

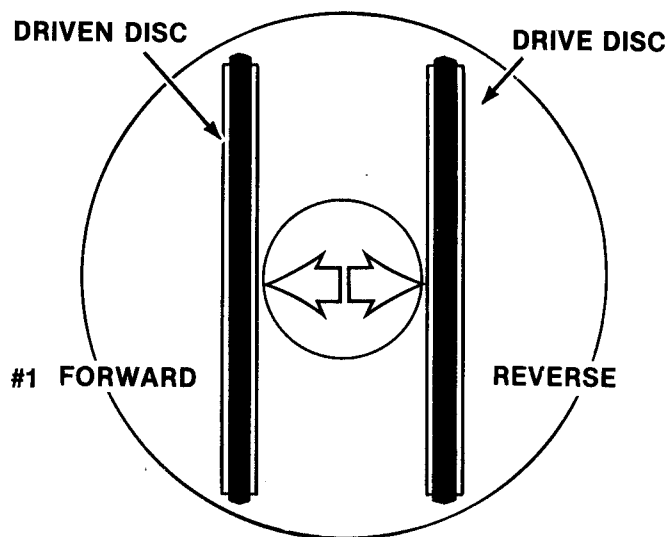


FIG. 15--DISC FORWARD & REVERSE POSITIONS

### 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.

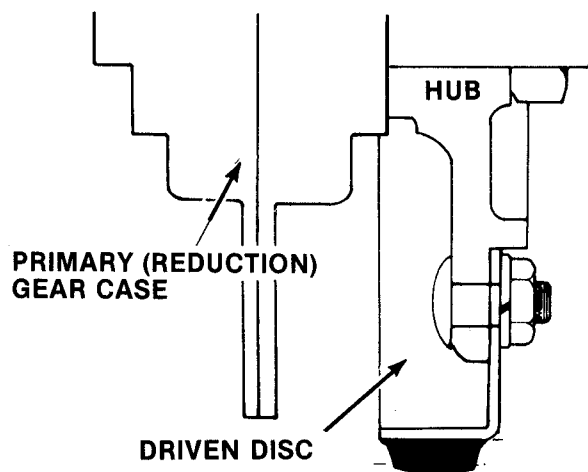


FIG. 16--DRIVEN DISC DETAIL

## 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.
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

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## SEALED LEAD ACID BATTERY

This battery can usually be placed in service as received. However, it may be of benefit to give it a short (3 hour) charge before use. Use a charger rated at 2 amps or less unless the charger is an automatic or voltage regulated charger, in which case the charger can be rated as high as 6 amps. Do not charge for more than 24 hours.

When making electrical connections, make sure the red wire is connected to the positive terminal and the black to the negative. When tightening the terminal bolts, be careful not to overtighten and break the battery terminals. Always connect the positive terminal first.

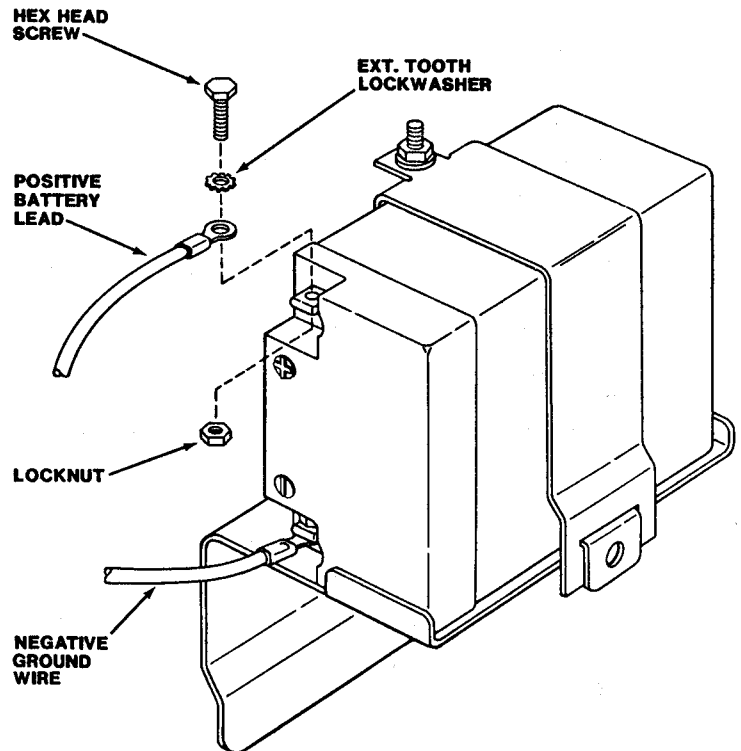
## MAINTENANCE

Charge the battery before long periods of storage and every 3 months thereafter. Remove the negative lead from the battery when the battery is being stored to prevent the battery from discharging. Coat the terminals and connectors with grease to reduce corrosion.

**CAUTION** This battery contains sulfuric acid which may leak if case is broken. If any acid comes in contact with skin or clothing, follow these instructions:

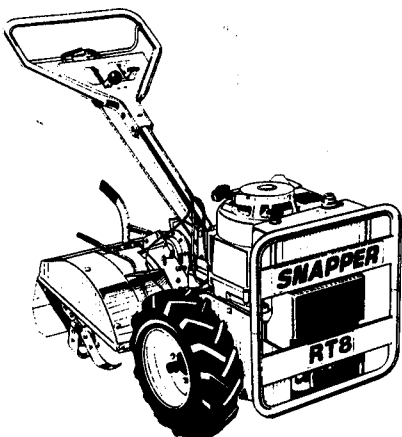
**EXTERNAL CONTACT** - Immediately flush skin or eyes with water for at least 15 minutes. Call a physician immediately.

**INTERNAL** - Drink large quantities of tap water or milk. Take milk of magnesia or whites of eggs. Do not give emetics. Call a physician immediately.



**PRECAUTIONS:** Keep cigarettes, sparks, flames away from the battery at all times as it may vent explosive gases while being charged. Keep the battery out of reach of children. Do not puncture the case of the battery as it contains acid which can burn skin and injure eyes.

# SNAPPER®



## TRACTOR CONVERSION & ACCESSORIES

Your Tiller can be converted to an even more versatile garden tool with the addition of the optional Cultivator or Hiller/Furrower Kits. In addition, removal of the tiller head unit (simply disconnect belt and pull clevis pin securing the head to tractor frame) allows using Hauling Tray when tractor unit is fitted with a No. 6-0567 Hitch Adapter. The front mounted Dozer Blade does not require the Hitch Adapter. Refer to the list below for available garden tool kits.

CULTIVATOR, 4-Shank Shovel - - - - -	No. 6-0730
HILLER/FURROWER - - - - -	No. 6-0731
DOZER BLADE - - - - -	No. 6-0606
HAULING TRAY - - - - -	No. 6-0559

Contact your **SNAPPER** Dealer for complete information on these and other kits.

## SNAPPER®

### 2 YEAR LIMITED WARRANTY

For two (2) years from purchase date for the original purchaser's **residential**, non-commercial use, **SNAPPER**, through any **SNAPPER** dealer will replace, 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.

For ninety (90) days from purchase date for the original purchaser's **commercial**, rental, or other non-residential use, **SNAPPER**, through any **SNAPPER** dealer will replace, 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 costs incurred by the purchaser in submitting material to a **SNAPPER** dealer for replacement under this warranty must be paid by the purchaser.

This warranty does not apply to engines and their components, or, Peerless® Transaxles, as these items are warranted separately by their manufacturers. This warranty does not 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 two (2) years from purchase date for the original purchaser's residential, non-commercial use [ninety (90) days from purchase for the original purchaser's commercial, rental or other non-residential use], 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: THE USE OF REPLACEMENT PARTS OTHER THAN GENUINE SNAPPER PARTS MAY IMPAIR THE SAFETY OF SNAPPER PRODUCTS AND WILL VOID ANY LIABILITY AND WARRANTY BY SNAPPER ASSOCIATED WITH THE USE OF SUCH PARTS.**

**IMPORTANT:** Please fill out the attached **SNAPPER** Product Registration Card immediately and mail to:  
**SNAPPER, McDONOUGH, GEORGIA 30253**

## SNAPPER®

McDonough, GA., 30253 U.S.A.