SEARS

OWNER'S MANUAL

MODEL NO.
917.298231

Caution:
Read and follow all Safety Rules and Instructions Before Operating This Equipment

Place Photo Here

CRAFTSMAN
3.0 HORSEPOWER 17 INCH TINE WIDTH FRONT TINE TILLER

Assembly
Operation
Maintenance
Service and Adjustment
Repair Parts

Sears, Roebuck and Co., Chicago, IL 60684 U.S.A.

SAFETY RULES

Safe Operation Practices for Walk-Behind Powered Rotary Tillers

TRAINING

- Read the operating and service instruction manual carefully. Be thoroughly familiar with the controls and the proper use of the equipment. Know how to stop the unit and disengage the controls quickly.
- Never allow children to operate the equipment. Never allow adults to operate the equipment without proper instruction.
- Keep the area of operation clear of all persons, particularly small children, and pets.

PREPARATION

- Thoroughly inspect the area where the equipment is to be used and remove all foreign objects.
- Disengage all clutches and shift into neutral before starting the engine (motor).
- Do not operate the equipment without wearing adequate outer garments. Wear footwear that will improve footing on slippery surfaces.
- Handle fuel with care; it is highly flammable.
  - Use an approved fuel container.
  - Never add fuel to a running engine or hot engine.
  - Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors.
  - Replace gasoline cap securely and clean up spilled fuel before restarting.
- Use extension cords and receptacles as specified by the manufacturer for all units with electric drive motors or electric starting motors.
- Never attempt to make any adjustments while the engine (motor) is running (except where specifically recommended by manufacturer).

OPERATION

- Do not put hands or feet near or under rotating parts.
- Exercise extreme caution when operating on or crossing gravel drives, walks, or roads. Stay alert for hidden hazards or traffic. Do not carry passengers.
- After striking a foreign object, stop the engine (motor), remove the wire from the spark plug, thoroughly inspect the tiller for any damage, and repair the damage before restarting and operating the tiller.
- Exercise caution to avoid slipping or falling.
- If the unit should start to vibrate abnormally, stop the engine (motor) and check immediately for the cause. Vibration is generally a warning of trouble.
- Stop the engine (motor) when leaving the operating position, before unclogging the tines, and when making any repair, adjustments, and inspections.
- Take all possible precautions when leaving the machine unattended. Disengage the power take-off, lower the attachment, shift into neutral, stop the engine, and remove the key.
- Before cleaning, repairing, or inspecting, shut off the engine and make certain all moving parts have stopped. Disconnect the spark plug wire, and keep the wire away from the plug to prevent accidental starting. Disconnect the cord on electric motors.
- Do not run the engine indoors; exhaust fumes are dangerous.
- Never operate the tiller without proper guards, plates, or other safety protective devices in place.
- Keep children and pets away.
- Do not overload the machine capacity by attempting to till too deep at too fast a rate.
- Never allow bystanders near the unit.
- Use only attachments and accessories approved by the manufacturer of the tiller (such as wheel weights, co[illegible] weights, cabs, and the like).
- Never operate the tiller without good visibility or light.
- Be careful when tilling in hard ground. The tines may catch in the ground and propel the tiller forward. If this occurs, let go of the handlebars and do not restrain the machine.

MAINTENANCE AND STORAGE

- Keep machine, attachments, and accessories in safe working condition.
- Check shear bolts, engine mounting bolts, and other bolts at frequent intervals for proper tightness to be sure the equipment is in safe working condition.
- Never store the machine with fuel in the fuel tank inside a building where ignition sources are present, such as hot water and space heaters, clothes dryers, and the like. Allow the engine to cool before storing in any enclosure.
- Always refer to the operator's guide instructions for important details if the tiller is to be stored for an extended period.

-IMPORTANT -

Warnings, Cautions, and Notes are a means of attracting attention to important or critical information in this manual.

LOOK FOR THIS SYMBOL TO POINT OUT IMPORTANT SAFETY PRECAUTIONS. IT MEANS -- ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED.

CAUTION: USED TO ALERT YOU THAT THERE IS A POSSIBILITY OF DAMAGING [illegible] EQUIPMENT.

NOTE: Gives essential information that will aid you to better understand, incorporate, or execute a particular set of instructions.

CONGRATULATIONS on your purchase of a Sears Craftsman Tiller. It has been designed, engineered and manufactured to give you the best possible dependability and performance.

Should you experience any problems you cannot easily remedy, please contact your nearest Sears Service Center/Department. We have competent, well trained technicians and the proper tools to service or repair this unit.

Please read and retain this manual. The instructions will enable you to assemble and maintain your Tiller properly. Always observe the "SAFETY RULES"

MODEL
NUMBER 917 298231

SERIAL
NUMBER _____

DATE OF
PURCHASE _____

THE MODEL AND SERIAL NUMBERS WILL BE FOUND ON THE MODEL PLATE ATTACHED TO THE RIGHT HAND ENGINE BRACKET.

YOU SHOULD RECORD BOTH SERIAL NUMBER AND DATE OF PURCHASE AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.

PRODUCT SPECIFICATIONS

HORSEPOWER:	3.0 H.P.
DISPLACEMENT:	7.75 CU. IN.
GASOLINE CAPACITY:	2 QUART (UNLEADED)
OIL (20 OZ. CAPACITY):	SAE 30W (SAE 10W 30)
SPARK PLUG (GAP .030 IN.):	CHAMPION RCJ8

MAINTENANCE AGREEMENT

A Sears Maintenance Agreement is available on this product. Contact your nearest Sears store for details.

CUSTOMER RESPONSIBILITIES

- Read and observe the safety rules.
- Follow a regular schedule in maintaining, caring for and using your Tiller.
- Follow the instructions under "Maintenance" and "Storage" sections of this Owner's Manual.

LIMITED ONE YEAR WARRANTY ON CRAFTSMAN TILLER

For one year from date of purchase, when this Craftsman Tiller is maintained, lubricated, and tuned up according to the instructions in the owner's manual, Sears will repair, free of charge, any defect in material and workmanship.

If this Craftsman Tiller is used for commercial or rental purposes, this Warranty applies for only 30 days from the date of purchase.

This Warranty does not cover:

- expendable items which become worn during normal use, such as tines, spark plug, air cleaners and belts.
- Repairs necessary because of operator abuse or negligence, including bent crankshafts and the failure to maintain the equipment according to the instructions contained in the owner's manual.

WARRANTY SERVICE IS AVAILABLE BY RETURNING THE CRAFTSMAN TILLER TO THE NEAREST SEARS SERVICE CENTER/DEPARTMENT IN THE UNITED STATES. THIS WARRANTY APPLIES ONLY WHILE THIS PRODUCT IS IN USE IN THE UNITED STATES.

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

Sears, Roebuck and Co., D/731CR-W, Sears Tower, Chicago, IL 60684

-NOTE-

This unit is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

In the state of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. See your Sears Authorized Service Center for spark arrester. Refer to page 31 of Repair Parts section of this manual for part number.

TABLE OF CONTENTS

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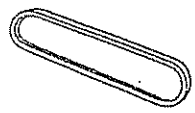
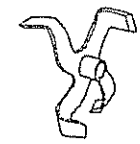
TILLER ACCESSORIES

THESE ACCESSORIES WERE AVAILABLE WHEN THE TILLER WAS PURCHASED. THEY ARE ALSO AVAILABLE AT MOST SEARS RETAIL OUTLETS, CATALOG AND SERVICE CENTERS. MOST SEARS STORES CAN ORDER REPAIR PARTS FOR YOU, WHEN YOU PROVIDE THE MODEL NUMBER OF YOUR TILLER.

ENGINE

SPARK PLUG	MUFFLER	AIR FILTER	GAS CAN	ENGINE OIL	STABILIZER
					

TILLER MAINTENANCE

BELT	TINES	CLEVIS PIN	HAIRPIN CLIP
			

ASSEMBLY

TO ASSEMBLE YOUR TILLER YOU WILL NEED:

(1) utility knife
(1) 1/2" wrench
(1) ratchet
(1) socket extension
(1) 1/2" socket

OPERATOR'S POSITION

The right hand (R.H.) and left hand (L.H.) sides of Tiller are determined from the Operator's Position while standing behind Tiller

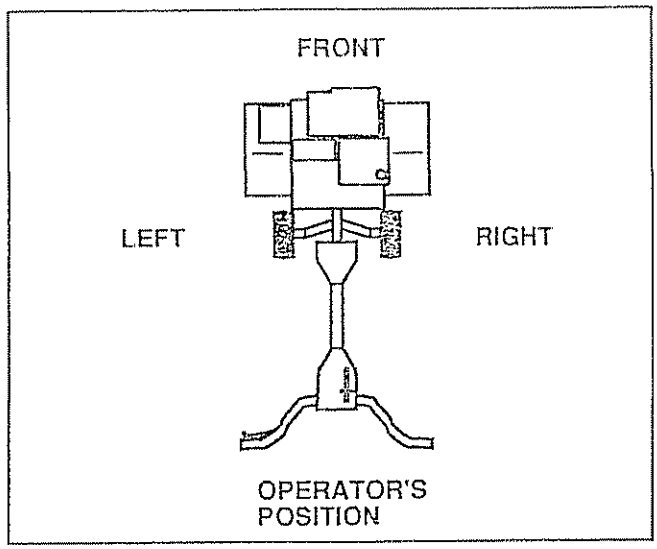
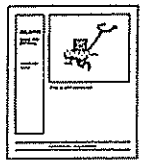
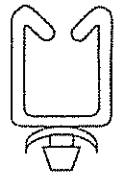


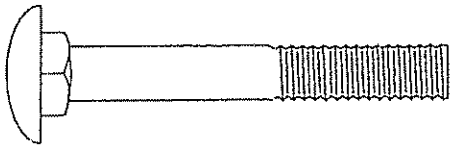
FIGURE 1



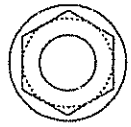
(1) Owner's Manual



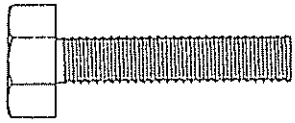
(1) Plastic Cable Clip



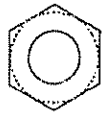
(2) Carriage Bolts 5/16 - 18 UNC x 2-3/8 Gr. 5



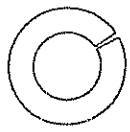
(2) Flange Locknuts 6/16 x 18 UNC



(2) Hex Bolts 5/16 x 18 x 1-1/4



(2) Hex Nuts 5/16 x 18



(2) Lockwashers 5/16

UNPACK CARTON & INSTALL HANDLE

BE CAREFUL OF EXPOSED STAPLES WHEN HANDLING OR DISPOSING OF CARTONING MATERIAL.

CAUTION: WHEN UNPACKING AND ASSEMBLING TILLER, BE CAREFUL NOT TO STRETCH OR KINK CABLES

- Cut cable ties securing Handle column.
- BEING CAREFUL NOT TO KINK CABLES, slowly lift Handle Column up and slip over Handle Mount (Fig. 2).
- Remove Packing from carton.
- Secure Handle Column to Handle Mount using two black Carriage Bolts and black Flange Lock Nuts. Insert Plastic Cable Clip into hole in Handle Column. Tighten both Flange Lock Nuts firmly.
- Route Throttle and Clutch Cables through Plastic Cable Clip on Handle Column.

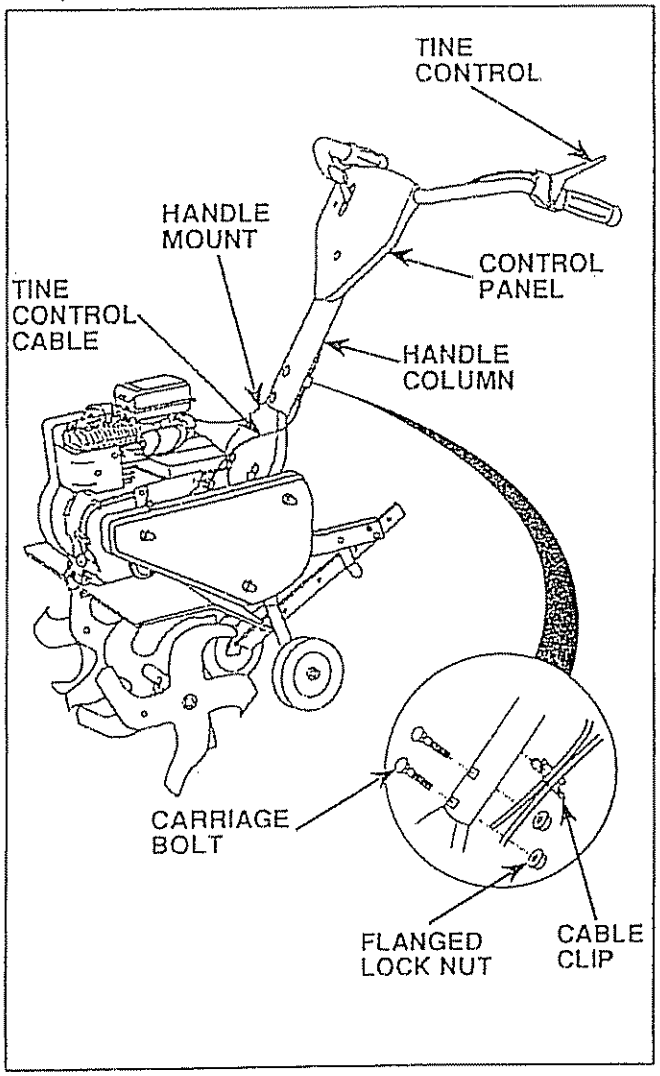


FIGURE 2

- Remove packing material from Handle Assembly.
- Cut Cable Ties securing Tiller to Skid.
- Cut away Carton. Remove Tiller from Skid by pulling backwards.

INSTALL DEPTH STAKE

- Insert Depth Stake Support between Engine Brackets with Stake Spring down. NOTE: IT MAY BE NECESSARY TO LOOSEN NUTS "A" & "B" (Fig. 3)
- Bolt Depth Stake Support to Engine Brackets with Bolts, Lockwashers and Nuts. Tighten securely. Also tighten Nuts "A" &"B" if it was necessary to loosen them.
- Depth Stake must move freely. If it does not, loosen Support Bolt.

HANDLE HEIGHT

- Handle height is adjustable to better suit operator (see page 16 for instructions).

TILLING WIDTH

- Tilling width is adjustable to better handle your tilling conditions (see page 16 for instructions).

TINE OPERATION

- Check Tine operation before first use according to procedure on page 17.

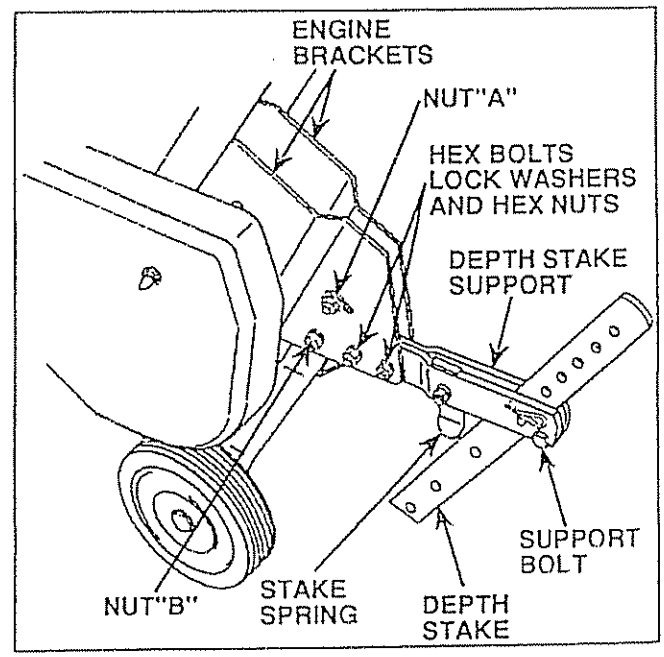


FIGURE 3

OPERATION

KNOW YOUR TILLER

READ THIS OWNER'S MANUAL AND SAFETY RULES BEFORE OPERATING YOUR TILLER.

Compare the illustrations with your Tiller to familiarize yourself with the location of various controls and adjustments. Save this manual for future reference.

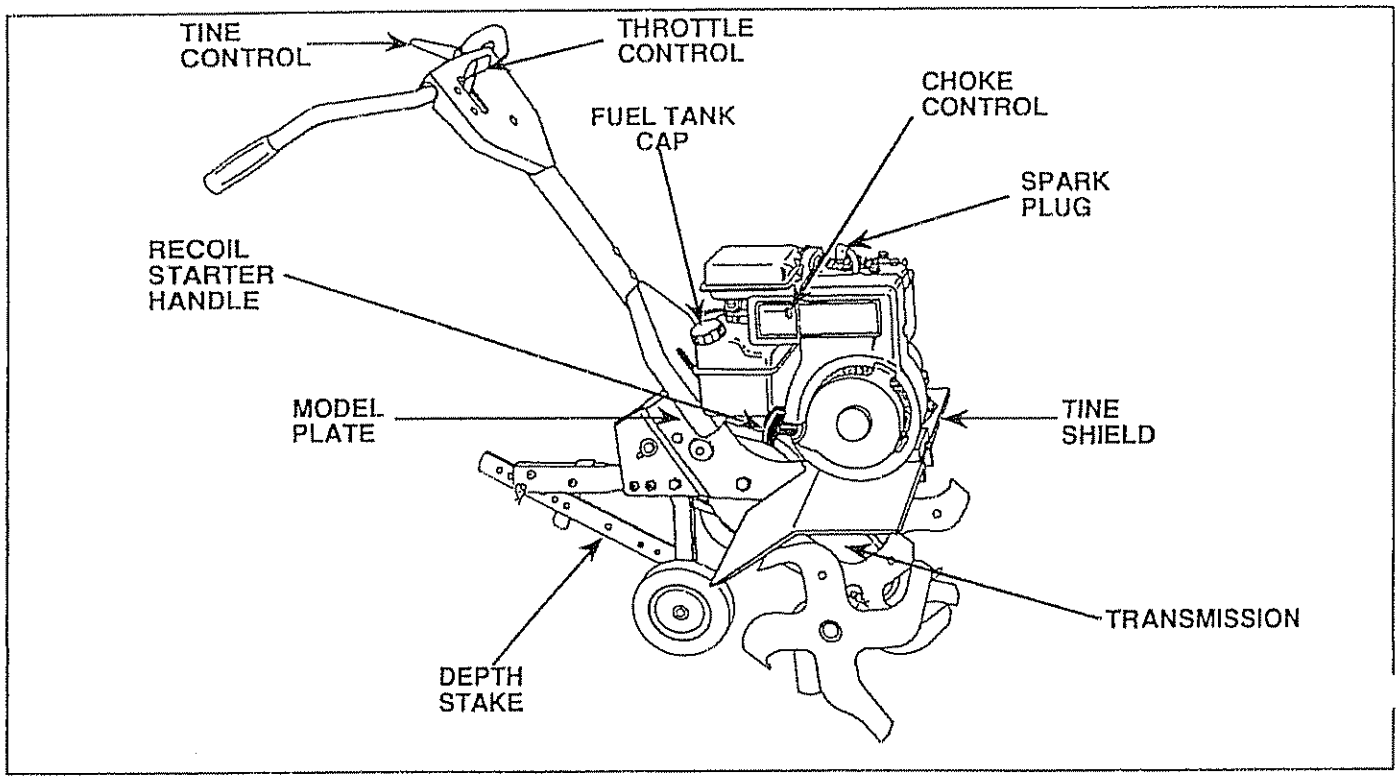


FIGURE 4

MEETS ANSI SAFETY REQUIREMENTS

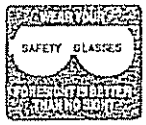
Sears Front Tine Tillers conform to the safety standards of the American National Standards Institute (Reference ANSI/OPEI B71.8-1986 American National Standard for outdoor power equipment - walk-behind powered rotary tillers - safety specifications).

TINE CONTROL - is used to engage Tiller.
THROTTLE CONTROL - is used to control engine speed.
CHOKE CONTROL - is used when starting a cold Engine.
DEPTH STAKE - is used to set the depth at which the Tiller will dig.

SAFETY DECAL

The decal shown full size below is located on the handle of your Tiller.

OPERATION



The operation of any Tiller can result in foreign objects thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields before starting your Tiller and while tilling. We recommend Wide Vision Safety Mask for over the spectacles or standard safety glasses, available at Sears Retail or Catalog Stores

HOW TO USE YOUR TILLER

Know how to operate all controls before adding fuel and oil or attempting to start Engine (To stop Engine place Throttle Control in "STOP" position)

FORWARD MOTION

- Move Throttle Control to desired speed.
- TINE MOVEMENT BEGINS WHEN TINE CONTROL IS IN "RUNNING" POSITION (Fig. 5).

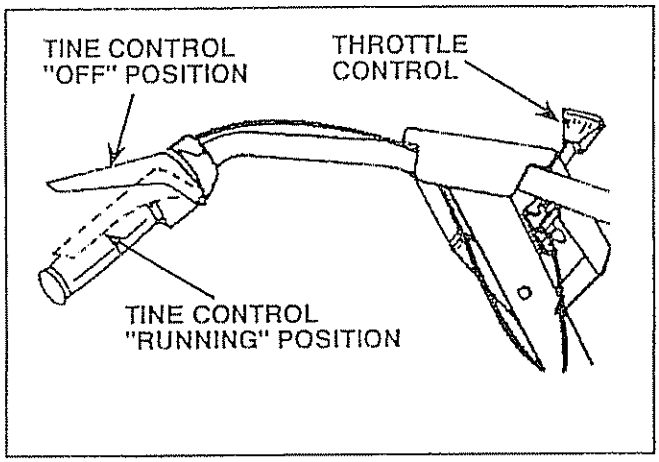


FIGURE 5

STOPPING TINES AND ENGINE

- TINE MOVEMENT WILL STOP WHEN TINE CONTROL IS RELEASED ("OFF" POSITION).
- To stop Engine, place Throttle Control (Fig. 6) in "STOP" position. NOTE: DO NOT USE CHOKE CONTROL TO STOP ENGINE.

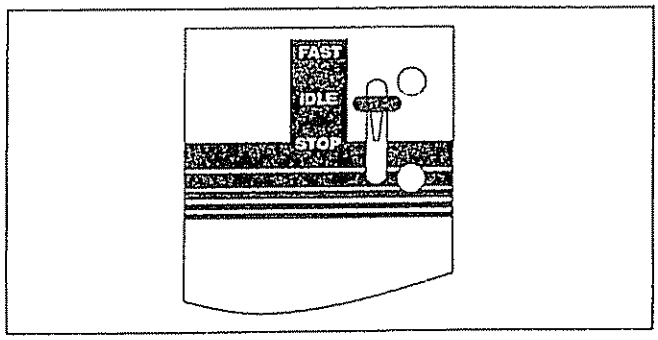


FIGURE 6

RESTARTING ENGINE

- When restarting a warm Engine, place Throttle Control in "FAST" position. NOTE: IT MAY BE NECESSARY TO USE CHOKE (Fig. 7).

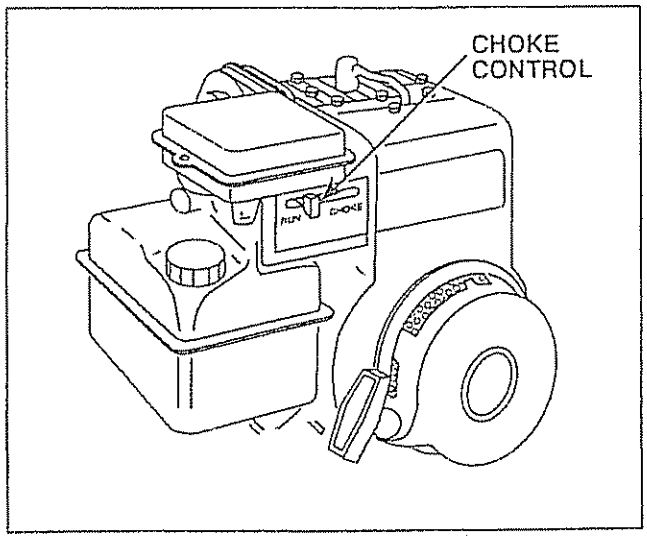


FIGURE 7

TILLING

- The speed and depth of tilling is regulated by the position of the Depth Stake and Wheel Height.
- The Depth Stake should always be below the Wheels for digging. It serves as a brake to slow the Tiller's forward motion to enable the Tines to penetrate the ground. Also, the more the Depth Stake is lowered into the ground the deeper the Tiller will dig.

DEPTH STAKE

- The Depth Stake can be raised or lowered to allow you more versatile tilling and cultivating, or to more easily transport your tiller (Fig. 8)
- Adjust Depth Stake by removing the Hairpin Clip and Retaining Pin. Change Depth Stake to desired position. Replace the Retaining Pin and Hairpin Clip.
  - Lowering the Depth Stake will slow the Tiller and make it till deeper.
  - Raising the Depth Stake will allow the Tiller to move faster and till shallower.
  - For normal tilling, set Depth Stake at the second or third hole from the top.
  - For normal cultivating, set Depth Stake in the "up" position (Fig. 10).

WHEELS

- Adjust Wheels by loosening bolts "A" & "B". Move wheels to desired position and retighten bolts "A" & "B"(Fig. 8).
  - Moving the Wheels forward will allow the Tiller to till deeper.
  - Moving the Wheels backward will allow the Tiller to till shallower.

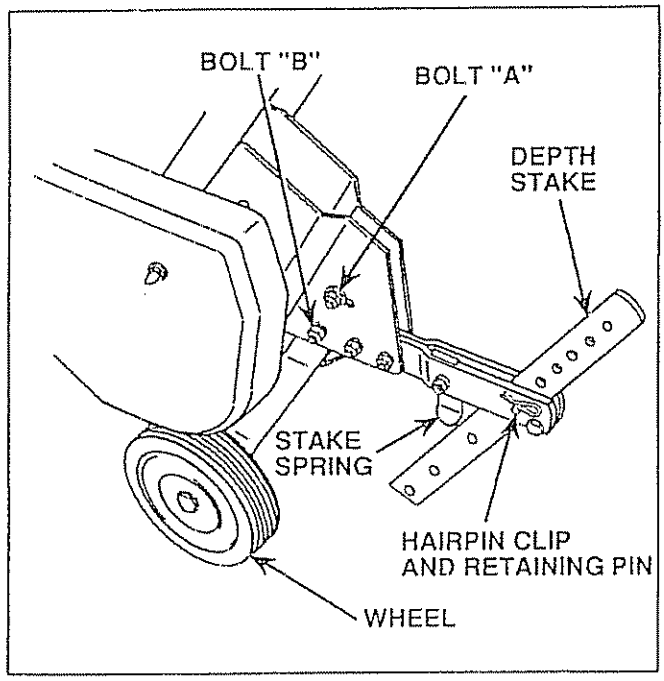


FIGURE 8

BEFORE LIFTING OR TRANSPORTING, ALLOW TILLER ENGINE AND MUFFLER TO COOL. DISCONNECT SPARK PLUG WIRE. DRAIN GASOLINE FROM FUEL TANK.

TRANSPORTING YOUR TILLER

- Around the Yard:
  - Tip Depth Stake forward until it is held by the Stake Spring (Fig. 10).
  - Push Tiller Handles down, raising Tines off the ground.
  - Push or pull Tiller to desired location.
- Around Town:
  - Disconnect Spark Plug Wire.
  - Drain Fuel Tank.
  - Transport in upright position to prevent oil leakage.

BEFORE STARTING ENGINE

FILL ENGINE WITH OIL.

CAUTION: BE VERY CAREFUL NOT TO ALLOW DIRT TO ENTER THE ENGINE WHEN CHECKING OR ADDING OIL OR FUEL. USE CLEAN SAE 30 OR 10W-30 WEIGHT OIL AND STORE IN APPROVED, CLEAN, COVERED CONTAINERS. ALL OILS MUST MEET A.P.I. SERVICE CLASSIFICATION SD, SE OR SF. USE CLEAN FILL FUNNELS. SEE WINTER OPERATION FOR ADDITIONAL INFORMATION

- With Engine level, remove Engine Oil Filler Plug (Fig. 9).
- Fill Engine with oil to point of overflowing. Capacity is about 1 - 1/4 pints (20 ounces).
- Tilt Tiller back on its wheels and then re-level.
- Check oil level. Refill to point of overflowing if necessary. Replace Oil Filler Plug.

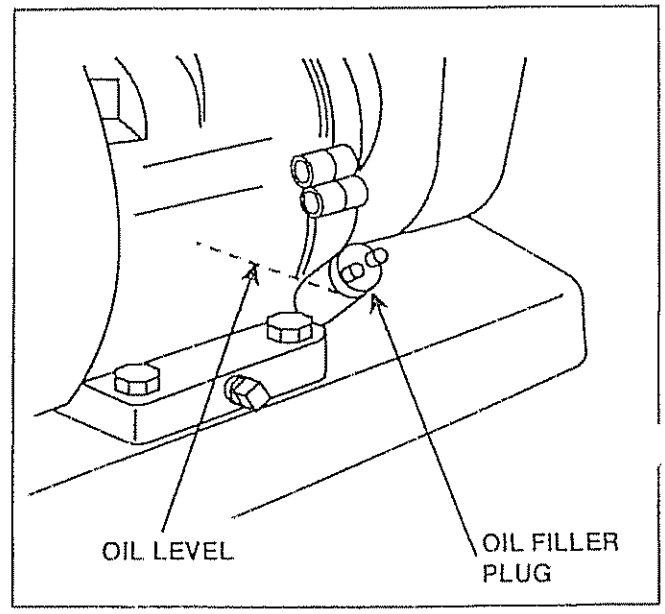


FIGURE 9

FILL FUEL TANK

- To fill Fuel Tank (Fig 10), use fresh, clean regular unleaded automotive gasoline Capacity is about 2 quarts

FILL TO WITHIN 1/2 INCH OF TOP OF FUEL TANK TO PREVENT SPILLS AND TO ALLOW FOR FUEL EXPANSION. IF GASOLINE IS ACCIDENTALLY SPILLED, MOVE MACHINE AWAY FROM AREA OF SPILL. AVOID CREATING ANY SOURCE OF IGNITION UNTIL GASOLINE VAPORS HAVE DISAPPEARED.

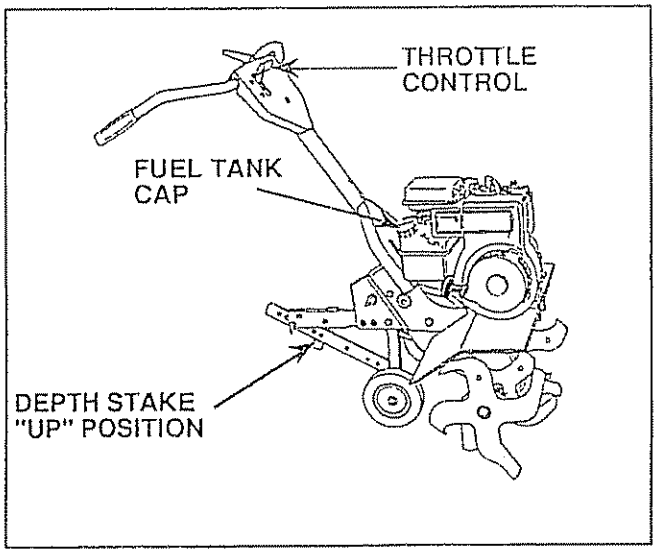


FIGURE 10

CAUTION: EXPERIENCE INDICATES THAT ALCOHOL BLENDED FUELS (CALLED GASOHOL OR USING ETHANOL OR METHANOL) CAN ATTRACT MOISTURE WHICH LEADS TO SEPARATION AND FORMATION OF ACIDS DURING STORAGE. ACIDIC GAS CAN DAMAGE THE FUEL SYSTEM OF AN ENGINE WHILE IN STORAGE.

TO AVOID ENGINE PROBLEMS, THE FUEL SYSTEM SHOULD BE EMPTIED BEFORE STORAGE FOR 30 DAYS OR LONGER. DRAIN THE GAS TANK, START THE ENGINE AND LET IT RUN UNTIL THE FUEL LINES AND CARBURETOR ARE EMPTY. USE FRESH FUEL NEXT SEASON. SEE STORAGE INSTRUCTIONS FOR ADDITIONAL INFORMATION.

NEVER USE ENGINE OR CARBURETOR CLEANER PRODUCTS IN THE FUEL TANK OR PERMANENT DAMAGE MAY OCCUR.

TO START ENGINE

KEEP THE TINE CONTROL IN "OFF" POSITION WHEN STARTING ENGINE.

- Make sure Spark Plug Wire is properly connected(Fig. 11).
- Place Throttle Control in "FAST" position (Fig 6).
- Place Choke Control in "CHOKE" position (Fig.11) if the Engine is cold. A warm Engine may not require choking to start.
- Grasp Starter Handle with one hand and grasp the Tiller Handle with other hand. Pull Rope out slowly until Engine reaches start of Compression Cycle (Rope will pull slightly harder at this point).
- Pull Rope with a rapid, continuous, full arm stroke. Keep a firm grip on Starter Handle and let Rope rewind slowly. Do not let Starter Handle snap back against Starter.
- When Engine starts, place Choke Control on Engine halfway between "CHOKE" and "RUN" positions and then to "RUN" position as Engine warms up.
- Move Throttle Control halfway between "FAST" and "STOP" position for a few minutes to warm up

NOTE: In order to idle smoothly, a new Engine may require 3 to 5 minutes running time above slow idle speed. Idle speed has been adjusted to be correct after this break-in period.

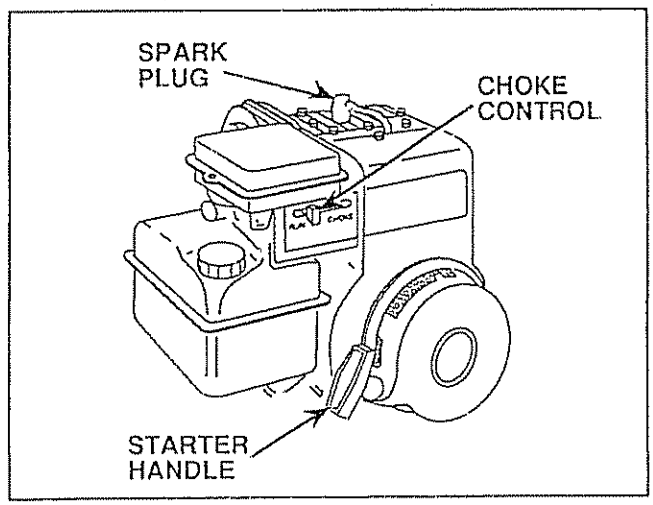


FIGURE 11

BREAKING IN YOUR TILLER:

Break-in your Belts, Pulleys and Tine Control before you actually begin tilling.

- Start Engine, tip Tines off ground by pressing Handles down and engage Tine Control to start Tine rotation. Allow Tines to rotate for five minutes.
- Check Tine Operation and adjust if necessary (page 17).

THE MUFFLER AND SURROUNDING AREA BECOME HOT AFTER RUNNING ENGINE.

UNTIL YOU ARE ACCUSTOMED TO HANDLING YOUR TILLER, START ACTUAL FIELD USE WITH THROTTLE IN SLOW POSITION (MID-WAY BETWEEN "FAST" AND "IDLE").

To help Tiller move forward, lift up the Handles slightly (thus lifting Depth Stake out of ground). To slow down the Tiller, press down on Handles.

If you are straining or Tiller is shaking, the Wheels and Depth Stake are NOT set properly in the soil being tilled. The proper setting of the Wheels and Depth Stake is through trial and error and depends upon the soil condition. (The harder or wetter the ground, the slower the engine and tine speed needed. Under these poor conditions, at fast speed the Tiller will run and jump over the ground).

A properly adjusted Tiller will dig with little effort from the operator.

TILLING HINTS

- Tilling is digging into, turning over, and breaking up packed soil before planting. Loose, unpacked soil helps root growth. Best tilling depth is 4" to 6". A Tiller will also clear the soil of unwanted vegetation. The decomposition of this vegetable matter enriches the soil. Depending on the climate (rainfall and wind), it may be advisable to till the soil at the end of the growing season to further condition the soil.
- Soil conditions are important for proper tilling. Tines will not readily penetrate dry, hard soil which may contribute to excessive bounce and difficult handling of your Tiller. Hard soil should be moistened before tilling; however, extremely wet soil will "ball-up" or clump during tilling. Wait until the soil is less wet in order to acheive the best results. When tilling in the fall, remove vines and long grass to prevent them from wrapping around the Tine Shaft and slowing your tilling operation.
- You will find tilling much easier if you leave a row untilled between passes. Then go back over the entire area at right angles (Fig. 12). There are two reasons for doing this. First, wide turns are much easier to negotiate than about-faces. Second, the Tiller won't be pulling itself, and you, toward the row next to it.
- Set Depth Stake and Wheel height for shallow tilling when working extremely hard soil or sod. Then work across the first cuts at normal depth.

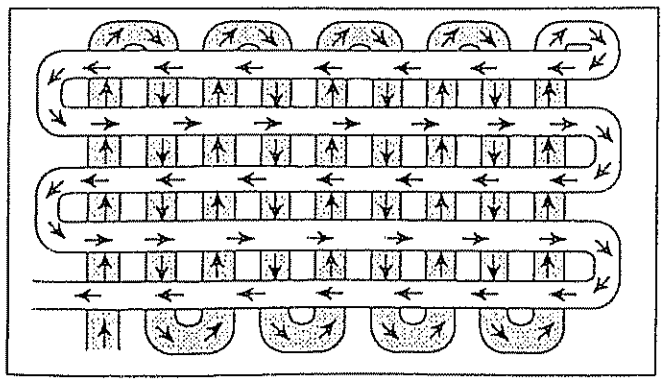


FIGURE 12

CULTIVATING

- Cultivating is destroying the weeds between rows to vent them from robbing nourishment and moisture from the plants. At the same time, breaking up the upper layer of soil crust will help retain moisture in the soil. Best digging depth is 1" to 3".
  - You will probably not need to use the Depth Stake. Begin by tipping the Depth Stake forward until it is held by the Stake Spring.
  - Place Throttle Control in slow position (midway between "FAST" and "IDLE"). Cultivate up and down the rows at a speed which will allow Tines to uproot weeds and leave the ground in rough condition, promoting no further growth of weeds and grass (Fig. 13).

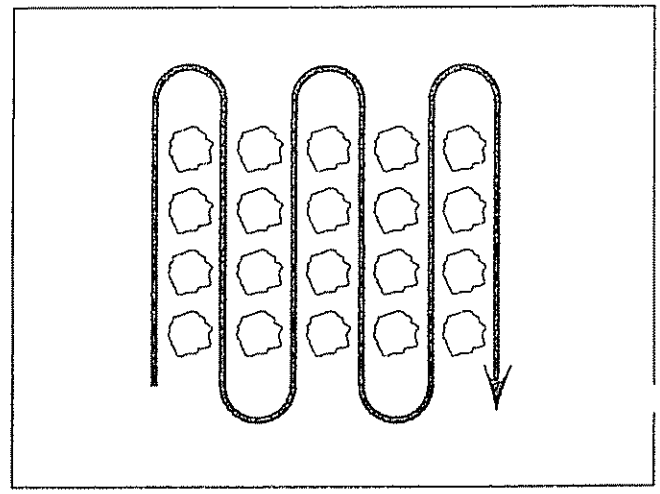


FIGURE 13

WINTER OPERATION (under 32° F)

ENGINE LUBRICATION

- For winter operation, Engine oil must be changed before the temperature drops below 32° F. Drain the Engine oil while Engine is warm.
- Refill with new oil. Use oil labeled 5W30. (See pg. 10)

FUEL

- Use fresh, clean, regular unleaded automotive gasoline. Capacity is about 2 quarts.

COLD WEATHER STARTING HINTS

- Be sure to use the proper oil and gasoline.
- Keep Tine Control in "OFF" position when starting the Engine.
- Set Throttle Control at medium to fast position. Use full Choke for starting. Slowly move Choke Lever to "RUN" position as Engine warms up.

NOTE: BE SURE TO CHANGE ENGINE OIL BACK TO S.A.E. 30 or 10W30 (SD, SE, OR SF) FOR SPRI TILLING (SEE PG. 10).

DISCONNECT SPARK PLUG WIRE FROM SPARK PLUG BEFORE PERFORMING ANY MAINTENANCE (EXCEPT CARBURETOR ADJUSTMENT) TO PREVENT ACCIDENTAL STARTING OF ENGINE.

PREVENT FIRES! KEEP THE ENGINE FREE OF GRASS, LEAVES, SPILLED OIL, OR FUEL. REMOVE FUEL FROM TANK BEFORE TIPPING UNIT FOR MAINTENANCE. CLEAN MUFFLER AREA OF ALL GRASS, DIRT, AND DEBRIS.

DO NOT TOUCH HOT MUFFLER OR CYLINDER FINS AS CONTACT MAY CAUSE BURNS.

COOLING SYSTEM

Your Engine is air cooled. For proper Engine performance and long life KEEP YOUR ENGINE CLEAN.

- Clean Air Screen (Fig. 14) frequently using a stiff bristled brush.
- Remove Blower Housing and clean as necessary.
- Keep Cylinder Fins free of dirt and chaff.

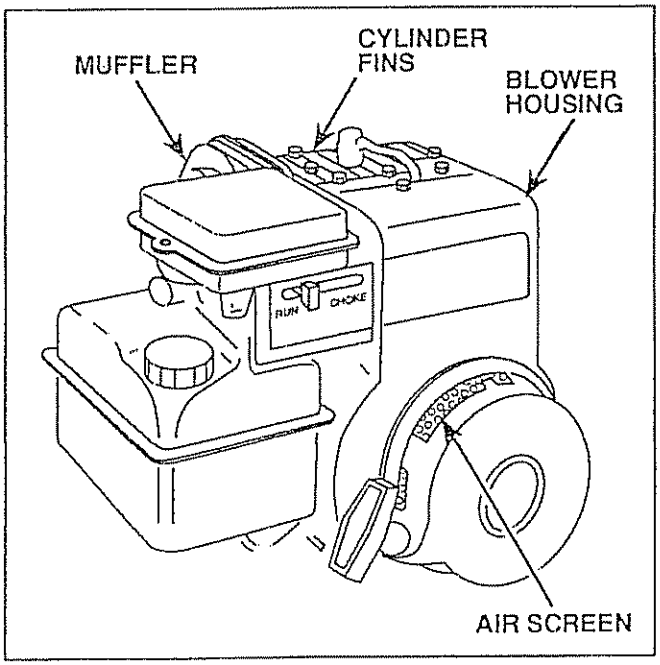


FIGURE 14

AIR CLEANER

Replace Air Cleaner Cartridge every twenty-five hours, more often if Engine is used in very dusty conditions.

- Loosen Air Cleaner Screws, one on each side of Cover (Fig. 15).

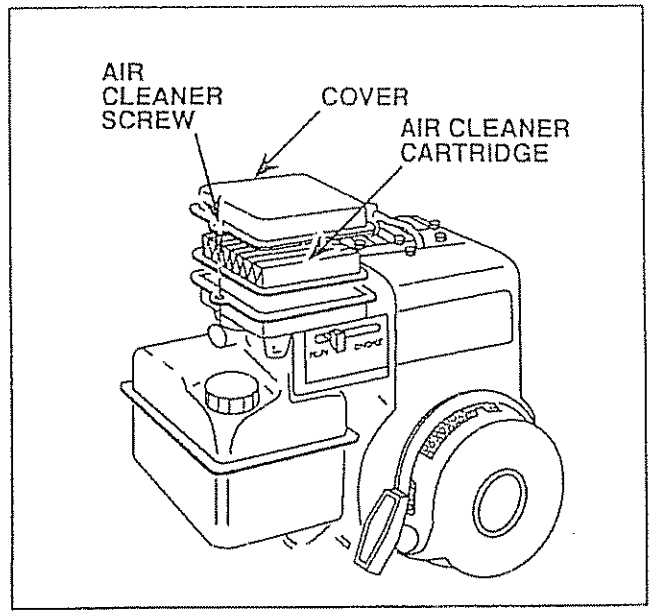


FIGURE 15

- Remove Air Cleaner Cover.
- Carefully remove Air Cleaner Cartridge. Be careful. Do not allow dirt or debris to fall into Carburetor.
- Install new Air Cleaner Cartridge. Clean and replace Cover. Tighten Screws securely.

MUFFLER

Do not operate Tiller without Muffler. Do not tamper with exhaust system. Damaged Mufflers or Spark Arresters could create a fire hazard. Inspect periodically and replace if necessary. If your Engine is equipped with a Spark Arrester Screen Assembly, remove every 50 hours for cleaning and inspection. Replace if damaged.

SPARK PLUG

- The Spark Plug should be changed every 50 hours of operation or at the beginning of every tilling season.
- Set gap at .030" (Fig. 16). Order Spark Plug listed in the Repair Parts Section of this Manual.

SPARKING CAN OCCUR IF SPARK PLUG WIRE TERMINAL DOES NOT FIT FIRMLY ON SPARK PLUG. REFORM TERMINAL IF NECESSARY.

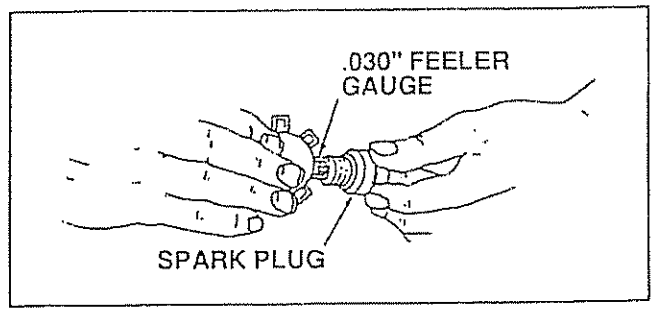


FIGURE 16

ENGINE LUBRICATION

Your four cycle Engine will normally consume some oil, therefore check Engine oil level regularly—approximately every five hours of operation and before each usage. Stop Engine and wait several minutes before checking oil level. With Engine level the oil must be even with oil fill (Fig. 17). Change Engine oil after the first two hours of operation and every twenty five hours thereafter and at the beginning of every tilling season.

- Drain oil while Engine is warm.
- Remove Oil Drain Plug.
- Tip Tiller forward and catch oil in a suitable container.
- When Engine is drained of all oil, replace Oil Drain Plug.
- Refill with fresh SAE 30 or SAE 10W-30 weight oil.

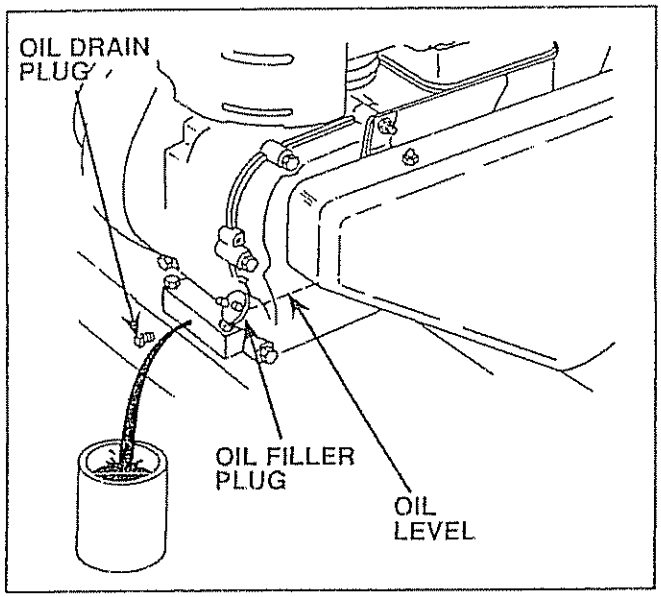


FIGURE 17

TRANSMISSION

Your Transmission is sealed and will not require lubrication.

FINISH

Keep your Tiller finish and Wheels free of gasoline, oil, etc. Protect painted surfaces with automotive type wax.

SERVICE RECOMMENDATIONS

LUBRICATION CHART - OIL PIVOT POINTS

USE SAE 30 OIL

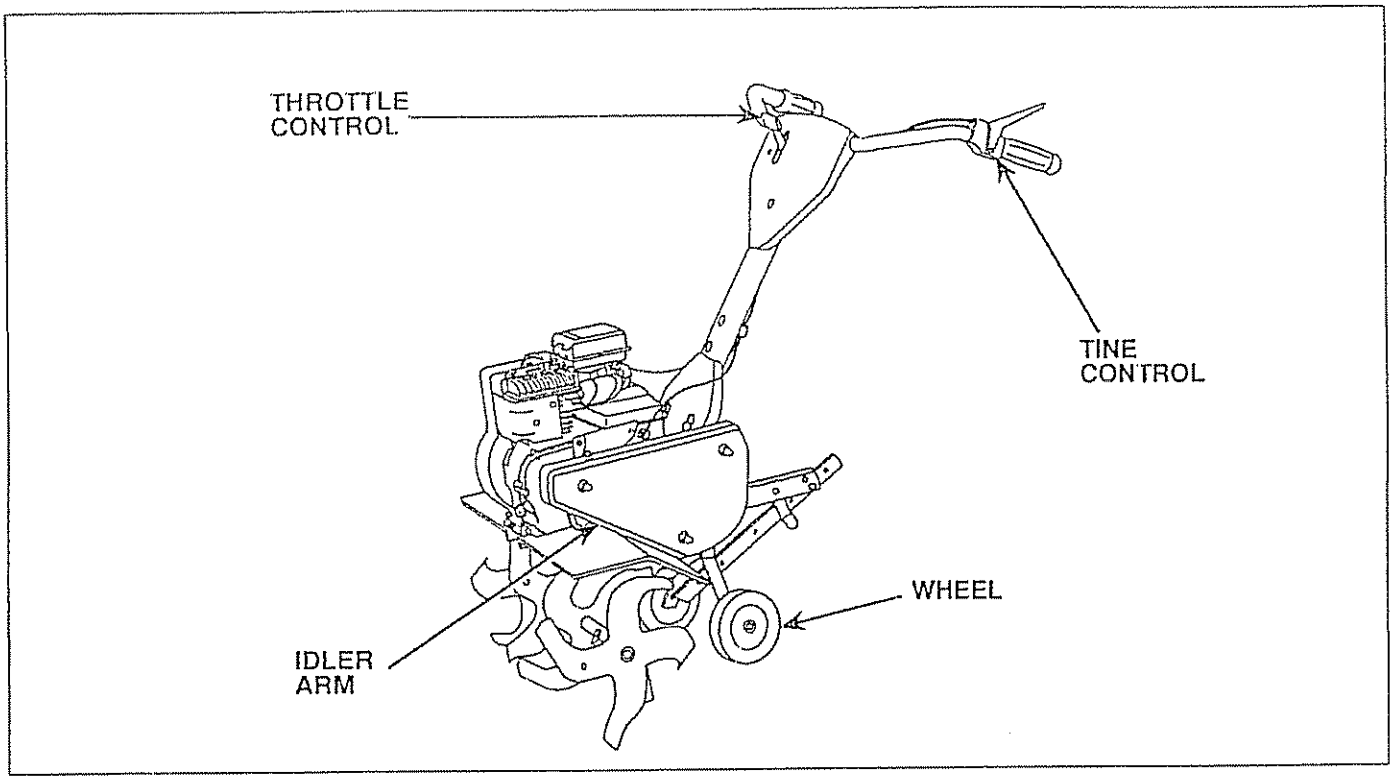


FIGURE 18

MAINTENANCE CHECK LIST SERVICE RECORD FILL IN DATES AS YOU COMPLETE REGULAR SERVICE	PAGE NUMBERS	BEFORE EACH USE	1st 2 HOURS	EVERY 5 HOURS	EVERY 25 HOURS	EVERY 50 HOURS	SERVICE DATES									
Check Engine Oil Level	10	✓		✓												
Change Engine Oil	10		✓		✓											
Oil Pivot points	15			✓												
Inspect Spark Arrester Muffler	13					✓										
Inspect Air Screen	13	✓														
Clean Air Cleaner	13				✓											
Clean Engine Cylinder Fins	13				✓											
Replace Spark Plug	13					✓										

HANDLE HEIGHT

NOTE: FACTORY ASSEMBLY HAS PROVIDED HIGHEST HANDLE HEIGHT. SELECT HANDLE HEIGHT BEST SUITED FOR YOUR TILLING CONDITIONS. HANDLE HEIGHT WILL BE DIFFERENT WHEN TILLER DIGS INTO SOIL.

- If a lower Handle Height is desired, use ratchet with 1/2" socket and extension to loosen the four Bolts in the Handle Mount and Engine Brackets (Fig 19).
- Slide Handle Panel to desired location.
- Tighten the four Bolts securely.

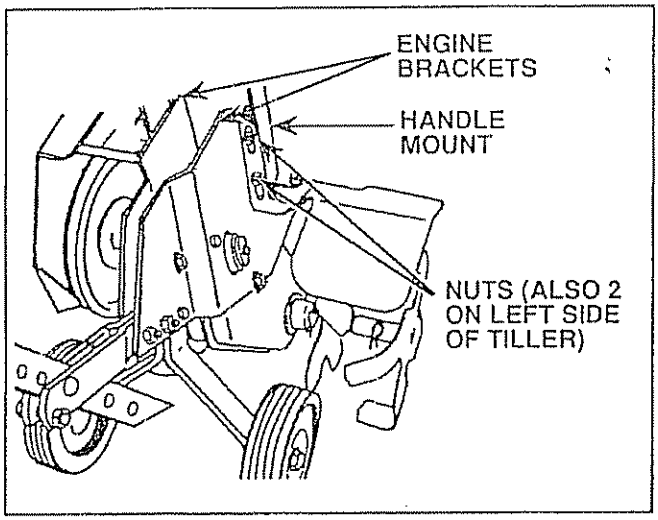


FIGURE 19

TINE ARRANGEMENT

Your Tines can be assembled in several different ways to suit your tilling or cultivating needs.

USE CAUTION - TINES ARE SHARP

- NORMAL TILLING - 17 INCH PATH (outer Tines turned inward and assembled on outer shaft position). Holes "A" in Tines to holes "B" in Tine Shaft (Fig 20). Use this arrangement for normal tilling, first cultivation of crops in 22 inch rows and edging.

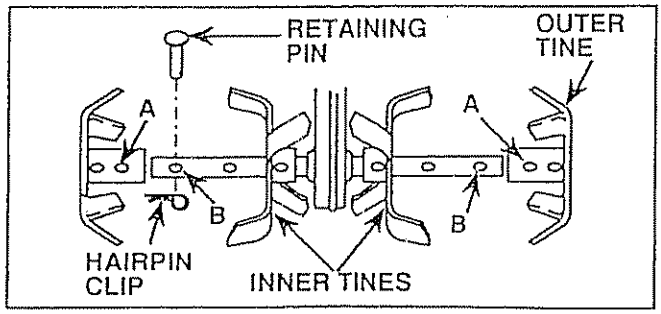


FIGURE 20

- MID-WIDTH TILLING - 15 INCH PATH (outer t turned inward and assembled on outer shaft position) Holes "C" in Tines to holes "B" in Tine Shaft (Fig 21). Use this arrangement for cultivation of crops in 20 inch spaced rows.

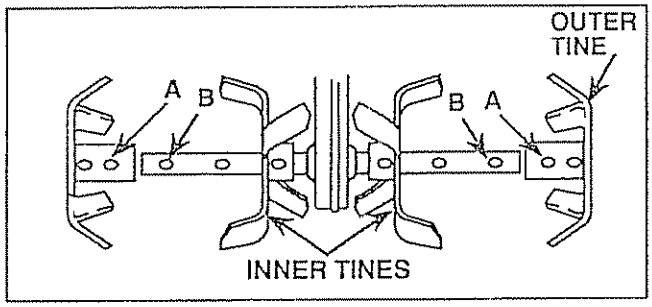


FIGURE 21

- NARROW TILLING - 10 - 1/4 INCH PATH (outer Tines off) (Fig. 22). Use this arrangement for narrow path tilling and final cultivation of crops in 15 inch spaced rows.

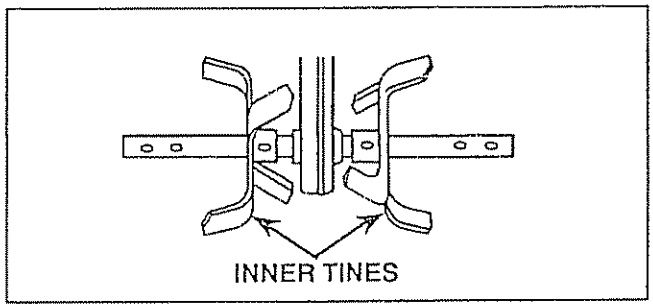


FIGURE 22

- EDGING - 9 - 5/8 INCH PATH (inner Tines off, outer Tines assembled on innermost shaft position). Holes "A" in Tines to holes "D" in Tine Shaft (Fig. 23). Use this arrangement for edging and first cultivation of crops in 15 inch spaced rows.

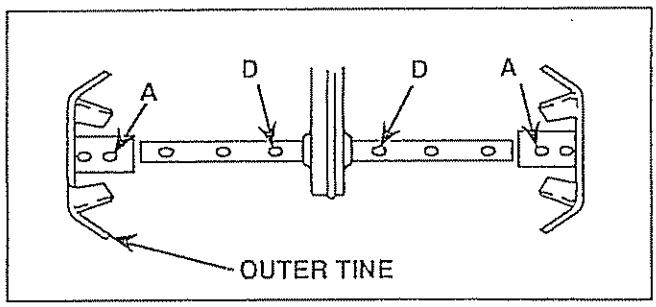


FIGURE 23

- NARROW CULTIVATING - 12 - 1/2 INCH PATH (inner Tines off, outer Tines assembled on middle shaft position). Holes "A" in Tines to holes "E" in Tine Shaft (Fig. 24). Use this arrangement for cultivating narrow rows.

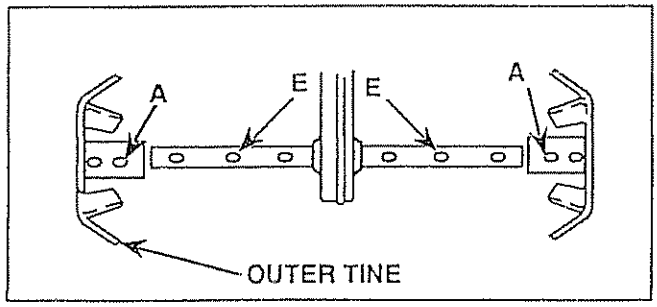


FIGURE 24

NOTE: OUTER TINES CAN BE REVERSED - TINES TURNED OUTWARD WILL THROW DIRT OUTWARD. TINES TURNED INWARD WILL THROW DIRT INWARD. FOR CULTIVATING SMALL CROPS, EDGING OR HILLING, ALL YOU NEED TO REMEMBER AS YOU RE-ASSEMBLE TINES IS THAT WHEN LOOKING AT THE RIGHT SIDE OF THE TILLER, "R"s STAMPED ON TINES WILL BE VISIBLE, AND ON THE LEFT SIDE OF THE TILLER, STAMPED "L"s WILL SHOW. SHARPENED TINE EDGES WILL ROTATE FORWARD FROM ABOVE

DISCONNECT SPARK PLUG WIRE WHEN CHECKING TINE CONTROL OPERATION.

TINE OPERATION CHECK

- With Tine Control in "OFF" (UP) position, Tine Control Lever should be against Tine Control Body (Fig. 25). If not, loosen Clip and pull Tine Control Cable up. Retighten Clip. If adjustments are made, make sure Tines do not rotate when Tine Control is in "OFF" position. See next step.
- With Tine Control in "OFF" (UP) position, push Tiller Handles down so Tines clear the ground. Pull Starter Handle. Tines should not rotate. If they do, loosen Clip and push Tine Control Cable down. Retighten Clip and test. Readjust if necessary.
- With Tine Control in "RUNNING" position, push Tiller Handles down so Tines clear the ground. Pull Starter Handle - Tines should rotate forward. If they do not, loosen Clip and pull Tine Control Cable up. Retighten Clip and test. Readjust if necessary.

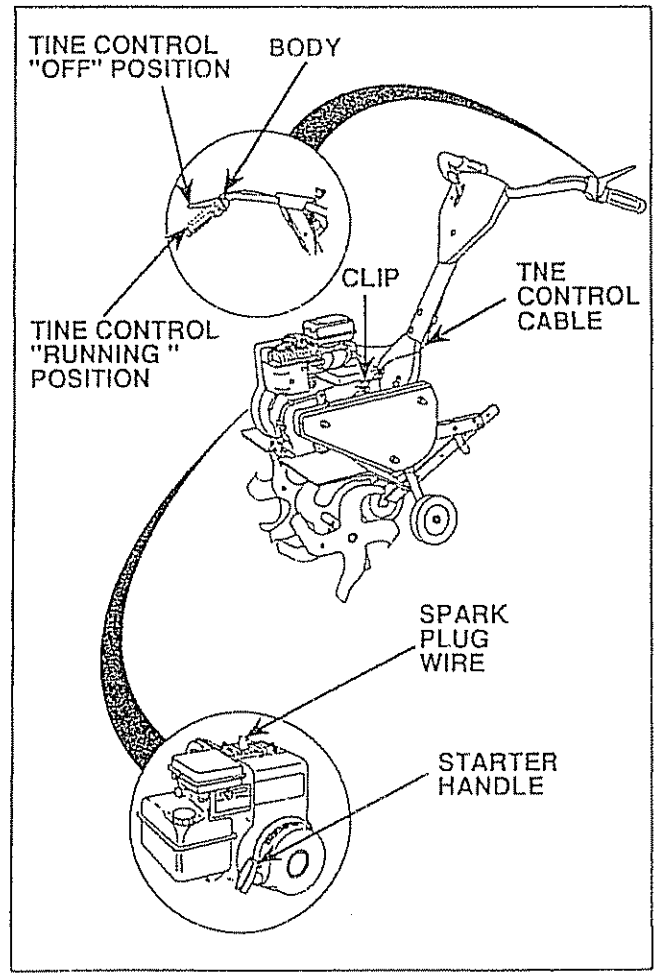


FIGURE 25

CARBURETOR

NOTE: A dirty Air Cleaner will cause the Engine to run rough. Be sure Air Cleaner is clean before adjustments are made. Factory settings are satisfactory for most applications and conditions. If adjustments are needed, proceed as follows:

Never attempt to change maximum Engine speed. This is preset at the factory and should only be changed by a qualified service technician who has the necessary equipment. The Carburetor mixture may need re-adjusting if Engine lacks power or does not idle properly.

MIXTURE ADJUSTMENT

- Turn Needle Valve (Fig. 26) clockwise (↷) until it just closes. Valve may be damaged by turning Needle Valve in too far.
- Open Needle Valve 1-1/2 turns counterclockwise (↶). This initial adjustment will permit the Engine to be started and warmed up prior to final adjustment.
- Start the Engine. Allow Engine to warm up for about 5 minutes before proceeding.
- Place Throttle Control in "IDLE" position.
- Turn Needle Valve in until Engine slows (clockwise (↷) lean mixture).
- Next turn Needle Valve out past smooth operating point until Engine runs unevenly (counterclockwise (↶) rich mixture).
- Now turn Needle Valve to the midpoint between rich and lean so the Engine runs smoothly.

IDLE RPM ADJUSTMENT

- To adjust Idle RPM, Rotate Throttle Linkage counterclockwise (↶) and hold against stop while adjusting Idle Speed Adjusting Screw to obtain 1750 RPM. Release Throttle Linkage.

CHECKING ADJUSTMENT

- Test the Engine by tilling. If Engine dies out, it usually indicates that the mixture is slightly lean and it may be necessary to open (↶) the Needle Valve slightly to provide a richer mixture. This richer mixture may cause a slight unevenness in idling.

THROTTLE CONTROL CABLE ADJUSTMENT

CAUTION: NEVER TAMPER WITH THE ENGINE GOVERNOR, WHICH IS FACTORY SET FOR PROPER ENGINE SPEED.

- Loosen Throttle Cable Adjusting Screw.
- With Throttle Control in "FAST" position and Cable connected to Bellcrank, pull Cable backward through Screw until Bellcrank is as far rearward as it will go.
- Tighten Adjusting Screw.

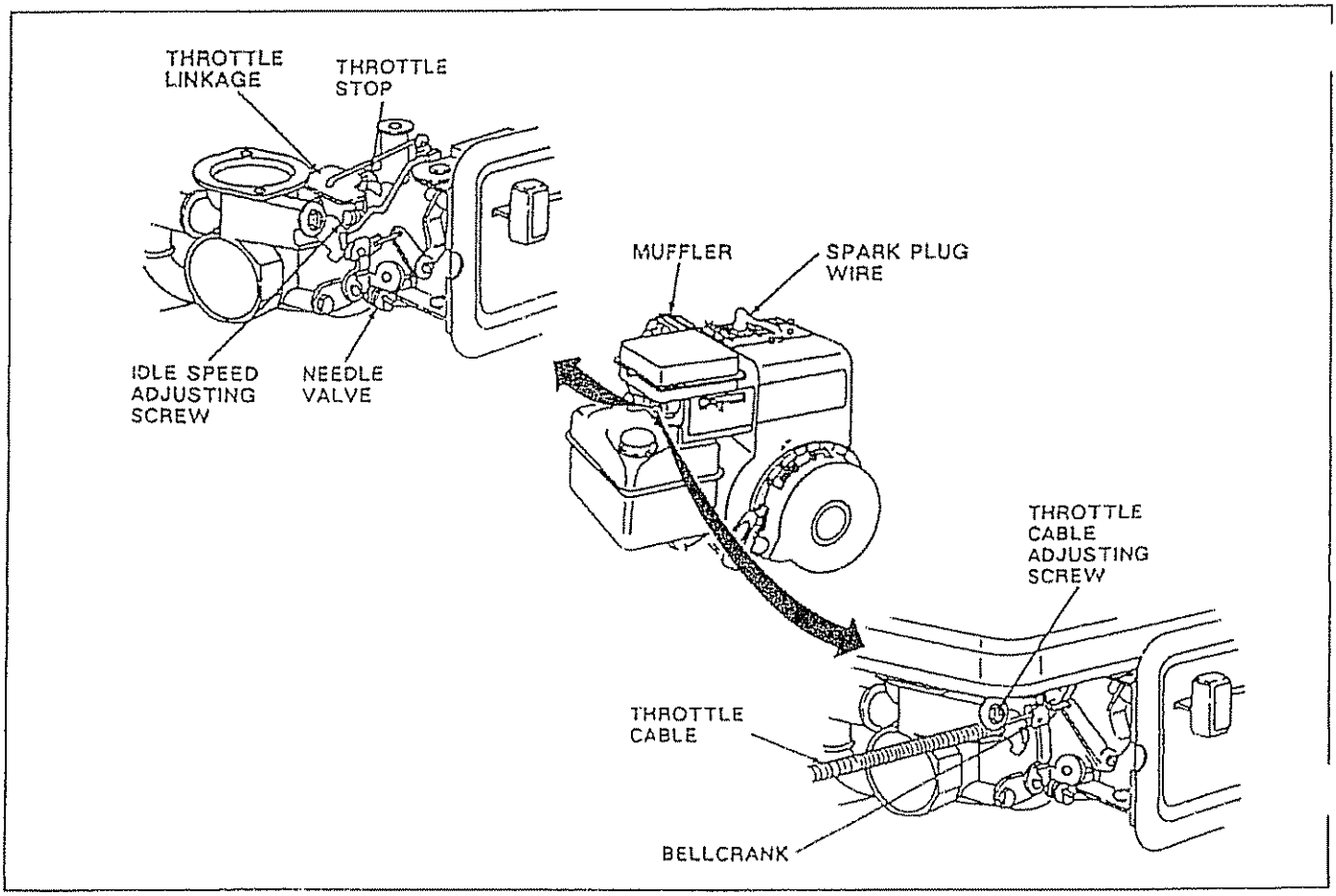


FIGURE 26

V-BELT

Replace V-Belt if it has stretched considerably or if it shows cracks or frayed edges.

- Remove Belt Guard by removing Rear Cap Nuts and Washers. Loosen bottom Tine Shield Nut and Front Cap Nut so that Belt Guard can slide straight out and away from Engine (Fig. 27).

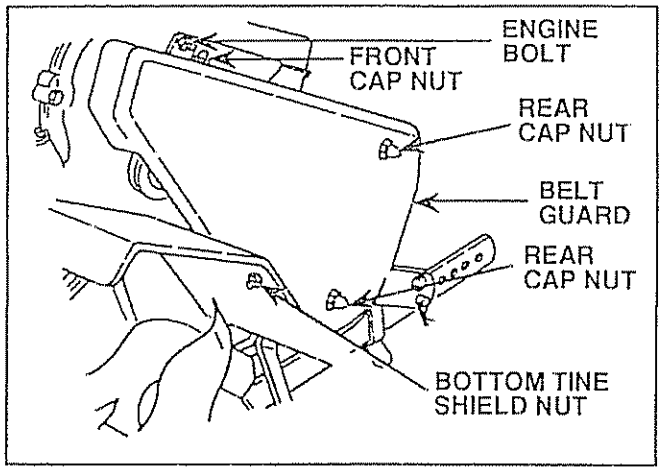


FIGURE 27

- Remove old V-Belt (from larger pulley first) (Fig. 28)
- Install new V-Belt (small pulley first) with bottom of belt (flat side) over Idler Pulley. Note Belt routing between Belt Guides
- Reposition Belt Guard under Tine Shield Bolt, then replace Washers and Cap Nuts as they were originally. Tighten securely.

NOTE: MAKE SURE BELT IS ON TOP OF BELT GUIDE ON INSIDE OF BELT GUARD.

- Check Tine operation and readjust if necessary (page 17).

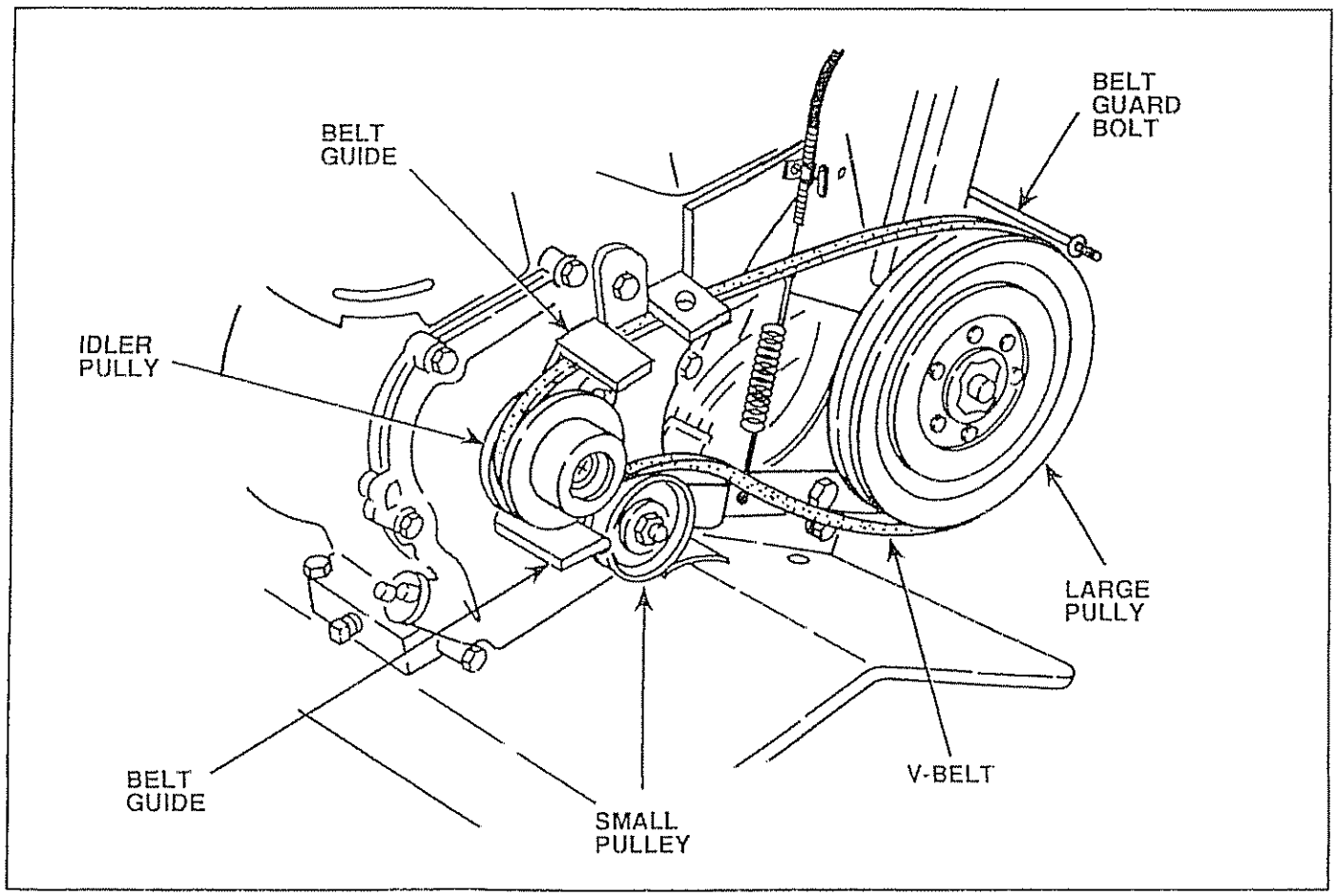


FIGURE 28

STORAGE

Keep your Tiller in a weatherproof, dry building. To avoid Engine problems, the fuel system should be emptied before storage of 30 days or longer

- Drain Fuel Tank; run Engine until gasoline in Carburetor is used.
- While Engine is still warm, drain oil from Engine. Refill with fresh oil.
- Remove Spark Plug; pour one half ounce of clean engine oil into cylinder. Pull Starter Handle slowly several times to distribute oil. Replace Spark Plug
- Clean entire Tiller, especially Cylinder Fins, Blower Housing and Air Screen. Tighten all bolts and nuts.

Gasoline stored for several months will lose its volatili (ability to burn effectively); therefore, always use up gasoline at the end of the season. Do not store, spill, or use gasoline near an open flame or devices such as a stove, furnace, or water heater which utilize a pilot light or devices that can create a spark.

CAUTION: IT IS IMPORTANT TO PREVENT GUM DEPOSITS FROM FORMING IN ESSENTIAL FUEL SYSTEM PARTS SUCH AS THE CARBURETOR, FUEL FILTER, FUEL HOSE, OR TANK DURING STORAGE. ALSO, EXPERIENCE INDICATES THAT ALCOHOL BLENDED FUELS (CALLED GASOHOL OR USING ETHANOL OR METHANOL) CAN ATTRACT MOISTURE WHICH LEADS TO SEPARATION AND FORMATION OF ACIDS DURING STORAGE. ACIDIC GAS CAN DAMAGE THE FUEL SYSTEM OF AN ENGINE WHILE IN STORAGE.

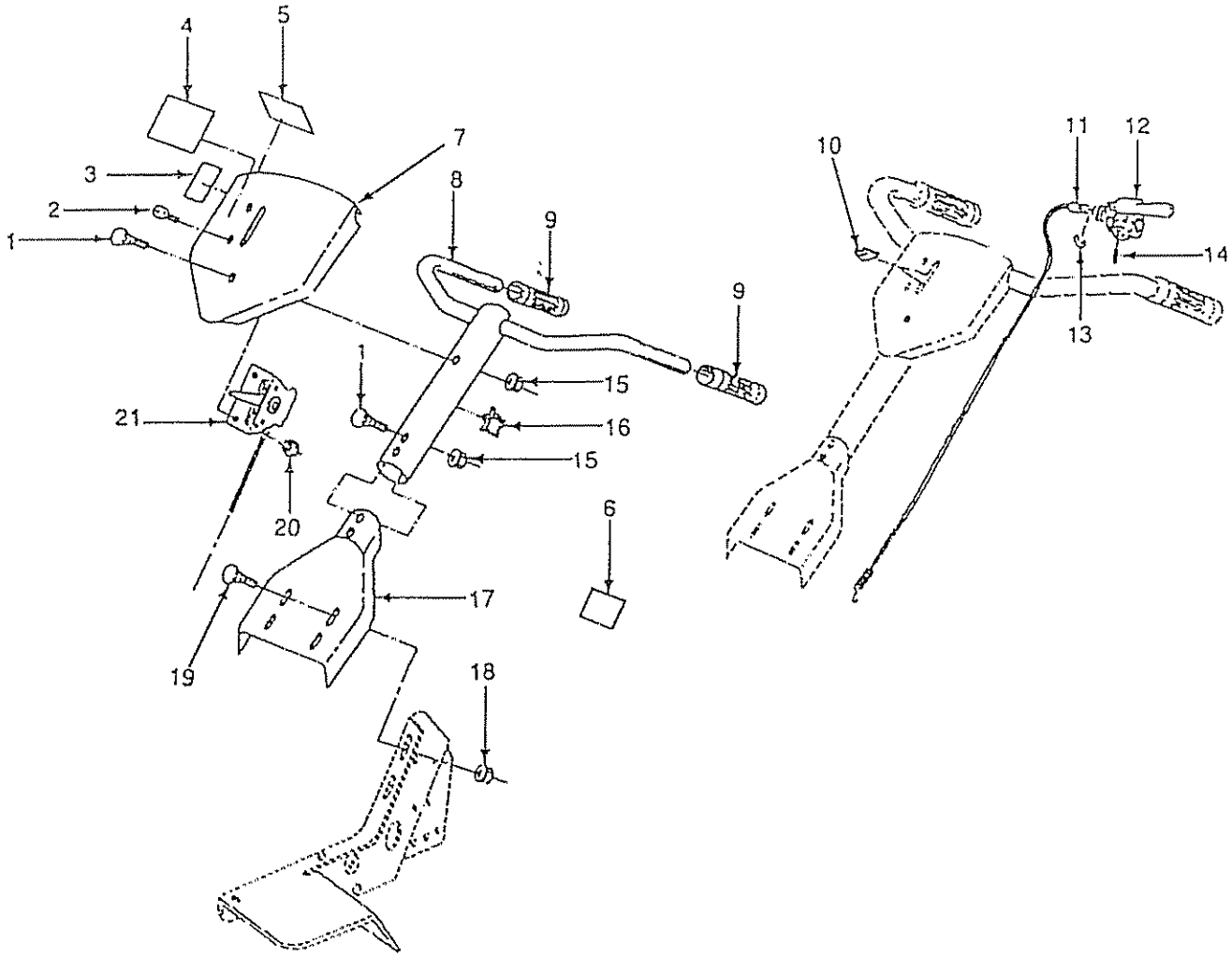
TROUBLE SHOOTING

PROBLEM: Probable Cause	Possible Remedy
WILL NOT START OR HARD TO START	
No gasoline in Fuel Tank	Fill tank with gasoline
Choke not set properly	Place Choke Control in "CHOKE" position
Throttle Control not set properly	Place Throttle Control in "FAST" position
Choked improperly, flooded Engine	Move Choke control to "Run" position, Place throttle Control in "FAST" position and pull Starter several times to clear out gas
Dirty Air Cleaner	Remove and clean or replace
Loose Spark Plug Wire	Make sure Spark Plug Wire is seated properly on Spark Plug
Spark Plug dirty or improper gap	Replace Spark Plug and adjust gap
Water in gasoline or old fuel	Drain Fuel Tank and Carburetor, use fresh fuel and replace Spark Plug
Improper Carburetor adjustment	Make necessary adjustments
Clogged Fuel Tank	Remove and clean
ENGINE MISSES OR LACKS POWER	
Engine overloaded	Set Depth Stake and Wheels for shallower tilling
Partially plugged Air Cleaner	Remove and clean or replace
Dirty Air Screen	Clean Air Screen
Spark Plug dirty, improper gap or wrong type	Replace Spark Plug and adjust gap
Oil in gasoline	Drain and refill Gas Tank and Carburetor
Improper Carburetor adjustment	Make necessary adjustments
Clogged Fuel Tank	Remove and clean
Poor compression	Major Engine overhaul
ENGINE OVERHEATS	
Low oil level or dirty oil	Add or change oil
Dirty Air Screen	Clean Air Screen
Dirty Engine	Clean Cylinder Fins, Air Screen and Muffler area
Partially Plugged Muffler	Remove and clean Muffler
Improper Carburetor adjustment	Adjust Carburetor to richer position
EXCESSIVE BOUNCE AND DIFFICULT HANDLING	
Wheels and Depth Stake incorrectly adjusted	Adjust Wheels and Depth Stake
Ground too dry and hard	Moisten ground or wait for more favorable soil conditions
SOIL BALLS UP OR CLUMPS	
Ground too wet	Wait for more favorable soil conditions
ENGINE RUNS WELL BUT TILLER WON'T MOVE	
Tine Control not engaged	Engage Tine Control
V-Belt not correctly adjusted	Check V-Belt
ENGINE RUNS WELL BUT LABORS WHEN TILLING	
Tilling too deep	Raise Depth Stake
Throttle Control not properly adjusted	Check Throttle Control setting
Carburetor not adjusted properly	Check Carburetor adjustment

REPAIR PARTS

3 H.P. TILLER -- MODEL NUMBER 917.298231

HANDLE ASSEMBLY

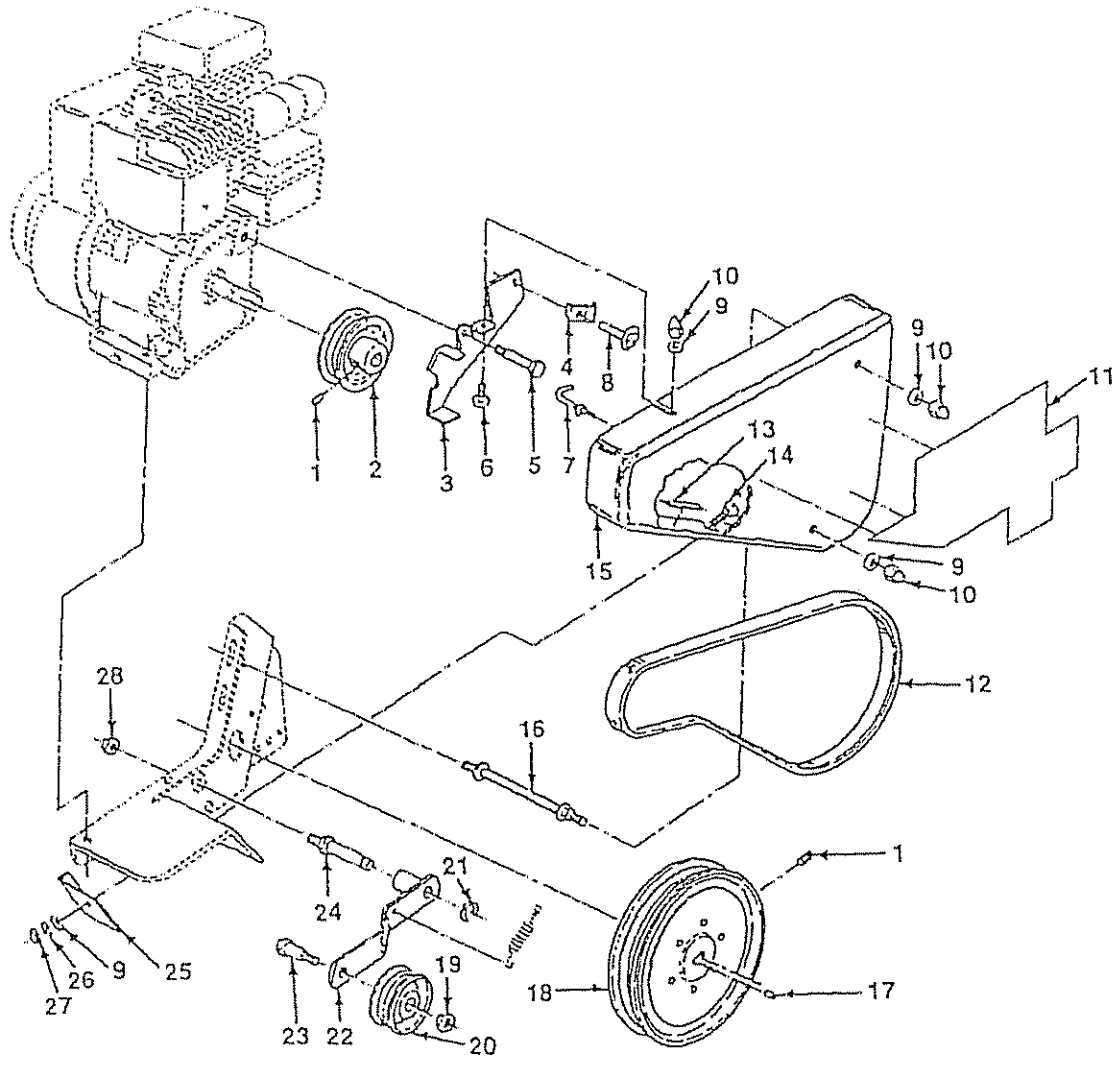


KEY NO.	PART NO.	DESCRIPTION
1	72010519	Bolt, Carriage 5/16 - 18 UNC x 2 - 3/8 Gr 5
2	71091008	Screw , Truss CR #10 - 24 - UNC x 1 1/2
3	120431X	Decal , Hand Placement
4	110718X	Decal, Control Panel
5	121858X	Decal, Caution and Tine Control
6	750211	Decal, USA
7	110530X	Panel, Control
8	110512X	Handle Column
9	110632X	Handle Grip
10	110680X	Knob, Throttle Control
11	3066J	Cable, Tine Control
12	2635J	Control, Lever
13	12000027	Ring, Klip
14	23200405	Screw, Set 1/4 - 20 x 5/16
15	73970500	Locknut, Hex Flange
16	121145X	Clip, Plastic , Cable
17	110514X	Handle, Mount
18	98000129	Nut, Flange 5/16 x 18
19	72010506	Bolt, Carriage 5/16 -18 x 3/4
20	73731000	Nut, Keps #10 - 24
21	110531X	Throttle Control

REPAIR PARTS

3 H.P. TILLER -- MODEL NUMBER 917.298231

BELT GUARD AND PULLEY ASSEMBLY



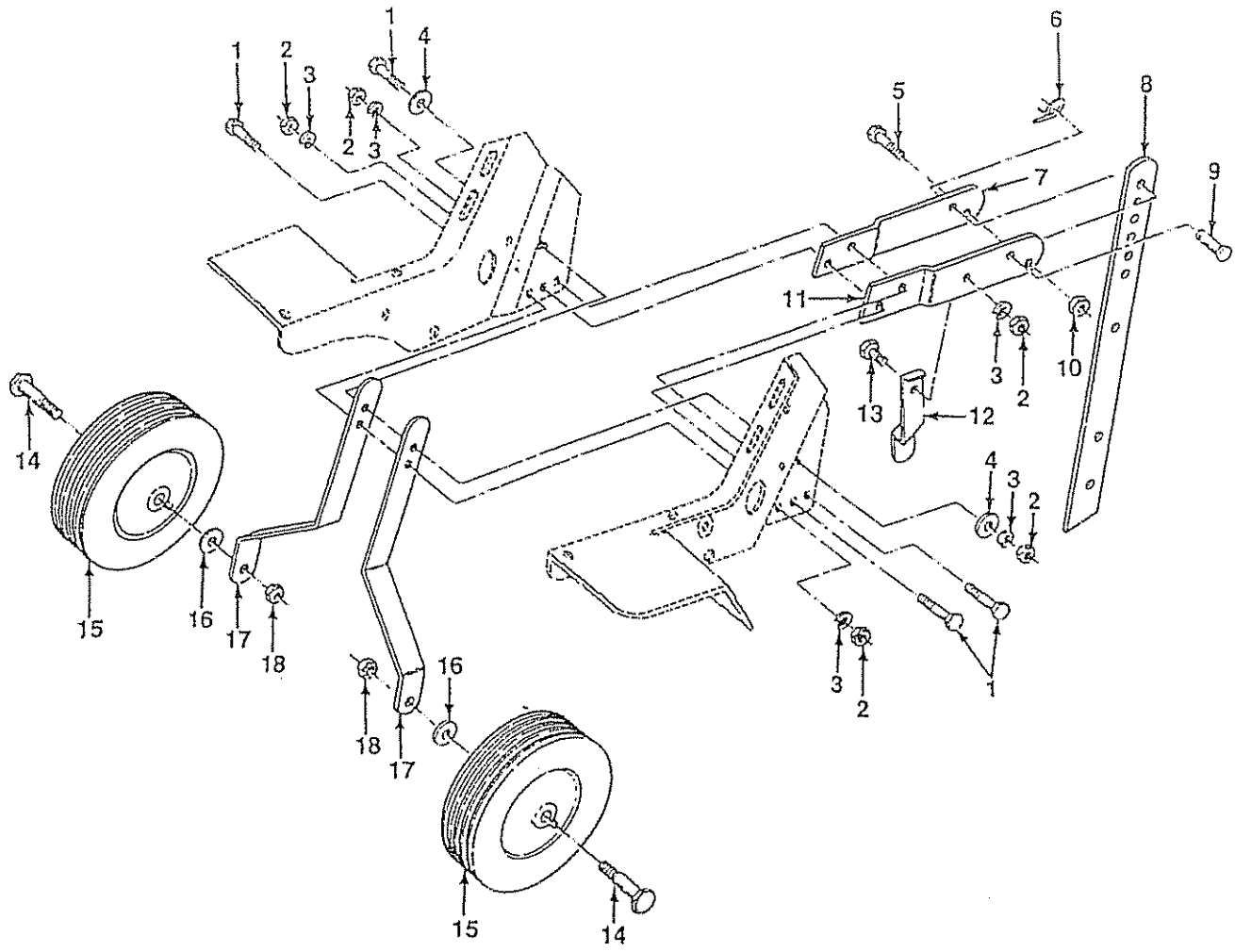
KEY NO.	PART NO.	DESCRIPTION
1	STD503103	Hex, Forged Socket Headless Set Screw 5/16 - 18 x 3/8
2	7417J	Engine Sheave (Pulley)
3	122955X	Bracket Assembly - Guard, V-Belt
4	9484R	Clip
5	74770812	Bolt, Hex 1/2 - 20 x 3/4
6	72140404	Bolt, Carriage 1/4 - 20 x 1/2
7	121463X	Keeper, Belt Transmission Sheave
8	86777	Screw, Hex -Washer Hd. Slotted Thread 10 - 24 x 1/2 Type D
9	STD551025	Washer 9/32 x 5/8 x 16 Ga.
10	104213X	Nut, Cap 1/4 - 20
11	121812X	Decal, Belt Guard
12	9179R	V-Belt
13	109227X	Pad, Idler

KEY NO.	PART NO.	DESCRIPTION
14	STD532507	Bolt, Carriage 1/4 - 20 x 3/4
15	121613X	Belt, Guard
16	110528X	Bolt, Belt Guard
17	2649M	Square, Key
18	9174R	Transmission Sheave (Pulley)
19	STD541237	Hex, Jam Nut 3/8 - 16
20	9178R	Idler Pulley
21	12000036	Klip Ring
22	674A30	Idler Arm Assembly
23	STD523712	Bolt, Hex 3/8 - 16 x 1 - 1/4
24	106968X	Shaft, Idler Arm
25	105358X	Shield, Dirt
26	STD551125	Lockwasher 1/4
27	STD541025	Nut, Hex 1/4 - 20
28	STD541031	Nut, Hex Jam 5/16 - 18

REPAIR PARTS

3 H.P. TILLER -- MODEL NUMBER 917.298231

WHEEL AND DEPTH STAKE ASSEMBLY

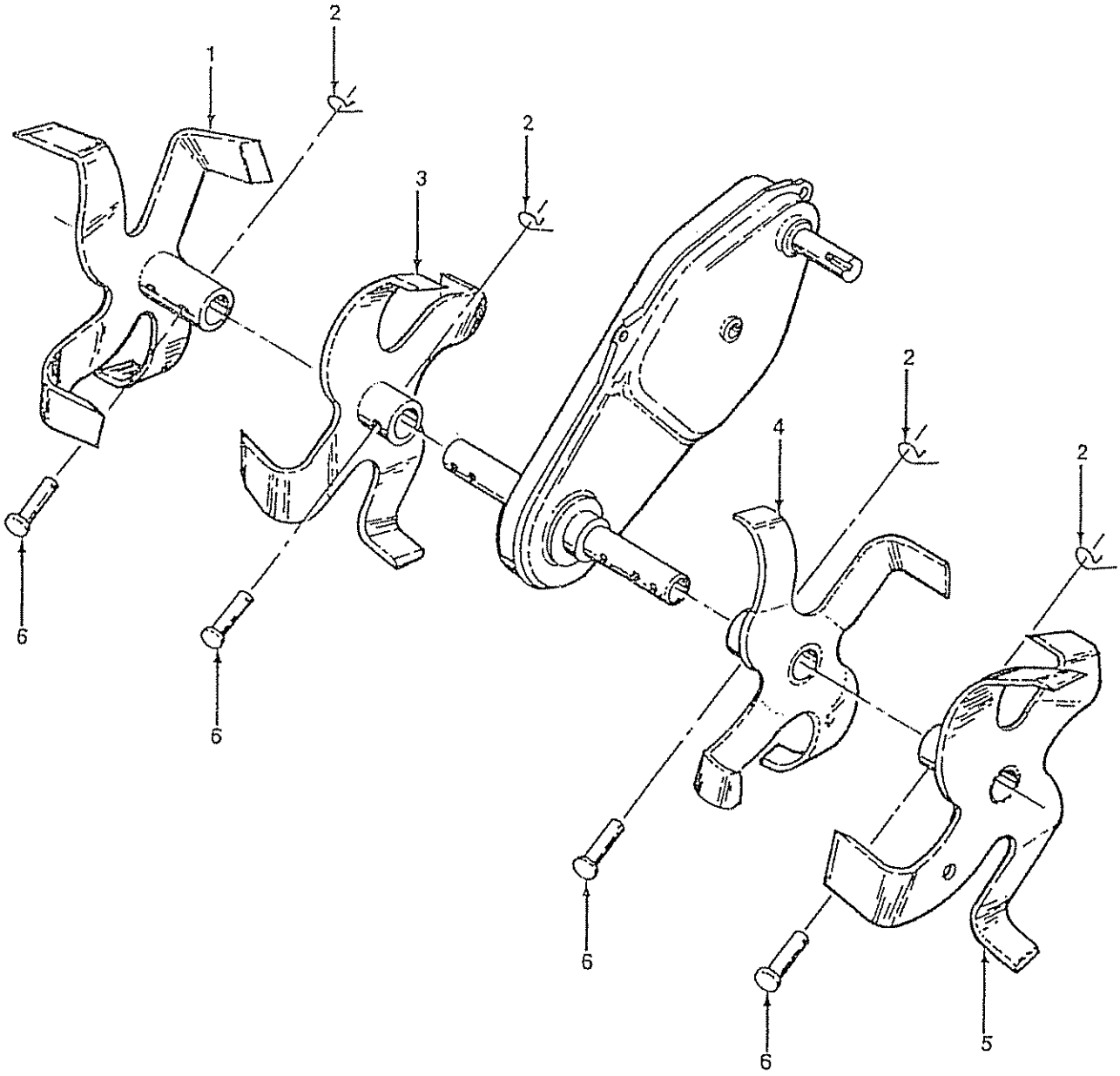


KEY NO.	PART NO.	DESCRIPTION
1	STD523112	Bolt, Hex 5/16 - 18 x 1 - 1/4
2	STD541031	Nut, Hex 5/16 - 18
3	STD551131	Lockwasher 5/16
4	19121414	Washer 3/8 x 7/8 x 14 Ga.
5	74610624	Bolt, Hex 3/8 - 24 x 1 - 1/2 Gr. 5
6	4921H	Hairpin Clip
7	318J	Depth Stake Support R.H.
8	9193R	Depth Stake
9	9551R	Retaining Pin With Hole
10	7810H	Nut 3/8 - 24
11	317J	Depth Stake Support L.H.
12	325J	Spring, Stake
13	STD523107	Bolt, Hex 5/16 - 18 x 3/4
14	121117X	Bolt, Shoulder
15	110557X	Wheel
16	19131311	Washer 13/32 x 13/16 x 11 Ga.
17	9189R	Bracket, Wheel
18	73680600	Nut, Crown Lock 3/8 - 16

REPAIR PARTS

3 H.P. TILLER -- MODEL NUMBER 917.298231

TINE ASSEMBLY

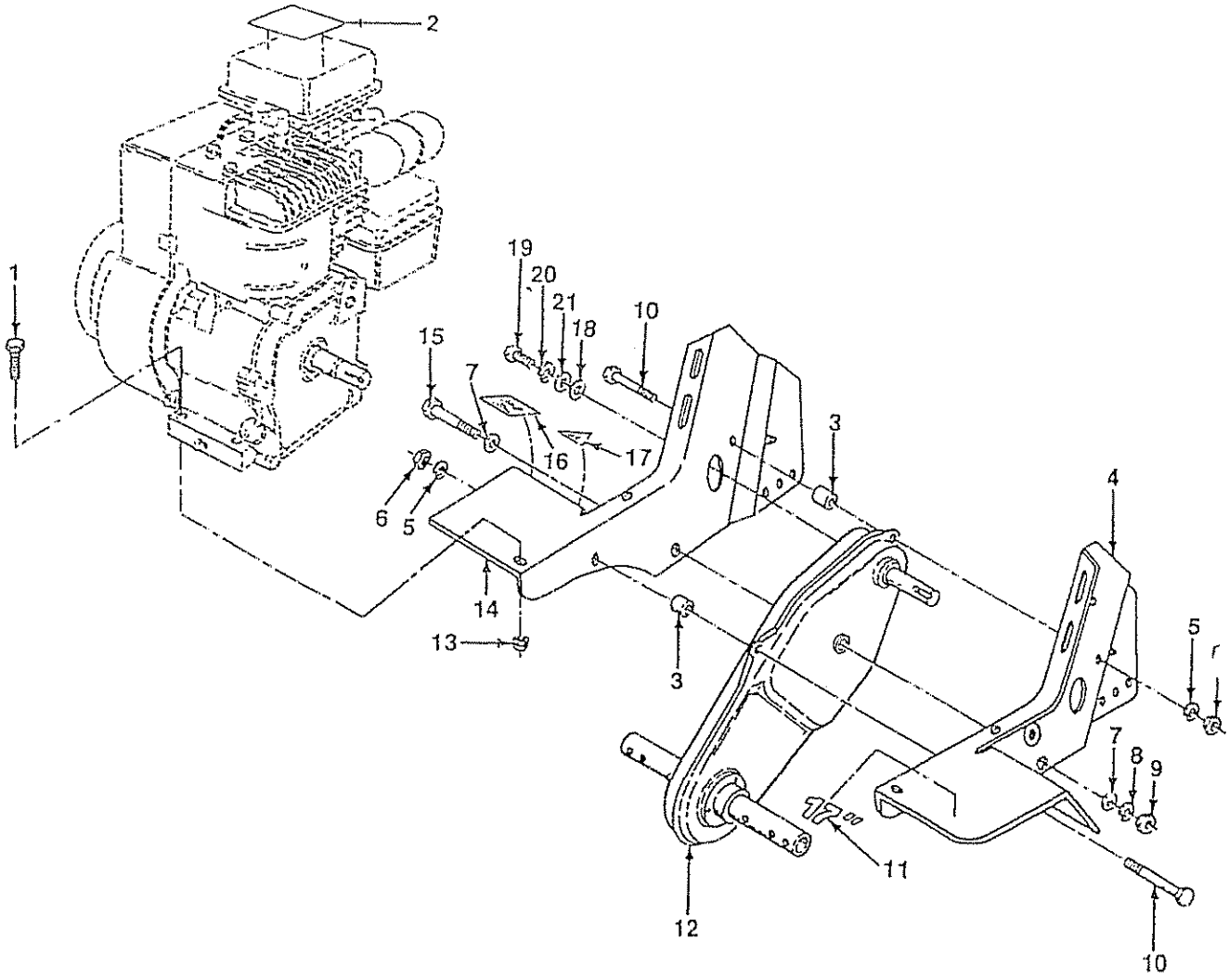


KEY NO.	PART NO.	DESCRIPTION
1	106860X	Tine Assembly, Outer R.H.
2	4921H	Clip, Hairpin
3	106858X	Tine Assembly, Inner R.H.
4	106857X	Tine Assembly, Inner L.H.
5	106859X	Tine Assembly, Outer L.H.
6	9194R	Pin, Retaining, With Hole

REPAIR PARTS

3 H.P. TILLER -- MODEL NUMBER 917.298231

TRANSMISSION AND TINE SHIELD ASSEMBLY



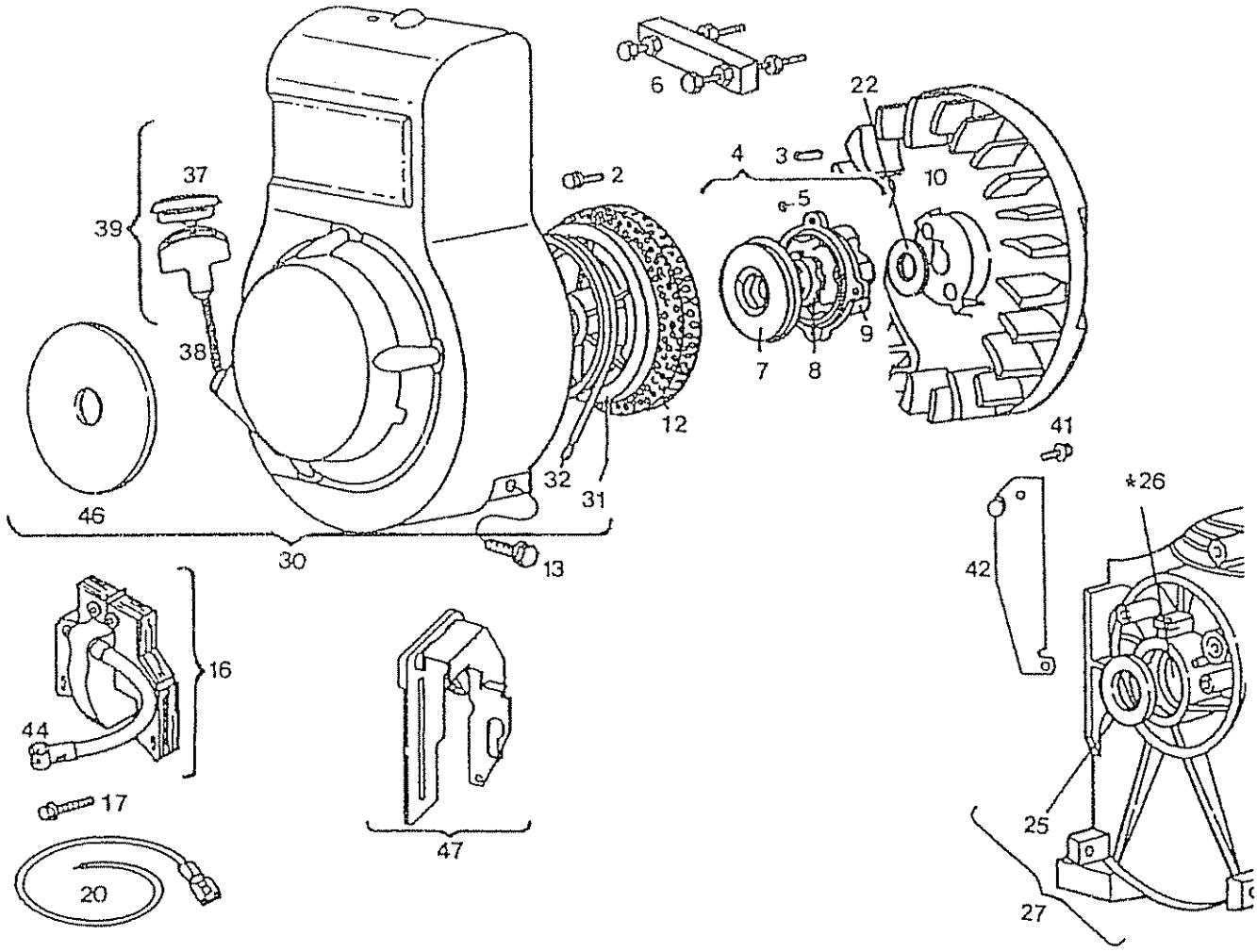
KEY NO.	PART NO.	DESCRIPTION
1	STD523115	Bolt, Hex 5/16 - 18 x 1 - 1/2
2	110719X	Decal, Operation and Lubrication
3	9173R	Spacer, Split
4	110510X	Bracket, Engine L H.
5	STD551131	Washer, Lock 5/16
6	STD541031	Nut, Hex 5/16 - 18
7	19131311	Washer 13/32 x 13/16 x 11 Ga
8	STD551137	Washer, Lock 3/8
9	7810H	Nut 3/8 - 24
10	STD523127	Bolt, Hex 5/16 - 18 x 2 - 3/4
11	120046X	Decal, Side Shield, 17"

KEY NO.	PART NO.	DESCRIPTION
12	105391X	Transmission
13	73510500	Nut, Keps 5/16 - 18
14	2606J	Bracket, Engine R H
15	74610652	Bolt, Hex 3/8 - 24 x 3 - 1/4 Gr. 5
16	120075X	Decal, Warning
17	- - -	Decal, OPEI
18	19091412	Washer 9/32 x 7/8 x 12 Ga.
19	STD 622507	Bolt, Hex 1/4 - 28 x 3/4 Gr. 5
20	STD551125	Washer, Lock 1/4
21	19092016	Washer 9/32 x 1 - 1/4 x 16 Ga
--	121709X	Owner's Manual

REPAIR PARTS

3 H.P. TILLER -- MODEL NUMBER 917.298231
ENGINE - BRIGGS AND STRATTON -- MODEL NUMBER 80202 TYPE NUMBER 2369-01

ENGINE, RIGHT SIDE



KEY NO.	PART NO.	DESCRIPTION
2	93490	Screw, Rotating Screen Mounting Sem
3	222698	Key, Flywheel
4	399671	Clutch Assembly, Rewind Starter
5	63770	Ball, Clutch
6	19069	Puller, Flywheel (optional Accessory)
7	394506	Washer, Clutch Retainer
8	298799	Ratchet, Rewind Starter
9	394897	Housing, Starter Clutch
10	296884	Flywheel, Magneto
12	221661	Screen, Rotating
13	93158	Screw, Sem
16	397316	Armature, Magneto
17	93381	Screw, Armature Mounting Sem
20	398808	Wire, Ground

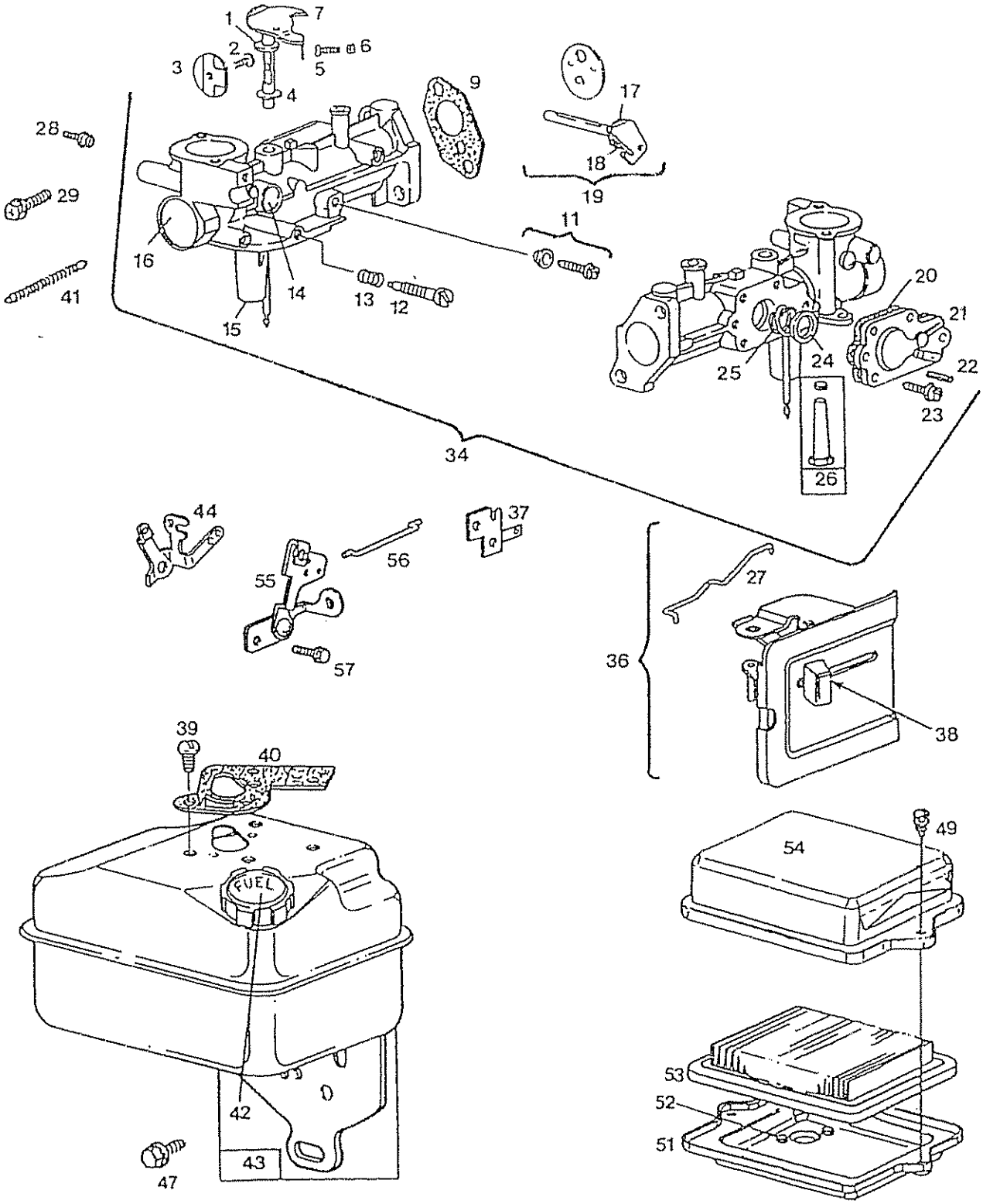
KEY NO.	PART NO.	DESCRIPTION
22	220865	Washer, Spring
25	299819	Seal, Oil
26	293708	Bushing, Cylinder Note: Requires special tools for installation.
27	395879	Cylinder Assembly
30	490633	Starter Assembly, Rewind (10 o'clock position)
31	280439	Pulley, Rewind Starter
32	490179	Spring, Rewind Starter
37	396892	Insert, Starter Grip
38	66734	Rope, Starter (48 - 5/8")
39	393152	Grip, Starter Rope
42	220971	Guard, Flywheel
44	221798	Terminal, Ignition Cable
46	490817	Spacer
47	490529	Blade, Governor

REPAIR PARTS

3 H.P. TILLER -- MODEL NUMBER 917.298231

ENGINE - BRIGGS AND STRATTON -- MODEL NUMBER 80202 TYPE NUMBER 2369-01

ENGINE, REAR



Assemblies include all parts shown in frames.

REPAIR PARTS

3 H.P. TILLER – MODEL NUMBER 917.298231
ENGINE - BRIGGS AND STRATTON – MODEL NUMBER 80202 TYPE NUMBER 2369-01

ENGINE, REAR

KEY NO.	PART NO.	DESCRIPTION
1	271853	Washer, Throttle Shaft (Foam)
2	93499	Screw, Throttle Valve Mounting Sem
3	223793	Valve, Throttle
4	398970	Seal, Throttle Shaft
5	93527	Screw, Rd. Hd.
6	260575	Spring Throttle Adjustment
7	490371	Shaft and Lever, Throttle
9	*271936	Gasket, Intake Elbow Mounting (2 used)
11	490501	Screw, Carburetor Cam and Lever
12	231533	Valve, Needle
13	26336	Spring, Needle Valve
14	223789	Plug, Welch
16	220352	Plug, Welch
17	270382	Washer, Choke Shaft (Foam)
18	221839	Washer, Choke Shaft Adjuster
19	490495	Valve Group, Choke
20	270026	Diaphragm (2 Quart)
21	210959	Cover, Diaphragm
22	93265	Pin, Diaphragm Mounting Sem
23	93141	Screw, Diaphragm Mounting
24	221377	Cap, Spring
25	262328	Spring, Fuel Pump Diaphragm
26	391813	Fuel Pipe and Clip Assembly
27	262359	Link, Choke
28	93543	Screw, Fil. Hd., 10-32 x 3/8
29	93357	Screw, Hex Hd.
34	492645	Carburetor Assembly (For 2 Quart Tank)
36	490649	Bracket, Control
37	296110	Plate Assembly, Stop Switch Insulator
38	280715	Knob, Control
39	94094	Screw, Fuel Tank Mounting Sem
40	*271928	Gasket, Fuel Tank Mounting
41	260041	Spring, Air Vane Governor
42	490075	Cap, Fuel Tank
43	490502	Tank Assembly, Fuel (2 Quart)
44	223857	Lever, Speed Adjuster
47	94408	Screw, Tank Bracket Mounting Sem
49	490073	Screw, Cover Mounting
50	271935	Gasket, Air Cleaner
51	490074	Base, Air Cleaner
52	94018	Screw, Air Cleaner
53	491588	Filter, Air
54	223765	Cover, Air Cleaner
55	491577	Control Assembly, Throttle
56	262470	Link, Throttle
57	93572	Screw, Hex Head

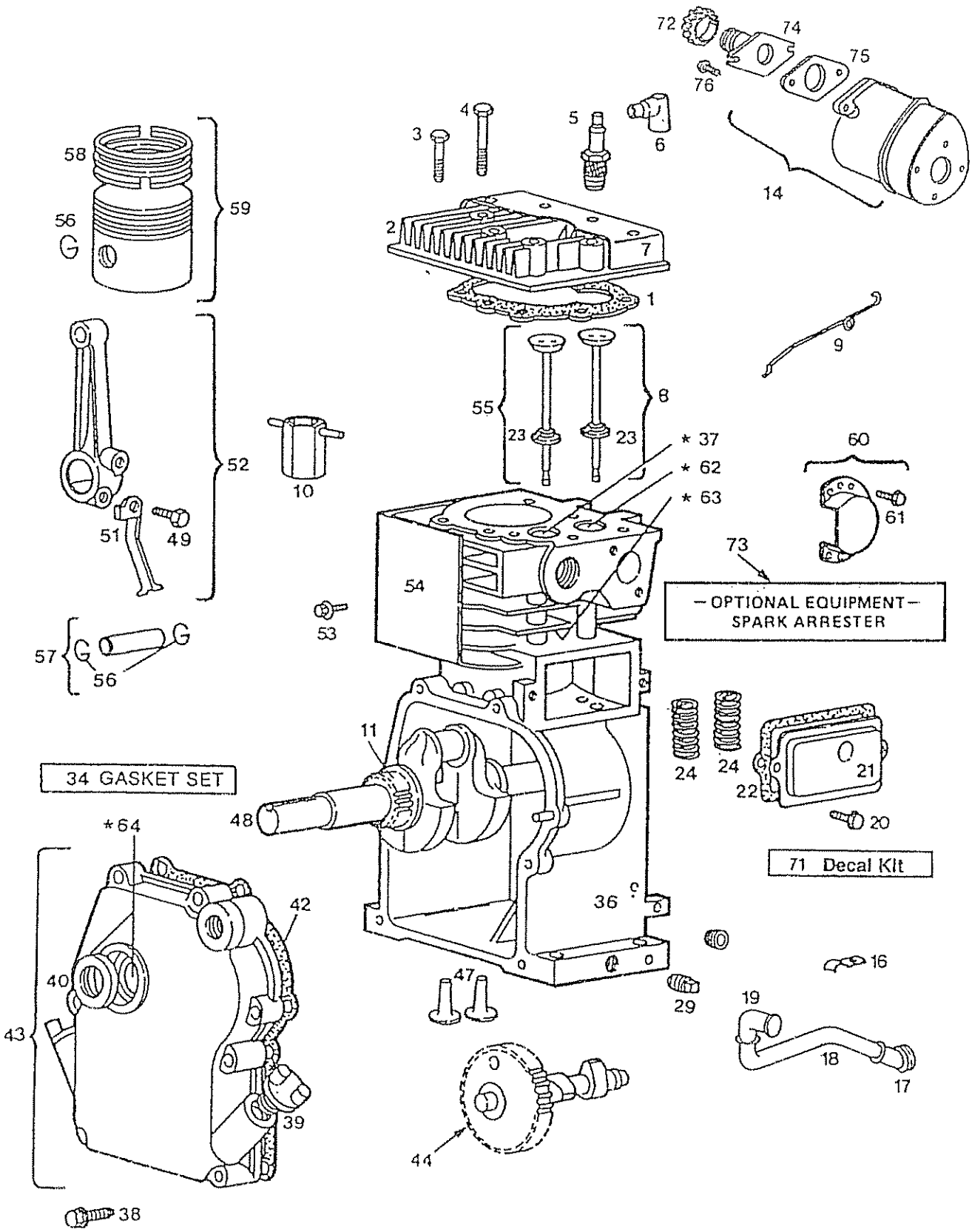
*Included in Gasket Set Part No. 397144

REPAIR PARTS

3 H.P. TILLER -- MODEL NUMBER 917.298231

ENGINE - BRIGGS AND STRATTON -- MODEL NUMBER 80202 TYPE NUMBER 2369-01

ENGINE, INTERNAL PARTS



REPAIR PARTS

3 H.P. TILLER -- MODEL NUMBER 917.298231
ENGINE - BRIGGS AND STRATTON -- MODEL NUMBER 80202 TYPE NUMBER 2369-01

ENGINE, INTERNAL PARTS

KEY NO.	PART NO.	DESCRIPTION
1	*272167	Gasket, Cylinder Head
2	210812	Head, Cylinder
3	93111	Screw, Cylinder Head (1 - 15/16" long)
4	93113	Screw, Cylinder Head (2 - 5/16" long)
5	293918	Plug, Spark (with gasket) (1 - 1/2" High - - 37-42 M.M.) (Resistor Type)
6	66538	Elbow, Spark Plug
7	223390	Cover, Cylinder Head
8	296677	Valve, Intake (Grooved Stem - - includes Retainer No. 93312)
9	262325	Link, Air Vane Governor
10	89838	Wrench, Spark Plug
11	261533	Gear, Timing
14	492591	Muffler, Exhaust (Lo-Tone)
16	223786	Clamp, Breather Tube
17	66578	Grommet, Breather Tube
18	231527	Tube, Breather
19	67838	Grommet, Breather Tube
20	93394	Screw, Valve Cover Mounting Sem
21	294178	Breather Valve Chamber
22	*27549	Gasket, Valve Cover
23	93312	Retainer Valve Spring Used with valves with grooves in stem
24	260552	Spring, Valve
29	91249	Plug, Pipe 1/4" Std., Square Head Note: 93448 Plug - - Oil Drain (Hex. Socket Head) To Replace Crankshaft Gear Pin, Order Part No. 230978.
34	93448	Plug, Pipe (Hex Socket Head)
36	397144	Gasket Set
37	211291	Seat Exhaust Valve (Standard) Note: For Options
38	93032	Screw, Crankcase Cover Mounting Sem Note: 93656 Stud 90832 Washer - - Lock Used to mount Crankcase Cover
39	66768	Plug, Oil Filter
40	299819	Seal, Oil
42	*270833	Gasket, Crankcase - - .015" thick (Standard)
	*270895	Gasket, Crankcase - - .005" thick
	*270896	Gasket, Crankcase - - .009" thick
43	394820	Cover Assembly, Crankcase
44	394800	Gear, Cam
47	230173	Tappet, Valve
48	399010	Crankshaft
49	94404	Screw, Connecting Rod
50	220670	Dipper, Connecting Rod
52	294367	Rod Assembly, Connecting For Connecting Rod with .20" undersize Crankpin Bore - - Order No. 296079 Sem
53	220478	Shield, Cylinder
54	296676	Valve, Exhaust (Grooved Stem - - includes Retainer No. 93312)
55	26026	Lock, Piston Pin
56	298909	Pin Assembly - - Piston - - Standard
	298908	Pin Assembly - - Piston - - .005" O.S.
	RING SETS	Note: For Chrome Piston Ring Set - - Standard Size - - Order Part No. 297201
58	294232	Ring Set - - Std. Piston
	294224	Ring Set - - .010" O.S.Piston
	294225	Ring Set - - .020" O.S. Piston
	294226	Ring Set - - .030" O.S. Piston
59	295587	Piston Assembly, Standard
	295588	Piston Assembly - - .010" O.S.
	295589	Piston Assembly - - .020" O.S.
	295590	Piston Assembly - - .030" O.S.
60	393760	Deflector, Muffler
61	93705	Screw, Sem
62	211172	Seat, Intake Valve (Standard)
63	231348	Guide, Exhaust Valve Note: 63709 Guide - -Intake Valve
64	293708	Bushing, Crankcase Cover Note: Bushings require special tools for installation
71	491075	Decal (Label) Kit
72	220859	Locknut, Muffler
73	396800	Spark Arrester
74	492232	Adapter, Muffler
75	272203	Gasket, Muffler
76	94153	Mounting Screw, Muffler

*Included in Gasket Set Part No. 397144

SEARS

OWNERS MANUAL

MODEL NO.
917.298231

HOW TO ORDER REPAIR PARTS

CRAFTSMAN
3.0 HORSEPOWER 17 INCH TINE WIDTH FRONT TINE TILLER

Each Tiller has its own model number. Each Engine has its own model number.

The Model Number for your Tiller will be found on a plate attached to the right hand engine bracket.

The model number for the Engine will be found on the Blower Housing of the Engine adjacent to the Spark Plug.

All parts listed herein may be ordered from any Sears, Roebuck and Co. Service Center and most Retail Stores.

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION:

- PRODUCT - "FRONT TINE TILLER"
- MODEL NUMBER - 917.298231
- ENGINE MODEL NUMBER -80202 - TYPE NUMBER -2369-01
- PART NUMBER
- PART DESCRIPTION

Your Sears merchandise has added value when you consider Sears has service units nationwide staffed with Sears trained technicians... professional technicians specifically trained to insure that we meet our pledge to you, we service what we sell.

Sears, Roebuck and Co., Chicago, IL 60684 U.S.A.

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