Owner's Manual

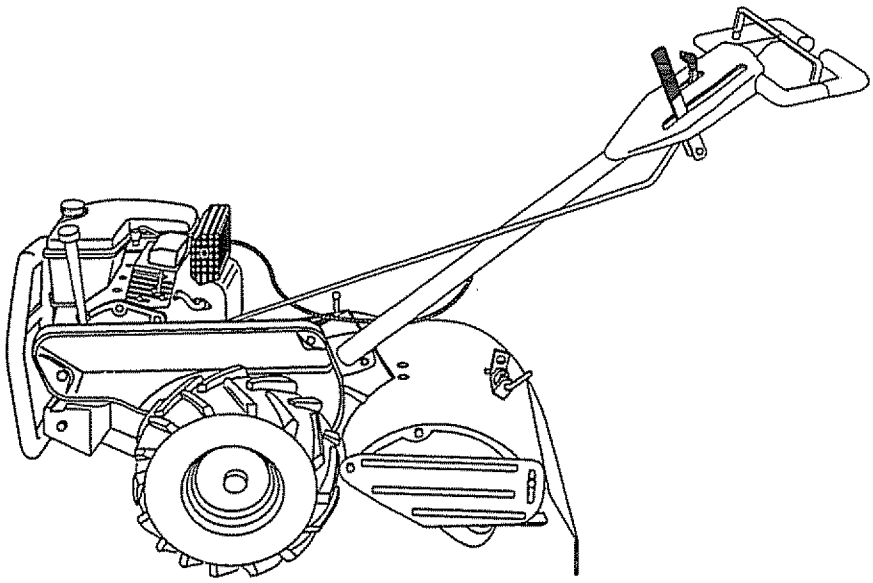
CRAFTSMAN®

6.0 HP
17 INCH TINE WIDTH
REAR TINE WITH
COUNTER ROTATING TINES

TILLER

Model No.
917.293401

- **Safety**
- **Assembly**
- **Operation**
- **Maintenance**
- **Repair Parts**



This product has a low emission engine which operates differently from previously built engines. Before you start the engine, read and understand this Owner's Manual.

CAUTION:

Read and follow all
Safety Rules and Instructions
before operating this equipment

Sears, Roebuck and Co., Hoffman Estates, IL 60179

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WARRANTY

LIMITED TWO YEAR WARRANTY ON CRAFTSMAN TILLER

For two (2) years from date of purchase, when this Craftsman Tiller is maintained, lubricated, and tuned up according to the operating and maintenance instructions in the owner's manual, Sears will repair free of charge any defect in material or workmanship. This Warranty does not cover:

- Expendable items which become worn during normal use, such as tines, spark plugs, 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.
- If this Craftsman Tiller is used for commercial or rental purposes, this Warranty applies for only thirty (30) days from the date of purchase.

Warranty service is available by returning the craftsman power mower 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/817WA, HOFFMAN ESTATES, IL 60179

SAFETY RULES

TRAINING

- Read the Owner's 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.
- Take all possible precautions when leaving the machine unattended. Disengage the tines, shift into neutral, and stop the engine.
- 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 operate the machine at high speeds on slippery surfaces. Look behind and use care when backing.
- Never allow bystanders near the unit.
- Use only attachments and accessories approved by the manufacturer of the tiller (such as wheel weights, counterweights, 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 pins, 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.

⚠**CAUTION:** Always disconnect spark plug wire and place wire where it cannot contact spark plug in order to prevent accidental starting when setting up, transporting, adjusting or making repairs.

WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defectd, or other reproductive harm.

PRODUCT SPECIFICATIONS

HORSEPOWER:	6.0 HP
DISPLACEMENT:	11.88 CU. IN.
GASOLINE CAPACITY:	4 Quarts Unleaded Regular
OIL (API-SF/SG/SH): (CAPACITY: 20 oz.)	SAE 30 (Above 32°F) SAE 5W-30 (Below 32°F)
SPARK PLUG : (GAP: .030")	Champion N4C

Congratulations on your purchase of a 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 authorized 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".

Your new tiller has been assembled at the factory with exception of those parts left unassembled for shipping purposes. To ensure safe and proper operation of your tiller all parts and hardware you assemble must be tightened securely. Use the correct tools as necessary to insure proper tightness.

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 the "Customer Responsibilities" and "Storage" sections of this Owner's Manual.

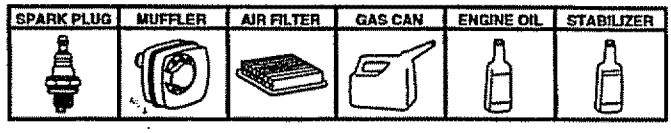
⚠**WARNING:** This unit is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark 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 the Repair Parts section of this manual for part number.

ACCESSORIES

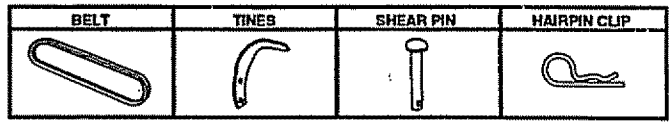
These accessories were available when the tiller was purchased. They are also available at most Sears Retail outlets and Service Centers. Most Sears Stores can order repair parts for you when you provide the model number of your tiller.

ENGINE



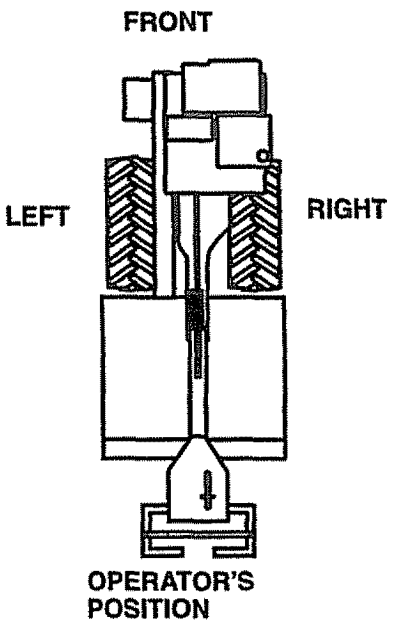
TILLER PERFORMANCE

TILLER MAINTENANCE



ASSEMBLY

Your new tiller has been assembled at the factory with exception of those parts left unassembled for shipping purposes. To ensure safe and proper operation of your tiller all parts and hardware you assemble must be tightened securely. Use the correct tools as necessary to insure proper tightness.



TOOLS REQUIRED FOR ASSEMBLY

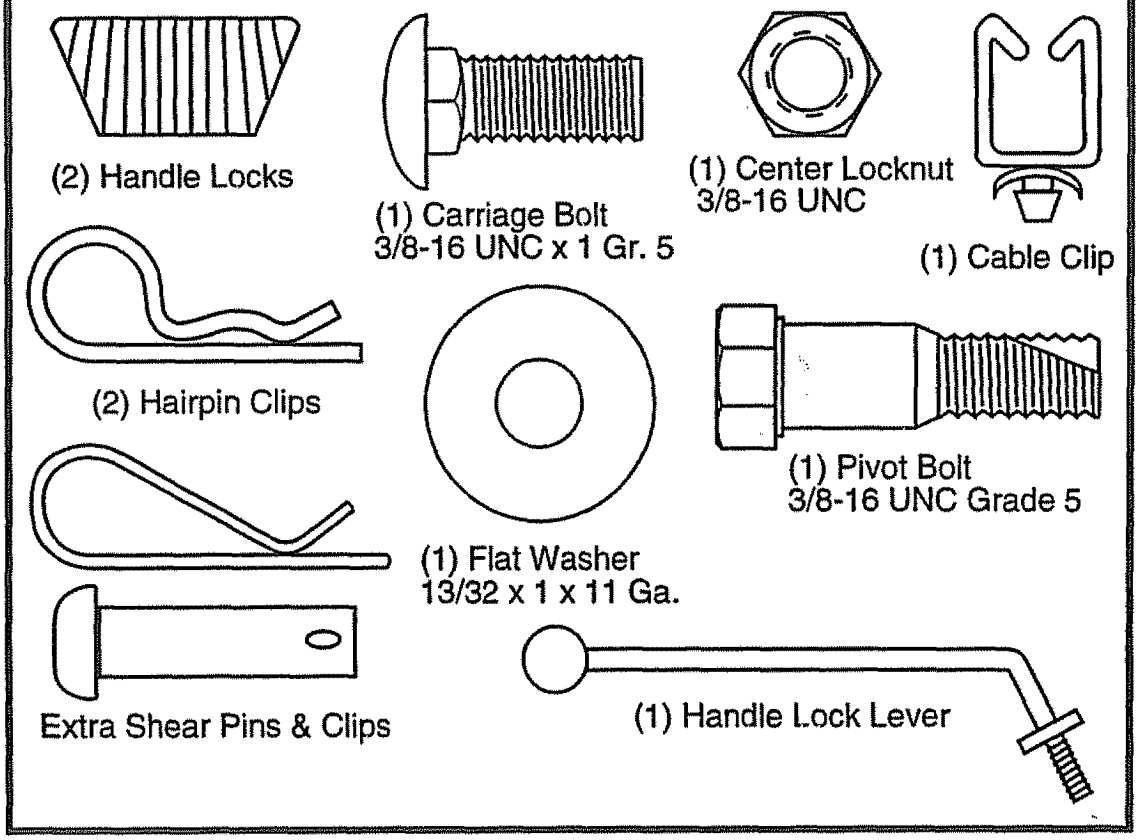
A socket wrench set will make assembly easier. Standard wrench sizes are listed.

(1) Utility knife
(1) Wire cutter
(1) Tire pressure gauge
(1) Screwdriver
(1) Pair of pliers
(1) 9/16" wrench

OPERATOR'S POSITION

When right or left hand is mentioned in this manual, it means when you are in the operating position (standing behind tiller handles).

CONTENTS OF HARDWARE PACK

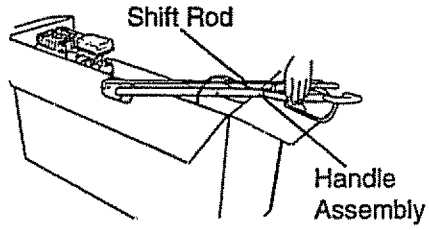


UNPACKING CARTON

⚠**CAUTION:** Be careful of exposed staples when handling or disposing of cartoning material.

IMPORTANT:When unpacking and assembling tiller, be careful not to stretch or kink cables.

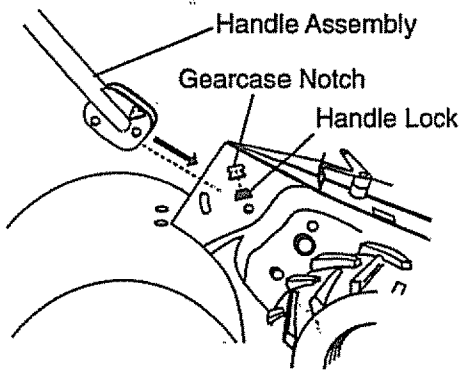
- While holding handle assembly, cut cable ties securing handle assembly to top frame. Let handle assembly rest on tiller.
- Remove top frame of carton.
- Slowly ease handle assembly up and place on top of carton.
- Cut down right hand front and right hand rear corners of carton, lay side carton wall down.
- Remove packing material from handle assembly.
- Separate shift rod from handle assembly.



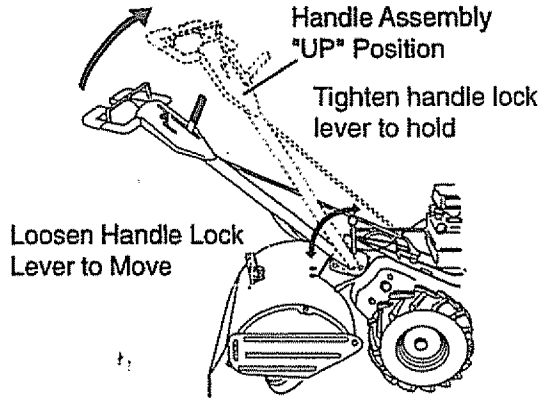
INSTALL HANDLE

- Insert one handle lock (with teeth facing outward) in gearcase notch. (Apply grease on smooth side of handle lock to aid in keeping lock in place until handle assembly is lowered into position.)

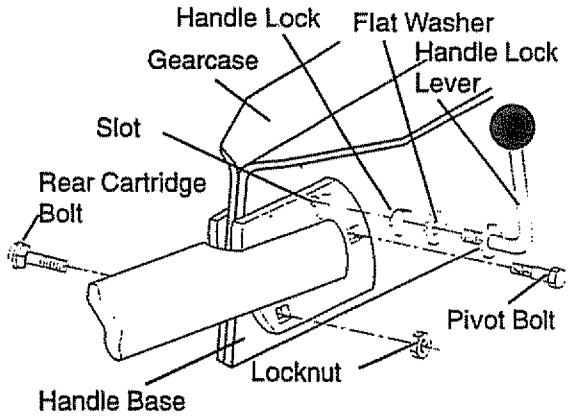
Viewed from r.h. side of tiller



- Grasp handle assembly. Hold in "up" position. Be sure handle lock remains in gearcase notch. Slide handle assembly into position.
- Rotate handle assembly down. Insert rear carriage bolt first, with head of bolt on L.H. side of tiller and loosely assemble locknut.

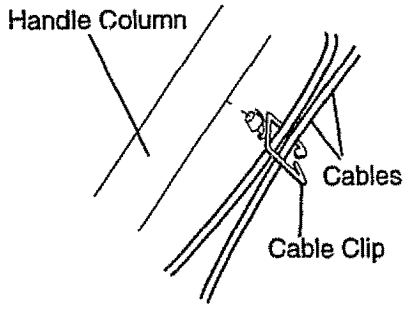


- Insert pivot bolt in front part of plate and tighten.
- Cut down remaining corners of carton and lay panels flat.
- Lower the handle assembly. Tighten nut on carriage bolt so handle moves with some resistance. This will allow for easier adjustment.
- Place flat washer on threaded end of handle lock lever.
- Insert handle lock lever through handle base and gearcase. Screw in handle lock lever just enough to hold lever in place.
- Insert second handle lock (with teeth inward) in the slot of the handle base (just inside of washer).
- Raise handle assembly to highest position and securely tighten handle lock lever by rotating clockwise. Leaving handle assembly in highest position will make it easier to connect shift rod.



INSERT CABLE CLIP

- Insert plastic cable clip into hole on the back of handle column. Push cables into clip.

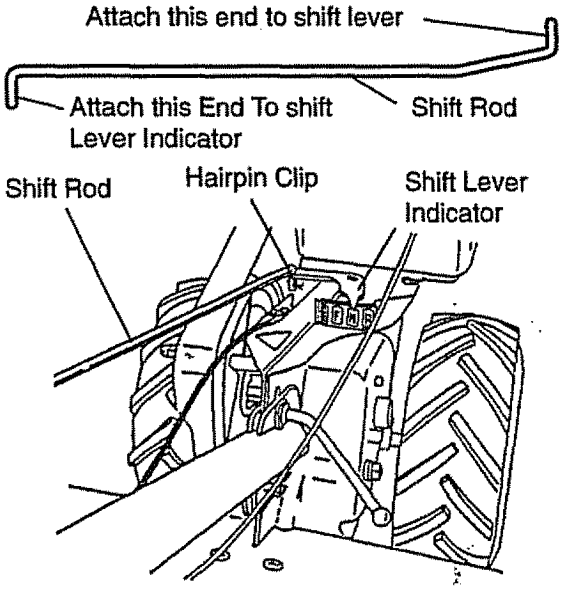


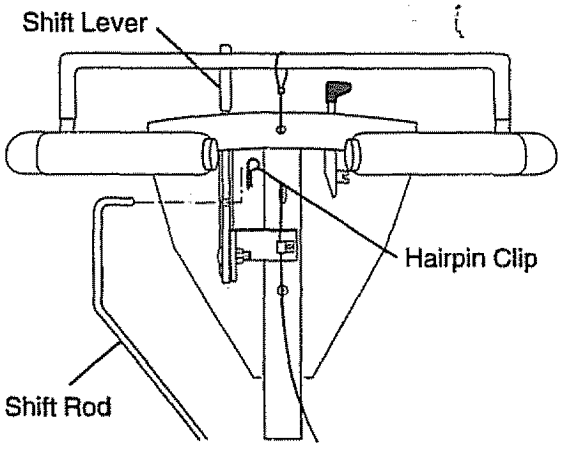
CONNECT SHIFT ROD

- Insert end of shift rod farthest from bend into hole of shift lever indicator.
- Insert hairpin clip through hole of shift rod to secure.
- Insert other end of shift rod into hole in shift lever.
- Insert second hairpin clip through hole of shift rod.

REMOVE TILLER FROM CRATE

- Adjust handle assemby to lowest position. Be sure lock lever is tightened securely.
- Make sure shift lever indicator is in "N" (neutral) position.
- Tilt tiller forward by lifting handle. Separate cardboard cover from leveling shield.
- Rotate tiller handle to the right and pull tiller out of carton.





CHECK TIRE PRESSURE

The tires on your unit were overinflated at the factory for shipping purposes. Correct and equal tire pressure is important for best tilling performance.

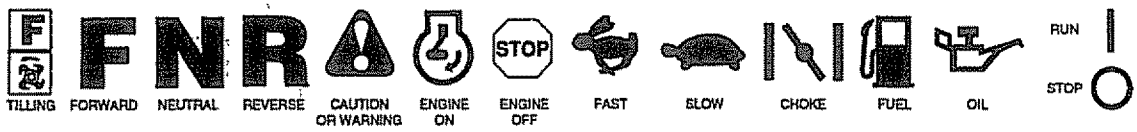
- Reduce tire pressure to 20 PSI.

HANDLE HEIGHT

- Handle height may be adjusted to better suit operator. (See "TO ADJUST HANDLE HEIGHT" in the Service and Adjustments section of this manual).

OPERATION

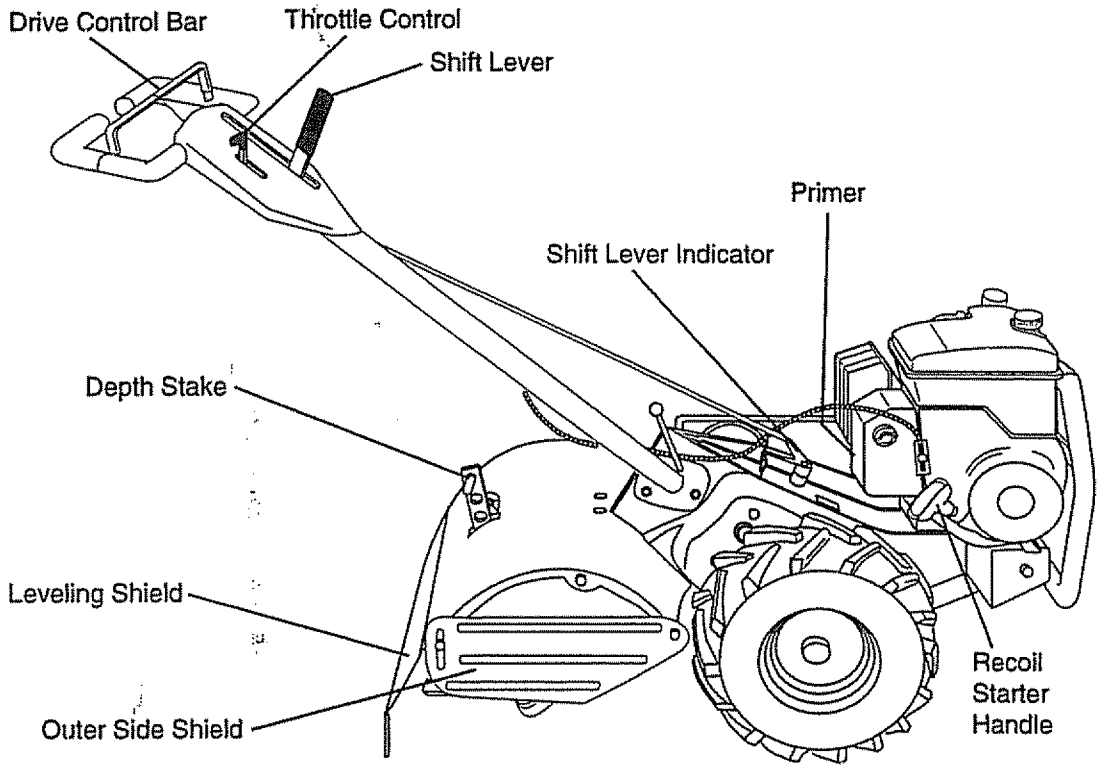
These symbols may appear on your Tiller or in literature supplied with the product. Learn and understand their meaning.



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.



MEETS ANSI SAFETY REQUIREMENTS

Our tillers conform to the safety standards of the American National Standards Institute.

DRIVE CONTROL BAR - Used to engage tines.

DEPTH STAKE - Controls depth at which tiller will dig.

LEVELING SHIELD - Levels tilled soil.

OUTER SIDE SHIELD - Adjustable to protect small plants from being buried.

THROTTLE CONTROL - Used to control engine speed.

SHIFT LEVER - Used to shift transmission gears.

SHIFT LEVER INDICATOR - Shows which gear the transmission is in.

RECOIL STARTER HANDLE - Used to start the engine.

PRIMER - Pumps additonal fuel from the carburetor to the cylinder for use when starting a cold engine.

The operation of any tiller can result in foreign objects thrown into the eyes, which canresult in severe eye damage. Always wear safety glasses or eye shields before starting your tiller and while tilling. We recommend a wide vision safety mask over the spectacles or standard safety glasses.

HOW TO USE YOUR TILLER

Know how to operate all controls before adding fuel and oil or attempting to start engine.

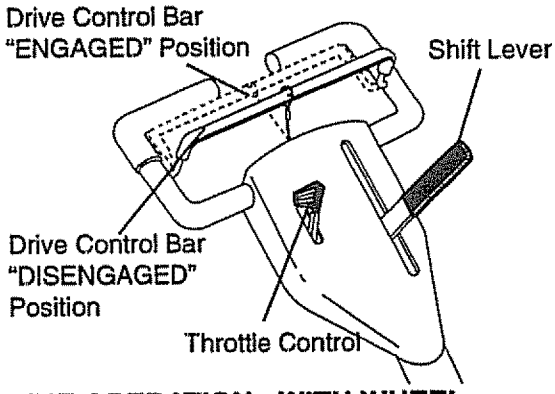
STOPPING

TINES AND DRIVE

- Release drive control bar to stop movement.
- Move shift lever to "N" (neutral) position.

ENGINE

- Move throttle control to "STOP" position. If equipped with stop switch, move switch to "STOP" position.
- Never use choke to stop engine.



TINE OPERATION - WITH WHEEL DRIVE

- Always release drive control bar before moving shift lever into another position.
- Tine movement is achieved by moving shift lever to ( ) till position and engaging drive control bar.

FORWARD - WHEELS ONLY/TINES STOPPED

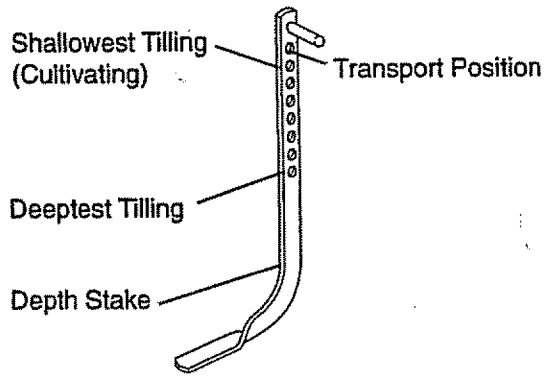
- Release drive control bar and move shift lever indicator to "F" (forward) position. Engage drive control bar and tiller will move forward.

REVERSE - WHEELS ONLY/TINES STOPPED

- DO NOT STAND DIRECTLY BEHIND TILLER.
- Release the drive control bar.
- Move throttle control to "SLOW" position.
- Move shift lever indicator to "R" (reverse) position.
- Hold drive control bar against the handle to start tiller movement.

DEPTH STAKE

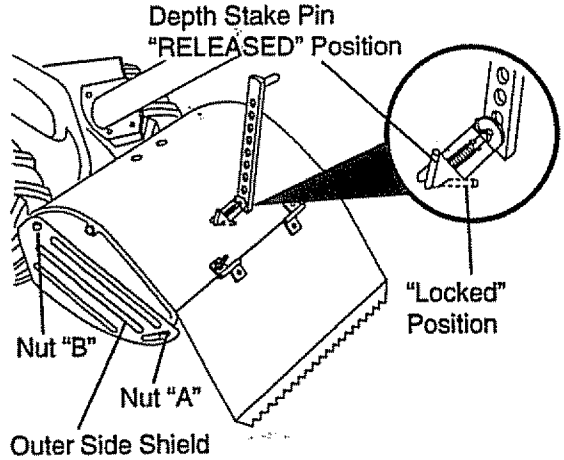
The depth stake can be raised or lowered to allow you more versatile tilling and cultivating, or to more easily transport your tiller.



TILLING

- Release depth stake pin. Pull the depth stake up for increased tilling depth. Place depth stake pin in hole of depth stake to lock in position.
- Place shift lever indicator in till position.
- Hold the drive control bar against the handle to start tilling movement. Tines and wheels will both turn.
- Move throttle control to "FAST" position for deep tilling. To cultivate, throttle control can be set at any desired speed, depending on how fast or slow you wish to cultivate.

IMPORTANT: Always release drive control bar before moving shift lever into another position.



TURNING

- Release the drive control bar.
- Move throttle control to "SLOW" position.
- Place shift lever indicator in "F" (forward) position. Tines will not turn.
- Lift handle to raise tines out of ground.
- Swing the handle in the opposite direction you wish to turn, being careful to keep feet and legs away from tines.
- When you have completed your turnaround, release the drive control bar and lower handle. Place shift lever in till position and move throttle control to desired speed. To begin tilling, hold drive control bar against the handle.

OUTER SIDE SHIELDS

The back edges of the outer side shields are slotted so that the shields can be raised for deep tilling and lowered for shallow tilling to protect small plants from being buried. Loosen nut "A" in slot and nut "B". Move shield to desired position (both sides). Retighten nuts.

TO TRANSPORT

⚠**CAUTION:** Before lifting or transporting, allow tiller engine and muffler to cool. Disconnect spark plug wire. Drain gasoline from fuel tank.

AROUND THE YARD

- Release the depth stake pin. Move the depth stake down to the top hole for transporting the tiller. Place depth stake pin in hole of depth stake to lock in position. This prevents tines from scuffing the ground.
- Place shift lever indicator in "F" (forward) position for transporting.
- Hold the drive control bar against the handle to start tiller movement. Tines will not turn.
- Move throttle control to desired speed.

AROUND TOWN

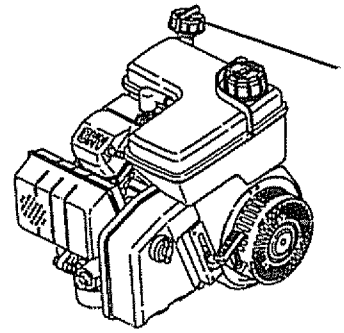
- Disconnect spark plug wire.
- Drain fuel tank.
- Transport in upright position to prevent oil leakage.

BEFORE STARTING ENGINE

IMPORTANT: Be very careful not to allow dirt to enter the engine when checking or adding oil or fuel. Use clean oil and fuel and store in approved, clean, covered containers. use clean fill funnels.

CHECK ENGINE OIL LEVEL

- The engine in your unit has been shipped, from the factory, already filled with SAE 30 summer weight oil.
- Be sure tiller is level and the area around oil fill is clean.
- Check oil level before each use. Add oil if needed. Fill to full line on dipstick.
- To read proper level, tighten engine oil cap each time.
- Reinstall engine oil cap and tighten.
- For approximate capacity see "PRODUCT SPECIFICATIONS" on page 4 of this manual. All oil must meet A.P.I. Service Classification SF, SG or SH.
- For cold weather operation you should change oil for easier starting (See oil viscosity chart in the Customer Responsibilities section of this manual).
- To change engine oil, see the Customer Responsibilities section in this manual.



ADD GASOLINE

- Fill fuel tank. Use fresh, clean, regular unleaded gasoline. (Use of leaded gasoline will increase carbon and lead oxide deposits and reduce valve life.

IMPORTANT: When operating in temperatures below 32°F (0°C), use fresh, clean, winter grade gasoline to help insure good cold weather starting.

WARNING: 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 of 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 section of this manual for additional information. Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.

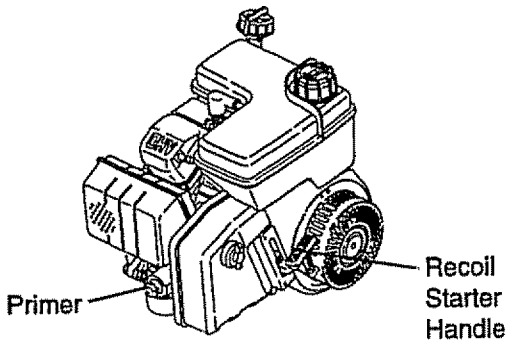
⚠CAUTION: Fill to within 1/2 inch of top of fuel tank to prevent spills and to allow for fuel expansion. If gasoline is accidentally spilled, move machine away from area of spill. Avoid creating any source of ignition until gasoline vapors have disappeared.
Do not overfill. Wipe off any spilled oil or fuel. Do not store, spill or use gasoline near an open flame.

TO START ENGINE

⚠CAUTION: Keep drive control bar in "DISENGAGED" position when starting engine.
When starting engine for the first time or if engine has run out of fuel, it will take extra pulls of the recoil starter to move fuel from the tank to the engine.

- Make sure spark plug wire is properly connected.
- Move shift lever indicator to "N" (neutral) position.
- Place throttle control in "FAST" position.
- To start a cold engine, push primer five (5) times before trying to start. Use a firm push. This step is not usually necessary when starting an engine which has already run for a few minutes.
- Grasp recoil starter handle with one hand and grasp 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 recoil starter handle quickly. Do not let starter handle snap back against starter.
- Allow engine to warm up for a few minutes before engaging tines.

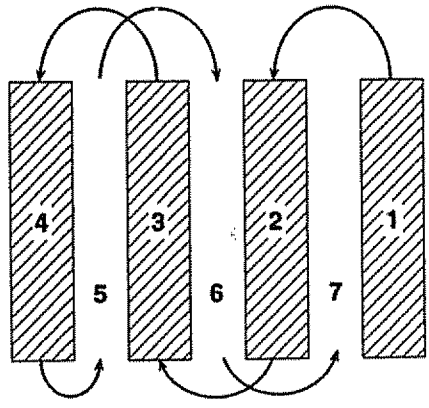
NOTE: In cooler weather it may be necessary to repeat priming steps. In warmer weather over priming may cause flooding and engine will not start. If you do flood engine, wait a few minutes before attempting to start and do not repeat priming steps.



TILLING HINTS

⚠CAUTION: Until you are accustomed to handling your tiller, start actual field use with throttle in slow position (mid-way between "FAST" and "IDLE").

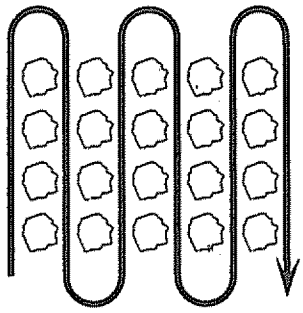
- Tilling is digging into, turning over, and breaking up packed soil before planting. Loose, unpacked soil helps root growth. Best tilling depth is 4" to 6". A tiller will also clear the soil of unwanted vegetation. The decomposition of this vegetable matter enriches the soil. Depending on the climate (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 achieve 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 between tilled rows.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.
- Do not lean on handle. This takes weight off the wheels and reduces traction. To get through a really tough section of sod or hard ground, apply upward pressure on handle or lower the depth stake.



CULTIVATING

Cultivating is destroying the weeds between rows to prevent 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" (2.5-7.5 cm). Lower the outer side shields to protect small plants from being buried.

- 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.



TINE SHEAR PINS

The tine assemblies on your tiller are secured to the tine shaft with shear pins (See "TINE REPLACEMENT" in the Service and Adjustments section of this manual).

If the tiller is unusually overloaded or jammed, the shear pins are designed to break before internal damage occurs to the transmission.

- If shear pin(s) break, replace only with those shown in the Repair Parts section of this manual.

MAINTENANCE

MAINTENANCE SCHEDULE FILL IN DATES AS YOU COMPLETE REGULAR SERVICE	BEFORE EACH USE	EVERY 5 HOURS	EVERY 25 HOURS	EVERY 50 HOURS	SERVICE DATES									
Check Engine Oil Level	✔	✔												
Change Engine Oil				✔1,2										
Oil Pivot Points		✔												
Inspect Spark Arrester / Muffler				✔										
Inspect Air Screen	✔													
Clean or Replace Air Cleaner Cartridge				✔2										
Clean Engine Cylinder Fins				✔										
Replace Spark Plug				✔										

1 - Change more often when operating under a heavy load or in high ambient temperatures.
2 - Service more often when operating in dirty or dusty conditions.

GENERAL RECOMMENDATIONS

The warranty on this tiller does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, the operator must maintain tiller as instructed in this manual. Some adjustments will need to be made periodically to properly maintain your tiller. All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

- Once a year you should replace the spark plug, clean or replace air filter, and check tines and belts for wear. A new spark plug and clean air filter assure proper air-fuel mixture and help your engine run better and last longer.

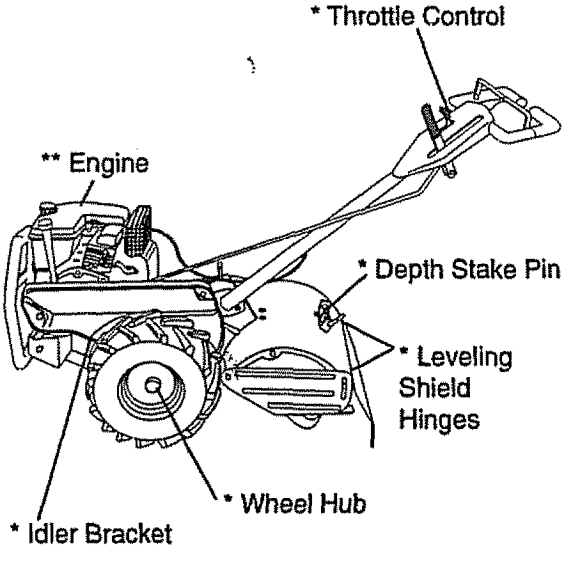
BEFORE EACH USE

- Check engine oil level.
- Check tine operation.
- Check for loose fasteners.

LUBRICATION

Keep unit well lubricated (See "LUBRICATION CHART") .

LUBRICATION CHART



*** SAE 30 OR 10W-30 MOTOR OIL**
**** REFER TO CUSTOMER RESPONSIBILITIES "ENGINE" SECTION**

Disconnect spark plug wire before performing any maintenance (except carburetor adjustment) to prevent accidental starting of engine.

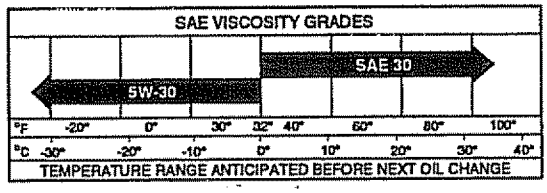
Prevent fires! Keep the engine free of grass, leaves, spilled oil, or fuel. Remove fuel from tank before tipping unit for maintenance. Clean muffler area of all grass, dirt, and debris.

Do not touch hot muffler or cylinder fins as contact may cause burns.

ENGINE

LUBRICATION

Use only high quality detergent oil rated with API service classification SF, SG or SH. Select the oil's SAE viscosity grade according to your expected temperature.



NOTE: Although multi-viscosity oils (5W-30, 10W-30, etc.) improve starting in cold weather, these multi-viscosity oils will result in increased oil consumption when used above 32°F (0°C). Check your engine oil level more frequently to avoid possible engine damage from running low on oil.

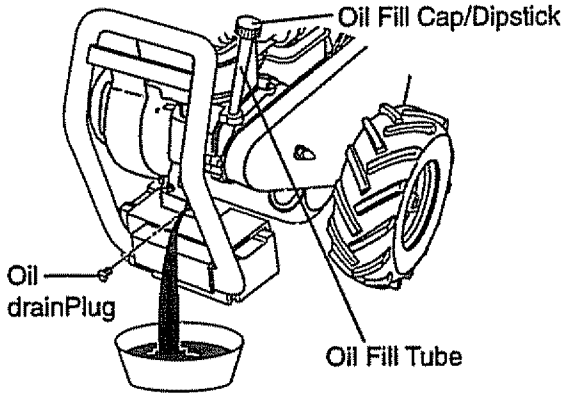
Change the oil after every 50 hours of operation or at least once a year if the tiller is not used for 50 hours in one year.

Check the crankcase oil level before starting the engine and after each five (5) hours of continuous use. Add SAE 30 motor oil or equivalent. Tighten oil filler plug securely each time you check the oil level.

TO CHANGE ENGINE OIL

Determine temperature range expected before oil change. All oil must meet API service classification SF, SG or SH.

- Be sure tiller is on level surface.
- Oil will drain more freely when warm.
- Use a funnel to prevent oil spill on tiller, and catch oil in a suitable container.
- Remove oil drain plug and oil fill cap/dipstick. Be careful not to allow dirt to enter the engine.For easier removal of plug use 7/16 12 Pt. socket with extension.
- Tip tiller forward to drain oil.
- After oil has drained completely, replace oil drain plug and tighten securely.
- Refill engine with oil through oil fill tube. See "CHECK ENGINE OIL LEVEL" in the Operation section of this manual.



AIR FILTER

Your engine will not run properly using a dirty air filter. Clean the foam pre-cleaner after every 50 hours of operation or every season. Service paper cartridge every 100 hours of operation or every season, whichever occurs first.

Service air cleaner more often under dusty conditions.

- Remove cover screw and cover.

TO SERVICE PRE-CLEANER

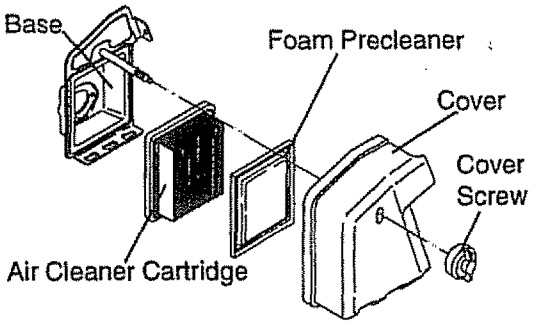
- Remove foam pre-cleaner from air cleaner cover.
- Wash it in liquid detergent and water.
- Squeeze it dry in a clean cloth.
- Saturate it in engine oil. Wrap it in clean, absorbent cloth and squeeze to remove excess oil.
- If very dirty or damaged, replace pre-cleaner.
- Reinstall pre-cleaner into air cleaner cover.
- Reinstall cover and secure screw.

TO SERVICE CARTRIDGE

- Carefully remove cartridge to prevent debris from entering carburetor. Clean base carefully to prevent debris from entering carburetor.
- Clean cartridge by tapping gently on flat surface. If very dirty or damaged, replace cartridge.
- Reinstall cartridge, cover with pre-cleaner and secure with screw.

IMPORTANT: Petroleum solvents, such as kerosene, are not to be used to clean the cartridge. They may cause deterioration of the cartridge. Do not oil cartridge.

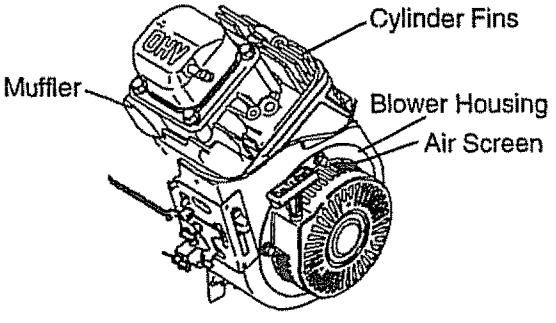
Do not use pressurized air to clean or dry cartridge.



COOLING SYSTEM

Your engine is air cooled. For proper engine performance and long life keep your engine clean.

- Clean air screen frequently using a stiff-bristled brush.
- Keep cylinder fins, levers, and linkage free of dirt and chaff.



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

Replace spark plugs at the beginning of each tilling season or after every 50 hours of use, whichever comes first. Spark plug type and gap setting is shown in "PRODUCT SPECIFICATIONS" on page 4 of this manual.

TRANSMISSION

Your transmission is sealed and will only require lubrication if serviced.

CLEANING

- Clean engine, wheels, finish, etc. of all foreign matter.
- Keep finished surfaces and wheels free of all gasoline, oil, etc.
- Protect painted surfaces with automotive type wax.

We do not recommend using a garden hose to clean your unit unless the muffler, air filter and carburetor are covered to keep water out. Water in engine can result in a shortened engine life.

SERVICE AND ADJUSTMENTS

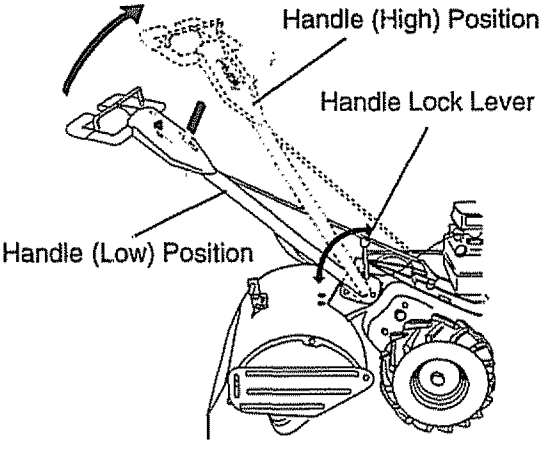
⚠**CAUTION:** Disconnect spark plug wire from spark plug and place wire where it cannot come into contact with plug.

TILLER

TO ADJUST HANDLE HEIGHT

Select handle height best suited for your tilling conditions. Handle height will be different when tiller digs into soil.

- First loosen handle lock lever.
- Handle can be positioned at different settings between "HIGH" and "LOW" positions.
- Retighten handle lock lever securely after adjusting.



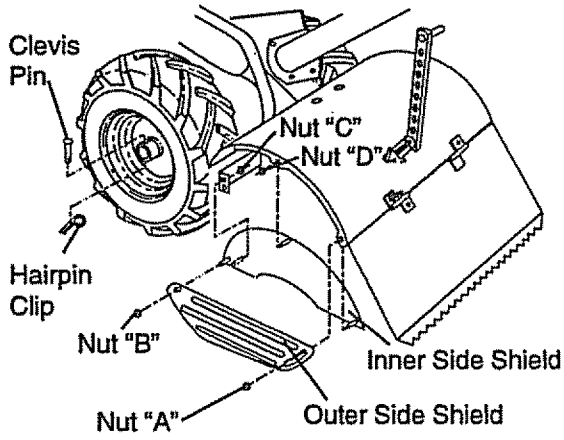
TIRE CARE

CAUTION: When mounting tires, unless beads are seated, overinflation can cause an explosion.

- Maintain 20 pounds of tire pressure. If tire pressures are not equal, tiller will pull to one side.
- Keep tires free of gasoline or oil which can damage rubber.

TO REMOVE WHEEL

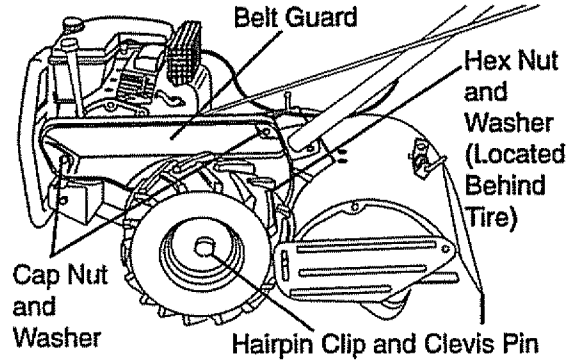
- Place blocks under transmission to keep tiller from tipping.
- Remove outer side shield by removing nuts "A" and "B".
- Remove inner side shield by removing nuts "C" and "D".
- Remove hairpin clip and clevis pin from wheel.
- Remove wheel and tire. Repair tire and reassemble.



TO REMOVE BELT GUARD

NOTE: For ease of removal, remove hairpin clip and clevis pin from left wheel. Pull wheel out from tiller about 1 inch.

- Remove two (2) cap nuts and washers from side of belt guard.
- Remove hex nut and washer from bottom of belt guard (located behind wheel).
- Pull belt guard out and away from unit.
- Replace belt guard by reversing above procedure.



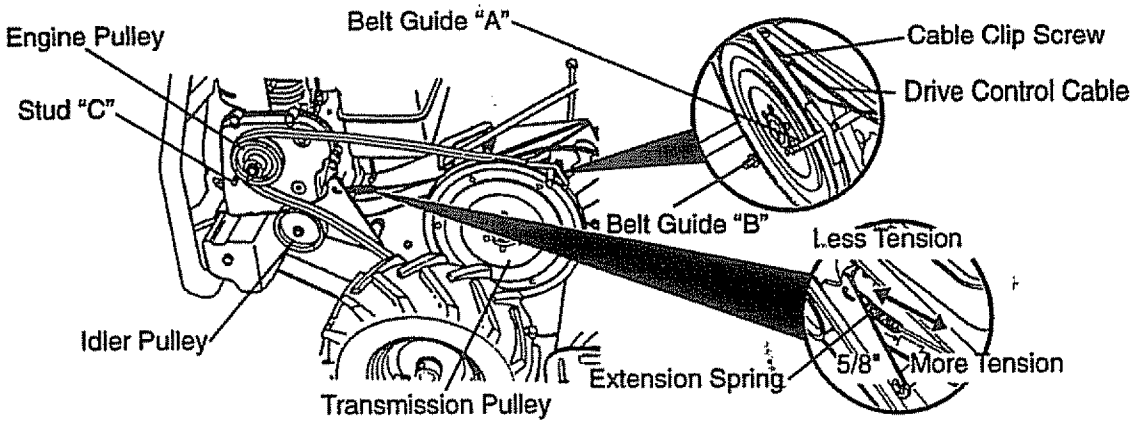
TO REPLACE GROUND DRIVE BELT

- Remove belt guard as described in "TO REMOVE BELT GUARD".
- Loosen belt guides "A" and "B" and also stud "C".
- Remove old belt by slipping from engine pulley first then remove from transmission pulley.
- Place new belt in groove of transmission pulley and into engine pulley. BELT MUST BE IN GROOVE ON TOP OF IDLER PULLEY. NOTE POSITION OF BELT TO GUIDES.
- Tighten belt guides "A" and "B" and stud "C".
- Check belt adjustment as described below.
- Replace belt guard.
- Reposition wheel and replace clevis pin and hairpin clip.

GROUND DRIVE BELT ADJUSTMENT

For proper belt tension, the extension spring should have about 5/8 inch stretch when drive control bar is in "ENGAGED" position. This tension can be attained as follows:

- Loosen cable clip screw securing the drive control cable.
- Slide cable forward for less tension and rearward for more tension until about 5/8 inch stretch is obtained while the drive control bar is engaged.
- Tighten cable clip screw securely.

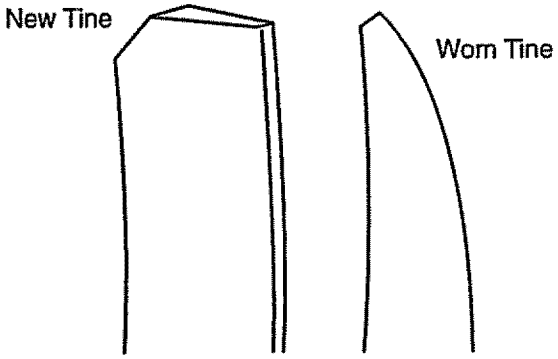


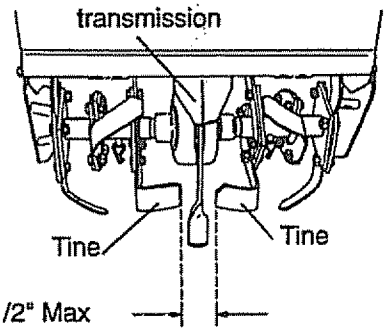
TINE REPLACEMENT

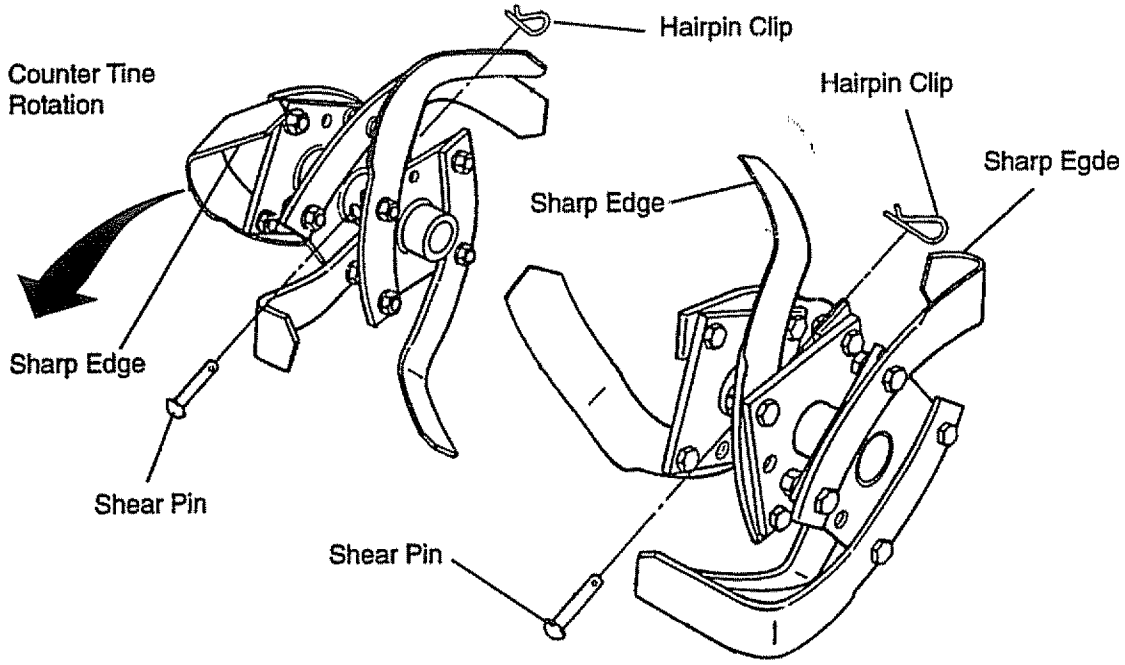
⚠CAUTION: Tines are sharp. Wear gloves or other protection when handling tines.

A badly worn tine causes your tiller to work harder and dig more shallow. Most important, worn tines cannot chop and shred organic matter as effectively nor bury it as deeply as good tines. A tine this worn needs to be replaced.

- To maintain the superb tilling performance of this machine the tines should be checked for sharpness, wear, and bending, particularly the tines which are next to the transmission. If the gap between the tines exceeds 3-1/2 inches they should be replaced or straightened as necessary.
- New tines should be assembled. Sharpened tine edges will rotate rearward from above.







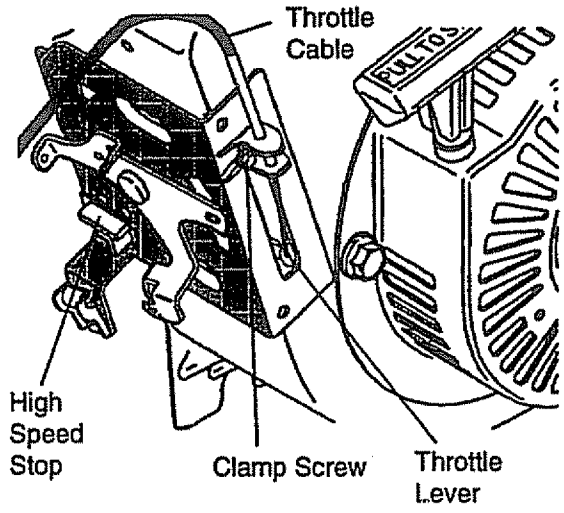
ENGINE

Maintenance, repair, or replacement of the emission control devices and systems, which are being done at the customers expense, may be performed by any non-road engine repair establishment or individual. Warranty repairs must be performed by an authorized engine manufacturer's service outlet.

TO ADJUST THROTTLE CONTROL CABLE

The throttle control has been preset at the factory and adjustment should not be necessary. If adjustment is necessary, proceed as follows:

- With engine not running, move remote throttle control lever to "FAST" position.
- If throttle lever on engine touches high speed stop, no further adjustment is necessary. If throttle lever does not touch high speed stop, continue with adjustment procedure.
- Loosen cable clamp screw.
- Move throttle lever up until it touches high speed stop, and hold in this position.
- Tighten cable clamp screw securely.



TO ADJUST CARBURETOR

The carburetor has been preset at the factory and adjustment should not be necessary. However, engine performance can be affected by differences in fuel, temperature, altitude or load. If the carburetor does need adjustment, contact your nearest authorized service center/department

IMPORTANT: never tamper with the engine governor, which is factory set for proper engine speed. Overspeeding the engine above the factory high speed setting can be dangerous. If you think the engine-governed high speed needs adjusting, contact your nearest authorized service center/department, which has the proper equipment and experience to make any necessary adjustments.

STORAGE

Immediately prepare your tiller for storage at the end of the season or if the unit will not be used for 30 days or more.

⚠**CAUTION:** Never store the tiller with gasoline in the tank inside a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.

TILLER

- Clean entire tiller (See "CLEANING" in the Customer Responsibilities section of this manual).
- Inspect and replace belts, if necessary (See belt replacement instructions in the Service and Adjustments section of this manual).
- Lubricate as shown in the Customer Responsibilities section of this manual.
- Be sure that all nuts, bolts and screws are securely fastened. Inspect moving parts for damage, breakage and wear. Replace if necessary.
- Touch up all rusted or chipped paint surfaces; sand lightly before painting.

ENGINE

FUEL SYSTEM

IMPORTANT: 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.

- Drain the fuel tank.
- Start the engine and let it run until the fuel lines and carburetor are empty.
- Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.
- Use fresh fuel next season.

NOTE: Fuel stabilizer is an acceptable alternative in minimizing the formation of fuel gum deposits during storage. Add stabilizer to gasoline in fuel tank or storage container. Always follow the mix ratio found on stabilizer container. Run engine at least 10 minutes after adding stabilizer to allow the stabilizer to reach the carburetor. Do not drain the gas tank and carburetor if using fuel stabilizer.

ENGINE OIL

Drain oil (with engine warm) and replace with clean oil. (See "ENGINE" in the Customer Responsibilities section of this manual).

CYLINDER

- Remove spark plug.
- Pour 1 ounce (29 ml) of oil through spark plug hole into cylinder.
- Pull starter handle slowly several times to distribute oil.
- Replace with new spark plug.

OTHER

- Do not store gasoline from one season to another.
- Replace your gasoline can if your can starts to rust. Rust and/or dirt in your gasoline will cause problems.
- If possible, store your unit indoors and cover it to give protection from dust and dirt.
- Cover your unit with a suitable protective cover that does not retain moisture. Do not use plastic. Plastic cannot breathe which allows condensation to form and will cause your unit to rust.

IMPORTANT: Never cover tiller while engine and exhaust areas are still warm.

TROUBLE SHOOTING

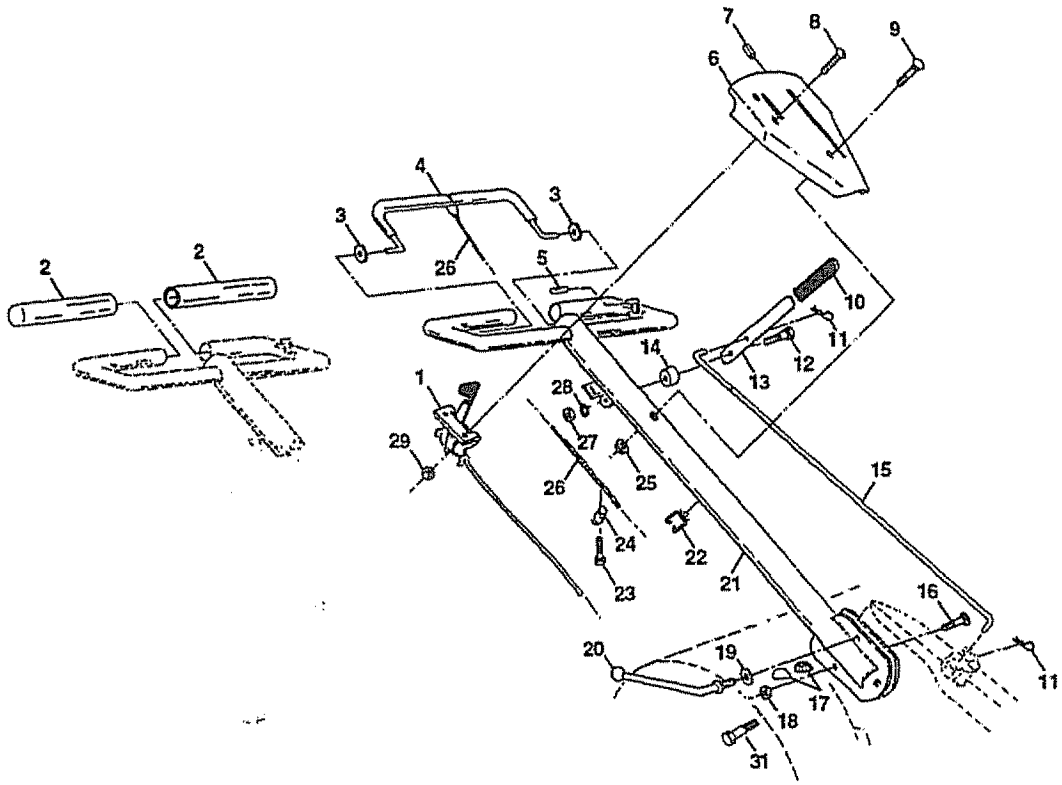
PROBLEM	CAUSE	CORRECTION
Will not start	1. Out of fuel. 2. Engine not "CHOKED" properly. 3. Engine flooded. 4. Dirty air cleaner. 5. Water in fuel. 6. Clogged fuel tank. 7. Loose spark plug wire. 8. Bad spark plug or improper gap. 9. Carburetor out of adjustment.	1. Fill fuel tank. 2. See "TO START ENGINE" in.the Operation section. 3. Wait several minutes before attempting to start. 4. Clean or replace air cleaner car tridge. 5. Drain fuel tank and carburetor, and refill tank with fresh gasoline. 6. Remove fuel tank and clean. 7. Make sure spark plug wire is seat ed properly on plug. 8. Replace spark plug or adjust gap. 9. Make necessary adjustments.
Hard to start	1. Throttle control not set properly. 2. Dirty air cleaner. 3. Bad spark plug or improper gap. 4. Stale or dirty fuel. 5. Loose spark plug wire. 6. Carburetor out of . adjustment.	1. Place throttle control in "FAST" position. 2. Clean or replace air cleaner car tridge. 3. Replace spark plug or adjust gap. 4. Drain fuel tank and refill with fresh gasoline. 5. Make sure spark plug wire is seat ed properly on plug. 6. Make necessary adjustments.
Loss of power	1. Engine is overloaded. 2. Dirty air cleaner. 3. Low oil level/dirty oil. 4. Faulty spark plug. 5. Oil in fuel. 6. Stale or dirty fuel. 7. Water in fuel. 8. Clogged fuel tank. 9. Spark plug wire loose. wire. 10. Dirty engine air screen. 11. Dirty/clogged muffler. 12. Carburetor out of adjustment. 13. Poor compression.	1. Set depth stake and wheels for shallower tilling. 2. Clean or replace air cleaner car tridge. 3. Check oil level/change oil. 4. Clean and regap or change spark plug. 5. Drain and clean fuel tank and refill, and clean carburetor. 6. Drain fuel tank and refill with fresh gasoline. 7. Drain fuel tank and carburetor, and refill tank with fresh gasoline. 8. Remove fuel tank and clean. 9. Connect and tighten spark plug 10. Clean engine air screen. 11. Clean/replace muffler. 12. Make necessary adjustments. 13. Contact an authorized Sears Service Center/Department.

PROBLEM	CAUSE	CORRECTION
Engine overheats	1. Low oil level/dirty oil. 2. Dirty engine air screen. 3. Dirty engine. 4. Partially plugged muffler. 5. Improper carburetor adjustment.	1. Check oil level/change oil. 2. Clean engine air screen. 3. Clean cylinder fins, air screen, muffler area. 4. Remove and clean muffler. 5. Adjust carburetor to richer position.
Excessive bounce/ difficult handling	1. Ground too dry and hard. 2. Wheels and depth stake incorrectly adjusted.	1. Moisten ground or wait for more favorable soil conditions. 2. Adjust wheels and depth stake.
Soil balls up or clumps	1. Ground too wet.	1. Wait for more favorable soil conditions.
Engine runs but tiller won't move	1. Tine control is not engaged. 2. V-belt not correctly adjusted. 3. V-belt is off pulley(s).	1. Engage tine control. 2. Inspect/adjust V-belt. 3. Inspect V-belt.
Engine runs but labors when tilling	1. Tilling too deep. 2. Throttle control not properly adjusted. 3. Carburetor out of adjustment.	1. Set depth stake for shallower tilling. 2. Check throttle control setting. 3. Make necessary adjustments.

REPAIR PARTS

TILLER - - MODEL NUMBER 917.293401

HANDLES



KEY NO.	PART NO.	DESCRIPTION
1	127012X	Throttle, Control
2	141406	Grip, Handle
3	110673X	Grommet, Handle
4	127254X	Bar, Drive Control Assembly
5	6712J	Cap, Vinyl
6	137119	Panel, Control
7	110641X	Bushing, Split
8	71191008	*Screw, Pan Head #10-24
9	72010520	*Bolt, 5/16-18 x 2-1/2
10	110646X	Handle, Grip
11	STD624003	*Clip, Hairpin
12	81328	Bolt, Shoulder
13	110741X	Handle, Shift
14	109313X	Grommet, Rubber
15	110702X	Rod, Shift
16	STD533710	*Bolt, Carriage 3/8-16 x 1 Gr. 5
17	109229X	Lock, Handle

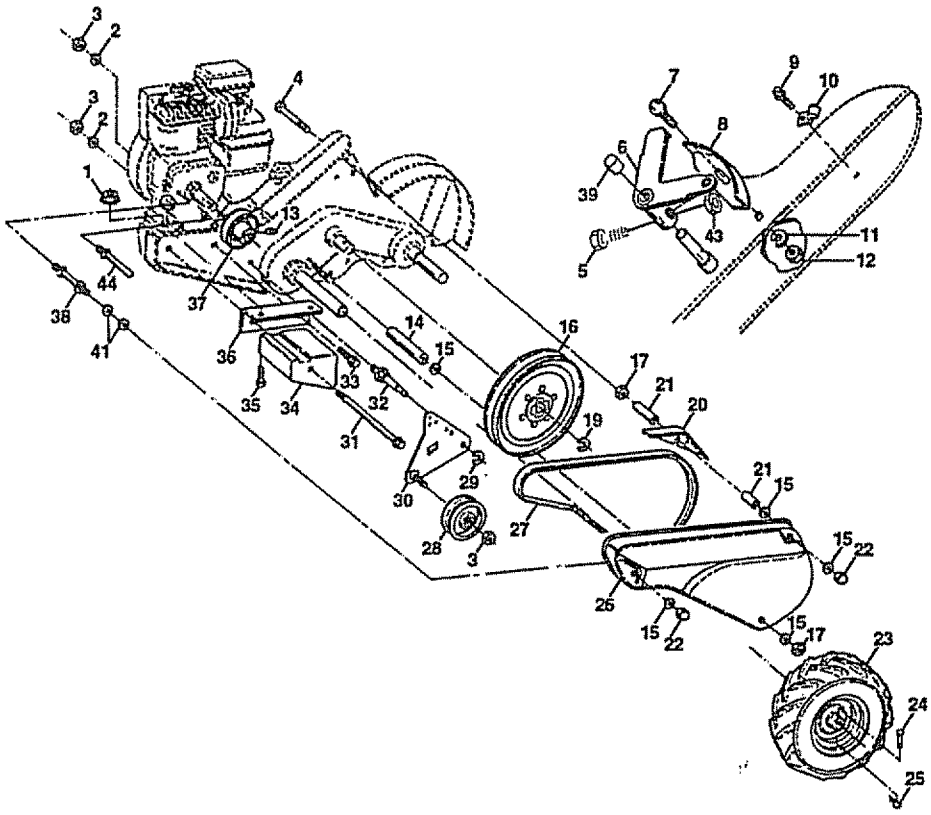
KEY NO.	PART NO.	DESCRIPTION
18	STD541437	*Nut, Centerlock 3/8-16
19	19131611	Washer 13/32 x 1 x 11 Ga.
20	109228X	Lever, Lock, Handle
21	150258	Handle, Assemble
22	121145X	Clip, Plastic, Cable
23	86777	Screw, Hex, Washer Hd, Slotted #10-24 x 1/2
24	9484R	Clip
25	73970500	Locknut, Hex, Flange
26	110675X	Clutch, Cable
27	STD541025	*Nut, Hex 1/4-20
28	STD551125	*Washer, Lock 1/4
29	STD541462	*Nut, Keps #10-24
31	150696	Bolt, Pivot

* STANDARD HARDWARE - - PURCHASE LOCALLY

NOTE: All component dimensions given in U.S. inches. 1 inch = 25.4 mm

TILLER - - MODEL NUMBER 917.293401

MAINFRAME, LEFT SIDE



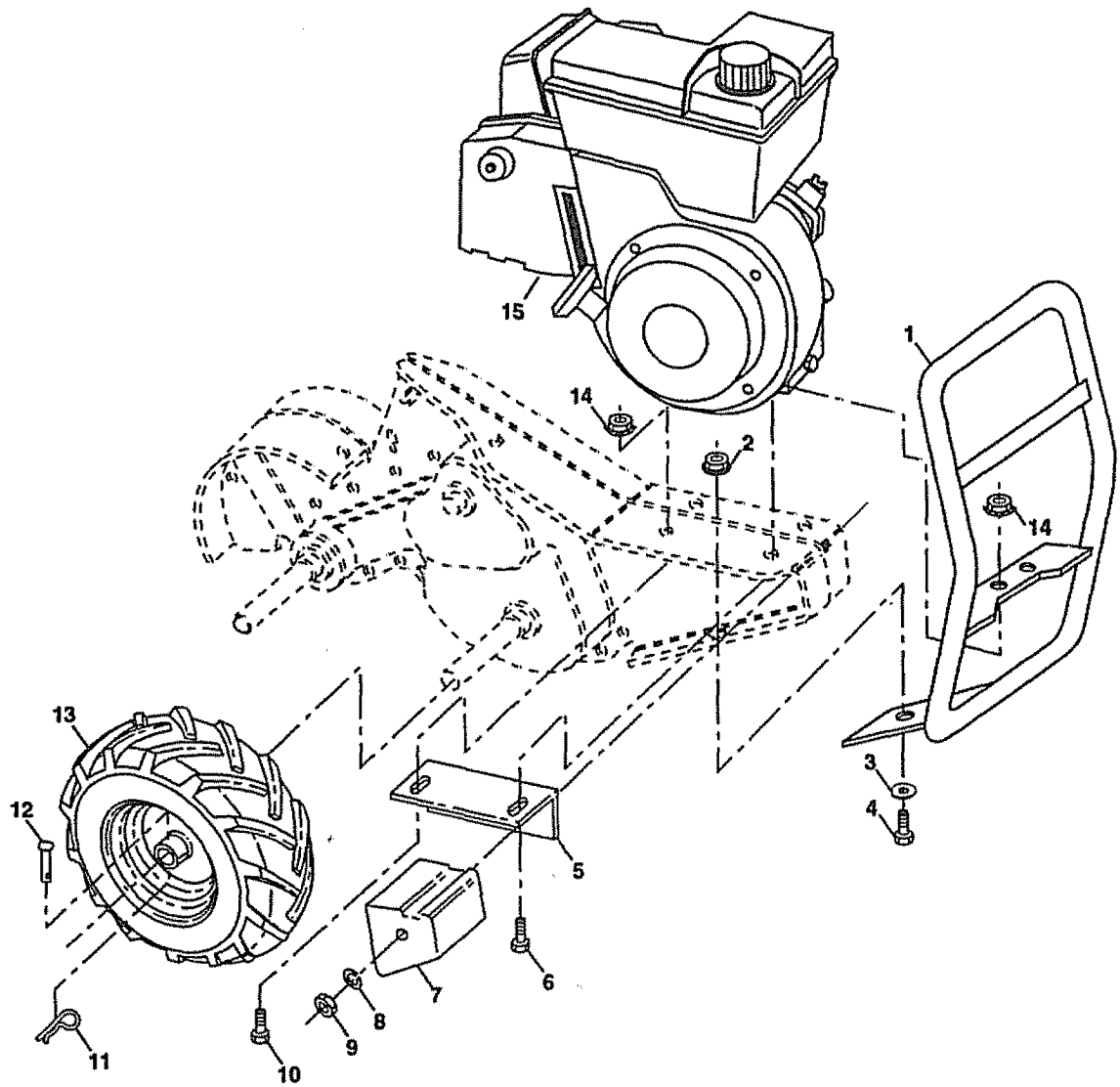
KEY NO.	PART NO.	DESCRIPTION
1	STD541431	Nut, Keps 5/16-18
2	STD551137	*Washer, Lock 3/8
3	STD541037	*Nut, Hex 3/8-16
4	74930568	Bolt, Hex 5/16-18 x 4-1/4
5	154734	Screw Shift Lever
6	110111X	Lever, Shift
7	STD532505	*Bolt, Carriage 1/4-20 x 1/2 Gr. 5
8	8700J	Plate, Shift Indicator
9	86777	Screw, Hex, Washer Head, Slotted #10-24 x 1/2
10	9484R	Clip
11	STD551125	*Washer, Lock 1/4
12	STD541025	*Nut, Hex 1/4-20
13	23230506	*Screw, Set, 5/16-18 x 3/8
14	120938X	Spacer, Split 0.327 x 0.42 x 2.68
15	STD551031	*Washer 11/32 x 11/16 x 16 Ga.
16	145102	Sheave, Transmission
17	STD541031	*Nut, Hex 5/16-18
19	12000028	Ring, Retainer
20	110653X	Guard, Pinch Point
21	145216	Spacer, Split 0.327 x 0.42 x 1.688
22	104214X	Nut, Cap 5/16-18
23	5015J	Tire
	128952	Rim
	795R	Tire Valve

KEY NO.	PART NO.	DESCRIPTION
24	126875X	Rivet, Drilled
25	STD624003	*Clip, Hairpin
26	131159X574	Guard, Belt
27	132801	Belt, V
28	104679X	Pulley, Idler
29	12000032	Ring, Klip
30	159229	Bracket, Idler
31	102384X	Bolt, Hex 5/16-16 x 12
32	102141X	Shaft, Idler Arm
33	STD523710	*Bolt, Hex 3/8-16 x 1
34	102383X	Counterweight, L.H.
35	74760532	Bolt, Hex 5/16-18 x 1 1/2
36	102331X	Bracket, Reinforcement, L.H.
37	130812	Sheave, Engine
38	145822	Stud, Guard Belt
39	140062	Cap, Plunger
41	19111610	Washer 11/32 x 1 x 10 Ga.
42	151004	Spacer
43	69180	Nut Lock #10-24
44	164173	Belt, Keeper

*STANDARD HARDWARE - - PURCHASE LOCALLY

NOTE: All component dimensions given in U.S. Inches.
1 inch = 25.4 mm

MAINFRAME, RIGHT SIDE



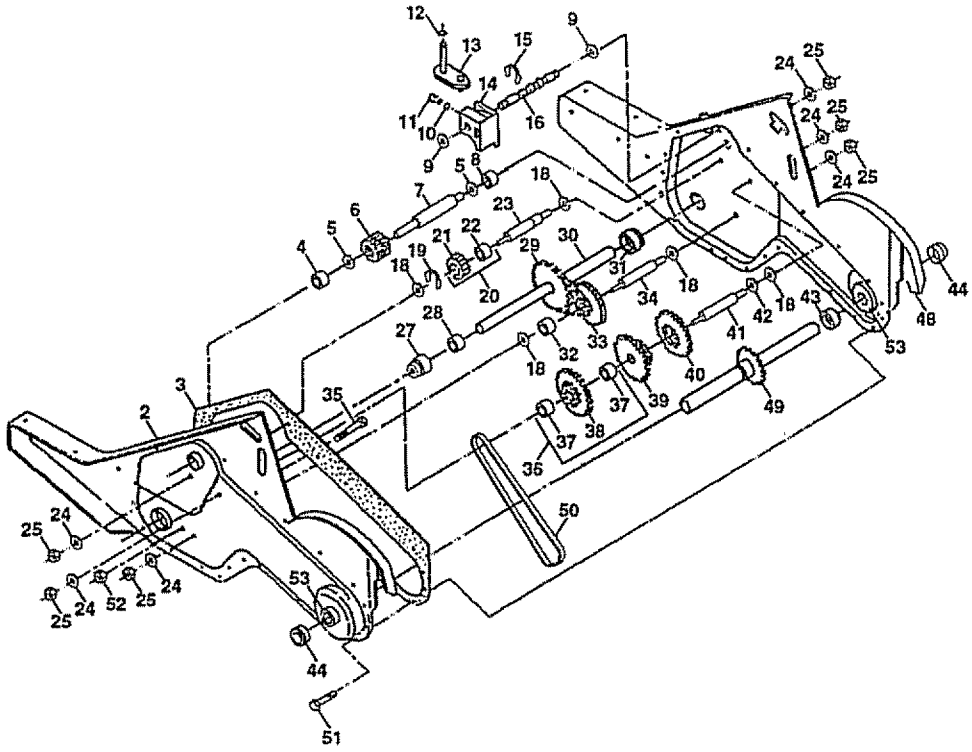
KEY NO.	PART NO.	DESCRIPTION
1	157976	Bumper
2	73970500	Locknut, Hex, Flange 5/16-18
3	STD551031	*Washer 11/32 x 11/16 x 16 Ga.
4	74760512	Bolt, Hex 5/16-18 x 3/4
5	102332X	Bracket, Reinforcement
6	74760532	Bolt, Hex 5/16-18 x 2
7	102173X	Counter Weight, R.H.
8	STD551137	*Washer, Lock 3/8
9	STD541037	*Nut, Hex 3/8-16
10	74760524	Bolt, Hex 5/16-18 x 1-1/2
11	STD624003	*Clip, Hairpin
12	126875X	Rivet, Drilled
13	5015J	Tire
	128952	Rim
	795R	Tire Valve
14	STD541431	*Nut, Keps 5/16-18
15	- - - - - -	Engine, (See Breakdown) Craftsman Model No. 143.986001

STANDARD HARDWARE - - PURCHASE LOCALLY

NOTE: All component dimensions given in U.S.inches. 1 inch = 25.4 mm

TILLER - - MODEL NUMBER 917.293401

TRANSMISSION



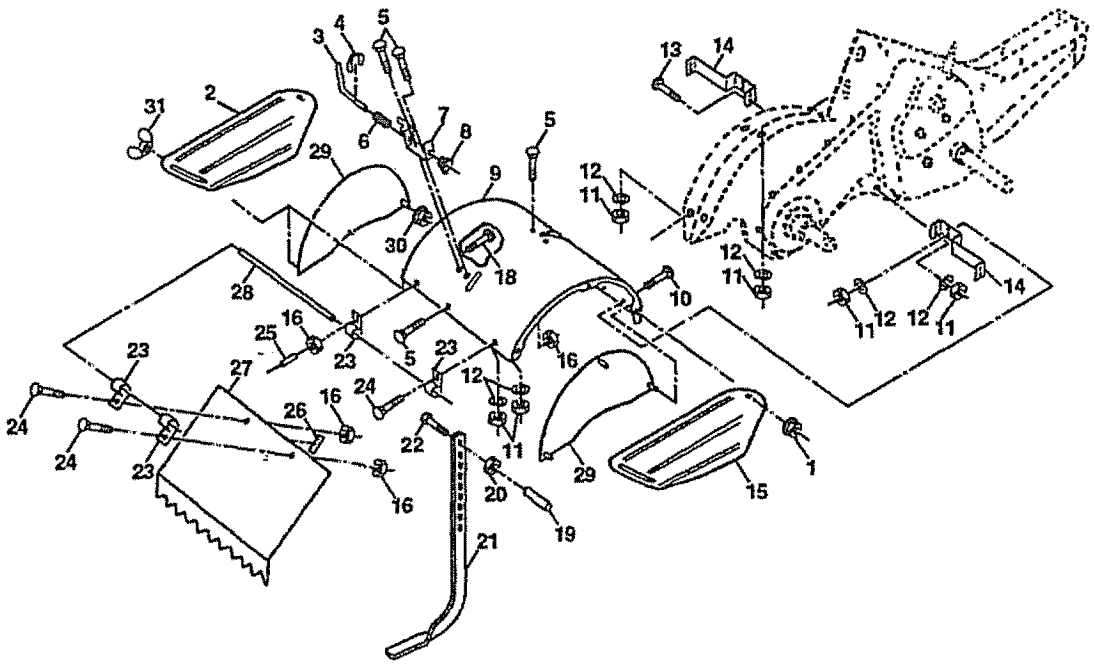
KEY NO.	PART NO.	DESCRIPTION
1	154354	Transmission Assembly (Includes Key Nos. 2-52)
2	150698	Gearcase, L.H. w/Bearing (Includes Key No. 4)
3	106211X	Gasket, Gearcase
4	5020J	Bearing, Needle
5	1370H	Washer, Thrust 5/8 x 1.10 x 1/32
6	137335	Pinion, Input
7	145101	Shaft, Input
8	4895H	Bearing, Needle
9	154467	Washer, Seal
10	7392M	Ball, Steel
11	100371K	Spring, Shift, Fork
12	106160X	O-Ring
13	142145	Arm, Shift
14	8353J	Fork, Shift
15	12000039	Ring, Klip
16	154466	Shaft, Shift
18	4358J	Washer
19	12000040	Ring, Klip
20	102114X	Gear, Assembly, Reverse Idler (Includes Key Nos. 21 and 22)
21	102115X	Gear, Reverse Idler
22	6803J	Bearing, Needle
23	102111X	Shaft, Reverse Idler
24	STD551143	*Washer, Lock 7/16
25	STD541143	*Nut, Hex 7/16-20
27	143009	Bearing, Shaft, Ground Drive L.H.
28	106390X	Spacer 0.765 x 1.125 x 1.23
29	102134X	Chain #35-50 Pitch
30	150737	Ground Shaft Assembly
31	143008	Bearing, Shaft, Ground Drive R.H.
32	106388X	Spacer 0.70 x 1.00 x 1.150
33	102121X	Sprocket and Gear Assembly
34	102112X	Shaft, Reduction (2nd)
35	102101X	Screw, Whiz, Lock 5/16-18 x 3-1/2
36	154355	Sprocket Assembly w/Bearing (Includes Key Nos. 37 and 38)
37	4422J	Bearing, Needle
38	154356	Sprocket, Tine
39	105345X	Gear, Cluster, Red 1st & 2nd
40	105346X	Gear, Reverse
41	8358J	Shaft, Reduction (1st)
42	4220R	Washer, Thrust
43	106146X	Spacer 1.01 x 1.75 x 0.760
44	155236	Seal Asm. Oil
48	150700	Gearcase, R.H. w/Bearing (Includes Key No. 8)
49	132688	Shaft, Tine
50	106147X	Chain, Roller #50-50 Pitch
51	17720408	Screw 1/4-20 x 1/2
52	73220500	*Nut, Hex 5/16-18
53	165140	Bearing Kit, Tine Shaft
- -	6066J	Grease, Plastilube #1

* STANDARD HARDWARE - - PURCHASE LOCALLY

NOTE: All component dimensions given in U.S. inches.
1 inch = 25.4 mm

TILLER - - MODEL NUMBER 917.293401

TINE SHIELD



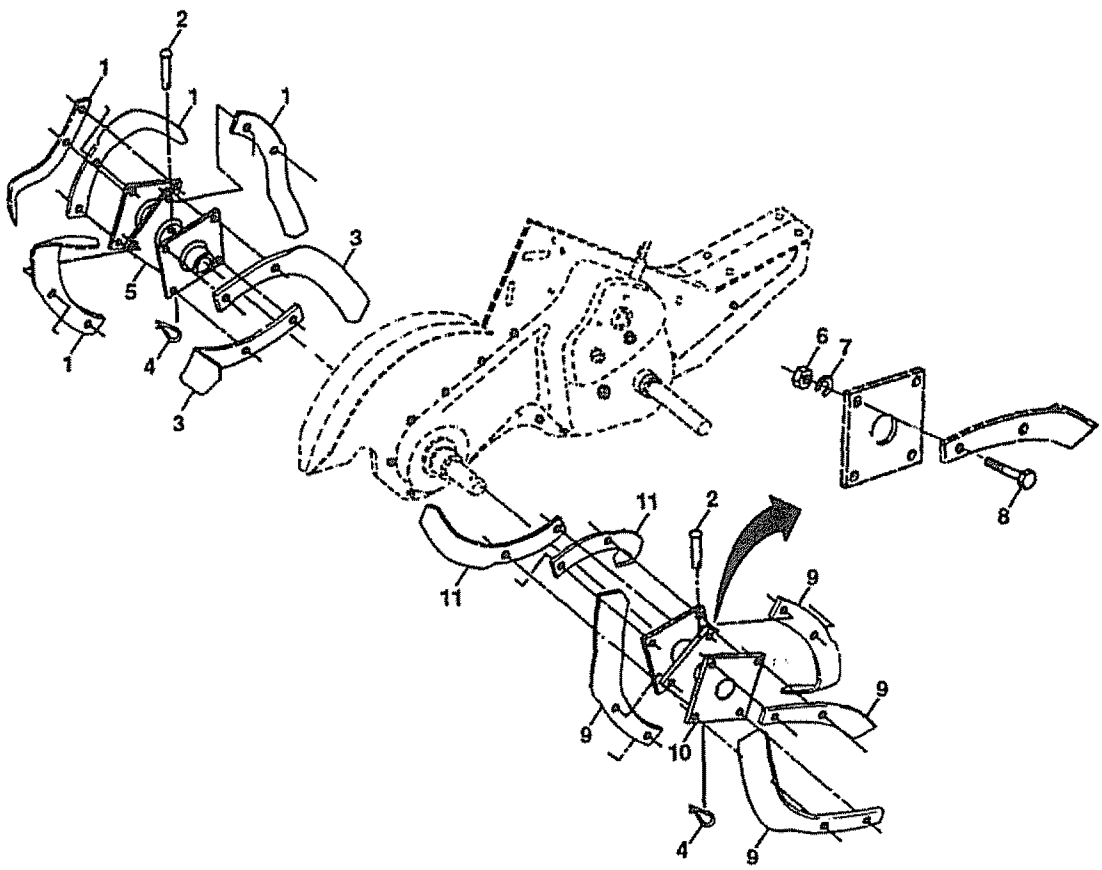
KEY NO.	PART NO.	DESCRIPTION
1	98000129	Nut, Flange 5/16-18
2	161415X574	Shield, Side, Outer L. H.
3	8393J	Pin, Stake, Depth
4	12000036	Ring, Klip
5	STD533107	*Bolt, Carriage 5/16-18 x 3/4 Gr 5
6	8394J	Spring
7	8392J	Bracket, Latch
8	109230X	Spring, Depth Stake
9	124289X574	Shield, Tine
10	STD533110	*Bolt, Carriage 5/16-18 x 1 Gr. 5
11	STD541031	*Nut, Hex 5/16-18
12	STD551131	*Washer, Lock 5/16
13	72110510	Bolt, Carriage 5/16-18 x 1-1/4
14	124311X	Bracket, Shield Tine
15	161414X574	Shield, Side, Outer R.H.
16	73510400	Nut, Hex 1/4-20
17	162175	Nut, Wing Forged 5/16-18
18	STD532512	*Bolt, Carriage 1/4-20 x 1-1/4 Gr. 5
19	102701X	Grip
20	STD541037	*Nut, Hex 3/8-16
21	102156X	Stake, Depth
22	74930632	Bolt, Hex 3/8-16 x 2
23	4440J	Hinge
24	72140404	*Bolt, Carriage 1/4-20 x 1/4
25	6712J	Cap, Vinyl
26	109227X	Pad, Idler
27	102695X574	Shield, Leveling
28	120588X	Pin, Hinge
29	124309X574	Shield, Side
30	73970500	Locknut, Hex, Flange

* STANDARD HARDWARE - - PURCHASE LOCALLY

NOTE: All component dimensions given in U.S. inches
1 inch = 25.4 mm

TILLER - - MODEL NUMBER 917.293401

TINE ASSEMBLY



KEY NO.	PART NO.	DESCRIPTION
1	4459J	Tine, Outer, L.H.
2	132673	Pin, Shear
3	6554J	Tine, Inner, L.H.
4	STD624008	*Clip, Hairpin
5	132727	Assembly, Hub and Plate, L.H.
6	73610600	Nut, Hex 3/8-24
7	STD551137	*Washer, Lock 3/8
8	74610616	Bolt, Hex 3/8-24 x 1

KEY NO.	PART NO.	DESCRIPTION
9	4460J	Tine, Outer, R.H.
10	132728	Assembly, Hub and Plate, R.H.
11	6555J	Tine, Inner, R.H.

* STANDARD HARDWARE - - PURCHASE LOCALLY

NOTE: All component dimensions given in U.S. inches.
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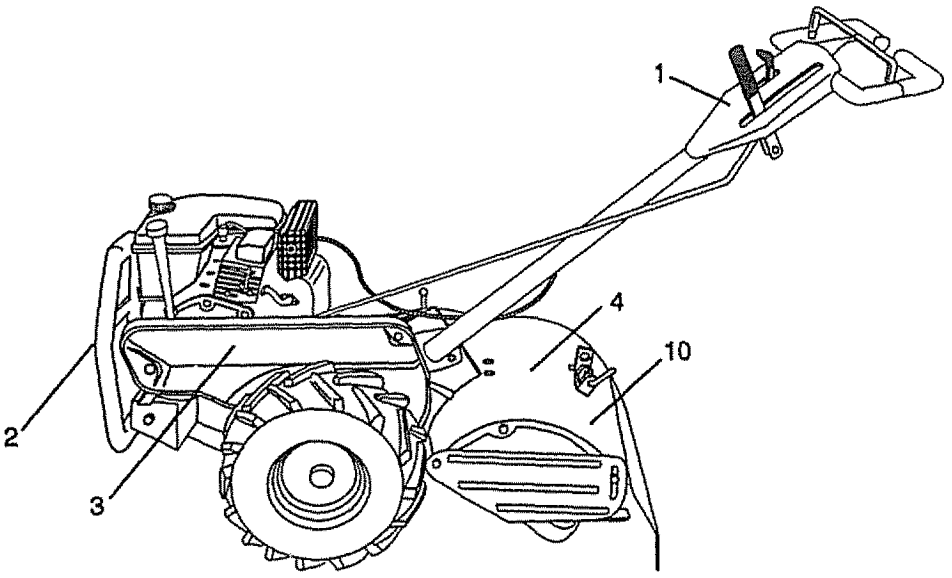
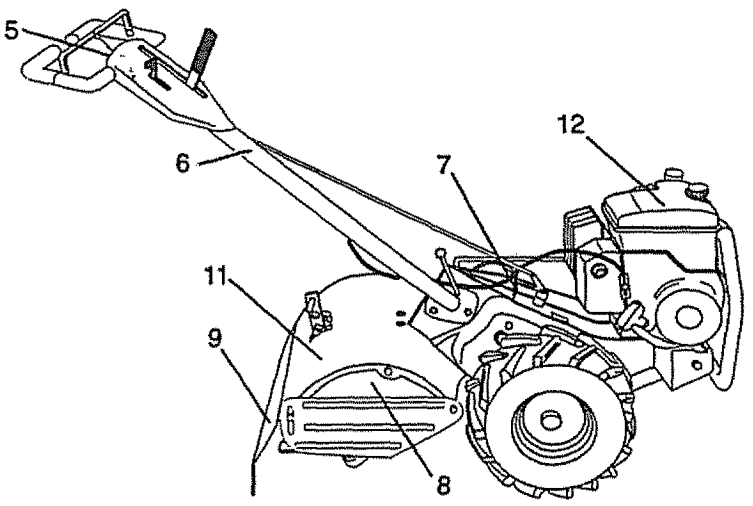
DECALS

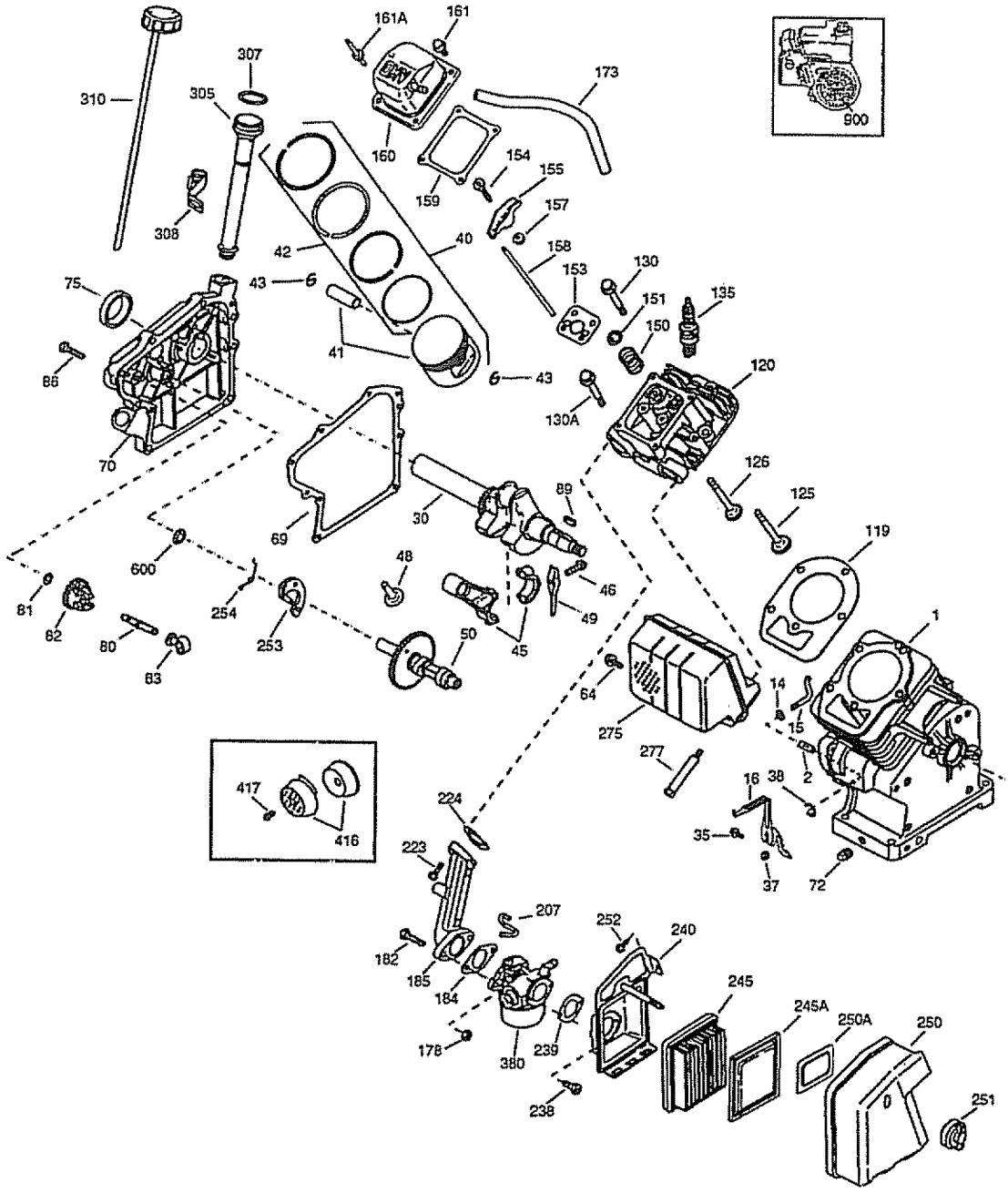




KEY NO.	PART NO.	DESCRIPTION
1	158095	Decal, Logo
2	145023	Decal, Logo
3	157982	Decal, Logo
4	157983	Decal, Description
5	137538	Decal, Caution, Drive Control
6	120431X	Decal, Hand Placement
7	102180X	Decal, Shift Indicator
8	157984	Decal, Tine, Shield, Counter Rotating Tines
9	120075X	Decal, Warning, Rotating Tines
10	163094	Decal, Tine Depth Stake
11	162215	Decal, Tine, Shield, Warning Dom
12	164527	Decal
- -	164437	Manual, Owner's (English)
- -	164438	Manual, Owner's (Spanish)

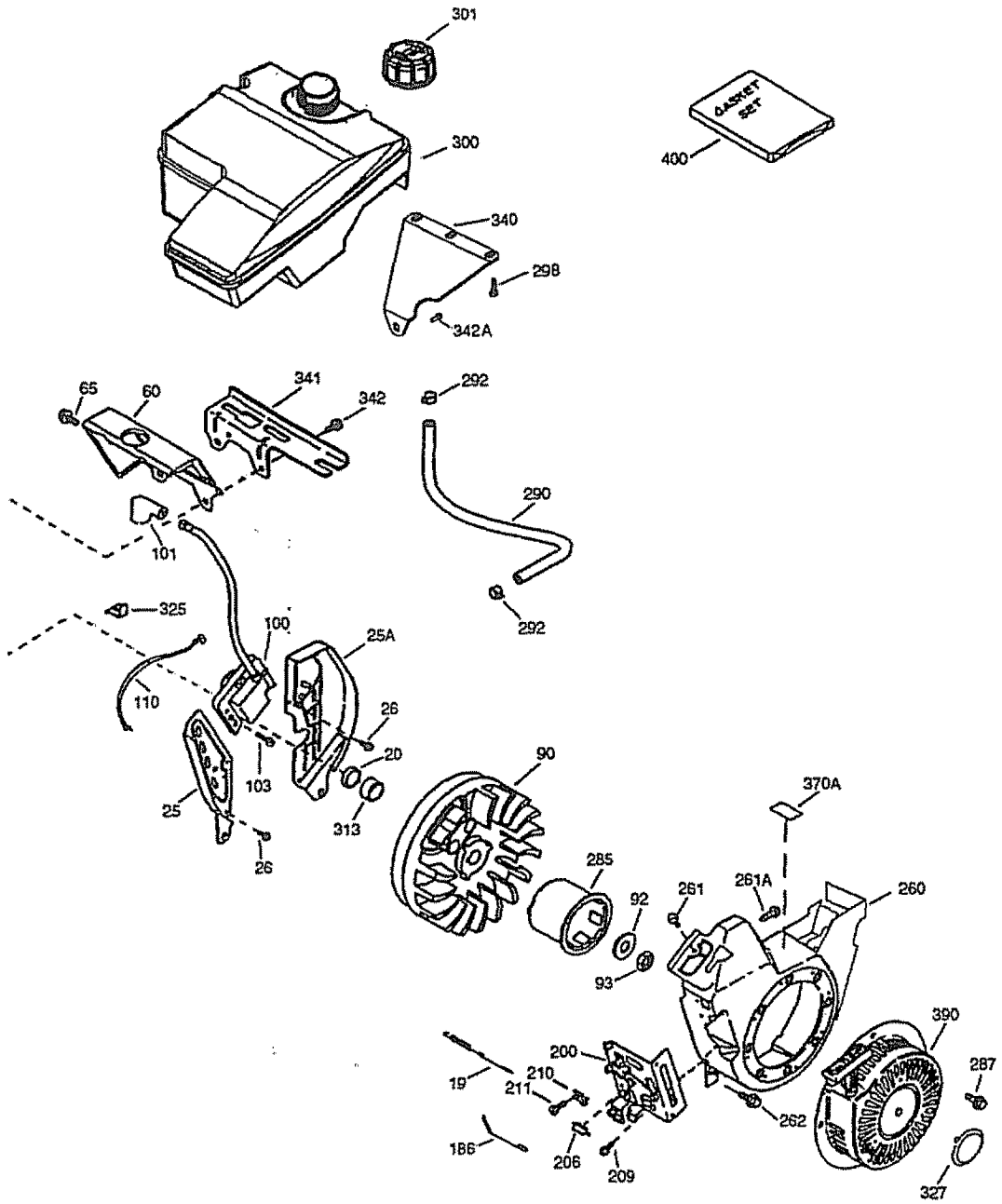
TILLER - - MODEL NUMBER 917.293401

ENGINE, TECUMSEH - - MODEL NUMBER 143.986001



TILLER - - MODEL NUMBER 917.293401

ENGINE, TECUMSEH - - MODEL NUMBER 143.986001



KEY NO.	PART NO.	DESCRIPTION
1	37107A	Cylinder (Incl. 2, 20 & 72)
2	26727	Dowel Pin
14	651052	Washer
15	37108	Governor Rod
16	37110	Governor Lever
19	37111	Extension Spring
20	32600	Oil Seal
25	36621	Air Baffle (Left)
25A	36622	Air Baffle (Right)
26	30200	Screw, 10-24 x 9/16"
30	34740	Crankshaft
35	651053	Screw, 10-32 x 63/64"
37	29216	Lock Nut, 10-32
38	37109	Retaining Ring
40	40004	Piston, Pin & Ring Set (Std.)
40	40005	Piston, Pin & Ring Set (.010" OS)
41	36070	Piston & Pin AssÕy (Std.) (Incl. 43)
41	36071	Piston & Pin AssÕy (.010" OS) (Incl. 43)
42	40006	Ring Set (Std.)
42	40007	Ring Set (.010" OS)
43	20381	Piston Pin Retaining Ring

TILLER - - MODEL NUMBER 917.293401

ENGINE, TECUMSEH - - MODEL NUMBER 143.986001

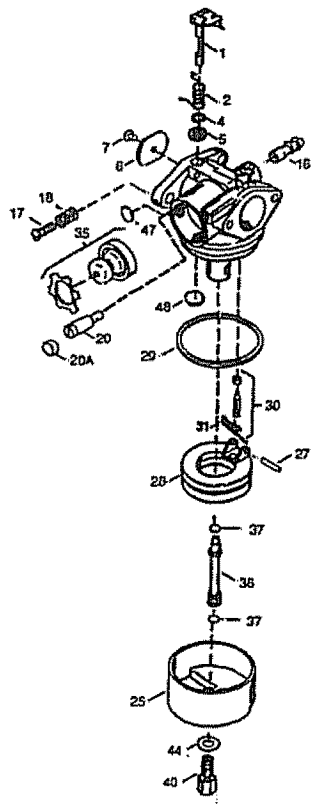
KEY NO.	PART NO.		DESCRIPTION
45	32875A		Connecting Rod AssÕy (Incl. 46 & 49)
46	32610A		Connecting Rod Bolt
48	35616		Valve Lifter
49	36611		Oil Dipper
50	37040		Camshaft (Incl. 253 & 254)
60	36623A		Blower Housing Extension
64	650738		Screw, 1/4-20 x 5/8"
65	30200		Screw, 10-24 x 9/16"
69	36624	*	Cylinder Cover Gasket
70	36625		Cylinder Cover (Incl. 75 thru 83)
72	27642		Oil Drain Plug
75	27897		Oil Seal
80	30574A		Governor Shaft
81	30590A		Washer
82	30591		Governor Gear AssÕy (Incl. 81)
83	36057		Governor Spool
86	650488		Screw, 1/4-20 x 1-1/4"
89	610961		Flywheel Key
90	611205		Flywheel
92	650815		Belleville Washer
93	650816		Flywheel Nut
100	34443B		Solid State Ignition
101	610118		Spark Plug Cover
103	651007		Screw, Torx T-15, 10-24 x 15/16"
110	36054		Ground Wire
119	36719	*	Cylinder Head Gasket
120	36721		Cylinder Head
125	36471		Exhaust Valve (Std.) (Incl. 151)
125	36472		Exhaust Valve (1/32" OS) (Incl. 151)
126	29314C		Intake Valve (Std.) (Incl. 151)
126	29315C		Intake Valve (1/32" OS) (Incl. 151)
130	650912		Screw, 5/16-18 x 1-1/2"
130A	650999		Screw, 5/16-18 x 2-41/64"
135	34645		Resistor Spark Plug (RN4C)
150	37039		Valve Spring
151	31673		Valve Spring Cap
153	36649		Push Rod Guide
154	650913		Rocker Arm Stud
155	35624A		Rocker Arm
157	650914		Nut, 1/4-28
158	36629		Push Rod
159	35626	*	Rocker Arm Cover Gasket
160	36630A		Rocker Arm Cover
161	651008		Screw, 1/4-20 x 31/64"
161A	651012		Stud
173	36675A		Breather Tube
178	650852		Nut, 1/4-20
182	650451		Screw, 1/4-20 x 1"
184	26756	*	Carburetor To Intake Pipe Gasket
185	36631		Intake Pipe
186	36711		Governor Link
200	36736		Control Bracket (Incl. 206, 210 & 211)
206	610973		Terminal
207	36632		Throttle Link
209	650821		Screw, 10-32 x 1/2"
210	27793		Conduit Clip
211	28942		Screw, 10-32 x 3/8"
223	650451		Screw, 1/4-20 x 1"
224	36581	*	Intake Pipe Gasket
238	28820		Screw, 10-32 x 1/2"
239	27272A	*	Air Cleaner Gasket
240	36633A		Air Cleaner Body (Incl. 239)
245	36046		Air Cleaner Filter
245A	36634		Air Cleaner Filter (Poly)
250	37072		Air Cleaner Cover
250A	37074		Air Cleaner Baffle
251	650886		Wing Nut
252	650821		Screw, 10-32 x 1/2"
253	36701		Compression Release Weight
254	36702		Compression Release Spring
260	36992		Blower Housing
261	651008		Screw, 1/4-20 x 31/64"
261A	650821		Screw, 10-32 x 1/2"
262	651008		Screw, 1/4-20 x 31/64"
275	36759		Muffler
277	650988		Screw, 1/4-20 x 2-9/32"
285	35985B		Starter Cup
287	— —		Rivet (Can be purchased locally)
290	30705		Fuel Line
292	26460		Fuel Line Clamp
298	650665		Screw, 1/4-15 x 3/4"
300	36875		Fuel Tank (Incl. 292 & 301)
301	36246		Fuel Cap
305	36877		Oil Fill Tube
307	35499		ÒOÓ Ring
308	37079		Fill Tube Clip
310	36878		Dipstick
313	34080		Spacer
325	29443		Wire Clip
327	35392		Starter Plug
340	36876		Fuel Tank Bracket (Upper)
341	36644		Fuel Tank Bracket (Lower)
342	651010		Screw, 1/4-20 x 7/8"
342A	650738		Screw, 1/4-20 x 5/8"
370A	36261		Lubrication Decal
380	640025		Carburetor (Incl. 184)
390	590736		Rewind Starter
400	36720		Gasket Set (Incl. Items Marked * in Notes)
416	36085		Spark Arrestor Kit (Incl. 417) (Optional)
417	650760		Screw, 8-32 x 3/8"
600	651013		Washer
900	— —		Replacement Engine - None
900	— —		Replacement S/B 754293, order from 71-999
— —	— —		RPM High 3450 to 3750
— —	— —		RPM Low 1650 to 1950

NOTE: This engine could have been built with 590748 starter.

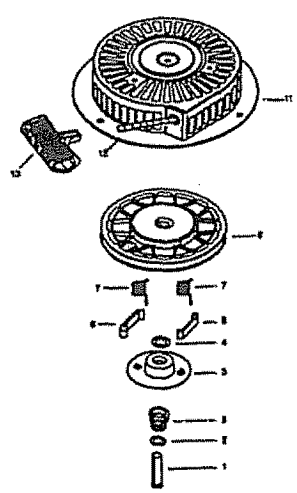
NOTE: All component dimensions given in U.S. inches
1 inch = 25.4 mm

TILLER - - MODEL NUMBER 917.293401

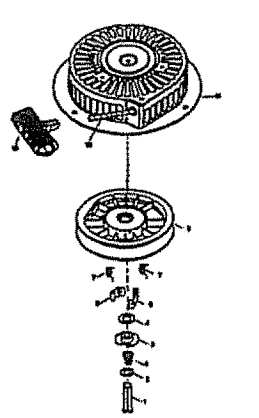
ENGINE, TECUMSEH - - MODEL NUMBER 143.986001



KEY NO.	PART NO.	DESCRIPTION
——	640025	Carburetor (Incl. 184 or Engine Parts list)
1	631615	Throttle Shaft & Lever Assembly
2	631767	Throttle Return Spring
4	631184	Dust Seal Washer
5	631183	Dust Seal (Throttle)
6	631036	Throttle Shutter
7	650506	Shutter Screw
16	632164	Fuel Fitting
17	650417	Throttle Crack Screw/ Idle Speed Screw
18	630766	Tension Spring
20	640018	Idle Restrictor Screw
20A	640053	Idle Restrictor Screw Cap
25	631867	Float Bowl
27	631024	Float Shaft
28	632019	Float
29	631028	Float Bowl ÒOÓ Ring
30	631021	Inlet Needle, Seat, & Clip (Incl. 31)
31	631022	Spring Clip
35	36045A	Primer Bulb/Retainer Ring
36	640019	Main Nozzle Tube
37	632547	ÒOÓ Ring, Main Nozzle Tube
40	640015	High Speed Bowl Nut
44	27110	Bowl Nut Washer
47	630748	Welch Plug, Idle Mixture Well
48	631027	Welch Plug, Atmospheric Vent



KEY NO.	PART NO.	DESCRIPTION
——	590736	Rewind Starter
1	590599A	Spring Pin (Incl. 4)
2	590600	Washer
3	590696	Retainer
4	590601	Washer
5	590697	Brake Spring
6	590698	Starter Dog
7	590699	Dog Spring
8	590700	Pulley & Rewind Spring AssÕy.
11	590705	Starter Housing AssÕy.
12	590535	Starter Rope (98" x 9/64" dia.)
13	590701	Starter Handle



KEY NO.	PART NO.	DESCRIPTION
——	590748	Recoil Starter
1	590599A	Spring Pin (Incl. 4)
2	590600	Washer
3	590679	Retainer
4	590601	Washer
5	590678	Brake Spring
6	590680	Starter Dog
7	590412	Dog Spring
8	590681	Pulley & Rewind Spring Assembly
11	590747	Starter Housing Assembly
12	590535	Starter Rope (Length 98" x 9/64" dia.)
13	590701	Starter Handle

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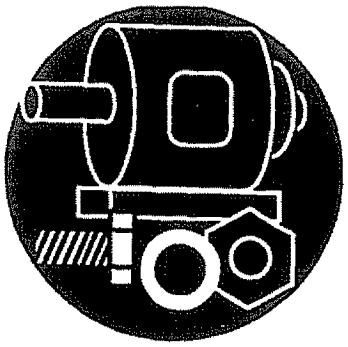

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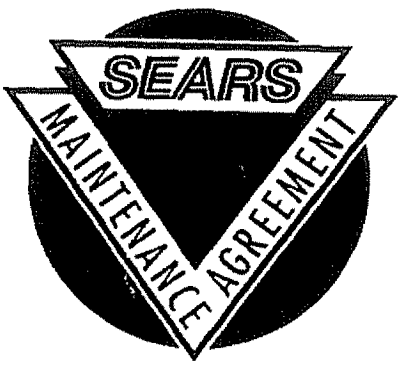

When requesting service or ordering parts, always provide the following information:

- Product Type
- Part Number
- Model Number
- Part Description

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