MMC

5.0 HP

CRAFTSMAN

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

Assembly

- Operation
- Customer Responsibilities

**17 INCH TINE WIDTH** 

**REAR TINE TILLER WITH** 

**COUNTER ROTATING TINES** 

- Service and Adjustment
- Repair Parts

Sears, Roebuck and Co., Hoffman Estates, IL. 60179 U.S.A.



SEARS



### SAFETY RULES



#### Safe Operation Practices for Walk-Behind Powered Rotary Tillers

#### 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.

#### - IMPORTANT -

CAUTION, IMPORTANTS, AND NOTES ARE A MEANS OF ATTRACTING ATTENTION TO IMPORTANT OR CRITI-CAL INFORMATION IN THIS MANUAL.



CAUTION: Look for this symbol to point out important safety precautions. It means —Attention! Become Alert! Your safety is involved. IMPORTANT: USED TO ALERT YOU THAT THERE IS A POSSIBILITY OF DAMAGING THIS 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 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. They have competent, welltrained 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 917.299852

#### SERIAL NUMBER

DATE OF

PURCHASE

THE MODEL AND SERIAL NUMBERS WILL BE FOUND ON THE MODEL PLATE ATTACHED TO THE TOP OF THE TRANSMISSION.

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

#### **PRODUCT SPECIFICATIONS**

HORSEPOWER:	5.0 HP
DISPLACEMENT:	12.57 cu. in.
GASOLINE CAPACITY:	3 Quarts Unleaded Regular
OIL : (CAPACITY: 20 oz.)	SAE 30W (Above 32°F) SAE 5W-30 (Below 32°F)
SPARK PLUG : (GAP: .030")	Champion RJ19LM

#### **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.

### LIMITED TWO YEAR WARRANTY ON CRAFTSMAN TILLER

For two 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 30 days from the date of purchase.

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/817 WA, HOFFMAN ESTATES, CHICAGO, ILLINOIS 60179

#### - IMPORTANT-

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.

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# 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





#### TILLER MAINTENANCE



# ASSEMBLY

#### TO ASSEMBLE YOUR TILLER YOU WILLNEED:

#### (1) Utility knife

- Wire cutter 1)
- Screwdriver (1)
- Tire pressure gauge (1)
- (1) Pair of pliers (1) 9/16" wrench (or 9/16" socket, ratchet, and extension; or adjustable wrench)

#### **OPERATOR'S POSITION (See Fig. 1)**

The right hand (R.H.) and left hand (L.H.) sides of your tiller are determined from the operator's position while standing behind tiller.







## ASSEMBLY

#### **UNPACKING CARTON (See Fig. 2)**



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 and depth stake. 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 (See Figs. 3, 4, and 5)

 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.)



 Grasp handle assembly. Hold in "up" position. Be sure handle lock remains in gearcase notch. Slide handle assembly into position.



FIG. 4

- Rotate handle assembly down to install two carriage bolts and locknuts. Insert rear carriage bolt (Fig. 5) first, with head of bolt on L.H. side of tiller. Lower the handle assembly. Tighten bolts so handle moves with some resistance.
- Insert second handle lock (with teeth inward) in the slot of the handle base.
- Place flat washer on threaded end of handle lock lever.
- Insert handle lock lever through handle base and gearcase.
- With handle assembly in lowest position, securely tighten handle lock lever by rotating clockwise. Leaving handle assembly in lowest position will make it easier to remove tiller from carton.



## ASSEMBLY

#### CONNECT SHIFT ROD (See Fig. 6)

- 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**

- Make sure shift lever indicator is in "N" (neutral) position (See Fig. 6)
- Tilt tiller forward by lifting handle. Separate cardboard cover from leveling shield.
- Rotate tiller handle to the right and pull tiller out of carton.

#### **INSERT CABLE CLIP** (See Fig. 7)

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



**FIG.7** 

#### **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).



#### 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.



FIG.8

#### MEETS ANSI SAFETY REQUIREMENTS

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

9

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.

RELEASE TO STOP

BEFORE USING REVERSE REDUCE ENGINE SPEED. DO NOT STAND DIRECTLY BEHIND TILLER. 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.

CHOKE CONTROL - Used when starting a cold engine.

READ THE OPERATOR'S MANUAL KINOW LOCATION AND PUINCTION OF ALL CONTROLS KEEP ALL SAFETY DEVICES AND SHIELDS IN PLACE. NEVER ALLOW CHLEREN OR UNINSTRUCTED ADJUL'S TO OFERATE TILLER SHIT OFF EINSTRE SEFORE UNCLOGGING THES OR MAKING REPAIRS.

MAKING REPAIRS. KEEP EYSTANDERS AWAY FROM MACHINE. KEEP AWAY FROM ROTATING PARTS.

THROTTLE CONTROL - Used to control engine speed.





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.

### HOW TO USE YOUR TILLER

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

#### **STOPPING (See Fig. 9)**

#### TINES AND DRIVE

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

#### ENGINE

- Move throttle control 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 "T" (till) position and engaging drive control bar.

#### FORWARD-WHEELSONLY/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 (See Fig. 10)**

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



#### TILLING (See Fig. 11)

- 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 "T" 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.



FIG. 11

#### 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 turn-around, release the drive control bar and lower handle. Place shift lever in "T" (till) position and move throttle control to desired speed. To begin tilling, hold drive control bar against the handle.

#### OUTER SIDE SHIELDS (See Fig. 11)

The front 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.

#### TRANSPORTING



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

- 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.



#### CAUTION: Before operating your tiller for the first time, study this section and the "SAFETY RULES" on page 2.

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

Don't back yourself into a solid obstruction such as a tree, fence, etc.

### **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 (See Fig. 12)

- The engine in your unit has been shipped, from the factory, already filled with SAE 30 summer weight oil.
- With engine level, clean area around oil filler plug and remove plug.
- Engine oil should be to point of overflowing. For approximate capacity see "PRODUCT SPECIFICA-TIONS" on page 3 of this manual. All oil must meet A.P.I. Service Classification SG.
- 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 Instructions 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 (See Fig. 13)



CAUTION: Keep the tine control in "OFF" position when starting engine.

- Make sure spark plug wire is properly connected.
- Move shift lever indicator to "N" (neutral) position.
- Place throttle control in "FAST" position.
- Place choke control in "CHOKE" position if the engine is cold. A warm engine may not require choking to start.
- Grasp starter handle with one hand and grasp the tiller 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, slowly move choke control on engine halfway between "CHOKE" and "RUN" positions and then to "RUN" position as engine warms up.
- Move throttle control to desired running position.
- Allow engine to warm up for a few minutes before engaging tines.

**NOTE:** If at a high altitude (above 3000 feet) or in cold temperatures (below 32°F), the carburetor fuel mixture may need to be adjusted for best engine performance. See "TO ADJUST CARBURETOR" in the Service and Adjustments section of this manual.



#### TILLING HINTS



CAUTION: Until you are accustomed to handling your tiller, start actual field use with throttle in slow position (midway 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.
- For easier handling of your tiller, leave about 8 inches of untilled soil between the first and second tilling passes. The third pass will be between the first and second (See Fig. 14).

- 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.
- 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". 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 (See Fig. 15).



#### FIG. 15

#### 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.

## **CUSTOMER RESPONSIBILITIES**

MAINTENANCE SCHEDULE		15	1433 X3	345	32/3		- Sano	/						 	
FILL IN DATES AS YOU COMPLETE REGULAR SERVICE			42/201				/		SE	ERVI	CE	DAT	ES		÷.
Check Engine Oil Level	V		~			· · ·							- 54 - 5		
Change Engine Oil		~		1,2					11		· ·		× .		
Oil Pivot Points			~					n an the Name							
Inspect Spark Arrester Muffler					~										
Inspect Air Screen	~														
Clean or Replace Air Cleaner Cartridge				1/2											
Clean Engine Cylinder Fins				~									5 S L	N	
Replace Spark Plug					~									A second	

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 beits for wear. A new spark plug and clean air filter assure proper airfuel 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").



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

## **CUSTOMER RESPONSIBILITIES**



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 SG. 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 the first two hours of operation and every 25 hours thereafter or at least once a year if the tiller is not used for 25 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 (See Figs. 16 and 17)

Determine temperature range expected before oil change. All oil must meet API service classification SG.

- · Be sure tiller is on level surface.
- Oil will drain more freely when warm.
- Catch oil in a suitable container.
- · Remove drain plug.
- Tip tiller forward to drain oil.
- After oil has drained completely, replace oil drain plug and tighten securely.
- Remove oil filler plug. Be careful not to allow dirt to enter the engine.
- Refill engine with oil. See "CHECK ENGINE OIL LEVEL" in the Operation section of this manual.



#### AIR CLEANER (See Fig. 18)

Service 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.
- Remove air cleaner cover.
- Carefully remove air cleaner cartridge. Be careful. Do not allow dirt or debris to fall into carburetor.
- Clean by tapping gently on a flat surface.
- If very dirty, replace or wash in a nonsudsing detergent and warm water solution. Rinse thoroughly with water flowing from mesh side until water is clear. Allow cartridge to stand and air dry thoroughly before using.
- Clean and replace cover. Tighten screws securely.





#### COOLING SYSTEM (See Fig. 19)

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.
- Remove blower housing and clean as necessary.
- Keep cylinder fins free of dirt and chaff.



# **CUSTOMER RESPONSIBILITIES**

#### 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 SPECI-FICATIONS" on page 3 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 wires from spark plug and place wire where it cannot come into contact with plug.

### TILLER

### TO ADJUST HANDLE HEIGHT (See Fig. 20)

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 (See Fig. 21)

- Place blocks under transmission to keep tiller from tipping.
- Remove outer side shield by removing nuts "A" and "B" (See Fig. 11).
- Remove hairpin clip and clevis pin from wheel.
- Remove wheel and tire.
- Repair tire and reassemble.



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FIG. 21

## SERVICE AND ADJUSTMENTS

#### TO REMOVE BELT GUARD (See Fig. 22)

- Remove L.H. outer side shield by removing nuts "A" and "B" (See Fig. 11).
- 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.

#### BELT GUARD CAP NUT AND WASHER HEX NUT AND WASHER (LOCATED BEHIND TIRE) CAP NUT AND WASHER HAIRPIN CLIP AND CLEVIS PIN FIG. 22

## TO REPLACE GROUND DRIVE BELT (See Figs. 22 and 23)

- Remove L.H. outer side shield, move left wheel, and remove belt guard as described in "TO REMOVE BELT GUARD".
- Loosen belt guides "A" and "B" and also nuts "C" and "D".
- Remove old belt by slipping from engine pulley first.
- 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 nuts "C" and "D".
- · Check belt adjustment as described below.
- Replace belt guard.
- Reposition wheel and replace clevis pin and hairpin clip.
- Replace outer side shield.

## GROUND DRIVE BELT ADJUSTMENT (See Fig. 23)

For proper belt tension, the extension spring should have about 5/8 inch stretch when drive control bar is in "EN-GAGED" 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.



# SERVICE AND ADJUSTMENTS

TINE REPLACEMENT (See Figs. 24, 25 and 26)



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.



FIG. 24

- 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 the transmission. straightened as necessary.
- New tines should be assembled as shown in Fig. 26. Sharpened tine edges will rotate rearward from above.





FIG. 26

## SERVICE AND ADJUSTMENTS

#### ENGINE

## TO ADJUST THROTTLE CONTROL CABLE (See Fig. 27)

- Loosen cable clamp screw to allow cable to move.
- Move throttle control lever on upper handle to "FAST" position.
- Pull throttle cable out until engine bellcrank is back as far as it will go.
- Hold cable in this position and tighten clamp screw securely.



FIG. 27

#### TO ADJUST CARBURETOR (See Fig. 28)

The carburetor has a high speed jet and has been preset at the factory and adjustment should not be necessary. However, minor adjustments may be required to compensate for differences in fuel, temperature, altitude or load. If the carburetor does need adjustment, proceed as follows.

In general, turning the idle needle valve in (clockwise) decreases the supply of fuel to the engine giving a leaner fuel/air mixture. Turning the needle valve out (counterclockwise) increases the supply of fuel to the engine giving a richer fuel/air mixture.

**IMPORTANT:** DAMAGE TO THE NEEDLES AND THE SEATS IN CARBURETOR MAY RESULT IF SCREWS ARE TURNED IN TOO TIGHT.

#### PRELIMINARY SETTING

- Air cleaner assembly must be assembled to the carburetor when making carburetor adjustments.
- Be sure the throttle control cable is adjusted properly (see above).
- With engine off, turn idle needle valve in (clockwise) closing it finger tight and then turn valve out (counterclockwise) 1-1/2 turns.

#### FINAL SETTING

- Start engine and allow to warm for five minutes. Make final adjustments with engine running at idle and drive control bar in "DISENGAGED" position.
- With throttle control lever in "SLOW" position, turn idle needle valve in (clockwise) until engine begins to die then turn out (counterclockwise) until engine runs rough. Turn valve to a point midway between those two positions.

#### **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.

#### **ACCELERATION TEST**

 Move throttle control lever from "SLOW" to "FAST" position. If engine hesitates or dies, turn needle valve out (counterclockwise) 1/8 turn. Repeat test and continue to adjust, if necessary, until engine accelerates smoothly.

High speed stop is factory adjusted. Do not adjust or damage may result.

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 SEARS SERVICE CENTER, WHICH HAS PROPER EQUIPMENT AND EXPERIENCE TO MAKE ANY NECESSARY ADJUSTMENTS.



FIG. 28

# 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 Sector and the sector of the sector o

#### 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).

#### **CYLINDERS**

- 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.

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# **TROUBLESHOOTING POINTS**

PROBLEM	CAUSE	CORRECTION
Will not start	<ol> <li>Out of fuel.</li> <li>Engine not "CHOKED" property.</li> <li>Engine flooded.</li> <li>Dirty air cleaner.</li> <li>Water in fuel.</li> <li>Clogged fuel tank.</li> <li>Loose spark plug wire.</li> <li>Bad spark plug or improper gap.</li> <li>Carburetor out of adjustment.</li> </ol>	<ol> <li>Fill fuel tank.</li> <li>See "TO START ENGINE" in Operation section.</li> <li>Wait several minutes before attempting to start.</li> <li>Replace air cleaner cartridge.</li> <li>Drain fuel tank and carburetor, and refill tank with fresh gasoline.</li> <li>Remove fuel tank and clean.</li> <li>Make sure spark plug wire is seated properly on plug.</li> <li>Replace spark plug or adjust gap.</li> <li>Make necessary adjustments.</li> </ol>
Hard to start	<ol> <li>Throttle control not set properly.</li> <li>Dirty air cleaner.</li> <li>Bad spark plug or improper gap.</li> <li>Stale or dirty fuel.</li> <li>Loose spark plug wire.</li> <li>Carburetor out of adjustment.</li> </ol>	<ol> <li>Place throttle control in "FAST" position.</li> <li>Replace air cleaner cartridge.</li> <li>Replace spark plug or adjust gap.</li> <li>Drain fuel tank and refill with fresh gasoline.</li> <li>Make sure spark plug wire is seated properly on plug.</li> <li>Make necessary adjustments.</li> </ol>
Loss of power	<ol> <li>Engine is overloaded.</li> <li>Dirty air cleaner.</li> <li>Low oil level/dirty oil.</li> <li>Faulty spark plug.</li> <li>Oil in fuel.</li> <li>Stale or dirty fuel.</li> <li>Water in fuel.</li> <li>Clogged fuel tank.</li> <li>Spark plug wire loose.</li> <li>Dirty engine air screen.</li> <li>Dirty clogged muffler.</li> <li>Carburetor out of adjustment.</li> <li>Poor compression.</li> </ol>	<ol> <li>Set depth stake for shallower tilling.</li> <li>Replace air cleaner cartridge.</li> <li>Check oil level/change oil.</li> <li>Clean and regap or change spark plug.</li> <li>Drain and clean fuel tank and refill, and clean carburetor.</li> <li>Drain fuel tank and refill with fresh gasoline.</li> <li>Drain fuel tank and carburetor, and refill tank with fresh gasoline.</li> <li>Remove fuel tank and clean.</li> <li>Connect and tighten spark plug wire.</li> <li>Clean engine air screen.</li> <li>Clean engine air screen.</li> <li>Contact an authorized Sears Service Center Depart ment.</li> </ol>
Engine overheats	<ol> <li>Low oil level/dirty oil.</li> <li>Dirty engine air screen.</li> <li>Dirty engine.</li> <li>Partially plugged muffler.</li> <li>Improper carburetor adjustment.</li> </ol>	<ol> <li>Check oil level/change oil.</li> <li>Clean engine air screen.</li> <li>Clean cylinder fins, air screen, and muffler area.</li> <li>Remove and clean muffler.</li> <li>Adjust carburetor to richer position.</li> </ol>
Excessive bounce/ difficult handling	1. Ground too dry and hard.	<ol> <li>Moisten ground or wait for more favorable soil conditions.</li> </ol>
Soil balls up or clumps	1. Ground too wet.	1. Wait for more favorable soil conditions.
Engine runs but tiller won't move	<ol> <li>Drive control bar is not engaged.</li> <li>V-belt not correctly adjusted.</li> <li>V-belt is off pulley(s).</li> </ol>	<ol> <li>Engage drive control.</li> <li>Inspect/adjust V-belt.</li> <li>Inspect V-belt.</li> </ol>
Engine runs but labors when tilling	<ol> <li>Tilling too deep.</li> <li>Throttle control not properly adjusted.</li> <li>Carburetor out of adjustment.</li> </ol>	<ol> <li>Set depth stake for shallower tilling.</li> <li>Check throttle control setting.</li> <li>Make necessary adjustments.</li> </ol>
Tines will not rotate	1. Shear pin(s) broken.	1. Replace shear pin(s).
· · · · · · · · · · · · · · · · · · ·		

5 HP 17" TILLER - - MODEL NUMBER 917.299852

HANDLES



KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION	
1	110707X	Cap, Sleeve	21	121213X	Handle, Assemble	
2	110674X	Grip, Handle	22	121145X	Clip, Plastic, Cable	
. З	110673X	Grommet, Handle	23	86777	Screw, Hex, Washer Hd, Slotted	
4	127254X	Bar, Drive Control Assembly			#10-24 x 1/2	
5	6712J	Cap, Vinyl	24	9484R	Clip	
6	137119	Panel, Control	25	73970500	Locknut, Hex, Flange	
7	110641X	Bushing, Split	26	110675X	Clutch, Cable	
8	STD511005	* Screw, Mach. Pan Head. C.R.	27	STD541025	* Nut, Hex 1/4-20	
		#10-24 x 1/2	28	STD551125	* Washer, Lock 1/4	
9	STD533125	* Bolt, Carriage	29	STD541462	* Nut, Keps #10-24	
		5/16-18 UNC x 2-3/8 Gr. 5	30	127012X	Throttle, Control	
10	110646X	Handle, Grip		137610	Manual, Owner's	
11	STD624003	* Clip, Hairpin		120431X	Decal, Hand Placement	
12	81328	Bolt, Shoulder			(Control Panel)	
13	110741X	Handle, Shift		127795	Decal, Control Panel	
14	109313X	Grommet, Rubber		137538	Decal, Caution, Clutch	
15	110702X	Rod, Shift			(Control Panel)	
16	STD533710	* Bolt, Carriage 3/8-16 x 1 Gr. 5				
17	109229X	Lock, Handle	* ST.	ANDARD HAI	RDWARE PURCHASE LOCALLY	<u>,</u>
18	STD541437	* Nut, Centerlock 3/8-16	NOT		ment dimensions given in U.S. inch	e
19	19131611	Washer 13/32 x 1 x 11 Ga.	NOT	1 inch – 2	5.4  mm	5
20	109228X	Lever, Lock, Handle				

5 HP 17" TILLER - - MODEL NUMBER 917.299852 MAINFRAME, LEFT SIDE



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5 HP 17" TILLER - - MODEL NUMBER 917.299852 **MAINFRAME, RIGHT SIDE** 



\* STANDARD HARDWARE - - PURCHASE LOCALLY

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

5 HP 17" TILLER - - MODEL NUMBER 917.299852



KEY No	PART NO.	DESCRIPTION
1	137409	Transmission Assembly (Includes Key Nos. 2-52)
2	121147X	Gearcase, L.H. w/Bearing
3	106211X	Gasket. Gearcase
4	5020J	Bearing, Needle
5	1370H	Washer, Thrust 5/8 x 1.10 x 1/32
6	102113X	Pinion, Input
7	102110X	Shaft, Input
8	4895H	Bearing, Needle
9	102136X	Washer, Seal
10	7392M	Ball, Steel
11	100371K	Spring, Shift, Fork
12	106160X	O-Ring
13	102107X	Arm, Shift
14	8353J	Fork, Shift
15	12000039	Ring, Klip
16	102109X	Shaft, Shift
17	104159X	Spacer, Split
18	4358J	Washer
19	12000040	Ring, Klip
20	102114X	Gear, Assembly, Reverse Idler
	and the second second	(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

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NO.	NO,	
26	102128X	O-Ring
27	102100X	Bearing, Shaft, Ground Drive
28	106390X	Spacer 0.765 x 1.125 x 1.23
29	102134X	Chain #35-50 Pitch
30	124458X	Ground Shaft Assembly
31	102106X	Bearing, Shaft, Ground Drive
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	137300	Sprocket Assembly w/Bearing
		(Includes Key Nos. 37 and 38)
37	44223	Bearing, Needle
38	13/301	Sprocket, line
39	105345X	Gear, Cluster, Hed 1st & 2nd
40	105346X	Gear, Reverse
41	83580	Shart, Reduction (1St)
42	4220H	Washer, Thrust
43	100140A	Spacer 1.01 x 1.75 x 0.700
44 15	9072N	Ding Chirol
40	102144A	Cool Ding Dubbor
40	9070n	Seal Oil
47	1017/5Y	Gearcase BH w/Rearing
40	1211407	(Includes Key No. 8)
40	132688	Shaft Tine
50	106147X	Chain, Boller #50-50 Pitch
51	17580408	Screw 1/4-20 x 1/2
52	STD541031	* Nut Hex 5/16-18
	6066.1	Grease. Plastilube #1

\* STANDARD HARDWARE - - PURCHASE LOCALLY

**NOTE:** All component dimensions given in U.S. inches. 1 inch = 25.4 mm24

5 HP 17" TILLER - - MODEL NUMBER 917.299852

**TINE SHIELD** 



KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1 2 3 4 5 6 7	98000129 104086X459 8393J 12000036 72110508 8394J 8392J	Nut, Flange 5/16-18 Shield, Side, Outer L. H. Pin, Stake, Depth Ring, Klip Bolt, Carriage 5/16-18 x 1 Spring Bracket, Latch	19 20 21 22 23 24 25 26	102701X STD541037 102156X 74930632 4440J STD532505 6712J 109227X	Grip * Nut, Hex 3/8-16 Stake, Depth Bolt, Hex 3/8-16 x 2 Hinge * Bolt, Carriage 1/4-20 x 1/2 Gr. 5 Cap, Vinyl Pad Idler
8 9 10 11 12 13 14 15	109230X 124269X459 STD533107 STD541031 STD551131 72110510 124311X 104101X459	Spring, Depth Stake Shield, Tine * Bolt, Carriage 5/16-18 x 3/4 Gr 5 * Nut, Hex 5/16-18 * Washer, Lock 5/16 Bolt, Carriage 5/16-18 x 1-1/4 Bracket, Shield Tine Shield, Side, Outer R.H.	20 27 28 29 30 31	102695X459 120588X 124309X459 73970500 STD533110 132253 120075X	Shield, Leveling Pin, Hinge Shield, Side Locknut, Hex, Flange * Bolt, Carriage 5/16-18 x 1 Gr. 5 Decal, Tine Shield Decal, Warning (Leveling Shield)
16 17 18	STD541025 STD551125 STD532512	* Nut, Hex 1/4-20 * Washer, Lock 1/4 * Bolt, Carriage 1/4-20 x 1-1/4 Gr. 5	* ST. NOT	ANDARD HAR E: All compor 1 inch = 2	DWARE PURCHASE LOCALLY nent dimensions given in U.S. inches. 5.4 mm

5 HP 17" TILLER - - MODEL NUMBER 917.299852

TINE ASSEMBLY



KEY NO.	PART NO.	DESCRIPTION		KEY PART NO. NO.	DESCRIPTION	
1 2 3 4 5	4459J 132673 6554J STD624008 132727	Tine, Outer, L.H. Pin, Shear Tine, Inner, L.H. * Clip, Hairpin Assembly, Hub and	Plate, L.H.	8 74610616 9 4460J 10 132728 11 6555J * STANDARD HA	Bolt, Hex 3/8-24 Tine, Outer, R.H. Assembly, Hub a Tine, Inner, R.H. ARDWARE PURCI	x 1 nd Plate, R.H. HASE LOCALLY
6 7	73610600 STD551137	Nut, Hex 3/8-24 * Washer, Lock 3/8		NOTE: All comp 1 inch =	onent dimensions giv 25.4 mm	ven in U.S. inches.
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### 5 HP 17" TILLER - - MODEL NUMBER 917.299852 ENGINE, BRIGGS & STRATTON - - MODEL NUMBER 135202, TYPE NO. 0145-01



5 HP 17" TILLER - - MODEL NUMBER 917.299852 ENGINE, BRIGGS & STRATTON - - MODEL NUMBER 135202, TYPE NO. 0145-01



### 5 HP 17" TILLER - - MODEL NUMBER 917.299852 ENGINE, BRIGGS & STRATTON - - MODEL NUMBER 135202, TYPE NO. 0145-01



### 5 HP 17" TILLER - - MODEL NUMBER 917.299852 ENGINE, BRIGGS & STRATTON - - MODEL NUMBER 135202, TYPE NO. 0145-01

KEY NO.	PART NO.	DESCRIPTION	KEY PART NO. NO.	DESCRIPTION
1	395990	Cylinder Assembly	81 222263	Lock, Screw
2	297565	Bushing, Cylinder	90 495426	Carburetor Assembly
3	299819	* Seal, Oil	95 93499	Screw, Throttle Valve to Shaft
5	214040	Head, Cylinder	96 223793	Inrottle, Carburetor
6	2/215/	Gasket, Cylinder Head	108 490040	Valve and Shaft Group, Choke
å	490774 27540	* Gasket Valve Cover	118 231533	Valve, Needle
10	94621	Screw, Breather Mounting	121 495606	Carburetor Overhaul Kit
11	66578	Grommet, Breather Tube	124 94616	Screw, Hex Head
12	270080	* Gasket, Crankcase, Standard .015"	127 220352	Plug, Welch
	270125	* Gasket, Crankcase .005" Thick	127A 223789	Plug, Welch
40	270126	* Gasket, Crankcase .009" Thick	149 20330	Spring, Needle Valve
13	94221	Screw, Cylinder Head 2-3/32"	152 200575	Screw and Collar
14	940/9	Diug Ding Hox Socket	154 93527	Screw Machine Bound Head
10	9440	Plug, Pipe, Hex Socket	163 271935 *	* Gasket, Air Cleaner Mounting
16	492088	Crankshaft	180 495301	Tank Assembly, Fuel
	230978	Gear Pin, Crankshaft	181 494559	Cap, Fuel Tank
18	297602	Cover Assembly, Crankcase	190 94712	Screw, Fuel Tank
19	495660	Bushing, Crankcase Cover	190A 94677	Screw, Fuel Tank Mounting 1-3/4"
20	294606	* Seal, Oil	191 272489	Guide Air
21	00/00	Plug, Oil Filler Scrow, Cover Mounting	201 262280	Link Governor
24	94002	Stud. Grankcase Cover	202 262270	Link, Throttle
23	297229	Flywheel, Magneto	202A 262470	Link, Control
24	222698	Key, Flywheel	203 280720	Bell Crank
25	298904	Piston Assembly, Standard Size	204 222962	Bushing, Governor Lever, Flat
÷.,	298905	Piston Assembly .010" Oversize	205 231520	Screw, Shoulder
÷	298906	Piston Assembly .020" Oversize	208 262279	Rod, Speed Control
00	298907	Piston Assembly .030" Oversize	209 202202	Spring, Governor Link Choko
20	290902	Ring Set, Piston, Standard Size	219 494845	Gear Governor
	298983	Bing Set, Piston, 010" Oversize	220 221551	Washer. Thrust
	298984	Ring Set, Piston .020" Oversize	222 490649	Panel, Control
	298985	Ring Set, Piston .030" Oversize	223 223455	Lever, Governor Control
27	26026	Lock, Piston Pin	224 93491	Rivet, Governor Control Lever
28	298909	Pin Assembly, Piston, Standard	007 100071	Mounting
00	298908	Pin Assembly, Piston .005" Over	22/ 4903/4	Lever Assembly, Governor
29	299430	Rod Assembly, Connecting	256 223813	Crank Bell
i	390409	020" Undersize Cranknin Boro	300 393615	Muffler Exhaust
30	221890	Dipper, Connecting Bod	304 495759	Housing, Blower
32	94745	Screw, Connecting Rod	305 94619	Screw, Blower Housing Mounting
33	211119	Valve, Exhaust	306 221511	Shield, Cylinder
34	261044	Valve, Intake	307 94680	Screw, Cylinder Shield
35	260552	Spring, Intake Valve	308 224/38	Cover, Cylinder Head
30	204/8	Spring, Exhaust Valve	332 92204	Nul, Flywneel Armatura Group
37 40	222440	Betainer Intako Valvo and Exhaust	334 93414	Screw Armature Mounting
40	30012	Spring	337 802592	Plug Spark
45	260642	Tappet, Valve	346 93705	Screw, Sems
46	212733	Gear, Cam	356 398808	Wire, Ground
52	271936	*** Gasket, Carburetor Mounting (2)	358 495603	Gasket Set
55	494846	Housing, Rewind Starter	363 19069	Flywheel Puller
56	493824	Pulley, Rewind Starter	3/3 92987	Nut, Hex
07 50	202094	Spring, Hewind Starter	303 383338	Spring Fuel Pump Disphasem
00	200400	nope, newing Starter	394 272538	* Diaphragm
59	396892	Insert Starter Handle	414 220982	Washer
60	393152	Handle, Rewind Starter	432 221377	Cap. Spring
65	94686	Screw, Housing Mounting	433 93265	Pin, Diaphragm Cover
69	280973	Washer		nen i Sterring for en Sterring of the term of the second second
69A	224322	Washer		
73	224632	Screen, Rotating 30	ר אין דער	

## 5 HP 17" TILLER - - MODEL NUMBER 917.299852 ENGINE, BRIGGS & STRATTON - - MODEL NUMBER 135202, TYPE NO. 0145-01

NO. NO. DESCRIPTION NO. NO.	DESCRIPTION
434       214021       Cover, Diaphragm       676       393757         435       93141       Screw, Diaphragm Cover       679       270382         455       224250       Cup, Starter       680       221839         456       224321       Retainer       741       261696         459       492833       Pawl, Starter       741       261696         459       492833       Pawl, Starter       851       221798         461       262626       Pin, Spring       869       211787         467       280715       Knob, Control       870       211172         515       262625       Spring       871       262001         526       94659       Screw, Sems, Tank Bracket Mount.       63709         527       223786       Clamp, Breather Tube       916       280321         528       231550       Tube, Breather Tube       966       492797         529       67838       Grommet, Breather Tube       967       491588         542       93572       Screw       968       495357         552       231079       Bushing, Governor Crank       969       490073         562       92613       Bolt, Gov	Deflector, Exhaust, Side Outlet Washer, Foam Washer, Brass Gear, Timing Cable Terminal, Ignition Seat, Intake Valve, Standard Seat, Exhaust Valve, Standard Guide, Exhaust Valve Guide, Intake Valve Rack, Gear Control Base, Air Cleaner Filter, Air Cleaner Screw, Air Cleaner Screw, Air Cleaner Screw, Hex Head Seal, Throttle Shaft Lever, Bracket Assembly Retainer, Link Spacer
61593307Retainer, E-Ring* Included in G616231077Crank, Governor** Included in G621396847Switch, Stop*** Included in b634271853Washer, Throttle Shaft, FoamCarburetor C63566538Elbow, Spark PlugCarburetor C	Sasket Set (495603) Carburetor Overhaul Kit (495606) Doth Gasket Set (495603), and Overhaul Kit (495606)
NOTE: All compo 1 inch = 2	nent dimensions given in U.S. inches 5.4 mm
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<b>SEARS</b> OWNER'S MANUAL	<b>CRAFTSMAN</b> 5.0 HP 17 INCH TINE WIDTH DEAD TINE TILLED WITH
and a strain of the second second Second second second Second second	COUNTER ROTATING TINES
MODEL NO. 917.299852	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 top of the transmission.
	The model number for your 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.
HOW TO ORDER BEPAIR PARTS	WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOW- ING INFORMATION:
ILFAIT FAITO	PRODUCT - REAR TINE TILLER     MODEL NUMBER - 917.299852     FNOINE MODEL NUMBER - 105000 TYPE NUMBER 0145 01
	PART NUMBER     PART DESCRIPTION
	Your Sears merchandise has added value when you consider Sears has service units nationwide staffed with Sears trained technicians profes- sional technicians specifically trained to insure that we meet our pledge to you, we service what we sell.

Sears, Roebuck and Co., Hoffman Estates, IL. 60179 U.S.A.

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