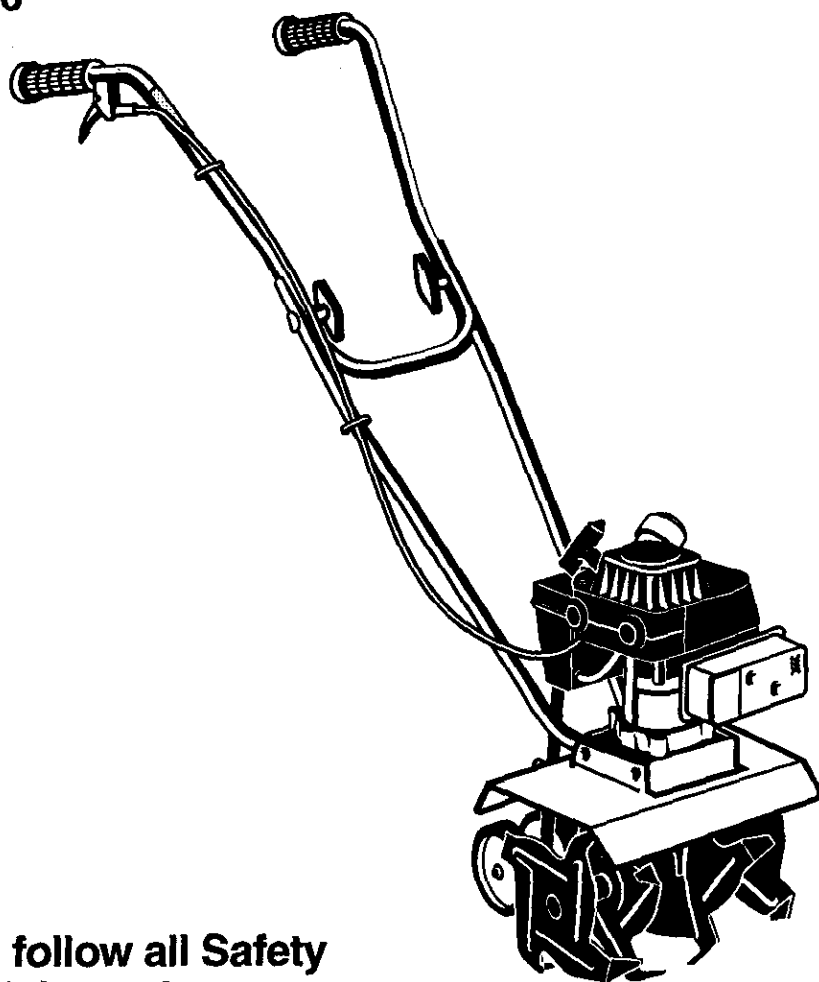


# CRAFTSMAN®

**49.2cc 2-cycle  
2.0HP 10 Inch Tines  
CULTIVATOR**

**MODEL NO.  
536.292510  
536.292520**



**Caution:  
Read and follow all Safety  
Rules and Operating  
Instructions before first use  
of this product.**

**SEARS, ROEBUCK AND CO., Hoffman Estates, IL 60179 U.S.A.**

712452 12/09/98

SAFETY

ASSEMBLY

OPERATION

MAINTENANCE

PARTS LIST

ESPAÑOL

## TABLE OF CONTENTS

Table of Contents	2	Service and Adjustments	11-12
Warranty	2	Storage	12-13
Safety Rules	2-4	Troubleshooting	13
Contents of Shipping Carton	4	Cultivator Repair Parts	14-16
Assembly	4	Engine Repair Parts	17-20
Operation	5-8	Spanish (Español)	21-34
Maintenance	9-10	Parts Ordering/Service	Back Cover

## WARRANTY STATEMENT

### LIMITED ONE-YEAR WARRANTY ON CRAFTSMAN CULTIVATOR

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

This warranty excludes tine(s), spark plug, and air cleaner which are expendable parts and become worn during normal use.

If this Craftsman cultivator is used for commercial or rental purposes, this warranty applies for only 30 days from the date of purchase. This warranty applies only while this product is in use in the United States. **WARRANTY SERVICE IS AVAILABLE BY RETURNING THE CULTIVATOR TO THE NEAREST CRAFTSMAN SERVICE CENTER 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., D817WA, Hoffman Estates, IL 60179



## SAFETY RULES



**⚠** Look for this symbol to point out important safety precautions. It means — **ATTENTION!!!** Become alert!!! Your safety is involved.

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

**IMPORTANT:** Safety standards require operator presence controls to minimize the risk of injury. Your cultivator is equipped with such controls. Do not attempt to defeat the function of the operator presence control under any circumstances.

### BEFORE USE

- Read the owner's manual carefully. Be thoroughly familiar with the controls and the proper use of the cultivator. Know how to stop the cultivator and disengage the controls quickly.
- Do not operate the cultivator without wearing adequate outer garments. Wear footwear that will improve footing on slippery surfaces.

- Keep the area of operation clear of all persons, particularly small children and pets.
- Thoroughly inspect the area where the cultivator is to be used and remove all foreign objects.

### FUEL SAFETY

- Handle fuel with care; it is highly flammable.
- Use an approved container.
- Check fuel supply before each use, allowing space for expansion as the heat of the engine and/or sun can cause fuel to expand.
- Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors. Replace fuel tank cap securely and wipe up spilled fuel.
- Never remove the fuel tank cap or add fuel to a running or hot engine.

- Never store fuel or cultivator with fuel in the tank inside a building where fumes may reach an open flame.

#### OPERATING SAFETY

- Never allow children or young teenagers to operate the cultivator. Keep them away while it is operating. Never allow adults to operate the cultivator without proper instruction.
- Do not operate this machine if you are taking drugs or other medication which can cause drowsiness or affect your ability to operate this machine.
- Do not use this machine if you are mentally or physically unable to operate this machine safely.
- Always wear safety glasses or eye shields during operation or while performing an adjustment or repair to protect your eyes from foreign objects that may be thrown from the cultivator.
- 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.
- Exercise caution to avoid slipping or falling.
- Never operate the cultivator without proper guards, plates, or other safety protective devices in place.
- Never operate the cultivator at high transport speeds on slippery surfaces. Look behind and use care when backing.
- Never allow bystanders near the cultivator.
- Keep children and pets away while operating.
- Never operate the cultivator without good visibility or light.
- Do not run the engine indoors. The exhaust fumes are dangerous, containing CARBON MONOXIDE, an ODORLESS and DEADLY GAS.
- Take all possible precautions when leaving the cultivator unattended. Stop the engine.
- Do not overload the cultivator capacity by attempting to till too deep at too fast a rate.

#### SAFE STORAGE

- Always refer to the owner's manual instructions for important details if the cultivator is to be stored for an extended period.
- Never store the cultivator with fuel in the fuel tank inside a building where ignition sources are present such as water and space heaters, clothes dryers, and the like. Allow the engine to cool before storing in any enclosure.
- Keep the cultivator in safe working condition. Check all fasteners at frequent intervals for proper tightness.

#### REPAIR/ADJUSTMENTS SAFETY

- After striking a foreign object, stop the engine. Remove the wire from the spark plug, and keep the wire away from the plug to prevent accidental starting. Thoroughly inspect the cultivator for any damage, and repair the damage before restarting and operating it.
- If cultivator should start to vibrate abnormally, stop engine and check immediately for the cause. Vibration is generally a warning of trouble.
- Stop the engine whenever you leave the operating position. Also, disconnect the spark plug wire before unclogging the tines and when making any repairs, adjustments, or inspections.
- When cleaning, repairing, or inspecting, shut off the engine and make certain all moving parts have stopped.
- Never attempt to make any adjustments while the engine is running except when specifically recommended by the manufacturer.

**⚠ WARNING:** The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

**⚠ 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 spark arrester is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply

on federal lands. A spark arrester/muffler is available through your nearest Craftsman Authorized Service Center (See REPAIR PARTS section in this manual).

**Parts packed separately in carton (not shown full size)**



- 1 - 5.3 Ounce 2-cycle Oil
- 1 - Owner's Manual (not shown)

**ASSEMBLY**

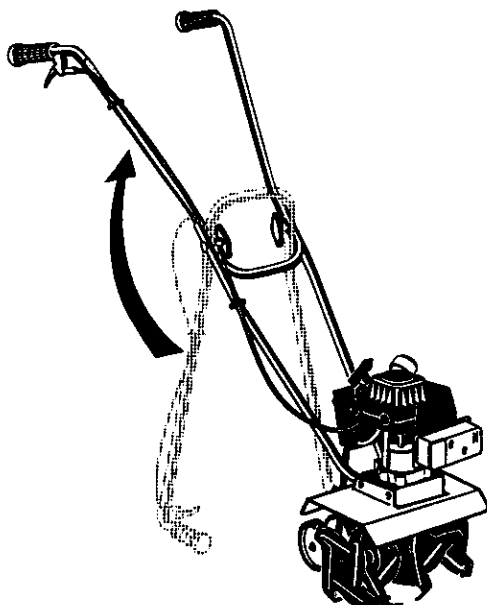
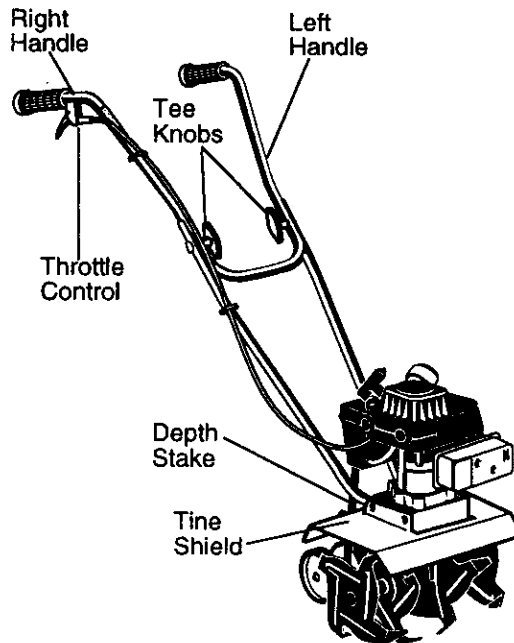
**⚠ CAUTION:** Always wear safety glasses or eye shields while assembling the Craftsman cultivator.

The figure to the right shows the cultivator completely assembled.

References to the right or left hand side of the cultivator are from the viewpoint of the operator's position behind the unit.

**TO REMOVE CULTIVATOR FROM CARTON**

- Remove packing insert from carton.
- Lift the cultivator out of the carton and place on a hard level surface.
- Loosen tee knobs. Tilt the cultivator forward and rotate upper handle to the upright position, making sure the throttle is not caught between the handles. Then tighten the tee knobs. See figure below.
- Tighten the handle hardware by holding the curved head carriage bolt against the outside of the lower handle while tightening the tee knobs securely.



**✓ CHECKLIST**

Before you operate and enjoy your new CRAFTSMAN CULTIVATOR, to ensure that you receive the best performance and satisfaction from this quality product, please review the following checklist:

- ✓ All assembly instructions have been completed.
- ✓ No loose parts in carton.
- ✓ All fasteners have been properly tightened.

While learning how to use your CRAFTSMAN CULTIVATOR, pay extra attention to the following important items:

- ✓✓ Fuel tank is filled with correct gasoline and oil mixture.
- ✓✓ Become familiar with the location and function of all controls. Operate controls before starting engine.

## OPERATION

### KNOW YOUR CULTIVATOR

READ THIS OWNER'S MANUAL AND SAFETY RULES **BEFORE** OPERATING YOUR CRAFTSMAN CULTIVATOR. Compare the illustrations with your cultivator to familiarize yourself with the location of various controls and adjustments. Save this manual for future reference.

Choke Off



Half Choke



Full Choke



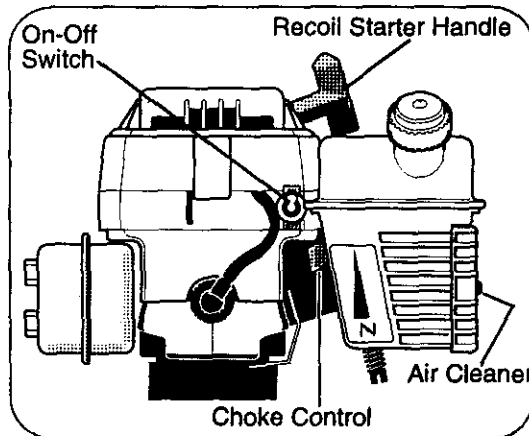
Stop

Right Side Upper Handle

Left Side Upper Handle

Left Side Lower Handle

Throttle Control



Right Side Lower Handle

Fuel Tank

Depth Stake/  
Transport Wheels  
Assembly

Tine Shield

Depth Rod/  
Transport  
Wheels  
Assembly

Tines

**Throttle Control** – Controls the engine speed and the tine rotation. This cultivator is equipped with a centrifugal clutch that engages the tine drive system when the engine speed is increased.

**Choke Control Lever** – Used to assist in starting a cold engine.

**On-Off Switch** – ON - Allows the unit to be started. OFF - Stops the engine and keeps the unit from being started.

**Recoil Starter Handle** – The engine on this cultivator is equipped with an easy pull recoil starter.

**Depth Stake or Depth Rod/Transport Wheels Assembly** – Used (with wheels up) when cultivating to adjust the depth of the cut. It also acts as a brake to help the operator control the direction and speed of the unit.

The depth stake or depth rod/transport wheel assembly (with wheels down) can be used for transporting the unit.

## HOW TO USE YOUR CULTIVATOR

**⚠ WARNING:** The operation of this cultivator can result in foreign objects being thrown into the eyes, which can cause severe eye damage. Always wear safety glasses or eye shields while operating the unit.

We recommend standard safety glasses or Wide Vision Safety Mask for over your glasses.

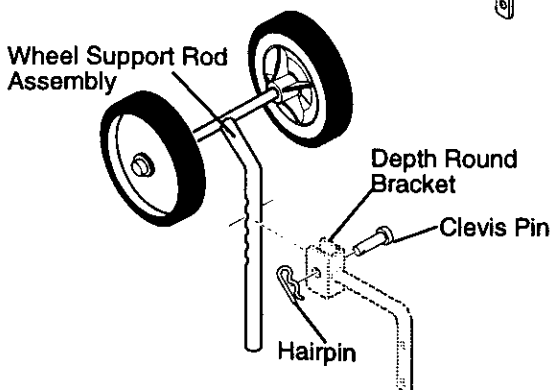
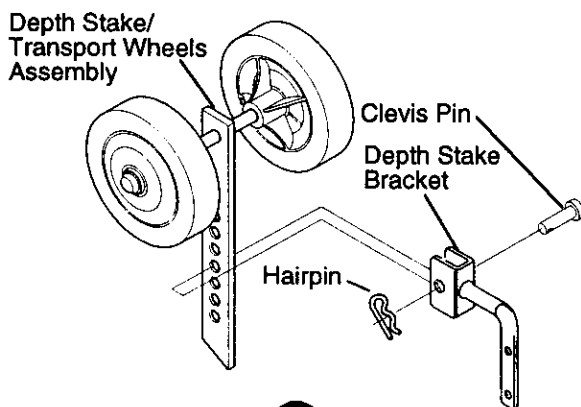
### TO STOP CULTIVATOR

- Release the throttle control to stop the tines.
- Move the on-off switch on the engine to the OFF position.

### OPERATE CULTIVATOR

Set the depth stake or depth rod/transport wheels assembly to the desired tilling position as follows:

- Remove the hairpin from the clevis pin securing the depth stake or depth rod. Remove the clevis pin and adjust the depth stake or depth rod upward to dig shallower or downward to dig deeper. Reinstall the clevis pin and hairpin.



- Start the engine, tilt the unit back on the depth stake or depth rod until the tines are off the ground and squeeze the

throttle control all the way up against the hand grip. The engine is governor controlled and should be run at full throttle.

- Grasp the handles firmly and slowly tilt the unit forward to begin the tilling action.
- As the tines begin to make contact with the ground, hold back on the handles so that the tines will dig and not ride forward over the ground. Hold back until the tines dig into the soil.
- If the tilled depth is too deep or too shallow, turn off the engine and reset the depth stake or depth rod.
- If depth stake or depth rod is not controlling forward action, lower the depth stake or depth rod. If the unit is not going forward, raise the depth stake or depth rod.

**⚠ CAUTION:** Keep away from the rotating tines. Rotating tines can cause injury.

### BEFORE STARTING ENGINE

#### FILL GAS

The two cycle engine used on this cultivator requires a mixture of gasoline and oil for lubrication of the bearings and other moving parts. The correct fuel mixture ratio is 24:1 (see Fuel Mixture Chart). Gasoline and oil must be premixed in a clean gasoline container. Always use fresh, clean unleaded gasoline.

**⚠ CAUTION:** Gasoline is flammable and caution must be used when handling or storing it. Do not fill fuel tank while cultivator is running, hot, or when it is in an enclosed area. Keep fuel away from open flame and electrical spark. **DO NOT SMOKE** while mixing fuel or filling the fuel tank. Never fill fuel tank completely, but fill it to within 1/4 - 1/2 inch from the top to provide space for expansion of fuel. Always fill fuel tank outdoors and use a funnel or spout to prevent spilling. Make sure to wipe up any spilled fuel before starting the engine.

Store gasoline in a clean, approved container, and keep the cap in place on the container. Keep gasoline in a cool, well-ventilated place, never indoors. To assure volatility, never buy more than a 30 day supply of gasoline. Gasoline is intended to be used as a fuel for internal combustion engines; therefore, do not use gasoline for any other purpose. Since many children

like the smell of gasoline, keep it out of their reach because the fumes are dangerous to inhale, as well as being explosive.

**⚠ 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 for 30 days or longer. Drain the gas tank, start the engine and let it run until the fuel lines and carburetor are empty. Use fresh fuel next season. See Storage Instructions for additional information. Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.

### GASOLINE AND OIL MIXTURE

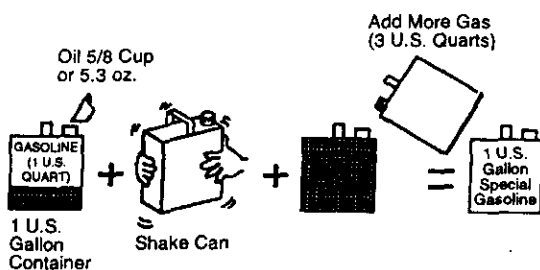
Mix gasoline and oil 24:1 as follows:

- Pour 1 U.S. quart of fresh, clean, unleaded automotive gasoline into a gallon gasoline container.
- Add 5.3 oz. (found in carton) of clean, high quality SAE 30 or SAE 40 two-cycle oil into the gasoline container.

**IMPORTANT:** DO NOT use Outboard Motor Oil or Multi-Viscosity Oils, such as 10W-30 or 10W-40.

- Reinstall the cap on the gasoline container and shake container vigorously so the oil mixes with the gasoline.
- Add an additional 3 U.S. quarts of gasoline to the gallon container and shake the container again.
- This completes the special gasoline mixing procedure. It can now be poured into the cultivator fuel tank.

**IMPORTANT:** DO NOT fill fuel tank with gasoline that does not have oil mixed in it. Do not use gasoline additives because the engine may be damaged. Shake the gasoline container before each filling of the fuel tank.



### FUEL MIXTURE CHART (Mixture 24:1)

U. S.		S. I. (METRIC)	
GAS	OIL	GAS	OIL
1 Gal.	5.3 oz.	4 Liters	.167 L
2 Gal.	11 oz.	8 Liters	.333 L
5 Gal.	27 oz.	20 Liters	.833 L

### TO START THE ENGINE

Before starting the engine, be sure you have read and understood all the instructions on the preceding pages.

- Fill the fuel tank to 1/2 inch below the bottom of the fill neck with fresh fuel mix and reinstall the fuel tank cap securely. Never use fuel that may be stale from long periods of storage.
- Move the on-off switch to the ON position.
- Move the choke control (see figure, page 5) to the FULL CHOKE position (all the way down).

**NOTE:** A warm engine should not require choking.

- Tilt the cultivator back on the depth stake or transport wheels to raise the tines off the ground.
- Grasp the upper handle firmly to stabilize the cultivator.
- Move shut-off toggle switch to ON.
- Move choke lever to FULL CHOKE position.
- Grasp starter handle and pull slowly until you feel drag.
- Return starter handle slowly to original position.
- Pull handle with rapid, full arm strokes until engine starts.
- When engine starts, move choke lever to HALF CHOKE position.
- When engine runs smoothly, move choke lever to NO CHOKE position.

**NOTE:** If the tines do not stop when the throttle control is released, adjust the carburetor idle speed as instructed in Carburetor Adjustment paragraph in the Service/Adjustments section on page 11.

- To stop the engine, release the throttle control and move the on-off switch to the OFF position.

- If the engine becomes flooded, see the Spark Plug Maintenance paragraph in the **Maintenance** section of this manual. Then pull the starter rope with the choke lever in the NO CHOKE position.

**⚠ CAUTION:** The muffler and surrounding areas become hot after running the engine. Avoid these areas.

### CULTIVATING HINTS

- Tilling is digging in, turning over and breaking up packed soil before planting. Loose unpacked soil helps root growth. Best tilling depth is 4 to 6 inches. A tiller will also clear the soil of unwanted vegetation. The decomposition of this vegetation 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.
- Avoid tilling soil that is too dry as it will pulverize and produce a dust that will not hold water. Also, tilling soil that is too wet will be hard on the machine and produce unsatisfactory clods.
- Better growth will be obtained in tilled ground if a relatively small area is tilled properly and the tilled ground is used soon after tilling to preserve the moisture content.
- The depth stake (on the back of the cultivator) serves a dual purpose (see figure, page 6). It helps regulate the depth of the cut to a uniform level and also acts as a brake to help the operator control the speed of the cultivator.
- Lowering the depth stake will slow the cultivator and make it till deeper. Raising the depth bar will allow it to move faster and till more shallow.
- If the cultivator stops forward motion and tries to dig deeper than necessary, move the handles from side to side to start forward motion.
- Cultivating is loosening or digging around growing plants which allows the plants to flourish.

- When using the cultivator to remove weeds, it is best to cultivate no deeper than 1-1/2 inches. Cultivating deeper will only pull to the surface ungerminated weed seeds. You may want to raise the depth bar to lessen the braking action.
- When cultivating around plants or close areas, you may want to remove the outside tines (see Tine Replacement paragraph in the **Service/Adjustments** section of this manual).

### ⚠ CAUTION:

- Read the Owner's manual.
- Know location and functions of all controls.
- Keep all safety devices and shields in place.
- Never allow children or uninstructed adults to operate cultivator.
- Shut off engine before unclogging tines or making repairs.
- Keep bystanders away from machine.
- Keep away from rotating parts and tines. They can cause injury.

### PRODUCT SPECIFICATIONS

MODEL NO.	536.292510 536.292520
DATE CODE:	
DATE OF PURCHASE:	
HORSE POWER:	2 HP
DISPLACEMENT:	3.0 cu. in. (49.2 cc)
GASOLINE CAPACITY:	20 oz.
FUEL/OIL MIX RATIO: (Use Unleaded Regular)	24:1 Gas To Oil 5.3 Oz. Oil/ 1 Gal. Gas
SPARK PLUG :	Champion (Gap .035 in.) RCJ -8Y
IDLE RPM:	1700-3000



# MAINTENANCE

## CUSTOMER RESPONSIBILITIES

SERVICE RECORDS  Fill in dates as you complete regular service	SCHEDULE						SERVICE DATES					
	Before Each Use	After first 2 Hours	Every 25 Hours	Every 75 Hours	Before Storage	Before Each Season						
Tighten All Screws and Nuts	✓	✓										
Lubricate Tine Shaft			✓		✓							
Lubricate Transmission			✓			✓						
Check Spark Plug			✓		✓							
Clean and Re-Oil Air Cleaner Filter			✓		✓							
Cylinder Exhaust Ports				✓								
Drain Fuel					✓							

## GENERAL RECOMMENDATIONS

The warranty on this cultivator does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, the operator must maintain the cultivator as instructed in this manual. The above chart is provided to assist the operator in properly maintaining the cultivator.

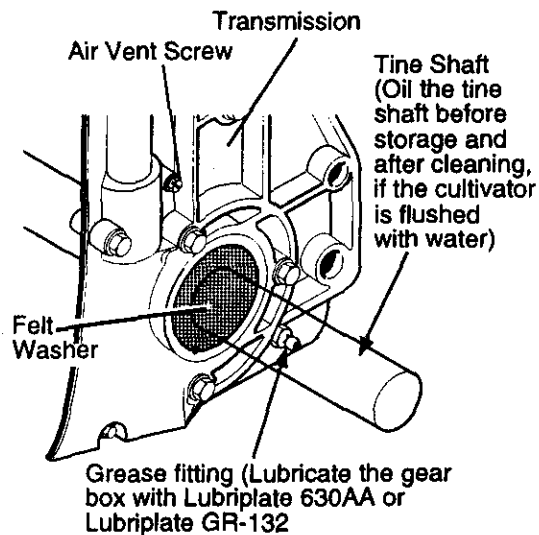
## LUBRICATION

Every 25 hours and/or at the beginning of each season, the gear box should be filled with lubricant. Tubes of gear lubricant are available from most automotive supply stores. Use portable tool grease such as Lubriplate 630AA (Product No. 06787, 1-3/4 oz. tube) or Lubriplate GR-132 (Product No. 15892, 10 oz. tube). The tine shaft should have oil applied to it before storage and after it is cleaned by flushing it with water. The illustration to the right is provided to assist the operator in properly maintaining the cultivator.

**CAUTION:** Allow the transmission to cool before filling with grease.

- Remove both left side tines. See **Service and Adjustments** section in this manual.
- Remove the air vent screw from the top left side of the transmission.
- Using a grease gun, fill the transmission through the grease fitting until the new grease begins to come out of the air vent screw hole.

- Reinstall the air vent screw.
- Check the condition of the felt washer in the side of the transmission at the tine shaft. Replace the felt washer if it is damaged (see **Repair Parts** section in this manual).
- Clean tine shaft and spread a few drops of oil on shaft in tine replacement areas. Reinstall the tines.
- Remove the right side tines. Check the felt washer for damage, clean and oil the tine shaft. Reinstall the tines.



**View of Left Side With Tines Removed**

## ENGINE

### SPARK PLUG MAINTENANCE

If the engine is flooded, clean the area around the spark plug base to prevent foreign material from entering the cylinders when the plug is removed. Remove and dry the spark plug. Regap the electrodes to .035 " if necessary. If a new spark plug is needed, refer to the Product Specifications chart in this manual for the proper replacement. Tighten the spark plug firmly. If a torque wrench is available, torque the spark plug to 15 foot-pounds.

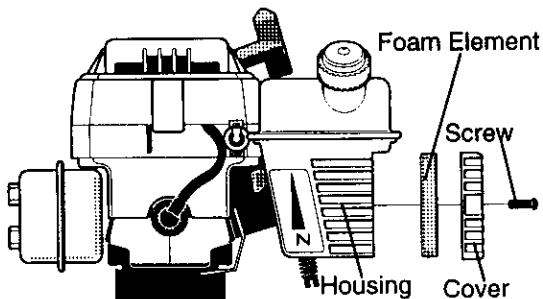
### AIR CLEANER MAINTENANCE

The air cleaner filter should be cleaned and re-oiled after every 25 hours of use. Clean more often under dusty conditions.

**IMPORTANT:** The engine can be worn out in a very short period of time if dirt or grit is allowed to enter the engine.

To clean the air filter, do the following:

- Loosen screws on air cleaner cover and remove the cover.
- Remove foam element from air cleaner.



- Wipe inside of air cleaner housing clean.
- Clean foam element by washing in strong solution of water and household detergent. Rinse thoroughly in clean water.
- Wrap foam element in clean cloth and squeeze out (do not twist) all the liquid until dry.
- Cover the ends and side of the foam element with same oil used in fuel mixture. Knead the foam element between fingers to distribute oil and remove excess oil.
- Reinstall foam element in air cleaner housing.
- Service foam element carefully. Inspect for deterioration or damage. A defective, improperly serviced, or mistakenly assembled air filter will allow dirt particles to enter the engine.

- Reassemble the filter. Place the cover on the air cleaner housing and tighten screws to secure cover to the housing.

**⚠ CAUTION:** Never run engine without air cleaner element installed. A defective air cleaner can result in loss of engine power and cause excessive wear or damage to engine components if dirt or dust is permitted to enter the engine through the carburetor. An air cleaner that is clogged with dust or dirt should be cleaned and re-oiled.

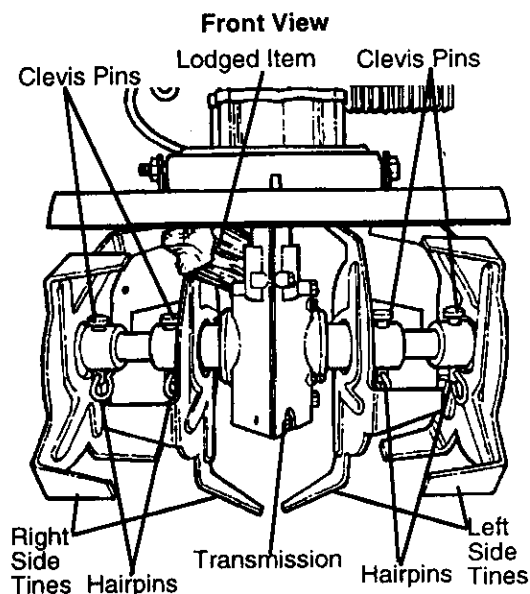
### CYLINDER EXHAUST PORTS

The cylinder exhaust ports should be cleaned after each seventy-five (75) to one hundred (100) hours of operation. For this procedure we recommend that you take your unit to a Craftsman Service Center.

### CLEANING

Always remove the dirt and debris from the cultivator after each use. Remove any string, wire or vegetation that may become lodged in the mechanism and stop the tine rotation. Proceed as follows:

- Release the throttle control and move the on-off switch to the OFF position, then disconnect the spark plug wire.
- Remove the hairpin and clevis pin securing the tine(s) assembly to the shaft and remove the tine(s).
- Remove the lodged material. Reassemble the tine(s) on the shaft and secure with a clevis pin and hairpin.
- Reconnect the spark plug wire and restart the engine.



## SERVICE AND ADJUSTMENTS

### TINE REPLACEMENT

The cultivator is left hand or right hand as viewed from the operator's position behind the unit.

All four tines on this unit are different and cannot be interchanged. The tines must be properly installed as shown in figures to the right or the cultivator will not function properly.

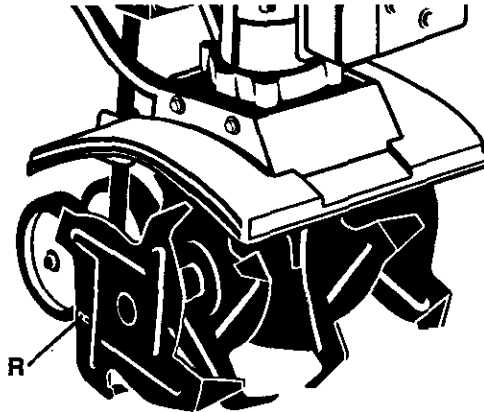
For working close around plants or in small areas, the outside tines may be removed to reduce the tilling width to about 7 inches. To reinstall the outside tines see below.

**CAUTION:** The tines are self sharpening and will become quite sharp from use. Handle carefully.

The tines will all wear fairly evenly. If the tines are being replaced because of wear, we recommend that all four tines be replaced at the same time. To replace the tines, do the following:

- Place the on-off switch to the OFF position and disconnect the spark plug wire.
- While wearing gloves, remove the hairpins and the clevis pins from the tines on one side of the unit and then remove the tines. See figure, previous page.
- Clean the tine shaft and oil it at the tine locations.
- Place the inside tine on the tine shaft and reinstall the clevis pin and hairpin.
- When the tines are properly installed, the letter R will be visible on the outside of the right-hand tine (the letter L on the left-hand tine). The letter should appear opposite the small hole in the side of the tine.
- Place the outside tine on the tine shaft and reinstall the clevis pin and hairpin.
- The outside tine cutting tips will all bend in toward the inside tine. The letter R on the right side or L on the left side should be visible from the outside of the unit.
- Repeat the above steps on the opposite side of the unit.
- Check to make sure the tines are installed on correct side of the unit.

Properly Installed Right Side Tines



Right Side Indicator

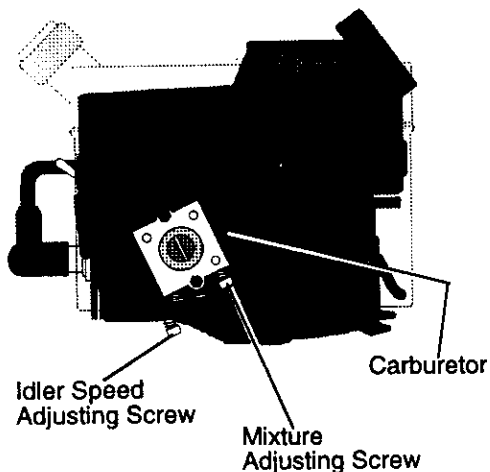
### CARBURETOR ADJUSTMENT

A dirty air cleaner will cause the engine to run improperly and/or smoke excessively. Be sure the air cleaner is clean before adjusting the carburetor. Never make unnecessary adjustments to the carburetor. The carburetor was set at the factory to operate efficiently under most applications. However, if adjustments are required, we recommend you contact your nearest Craftsman Service Center. If you feel that you are competent to make carburetor adjustment proceed as follows:

**CAUTION:** Use extreme care when making adjustments that require the engine to be running. Keep hands, feet, hair and loose clothing away from any moving part.

- Turn the mixture adjustment screw clockwise to close.
- IMPORTANT:** Tighten the adjusting screw with your fingers to prevent damage to the carburetor or adjusting screw.
- Turn the mixture screw counterclockwise open one (1) turn.
- Start the engine and let it warm up approximately 3 to 5 minutes. Do not adjust the carburetor when the engine is cold.
- If the engine falters or stops after the choke lever is moved to the CHOKE OFF position, open the mixture adjusting screw an additional 1/8 turn counterclockwise.
- With the engine running, release the throttle control (idle position) to make the mixture adjustments. Then perform the following:

- Turn the mixture adjusting screw slowly clockwise until the engine falters. Note this location.
- Turn the mixture adjusting screw slowly counterclockwise until the engine starts to sputter. Note this location.
- Turn the mixture adjusting screw clockwise until it is halfway between the first position where the engine faltered and the second position where the engine started to sputter.
- The idle speed may need to be adjusted after making the mixture adjustment. If the tines do not turn when the engine is running and the throttle control is released, the idle speed will not need adjusting. If the tines turn when the throttle control is released, do the following:
  - Have someone tilt the cultivator back on its depth stake so that the tines are off the ground.
  - Start the engine.
  - With the throttle in the released (idle) position, turn the idle speed adjusting screw counterclockwise until the tines stop rotating.



Engine Shown With Air Cleaner Removed

**⚠ CAUTION:** Never tamper with the engine governor which is factory set for proper engine speed. Over-speeding the engine above the factory set high speed can be dangerous. If you think the engine-governed high speed needs adjusting, contact your nearest Craftsman Service Center.

## STORAGE

**⚠ CAUTION:** Never store engine with fuel in tank indoors or in enclosed, poorly ventilated areas where fuel fumes may reach an open flame, spark or pilot light as on a furnace, water heater, clothes dryer, etc.

**NOTE:** The cultivator should be immediately prepared for storage at the end of the season or if the unit will not be used for 30 days or more.

### CULTIVATOR

- Thoroughly clean the cultivator. Remove all dirt and debris from the engine and unit.
- Remove the tines, oil the tine shaft and reinstall the tines (see **Service and Adjustments** section in this manual).
- Loosen the tee knobs that secure the upper handle to the lower handle.
- Carefully fold the upper handle down, making sure the throttle is not kinked. Tighten the tee knobs.

- The cross piece of the upper handle (between the lower handles) can now be used as a carry handle or can be hooked over a wall hook to store the cultivator up off the floor and out of the way.
- If possible, store your cultivator indoors and cover it to give protection from dust and dirt.
- Cover the cultivator with a suitable protective cover that does not retain moisture. Do not use plastic.

**IMPORTANT:** Never cover the cultivator while the engine and exhaust areas are still warm.

**NOTE:** A yearly checkup or tune-up by a Craftsman Service Center is a good way to ensure that your cultivator will provide maximum performance for the next season.

## ENGINE

**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.

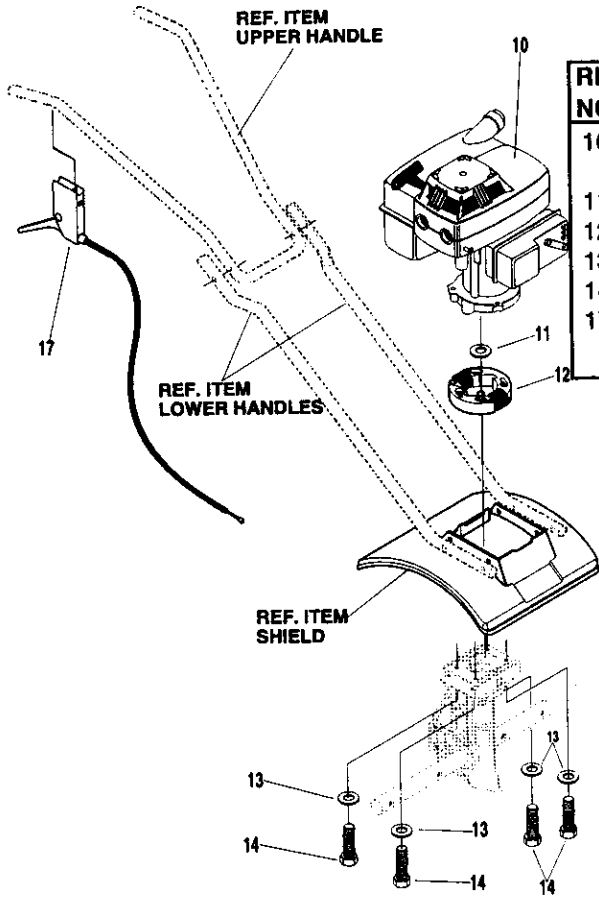
- Drain the fuel from the fuel tank into an approved container outdoors, away from open flame.
- Start and run the engine until it stops due to lack of fuel.
- Pull the starter handle slowly until you feel resistance due to compression pressure, then stop.
- Release the starter tension slowly to prevent the engine from reversing due to compression pressure. This position will close both the intake and exhaust ports to prevent corrosion of the piston and cylinder bore.

## TROUBLE SHOOTING

TROUBLE	CAUSE	CORRECTION
Difficult starting  or	Stale fuel mixture	Drain fuel tank. Fill with fresh mixture.
	Too much oil in mixture	Check fuel mix chart and mix fresh fuel.
Engine runs erratically  or	Dirt in fuel tank or out of fuel	Clean fuel tank. Fuel tank should be half full when starting engine.
	Carburetor out of adjustment	See Carburetor Adjustment section.
Engine will not run at full speed	Fouled spark plug	Clean and re-gap plug.
	Plugged air cleaner	Clean and re-oil air cleaner.
Engine speed does not increase properly	Debris interfering with throttle linkage	Blow dirt and debris off top of carburetor.
Engine smokes excessively	Plugged air cleaner	Clean and re-oil air cleaner.
	Too much oil in fuel mixture	Check fuel mix chart and mix fresh fuel.
Tines continue to rotate when throttle control is released	Carburetor out of adjustment	Adjust carburetor idle speed. See <b>Carburetor Adjustment</b> in <b>Service and Adjustments</b> section of this manual.
Tines will not turn	Foreign object lodged in tine	Remove lodged item. See <b>Cleaning</b> in the <b>Maintenance</b> section of this manual.
Unit does not till properly	Incorrect tine installation	Check the tines for proper installation. See the <b>Tine Replacement</b> in the <b>Service and Adjustments</b> section of this manual.

**CRAFTSMAN 10" -2 H.P. CULTIVATOR 536.292510/536.292520**

**ENGINE ASSEMBLY**



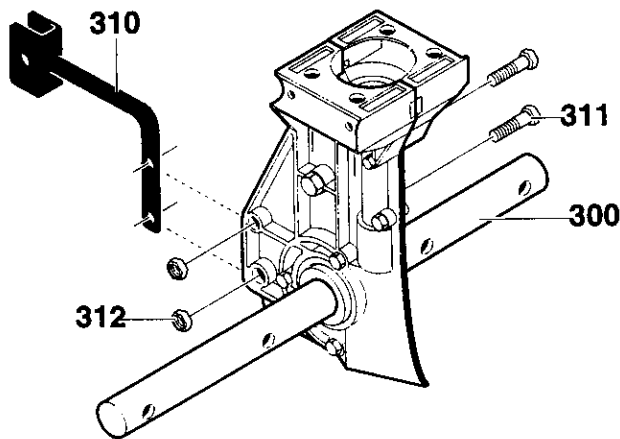
REF. NO.	PART NO.	PART NAME
10	ENGINE	2 HP 143.982070 (See Engine pages)
11	56694	Flatwasher, .378x1.25x.06 Ht
12	335350	Rotor
13	120380	Washer, Regsptlk .263x.49x.07
14	180042	Screw, 1/4-20x1.75
17	319306	Cable, Throttle
	712452	Owner's Manual

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**All unnumbered items are interchangeable with opposite side**

**Note: Always use original equipment parts. Use of service/replacement parts other than original parts may void your warranty.**

**TRANSMISSION ASSEMBLY**

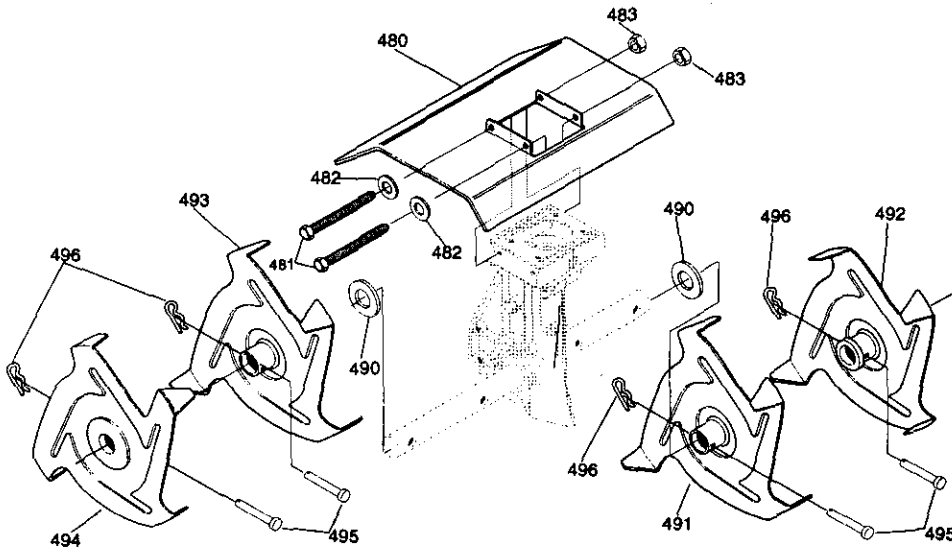


REF. NO.	PART NO.	PART NAME
300	740061	Transmission Assy.
310	340550	Bracket, Assy Depth Flat Bar
310	340549	Bracket, Assy Depth Round Bar
311	180024	Screw, 1/4-20x1.25
312	782585	Nut, 1/4-20 Reghexctrlk

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**CRAFTSMAN 10" - 2 H.P. CULTIVATOR 536.292510/536.292520**

**TINE SHIELD ASSEMBLY**

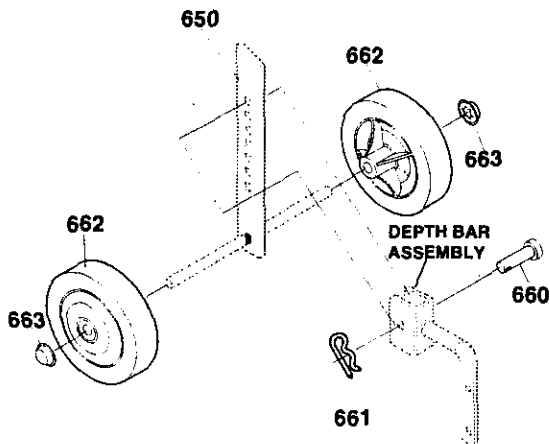


REF. NO.	PART NO.	PART NAME
480	309073-848	Tine Shield
481	273869	Screw, 1/4-20x5.00
482	120392	Flatwasher .281x.63x.065
483	46931	Nut, 1/4-20 Wdfl Lock
490	56158	Felt Washer .68x1.46x.12
491	56157-853	Tine, Assy Inner LH

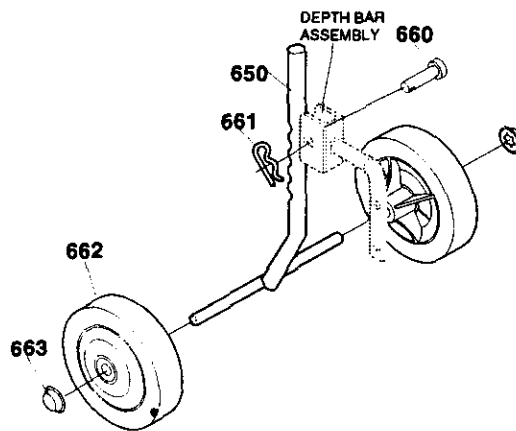
REF. NO.	PART NO.	PART NAME
492	56155-853	Tine, Assy Outer LH
493	56156-853	Tine, Assy Inner RH
494	56154-853	Tine, Assy Outer RH
495	56123	Clevis Pin .31x1.38
496	56180	Hair Pin .091Diax1.62Lg

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**FLAT BAR ASSEMBLY**



**ROUND BAR ASSEMBLY**



REF. NO.	PART NO.	PART NAME
650	330799-853	Wheel Supt Assy Drag Stake
660	333635	Clevis Pin .321x.75
661	56180	Hair Pin .091Diax1.62Lg
662	339277	Tire & Rim
663	73664	Nut, Push On 3/8"

REF. NO.	PART NO.	PART NAME
650	331282	Wheel Suppt Assy Rod
660	333635	Clevis Pin .321x.75
661	56180	Hair Pin .091Diax1.62Lg
662	339277	Tire & Rim
663	73664	Nut, Push On 3/8"

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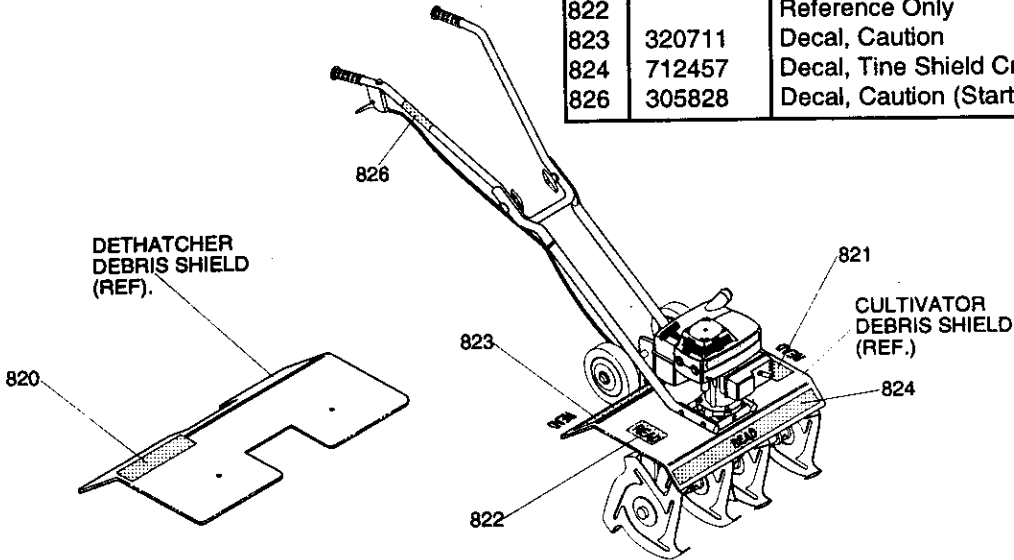
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## CRAFTSMAN 10" - 2 H.P. CULTIVATOR 536.292510/536.252520

### DECALS

REF. NO.	PART NO.	PART NAME
822		Reference Only
823	320711	Decal, Caution
824	712457	Decal, Tine Shield Craftsman
826	305828	Decal, Caution (Starting Inst)

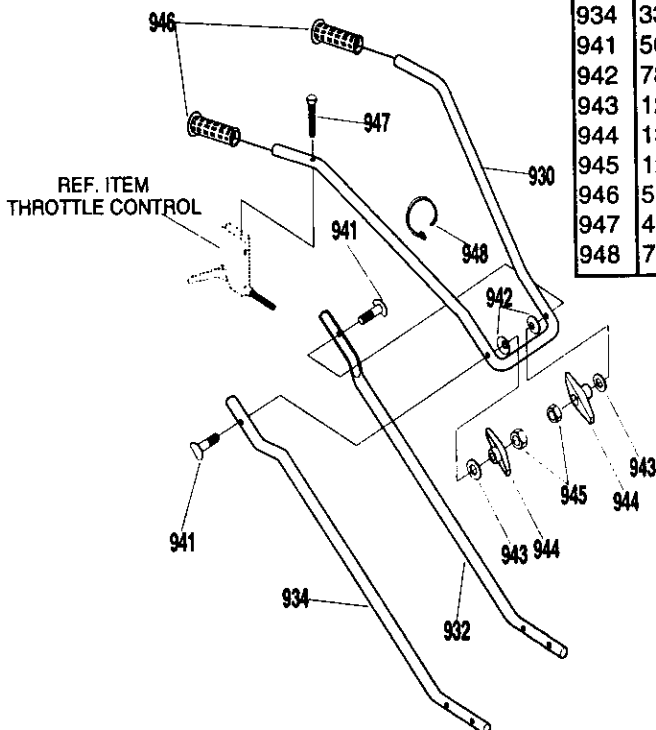
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### HANDLE ASSEMBLY

REF. NO.	PART NO.	PART NAME
930	56237-853	Upper Handle
932	339398-853	Lower Handle, LH
934	339399-853	Lower Handle, RH
941	56199	Carr. Bolt, 5/16-18x1.63
942	783000	Formed Washer
943	120393	Flatwasher .344x.69x.065
944	13527	T Knob, 2/Blade w/516/18
945	120376	Nut, 5/16-18 Reghex
946	56778	Hand Grip
947	426635	Screw, 10-16x1.50 Tap
948	712267	Cable Tie

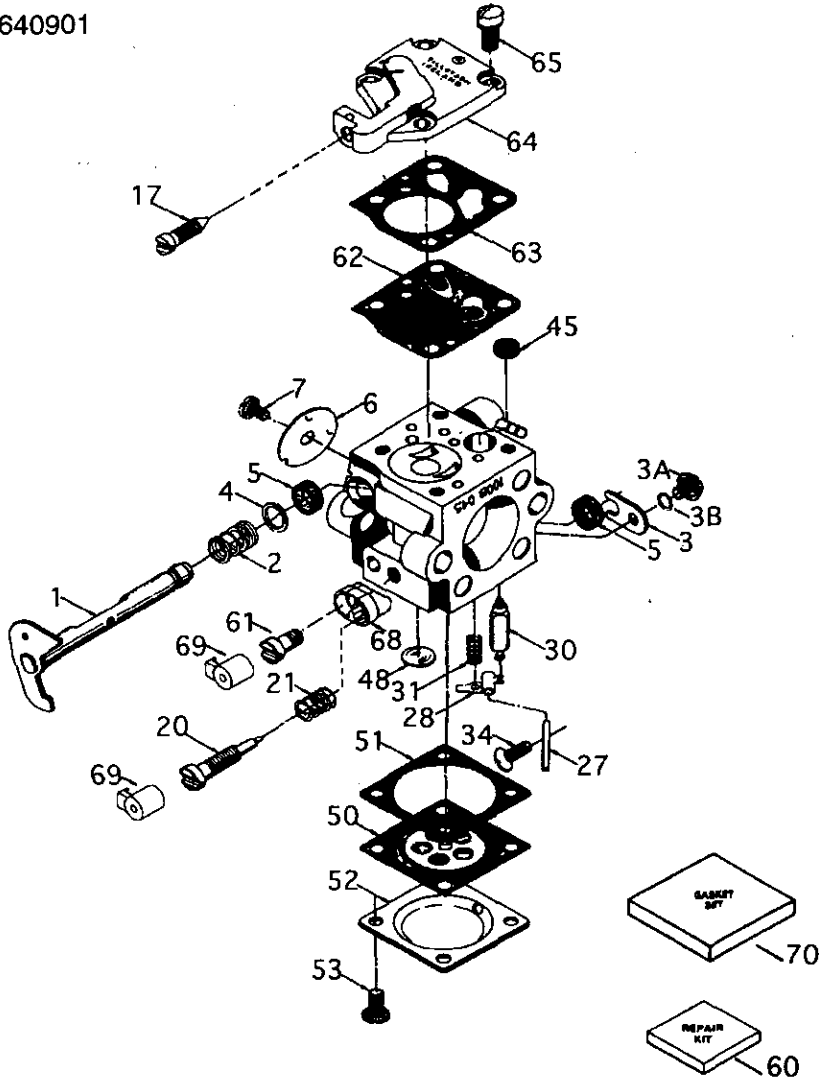
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# CRAFTSMAN 2-CYCLE ENGINE MODEL NUMBER: 143.982070

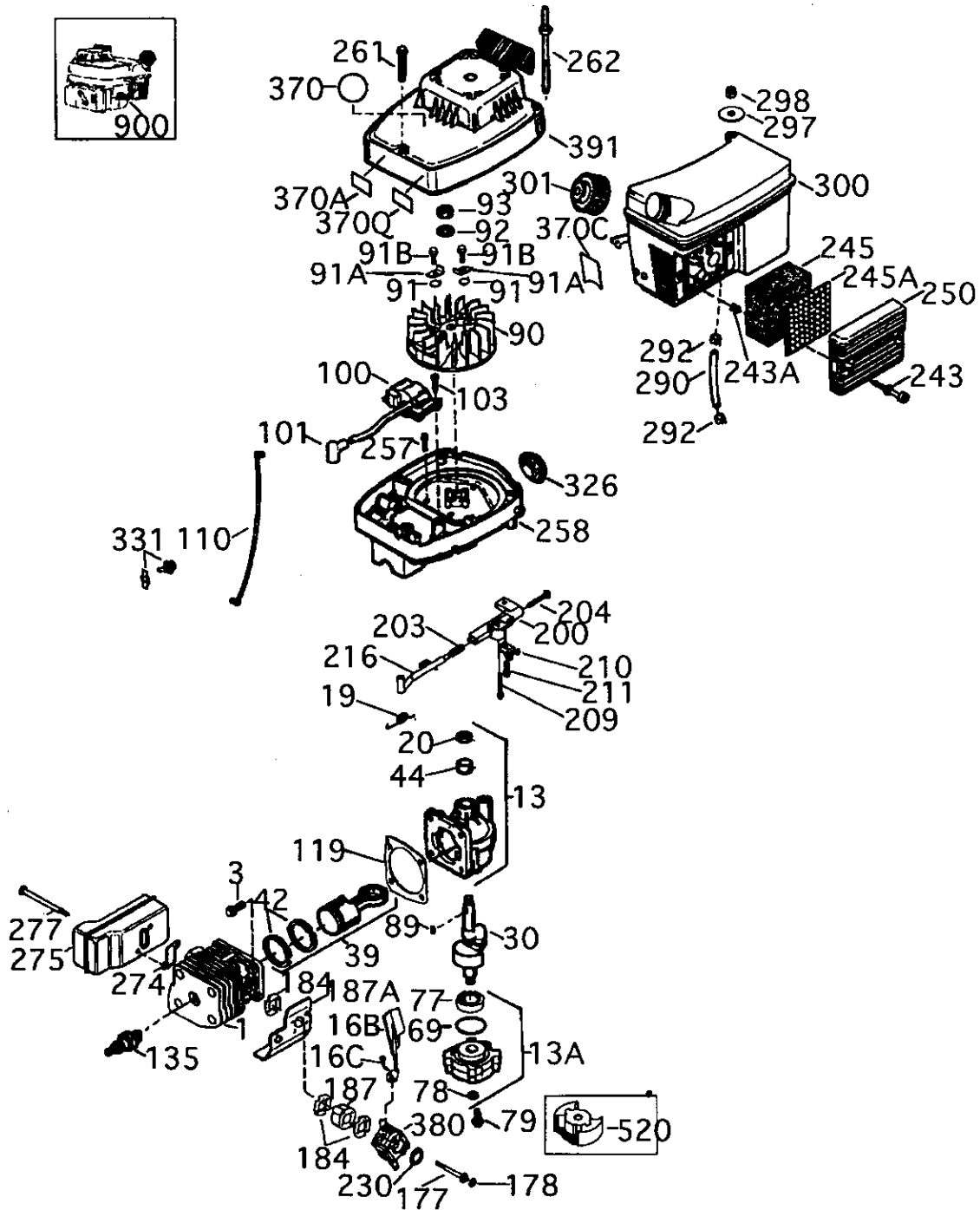
Carburetor No. 640901



REF. NO.	PART NO.	PART NAME
	640901	Carburetor (Incl. 184 of Engine Parts List)
1	632954	Throttle Shaft & Lever Ass'y.
2	632928	Throttle Return Spring
3	632926	Dust Seal Retainer
3A	632950	Dust Seal Retainer Screw
3B	632949	Spacer
4	632939A	Dust Seal Washer
5	632929A	Dust Seal
6	632930	Throttle Shutter
7	632931	Throttle Shutter Screw
17	632946	Idle Speed Screw
20	640908	Idle Mixture Screw
21	640904	Idle Tension Spring
27	632916	Hinge Pin
28	632915	* Metering Lever
30	632918	* Inlet Needle
31	632920	Metering Lever Spring
34	632917	Metering Lever Pin Screw
45	632919	* Fuel Inlet Screen

REF. NO.	PART NO.	PART NAME
48	632902	* Welch Plug
50	632904	* Diaphragm (Included in 60 & 70)
51	632903	* Cover Gasket (Included in 60 & 70)
52	632905	Cover
53	632906	Cover Screw
60	632933	Repair Kit (Incl. items marked * in notes)
61	640909	Module Clamp Screw
62	632908	* Pump Diaphragm (Included in 60 & 70)
63	632907	* Pump Gasket (Included in 60 & 70)
64	632988	Pump Cover
65	632945	Pump Cover Screw
68	640906	Adjustment Limiter Module
69	640907	Adjustment Limiter Cap
70	632934	Diaphragm/Gasket Set (Incl. 50, 51, 62 & 63)

**CRAFTSMAN 2-CYCLE ENGINE MODEL NUMBER: 143.982070**



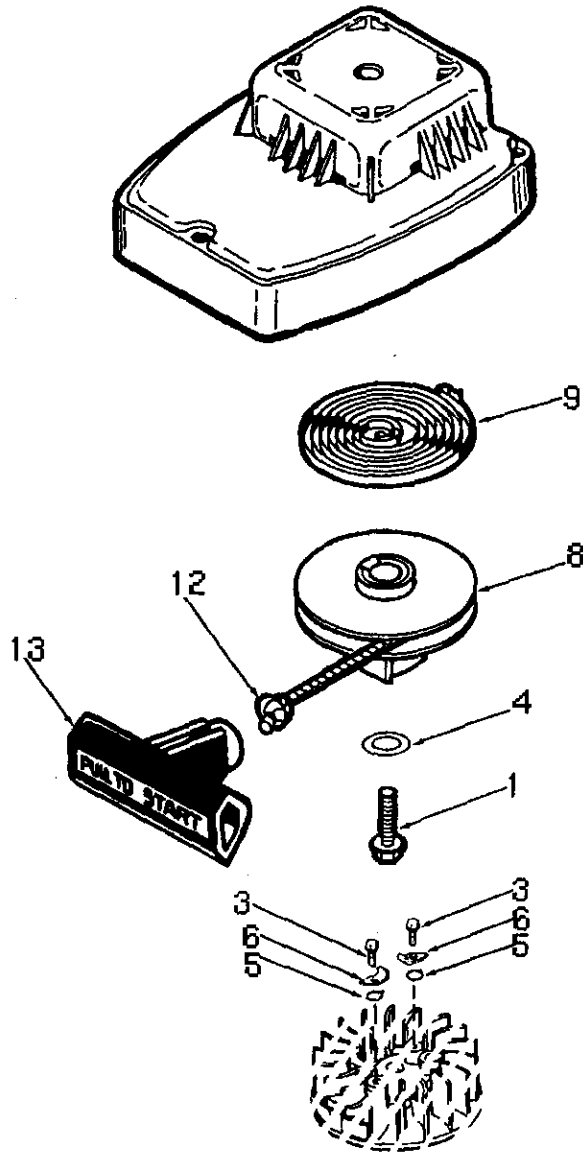
## CRAFTSMAN 2-CYCLE ENGINE MODEL NUMBER: 143.982070

REF. NO.	PART NO.	PART NAME
1	250303	Cylinder (Incl. 119,184,187&187A)
3	650888	Screw, Torx T-30, 4-20 x 43/64"
13	270288A	Crankcase Ass'y. (Incl. 20 & 44)
13 A	270298	Crankcase Cover Ass'y.
16 B	490324	Air Vane
16 C	650986	Screw, Torx T-8, 3-48 x 7/32"
19	570716	Governor Spring
20	510328	Oil Seal
30	290664	Crankshaft
39	310285A	Piston & Rod Ass'y. (Incl. 42)
42	310275	Ring Set
44	530163	Cartridge Bearing
69	510348	"O" Ring
77	530110	Ball Bearing
78	510319	Oil Seal
79	650844	Screw, 1/4-20 x 3/4"
89	611054	Flywheel Key
90	611180	Flywheel
91	590691	Pawl Spring
91 A	590692	Starter Pawl
91 B	650985	Screw, 12-24 x 11/64"
92	650848	Belleville Washer
93	650849	Flywheel Nut
100	611056	Solid State Ignition (Incl. 101)
101	610118	Spark Plug Cover
103	651007	Screw, Torx T-15, 10-24 x 15/16"
110	611135	Ground Wire
119	510349	Cylinder Head Gasket
135	611049	Resistor Spark Plug (RCJ8Y)
177	650858	Carburetor Mounting Stud
178	650580	Lock Nut, 10-24
184	510327B	Carburetor Gasket
187	570648A	Spacer
187 A	570698A	Air Baffle
200	570700	Speed Control Body
203	570701	Compression Spring
204	651042	Screw, T-15, 8-32 x 1"
209	651042	Screw, T-15, 8-32 x 1"
210	27793	Conduit Clip
211	651047	Screw, T-15 10-24x21/32"
216	570712	R.P.M. Adjusting Lever
230	570649A	"O" Ring
243	650955	Screw, 10-32 x 29/32"
243 A	650964	Thread Insert
245	450252	Air Cleaner Filter

REF. NO.	PART NO.	PART NAME
245 A	450255	Air Cleaner Filter
250	450253	Air Cleaner Cover
257	650867	Screw, 10-24 x 1/2"
258	350435	Blower Housing Base
261	650850	Screw, 8-32 x 1-9/16"
262	650939	Stud
274	510347	Exhaust Gasket
275	390322	Muffler (Incl. 274 & 277)
277	650938	Screw, 1/4-20 x 2.409"
290	410246A	Fuel Line
292	410253	Fuel Line Clamp
297	27261	Washer
298	650954	Locknut, 8-32
300	410277A	Fuel Tank (Incl. 290, 292, 298,301&370C) Fuel Cap
301	410280	Fuel Cap
326	570659	Blower Housing Plug
331	610650B	Toggle Switch
370	550228	Instruction Decal
370 A	35977	Caution Decal
370 C	550239	Choke Decal
370Q	550247	Emissions Decal
380	640901	Carburetor (Incl. 184)
391	590690	Rewind Starter & Housing Ass'y.
520		Clutch (Supplied by OEM)
900		Replacement engine 710580, order from 71-999
900		Replacement S/B 710542B, order from 71-999

**CRAFTSMAN 2-CYCLE ENGINE MODEL NUMBER: 143.982070**

Starter No. 590690



REF NO.	PART NO.	PART NAME
	590690	Rewind Starter & Housing Ass'y.
1	650987	Retainer Screw, 10-24 x 1-3/8"
3	650985	Pawl Screw, 12-24 x 11/64"
4	650147	Washer
5	590691	Pawl Spring
6	590692	Pawl
8	590693	Pulley
9	590562	Rewind Spring
12	590639	Starter Rope (#4 rope, 71" long)
13	590452	Starter Handle

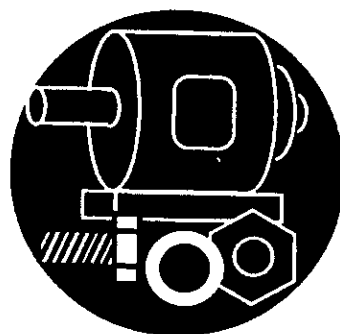


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- Part Description

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