**Owner's Manual** 

# **CRAFTSMAN®** 6.5 HORSEPOWER 22" EZ MULCH POWER PROPELLED ROTARY LAWN MOWER

Model No. 917.377431

- Safety
- Assembly
- Operation
- Maintenance
- Español
- Repair Parts

## **CAUTION:**

Read and follow all Safety Rules and Instructions before operating this equipment Sears, Roebuck and Co., Hoffman Estates, IL 60179 Visit our Craftsman website: www.sears.com/craftsman

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## WARRANTY

#### LIMITED TWO YEAR WARRANTY ON CRAFTSMAN POWER MOWER

For two years from date of purchase, when this Craftsman Lawn Mower 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.

If this Craftsman Lawn Mower is used for commercial or rental purposes, this warranty applies for only 90 days from the date of purchase.

This Warranty does not cover:

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

Warranty service is available by returning the Craftsman power mower to the nearest Sears Service Center/Department in the United States. This warranty applies only while this product is in use in the United States.

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

#### SEARS, ROEBUCK AND CO., D/817 WA, HOFFMAN ESTATES, ILLINOIS 60179

## SAFETY RULES

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

#### **TRAINING:**

- Read this operator's manual carefully. Become familiar with the controls and know how to operate your mower property. Learn how to quickly stop mower.
- Do not allow children to use your mower. Never allow adults to use mower without proper instructions.
- Keep the area of operation clear of all persons, especially small children and pets.
- Use mower only as the manufacturer intended and as described in this manual.

- Do not operate mower if it has been dropped or damaged in any manner. Always have damage repaired before using your mower.
- Do not use accessory attachments that are not recommended by the manufacturer. Use of such attachments may be hazardous.
- The blade turns when the engine is running.

#### **PREPARATION:**

- Always thoroughly check the area to be mowed and clear it of all stones, sticks, wires, bones, and other foreign objects. These objects will be thrown by the blade and can cause severe injury.
- Always wear safety glasses or eye shields when starting and while using your mower.

- Dress properly. Do not operate mower when barefoot or wearing open sandals. Wear only solid shoes with good traction when mowing.
- Check fuel tank before starting engine. Do not fill gas tank indoors, when the engine is running or when the engine is hot. Allow the engine to cool for several minutes before filling the gas tank. Clean off any spilled gasoline before starting the engine.
- Always make wheel height adjustments before starting your mower. Never attempt to do this while the engine is running.
- Mow only in daylight or good artificial light.

#### **OPERATION:**

- Keep your eyes and mind on your mower and the area being cut. Do not let other interests distract you.
- Do not mow wet or slippery grass. Never run while operating your mower. Always be sure of your footing — keep a firm hold on the handles and walk.
- Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.
- Always stop the engine whenever you leave or are not using your mower, or before crossing driveways, walks, roads, and any gravel—covered areas.
- Never direct discharge of material toward bystanders nor allow anyone near the mower while you are operating it.
- Before cleaning, inspecting, or repairing your mower, stop the engine and make absolutely sure the blade and all moving parts have stopped. Then disconnect the spark plug wire and keep it away from the spark plug to prevent accidental starting.
- Do not continue to run your mower if you hit a foreign object. Follow the procedure outlined above, then repair any damage before restarting and operating you mower.
- Do not change the governor settings or overspeed the engine. Engine damage or personal injury may result.
- Do not operate your mower if it vibrates abnormally. Excessive vibration is an indication of damage; stop the engine, safely check for the cause of vibration and repair as required.

- Do not run the engine indoors. Exhaust fumes are dangerous.
- Never cut grass by pulling the mower towards you. Mow across the face of slopes, never up and down or you might lose your footing. Do not mow excessively steep slopes. Use caution when operating the mower on uneven terrain or when changing directions maintain good footing.
- Never operate your mower without proper guards, plates, grass catcher or other safety devices in place.

#### MAINTENANCE AND STORAGE:

- Check the blade and the engine mounting bolts often to be sure they are tightened properly.
- Check all bolts, nuts and screws at frequent intervals for proper tightness to be sure mower is in safe working condition.
- Keep all safety devices in place and working.
- To reduce fire hazard, keep the engine free of grass, leaves or excessive grease and oil.
- Check grass catcher often for deterioration and wear and replace worn bags. Use only replacement bags that are recommended by and comply with specifications of the manufacturer of your mower.
- Always keep a sharp blade on your mower.
- Allow engine to cool before storing in any enclosure.
- Never store mower with fuel in the tank inside a building where fumes may reach an open flame or an ignition source such as a hot water heater, space heater, clothes dryer, etc.

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

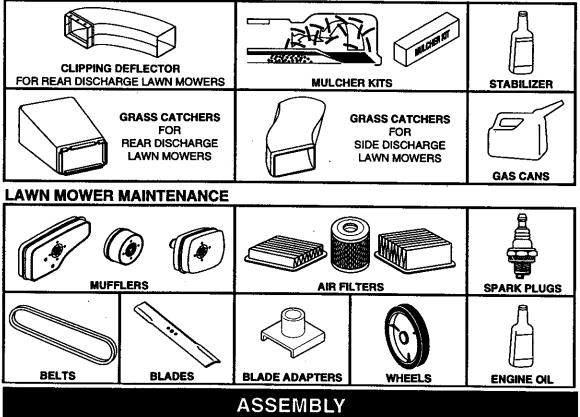
#### WARNING

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

## ACCESSORIES

These accessories were available when this lawn mower was produced. They are not shipped with your mower. They are also available at most Sears retail outlets and service centers. Most Sears stores can also order repair parts for you, when you provide the model number of your lawn mower. Some of these accessories may not apply to your lawn mower.

#### LAWN MOWER PERFORMANCE



Read these instructions and this manual in its entirety before you attempt to assemble or operate your new lawn mower.

**IMPORTANT:** This lawn mower is shipped WITHOUT OIL OR GASOLINE in the engine.

Your new lawn mower has been assembled at the factory with the exception of those parts left unassembled for shipping purposes. To ensure safe and proper operation of your lawn mower, all parts and hardware you assemble must be tightened securely. Use the correct tools as necessary to ensure proper tightness. All parts such as nuts, washers, bolts, etc., necessary to complete the assembly have been placed in the parts bag.

#### TO REMOVE LAWN MOWER FROM CARTON

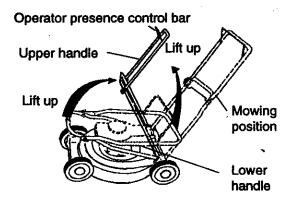
- Remove loose parts included with mower.
- Cut down two end corners of carton and lay end panel down flat.
- Remove all packing materials except padding between upper and lower handle and padding holding operator presence control bar to upper handle.
- Roll lawn mower out of carton and check carton thoroughly for additional loose parts.

# HOW TO SET UP YOUR LAWN

#### **TO UNFOLD HANDLE**

**IMPORTANT:** Unfold handle carefully so as not to pinch or damage control cables.

- Raise handles until lower handle section locks into place in mowing position.
- Remove protective padding, raise upper handle section into place on lower handle and tighten both handle knobs.
- Remove handle padding holding operator presence control bar to upper handle.
- Your lawn mower handle can be adjusted for your mowing comfort. Refer to "Adjust Handle" in the Service and Adjustment section of this manual.



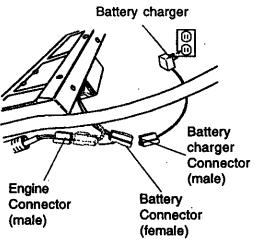
#### **TO PREPARE BATTERY**

**NOTE:** Your battery must be charged before you can start your lawn mower.

- Disconnect engine battery connector (male) from battery connector (female)
- Connect battery charger connector (male) to battery connector (female).
- Plug battery charger into 110 volt A.C. outlet.
- Leave battery charger connected for 24 hours before starting your engine for the first time.
- After charging, connect engine connector (male) to battery connector (female).
   Your engine has an integral alternator for partial charging. Connect your battery charger to charge battery as required.
   IMPORTANT: THE ENGINE
   ALTERNATOR WILL NOT CHARGE A
   DISCHARGED BATTERY.

At the end of the mowing season the battery should be charged for 48 hours to protect the battery during winter storage.

**CAUTION:** Always disconnect the engine connector (male) from the battery connector (female) to prevent accidental starting when transporting or storing your lawn mower after the season.

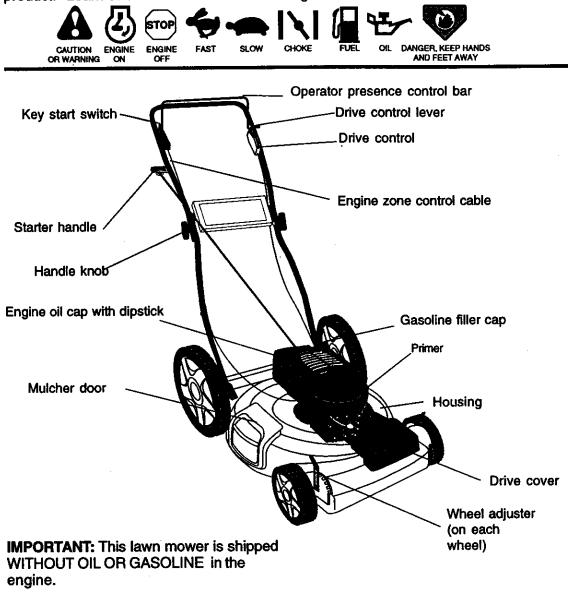


### **OPERATION**

#### KNOW YOUR LAWN MOWER

READ THIS OWNER'S MANUALAND SAFETY RULES BEFORE OPERATING YOUR LAWN MOWER. Compare the illustrations with your lawn mower to familiarize yourself with the location of various controls and adjustments. Save this manual for future reference.

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



#### MEETS CPSC SAFETY REQUIREMENTS

Sears rotary walk-behind power lawn mowers conform to the safety standards of the American National Standards Institute and the U.S. Consumer Product Safety Commission. The blade turns when the engine is running.

<b>Operator presence control bar -</b> must be held down to the handle to start the engine. Release to stop the engine.	Key start switch - used for starting engine. Starter handle - used for starting the engine. Drive control lever - used to engage power-
Primer - pumps additional fuel from the carburetor to the cylinder for use when starting a cold engine.	propelled forward motion of lawn mower. <b>Mulcher</b> – allows conversion to discharge or bagging operation.

The operation of any lawn mower can result in foreign objects thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields while operating your lawn mower or performing any adjustments or repairs. We recommend a wide vision safety mask over spectacles or standard safety glasses.

#### HOW TO USE YOUR LAWN MOWER ENGINE SPEED CONTROL

The engine speed was set at the factory for optimum performance. Speed is not adjustable.

#### ENGINE ZONE CONTROL

**CAUTION :** Federal regulations require an engine control to be installed on this lawn mower in order to minimize the risk of blade contact injury. Do not under any circumstances attempt to defeat the function of the operator control. The blade turns when the engine is running.

 Your lawn mower is equipped with an operator presence control bar which requires the operator to be positioned behind the lawn mower handle to start and operate the lawn mower.

#### **DRIVE CONTROL**

- Self-propelling is controlled by holding the operator presence control bar down to the handle and pushing the drive control lever forward until it clicks; then release the lever.
- Forward motion will stop when the operator presence control bar is released. To stop forward motion without stopping engine, release the operator presence control bar slightly until the drive control disengages. Hold operator presence control bar down to handle to continue mowing without selfpropelling.
- To keep drive control engaged when turning corners, push down on handle and lift front wheels off ground while turning lawn mower.

Operator presence control

To engage drive control

bar

Drive control

Drive control disengaged

#### TO ADJUST CUTTING HEIGHT

- Raise wheels for low cut and lower wheels for high cut.
- Adjust cutting height to suit your requirements. Medium position is best for most lawns.
- To change cutting height, squeeze adjuster lever toward wheel. Move wheel up or down to suit your requirements. Be sure all wheels are in the same setting.

**NOTE:** Adjuster is properly positioned when plate tab inserts into hole in lever. Also, 9-position adjusters (if so equipped) allow lever to be positioned between the plate tabs.

Lower wheels for high cut





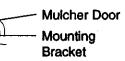
Raise wheels for low cut

**NOTE:** Your lawn mower has been shipped ready for mulching operation. To convert to discharging operation, you must install the discharge deflector attachment included with your mower.

## TO INSTALL DISCHARGING DEFLECTOR

- Lift door upward on it's hinge until the deflector frame can be hooked over the door mounting bracket as shown.
- Release the door to rest against deflector frame.
- To return to mulching operation, reverse the above steps and be sure door is in closed position.

Deflector



**CAUTION:** Do not operate your lawn mower without mulcher door in closed position, discharge deflector in place, or approved grass catcher in place.

#### **BEFORE STARTING ENGINE OIL**

Your lawn mower is shipped without oil in the engine.

- Be sure mower is level and area around oil fill is clean.
- Remove engine oil cap and fill to the full line on the dipstick.

NOTE: Allow oil to settle down into engine for accurate dipstick reading.

- Engine holds 20 ozs. of oil. For type and grade of oil to use, see "ENGINE" in Maintenance section of this manual.
- · Pour oil slowly. Do not over fill.
- Check oil level before each use. Add oil if needed. Fill to full line on dipstick.
- To read proper level, tighten engine oil cap each time.
- Reinstall engine oil cap and tighten.
- Change the oil after every 25 hours of operation or each season. You may need to change the oil more often under dusty, dirty conditions.

#### GAS

 Fill fuel tank. Use fresh, clean, regular unleaded gasoline with a minimum of 87 octane. Do not mix oil with gasoline. Purchase fuel in quantities that can be used within 30 days to assure fuel freshness.

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 fuel tank, start the engine and let it run until 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 fuel tank or permanent damage may occur.

#### **TO START ENGINE**

 To start a cold engine, push primer five (5) times before trying to start. Use a firm push. This step is not usually necessary when starting an engine which has already run for a few minutes.

- Hold operator presence control bar down to the handle and pull starter handle quickly. Do not allow starter rope to snap back.
- To stop engine, release operator presence control bar.

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

Engine oil cap



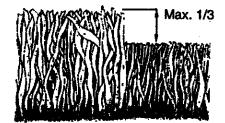
#### **MOWING TIPS**

- Under certain conditions, such as ver tall grass, it may be necessary to rais the height of cut to reduce pushing effort and to keep from overloading th engine and leaving clumps of grass clippings. It may also be necessary to reduce ground speed and/or run the lawn mower over the area a second time.
- For extremely heavy cutting, reduce t width of cut by overlapping previously cut path and mow slowly.
- For better grass bagging and most cutting conditions, the engine speed should be set in the fast position.
- For side discharge lawn mowers, cutting in a counter-clockwise direction starting at the outside of the area to b cut, spreads grass clippings more evenly and puts less load on the engine. To keep clippings off of walkways, flower beds, etc., make the first cuts in a clockwise direction.
- Pores in cloth grass catchers can become filled with dirt and dust with use and catchers will collect less gra To prevent this, regularly hose catcher off with water and let dry before using
- Keep top of engine around starter cle and clean of grass clippings and cha This will help engine air flow and extend engine life.

#### **MULCHING MOWING TIPS**

**IMPORTANT:** For best performance, keep mower housing free of built-up grass and trash. See "Cleaning" in MAINTENANCE section of this manual.

- The special mulching blade will recut the grass clippings many times and reduce them in size so that as they fall onto the lawn they will disperse into the grass and not be noticed. Also, the mulched grass will biodegrade quickly to provide nutrients for the lawn. Always mulch with your highest engine (blade) speed as this will provide the best recutting action of the blades.
- Avoid cutting your lawn when it is wet. Wet grass tends to form clumps and interferes with the mulching action. The best time to mow your lawn is the early afternoon. At this time the grass has dried and the newly cut area will not be exposed to the direct sun.
- For best results, adjust the lawn mower cutting height so that the lawn mower cuts off only the top one-third of the grass blades. If the lawn is overgrown it will be necessary to raise the height of cut to reduce pushing effort and to keep from overloading the engine and leaving clumps of mulched grass. For extremely heavy mulching, reduce your width of cut by overlapping previously cut path and mow slowly.
- Certain types of grass and grass conditions may require that an area be mulched a second time to completely hide the clippings. When doing a second cut, mow across or perpendicular to the first cut path.
- Change your cutting pattern from week to week. Mow north to south one week then change to east to west the next week. This will help prevent matting and graining of the lawn.



## MAINTENANCE

	MAINTENANCE SCHEDU FILL IN DATES AS YOU COMPLETE REGULAR SERVICE	JLE	affor	AF EAC	HUSEUSE EACH 101 EACH 101 EACH 101 EACH 101 EACH 101 EACH 101	NURS N 25ER N EVERY R EVERY	URS SON	RVICE	DATE	s
MOWER	Check for Loose Fasteners Clean/Inspect Grass Catcher (If Equipped) Clean Lawn Mower Clean Under Drive Cover (Power-Propelled Mowers) Check drive belt/pulleys (Power-Propelled Mowers) Check/Sharpen/Replace Blade Lubrication Chart Clean Battery/Recharge (Electric Start Mowers)		<b>Y</b> <b>Y</b>	✓ ✓	V V: V	× × ×				
ENGINE	Check Engine Oil Level Change Engine Oil Clean Air Filter Inspect Muffler Clean or Replace Spark Plug Replace Air Filter Paper Cartridge				V 1.2 V 2 V V V 2					

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.

3 - Replace blades more often when mowing in sandy soil.

4 - Charge 48 hours at end of season.

#### **GENERAL RECOMMENDATIONS**

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

- Once a year, replace the spark plug, clean or replace air filter element and check blade for wear. A new spark plug and clean/new air filter element assures proper air-fuel mixture and helps your engine run better and last longer.
- Follow the maintenance schedule in this manual.

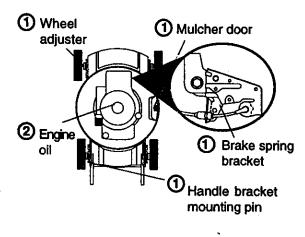
#### **BEFORE EACH USE**

- · Check engine oil level.
- Check for loose fasteners.

#### **LUBRICATION**

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

#### LUBRICATION CHART



## Spray lubricante Refer to MAINTINANCE "ENGINE" SECTION.

**IMPORTANT:** Do not oil or grease plastic wheel bearings. Viscous lubricants will attract dust and dirt that will shorten the life of the self lubricating bearings. If you feel they must be lubricated, use only a dry, powdered graphite type lubricant sparingly.

## PRODUCT SPECIFICATIONS

MODEL NUMBER	917.377431
SERIAL NUMBER	
DATE OF PURCHASE	
HORSEPOWER:	6.5
DISPLACEMENT:	11.5 CU. IN.
GASOLINE CAPACITY/TYPE:	1.25 QUARTS
	UNLEADED REGULAR
OIL TYPE (API-SF/SG/SH):	SAE 30 (ABOVE 32°F)
	SAE 5W-30 (BELOW 32°F)
OIL CAPACITY:	20 OZS.
SPARK PLUG(GAP: .030")	CHAMPION RJ19LM OR J19LM
VALVECLEARANCE:	INTAKE: .004008
	EXHAUST: .004008
SOLID STATE IGNITION	· · · · · · · · · · · · · · · · · · ·
AIR GAP:	.0125 IN.
BLADE BOLT TORQUE:	35-40 FT. LBS.
<ul> <li>The model and serial numbers will be found on a lawn mower housing.Record both serial number</li> </ul>	

provided above.

#### LAWN MOWER

Always observe safety rules when performing any maintenance.

#### TIRES

- Keep tires free of gasoline, oil, or insect control chemicals which can harm rubber.
- Avoid stumps, stones, deep ruts, sharp objects and other hazards that may cause tire damage.

#### **BLADE CARE**

For best results, mower blade must be kept sharp. Replace bent or damaged blades.

#### TO REMOVE BLADE

- Disconnect spark plug wire from spark plug and place wire where it cannot come in contact with spark plug.
- Turn lawn mower on its side. Make sure air filter and carburetor are up.
- Use a wood block between blade and mower housing to prevent blade from turning when removing blade bolt.
- Protect your hands with gloves and/or wrap blade with heavy cloth.
- Remove blade bolt by turning counterclockwise.

 Remove blade and attaching hardware (boit, lock washer and hardened washer).

**NOTE:** Remove the blade adapter and check the key inside hub of blade adapter. The key must be in good condition to work properly. Replace adapter if damaged.

#### TO REPLACE BLADE

- Position the blade adapter on the engine crankshaft. Be sure key in adapter and crankshaft keyway are aligned.
- Position blade on the blade adapter aligning the two (2) holes in the blade with the raised lugs on the adapter.
- Be sure the trailing edge of blade (opposite sharp edge) is up toward the engine.
- Install the blade bolt with the lock washer and hardened washer into blade adapter and crankshaft.
- Use block of wood between blade and lawn mower housing and tighten the blade bolt, turning clockwise.
- The recommended tightening torque is 35-40 ft. lbs.

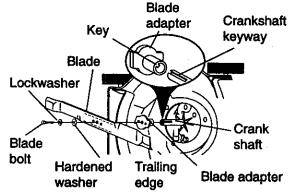
**IMPORTANT:** Blade bolt is grade 8 heat treated.

#### TO SHARPEN BLADE

**NOTE:** We do not recommend sharpening blade - but if you do, be sure the blade is balanced.

Care should be taken to keep the blade balanced. An unbalanced blade will cause eventual damage to lawn mower or engine.

- The blade can be sharpened with a file or on a grinding wheel. Do not attempt to sharpen while on the mower.
- To check blade balance, drive a nail into a beam or wall. Leave about one inch of the straight nail exposed. Place center hole of blade over the head of the nail. If blade is balanced, it should remain in a horizontal position. If either end of the blade moves downward, sharpen the heavy end until the blade is balanced.



#### **GRASS CATCHER**

(If purchased as an accessory)

- The grass catcher may be hosed with water, but must be dry when used.
- Check your grass catcher often for damage or deterioration. Through normal use it will wear. If catcher needs replacing, replace only with a manufacturer approved replacement catcher. Give the lawn mower model number when ordering.

#### **GEAR CASE**

- To keep your drive system working properly, the gear case and area around the drive should be kept clean and free of trash build-up. Clean under the drive cover twice a season.
- The gear case is filled with lubricant to the proper level at the factory. The only time the lubricant needs attention is if service has been performed on the gear case.

 If lubricant is required, use only Texaco Starplex Premium Grease, part no. 750369. Do not substitute.

#### DRIVE WHEELS

Check front drive wheels each time before you mow to be sure they move freely. The wheels not turning freely means trash, grass cuttings, etc. are in the drive wheel area and must be cleaned to free drive wheels.

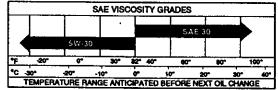
If necessary to clean the drive wheels, check both front wheels.

- Remove hubcaps, hairpin cotters and washers.
- · Remove wheels from wheel adjusters.
- Remove any trash or grass cuttings from inside the dust cover, pinion and/or drive wheel gear teeth.
- Put wheels back in place.
- If after cleaning, the drive wheels do not turn freely, contact your nearest authorized service center.

## ENGINE

#### LUBRICATION

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



**NOTE:** Although multi-viscosity oils (5W30, 10W30 etc.) improve starting in cold weather, these multi-viscosity oils will result in increased oil consumption when used above 32°F. Check your engine oil level more frequently to avoid possible engine damage from running low on oil.

Change the oil after every 25 hours of operation orat least once a year if the lawn mower 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. Tighten oil plug securely each time you check the oil level.

#### TO CHANGE ENGINE OIL

**NOTE:** Before tipping lawn mower to drain oil, drain fuel tank by running engine until fuel tank is empty.

- Disconnect spark plug wire from spark plug and place wire where it cannot come in contact with spark plug.
- Remove engine oil cap; lay aside on a clean surface.
- Tip lawn mower on its side as shown and drain oil into a suitable container. Rock lawn mower back and forth to remove any oil trapped inside of engine.
- Wipe off any spilled oil on lawn mower and on side of engine.
- Fill engine with oil. Fill only to the "FULL" line on the dipstick. DO NOT OVER FILL.
- Replace engine oil cap.
- Reconnect spark plug wire to spark plug.



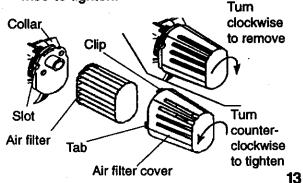
#### Container

#### **AIR FILTER**

Your engine will not run properly and may be damaged by using a dirty air filter. Replace the air filter every year, more often if you mow in very dusty, dirty conditions. Do not wash air filter.

TO CHANGE AIR FILTER

- Remove the air filter by turning clockwise to the stop and pull away from collar.
- · Remove filter from inside of cover.
- Clean the inside of the cover and the collar to remove any dirt accumulation.
- Insert new filter into cover.
- Put air filter cover and filter into collar aligning the tab with the slot.
- Push in on cover and turn counterclockwise to tighten.



#### MUFFLER

Inspect and replace corroded muffler as it could create a fire hazard and/or damage. SPARK PLUG

Change your spark plug each year to make your engine start easier and run better. Set spark plug gap at .030 inch.

#### CLEANING

**IMPORTANT:** For best performance, kip mower housing free of built-grass and trash. Clean the underside of your mower after each use.

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

- Turn lawn mower on its side. Make sure air filter and carburetor are up. Clean the underside of your lawn mower by scraping to remove build-up of grass and trash.
- Clean engine often to keep trash from accumulating. A clogged engine runs hotter and shortens engine life.
- Keep finished surfaces and wheels free of all gasoline, oil,etc.
- We do not recommend using a garden hose to clean lawn mower unless the electrical system, muffler, air filter and carburetor are covered to keep water out. Water in engine can result in shortened engine life.

#### **CLEAN UNDER DRIVE COVER**

Clean under drive cover at least twice a season. Scrape underside of cover with putty knife or similar tool to remove any build-up of trash or grass on underside of drive cover.

# **CAUTION:** Before performing any service and adjustments:

- Release control bar and stop engine.
- Make sure the blade and all moving parts have completely stopped.
- Disconnect spark plug wire from spark plug and place where it cannot come in contact with plug.

#### LAWN MOWER

#### TO ADJUST CUTTING HEIGHT

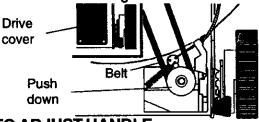
See "TO ADJUST CUTTING HEIGHT" in the Operation section of this manual. **DISCHARGE GUARD** 

The discharge guard, attached to the discharge opening of your lawn mower, is provided to prevent the possibility of injury resulting from objects being thrown out of the discharge opening into the operator mowing position. If the discharge guard becomes damaged, it should be replaced. **REAR DEFLECTOR** 

The rear deflector, attached between the rear wheels of your mower, is provided to minimize the possibility that objects will be thrown out of the rear of the mower into the operator mowing position. If the deflector becomes damaged, it should be replaced.

#### TO REMOVE/REPLACE DRIVE BELT

- Remove drive cover. Remove belt by pushing down on gear case pulley and rolling belt off it.
- Turn lawn mower on its side with carburetor and fuel cap up.
- Remove blade.
- Remove debris shield.
- Remove belt from engine pulley on crankshaft.
- Install new belt by reversing above steps.
- Always use factory approved belt to assure fit and long life.

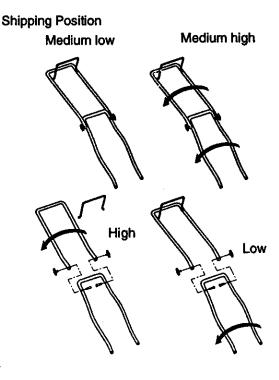


#### TO ADJUST HANDLE

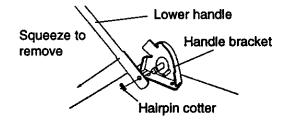
Your lawn mower handle can be raised or lowered for your mowing comfort. Four (4) positions are available: high, medium high, medium low and low. Handles are shipped mounted in the medium low position. 14

- To change from medium low to medium high position, the upper and lower handle sections will have to be turned over.
- · Remove the cable clips.
- Remove the controls and operator presence control bar from the upper handle.
- Remove the starter rope guide from the upper handle.
- Remove hairpin cotters.
- Disconnect the lower handle from the handle brackets.
- Turn the handle over and reassemble the hairpin cotters that have been removed.
- Reassemble the starter rope guide.
- Reassemble the controls and the operator presence control bar to the upper handle.

**CAUTION:** The operator presence control bar must pivot freely to permit blade/brake engagement when control bar is released. Do not overtighten the fasteners holding the controls to the upper handle.



- To change from medium low to high position only the upper handle section will have to be turned over.
- To change from medium low to low position, only the lower handle section will have to be turned over .



#### ENGINE ENGINE SPEED

Your engine speed has been factory set. Do not attempt to increase engine speed or it may result in personal injury. If you believe that engine is running too fast or too slow, take your mower to an authorized service center for repair and adjustment. **IMPORTANT:** Never tamper with the engine governor, which is factory set for the proper engine speed. Overspeeding the engine above the factory high speed scan be dangerous. If you think the engine-governed high speed needs adjusting, contact your nearest authorized service center, which has proper equipment and experience to make any necessary adjustments. CARBURETOR

Your carburetor has a non-adjustable fixed main jet for mixture control. If your engine does not operate properly due to suspected carburetor problems, take your lawn mower to an authorized service center for repair and/or adjustment.

### STORAGE

15

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

#### **LAWN MOWER**

When lawn mower is to be stored for a period of time, clean it thoroughly, remove all dirt, grease, leaves, etc. Store in a clean, dry area.

- Clean entire lawn mower (See "CLEAN-ING" in the Maintenance section of this manual).
- Lubricate as shown in the Maintenance section of this manual.
- Be sure that all nuts, bolts, screws, and pins 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.

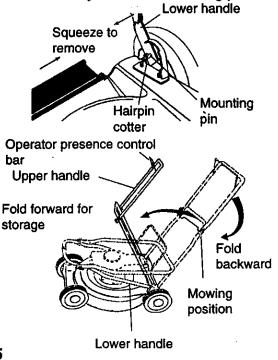
#### HANDLE

You can fold your lawn mower handle for storage.

- Squeeze the bottom ends of the lower handle toward each other until the lower handle clears the handle bracket, then move handle forward.
- Loosen upper handle mounting bolts enough to allow upper handle to be folded back.

**IMPORTANT:** When folding the handle for storage or transportation, be sure to fold the handle as shown or you may damage the control cables.

• When setting up your handle from the storage position, the lower handle will automatically lock into the mowing position.



#### ENGINE FUELSYSTEM

**IMPORTANT:** It is important to prevent gum deposits from forming in essential fuel system parts such as 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 engine oil. (See "ENGINE" in the Maintenance section of this manual).

#### CYLINDER

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

#### BATTERY

Disconnect the battery from the engine connector and charge battery 48 hours.

#### 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 mower while engine and exhaust areas are still warm.

**CAUTION:** Never store the lawn mower 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.

### **TROUBLESHOOTING CHART**

PROBLEM	С	AUSE	C	ORRECTION
Does not start	1.	Dirty air filter.	1.	Clean/replace air filter.
	2.		2.	Fill fuel tank.
	3.	Stale fuel.	3.	Drain tank and refill with
				fresh clean fuel.
	4.	Water in fuei.	4.	
				carburetor and refill tank
				with fresh gasoline.
	5.	Spark plug wire is disconnected.	5.	Connect wire to plug.
	6.	Bad spark plug.	6.	Replace spark plug.
	7.	Loose blade or broken blade	7.	Tighten blade bolt or
		adapter.		replace blade adapter.
	8.	Control bar in released	8.	Depress control bar to
		position.		handle.
	<del>9</del> .	Control bar defective.	9.	Replace control bar.
Loss of power	1.	Rear of lawn mower housing	1.	Set to "Higher Cut"
		or cutting blade dragging in heavy grass.		position.
	2.	Cutting too much grass.	2.	Set to "Higher Cut"
		- · · ·		position.
	3.	Dirty air filter.	3.	Clean/replace air filter.
	4.	Buildup of grass, leaves,	4.	Clean underside of mower
		and trash under mower.		housing.
	5.	Too much oil in engine.	5.	Check oil level.
	6.	Walking speed too fast.	6.	Cut at slower walking
				speed.
Poor cut – uneven	1.	Worn, bent or loose blade.	1.	Replace blade. Tighten
				blade bolt.
	2.	Wheel heights uneven.	2.	Set all wheels at same height
	3.	Buildup of grass, leaves	3.	
		and trash under mower.		mower housing.

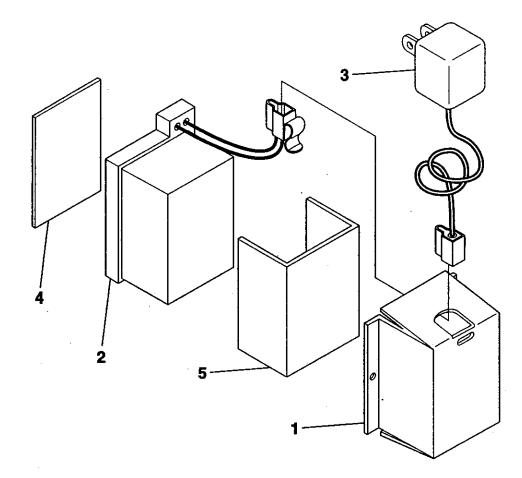
TROUBLESHOOTING CHART					
PROBLEM	CAUSE	CORRECTION			
Excessive vibration	<ol> <li>Worn, bent or loose blade.</li> <li>Bent engine crankshaft.</li> </ol>	<ol> <li>Replace blade. Tighten blade bolt.</li> <li>Contact an authorized service center.</li> </ol>			
Starter rope hard to pull	<ol> <li>Engine flywheel brake is on when control bar is released.</li> <li>Bent engine crankshaft.</li> <li>Blade adapter broken.</li> <li>Blade dragging in grass.</li> </ol>	<ol> <li>Depress control bar to upper handle before pulling starter rope.</li> <li>Contact an authorized service center.</li> <li>Replace blade adapter.</li> <li>Move lawn mower to cut grass or to hard surface</li> </ol>			
Grass catcher not filling (if so equipped)	<ol> <li>Cutting height too low.</li> <li>Lift on blade worn off.</li> <li>Catcher not venting air.</li> </ol>	<ol> <li>Raise cutting height.</li> <li>Replace blade.</li> <li>Clean grass catcher.</li> </ol>			
Hard to push	<ol> <li>Grass is too high or wheel height is too low.</li> <li>Rear of lawn mower housing or blade dragging in grass.</li> <li>Grass catcher too full.</li> <li>Handle height position not right for you.</li> </ol>	<ol> <li>Raise cutting height.</li> <li>Raise rear of lawn mower housing one (1) setting higher.</li> <li>Empty grass catcher.</li> <li>Adjust handle height to suit.</li> </ol>			

#### UDI EQUAATING CUADT

## **REPAIR PARTS**

#### ROTARY LAWN MOWER -- MODEL NO. 917.377431

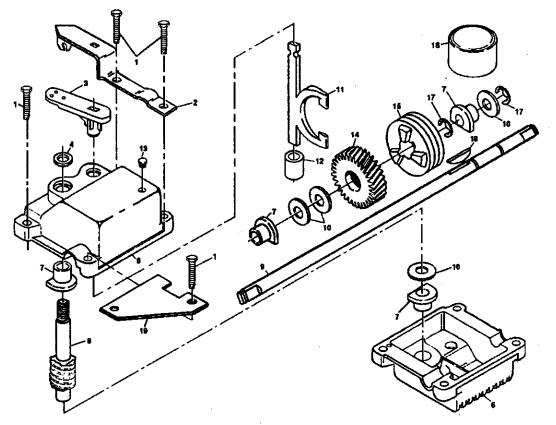
BATTERY



NO.	DESCRIPTION
87297X479	Battery Bracket
750909	Battery
111549X	Battery Charger
86649	Battery Pad
134861	Battery Wrap
	NO. 87297X479 750909 111549X

### **REPAIR PARTS**

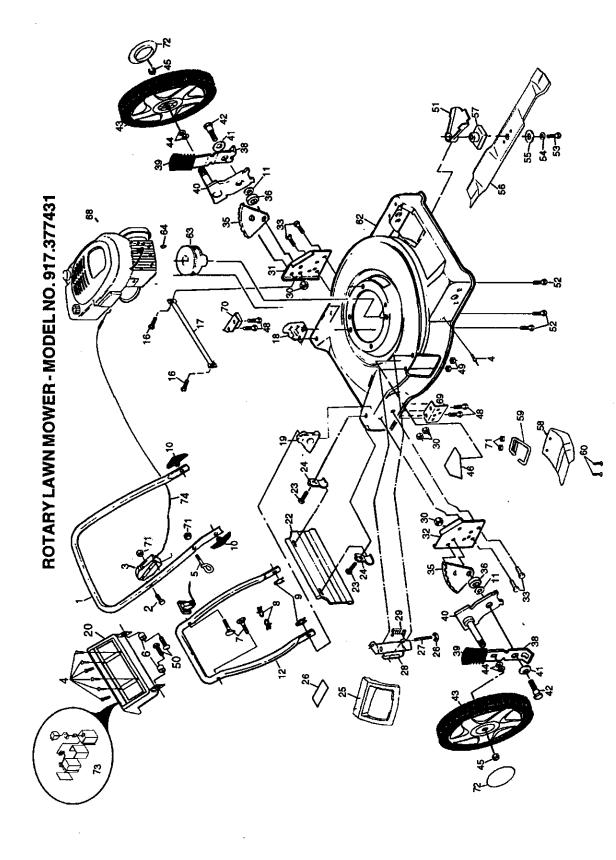
### ROTARY LAWN MOWER -- MODEL NO. 917.377431 GEAR CASE ASSEMBLY PART NUMBER 702511



KEY NO.	PART	DECORIDION
NU.	NO.	DESCRIPTION
1	17490416	Tapping Screw 1/4-20 x 1-1/4
2	137055X004	
3	137053	Shifter
4	57072	Seal
6	48373	Gear Case Halves Kit (Includes Key Nos. 4, 6, and 7)
7	77881	Bearing
8	137051	Worm Shaft
9	137074	Drive Shaft
10	57079	Hardened Washer
11	131484	Clutch Yoke
12	700343	Bushing
13	86447	Plug
14	137050	Helical Gear
15	750436X	Clutch Jaw
16	750369	Grease
17	12000003	E-Ring
18	850848	HI-Pro Key
19	81585X004	Spring Bracket

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

## **REPAIR PARTS**



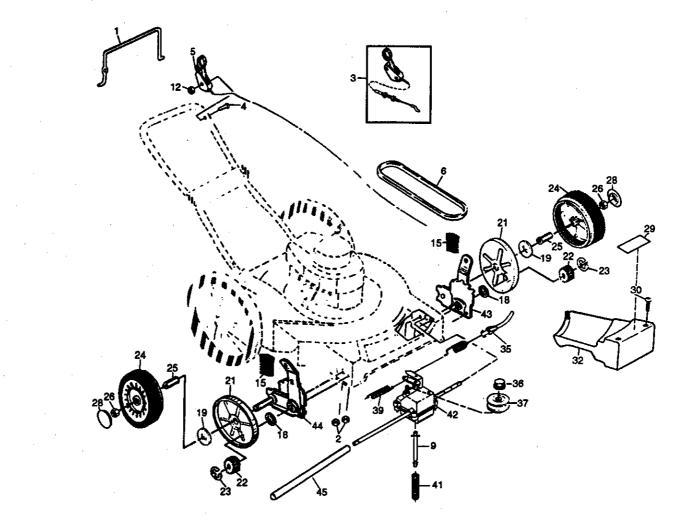
#### ROTARY LAWN MOWER - MODEL NO. 917.377431

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KEY	PART		43	151138	Wheel & Tire Assembly
NO.	NO	DESCRIPTION	44	57143	WaveWasher
	NO		45	83923	Locknut 3/18-16
	165451X479	UpperHandle	46	85463	Danger Decal
ź	144929	Screw	48	149741	Thread Cutting Screw 5/16-18 x 3/4
3	161808	Zone Control Asm. (Including Cable)	49	63601	Hex Locknut
4	36953	Screw	50	85825	Screw
5	132001	Rope Guide	51	134612	Debris Shield
6	85529	Nyion Bushing	52	150406	Hex Head Thread Rolling Screw 3/8-16
7	131959	Handle Bolt			x 1-1/8
8	66426	Wire tie	53	851084	Hex Head Screw 3/8-24 x 1-3/8 (Grd. 8)
			54	850263	Helical Lockwasher
9 '	51793	Hairpin Cotter	55	851074	Hardened Washer
10	136376	Handle Knob	56	152202	Blade 22"
11	88348	Flat Washer 3/8	57	851514	Blade Adapter
12	152653X479	Lower Handle	58	752118	Deflector
16	STD512505	Hex Tapping Screw 1/4-20 x 1/2	59	751399	Bracket, Deflector
17	165175X479	Support Rod	60	74180410	screw 1/4-20
18	151667X479	Handle Bracket Assembly (Left)	62	156516	Lawn Mower Housing (Incl. Ref. #46)
19	151665X479	Handle Bracket Assembly (Right)	63	85543	Engine Pulley
20	87295	Trim Plate	.64	87677	Hi-Pro Key #HP 505
22	140540	RearDeflector	68		Engine - (See Breakdown) Craftsman
23	750097 .	Hex Washer Head Screw #10-24 x 1/2			Model 143.996504
24	87584X004	Deflector Bracket	69	153350X479	Support Brkt Handle RH
25	151889	Discharge Guard	70	153282X479	Support Brkt Handle LH
26	152904	Decal, Mulching Door	71	63601	Locknut Keps
27	147286	Hinge Rod	72	151440	Hubcap
28	154132	Housing Bracket	73		Battery Assembly (See Battery Repair
29	152124	Torsion Spring			Parts Page)
30	751592	Locknut	74	169808	Zone Control Cable
31	700168X479	Support Bracket (Left)		161058	Warning Decal(Not Shown)
32	700166X479	Support Bracket (Right)		166938	Owner's Manual (English/Spanish)
33	STD523707	Hex Head Bolt 3/8-16x3/4		100300	Owner Strandar (English Oparish)
35	750085X007	Wheel Adjusting Bracket	<u>Availa</u>	hie accessories not	t included with lawn mower:
36	146630	Spacer	Attand		
38	700331X004	<ul> <li>Selector Spring</li> </ul>		71 33072	Grass Catcher
39	701037	Selector Knob		71 33623	Gas Can (2.5 gal.)
40	750913X004	Axle Arm Assembly		71 33500	Fuel Stabilizer
41	61651	Belleville Washer		71 33300	SAE 30W Oil (20 oz.)
42	142748	Shoulder Bolt		7133316	MowerCover
				1133310	

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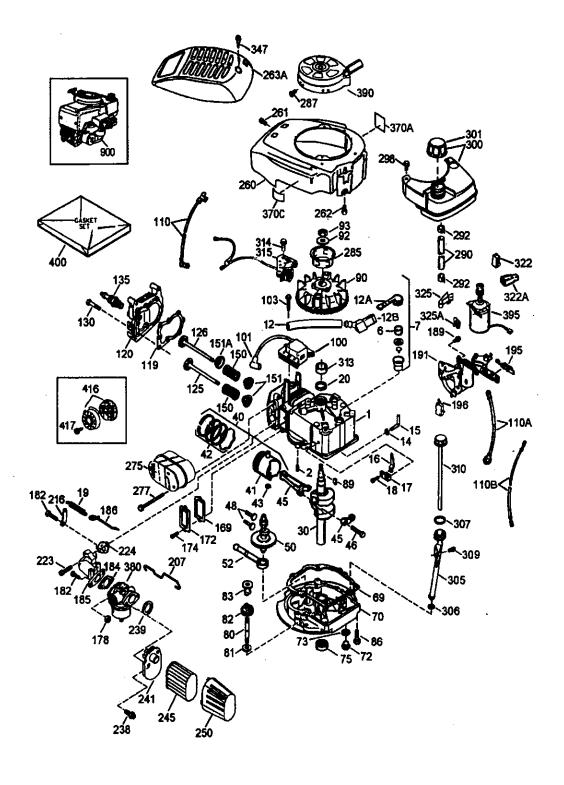
## ROTARY LAWN MOWER - MODEL NO. 917.377431



### ROTARY LAWN MOWER - MODEL NO. 917.377431

KEY PART DESCRIPTION NO. NO Control Bar 1 145793 Locknut 1/4-20 STD541425 2 #10-24 x 2-1/8 Hex Washer Head Screw 4 158755 146323 Control Cable Assembly 5 V-Belt 6 146527 Spring Retainer 9 150495 12 Locknut 1/4-20 751152 Selector Knob 15 701037 Felt Washer 18 88118 19 Washer 1/2 x 1-1/2 x .134 67725 21 22 88080 Dust Cover Pinion 137054 23 E-Ring 12000058 Wheel & Tire Assembly 24 150340 Hex Flange Locknut 26 145212 28 Hubcap 150182 29 30 Drive Cover decal 166732 Pan Head Tapping Screw #10-24 x 2-3/4 143603 Drive Cover 32 154990 36 132010 Locknut 37 39 **Drive Pulley** 137052 75192 Spring 41 Spring 137090 Gear Case Assembly (Compoete) Wheel Adjuster Assembly (Left) Wheel Adjuster Assembly (Right) 42 702511 152018 43 44 152019 **Driveshaft Cover** 45 86012

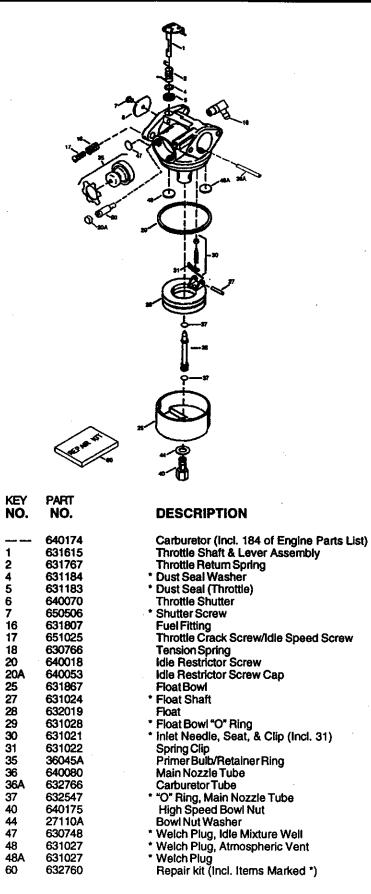
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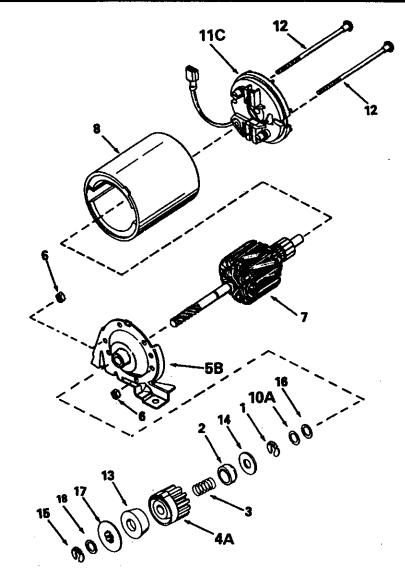


## CRAFTSMAN 4-CYCLE ENGINE

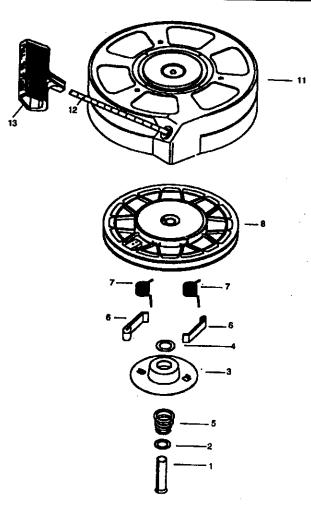
#### MODEL NUMBER 143.996504

CRA	FTSMAN 4	-CYCLE ENGINE		MODI	EL NUMBER 143.996504
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
	37266	Cylinder (Incl. 2,20 & 150)	178	29752	Nut & Lock Washer, 1/4-28
1 2	26727	Dowel Pin	182	6201	Screw, 1/4-28 x 7/8"
6	33734	Breather Element	184	26756	<ul> <li>Carburetor To Intake Pipe</li> </ul>
7	36557	Breather Ass'y. Gasket			
		(Incl. 6 & 12A)	185	36785	Intake Pipe
12	36775	BreatherTube	186	32653	Governor Link Screw, 1/4-20 x 1/2"
12A	36558	Breather Cover & Tube	189 191	650831 36559A	S.E. Brake Bracket
100	00004	(incl. 12B) Breather Tube Elbow	131	303334	(Include, 195)
12B 14	36694 28277	Washer	195	610973	Terminal
15	30589	Governor Rod (Incl. 14)	196	35035	Power Restart Switch
16	34839A	Governor Lever	207	34336	Throttle Link
17	31335	GovernorLeverClamp	216	33086	R.P.M. Adjusting Lever
18	651018	Screw, Torx	223	650451	Screw, 1/4-20 x 1*
		T-15, 8-32 x 19/64"	224	36786	<ul> <li>Intake Pipe Gasket Screw, 10-32 x 49/64</li> </ul>
19	36281	Extension Spring	238 239	650932 34338	* Air Cleaner Gasket
20 30	32600 35801	Oil Seal Crankshaft	233	36919	AirCleanerCollar
30 40	40027	Piston, Pin & Ring Set (Std.)	245	36905	Air Cleaner Filter
-0	40028	Piston, Pin & Ring Set	250	36920	Air Cleaner Cover
		(.010"OS)	260	36980	BlowerHousing
41	40025	Piston & Pin Ass'y. (Std.)	261	30200	Screw, 10-24 x 9/16
		(Incl. 43)	262	650831	Screw, 1/4-20 x 1/2"
	40026	Piston & Pin Assay.	263A	36921 36790	Starter Grill Muffler
40	40000	(.010" OS) (Incl.43)	275 277	650988	Screw, 1/4-20 x 2-5/16"
42	40006 40007	Ring Set (Std.) Ring Set (.010" OS)	285	35000A	Starter Cup
43	20381	Piston Pin Retaining Ring	287	650926	Screw, 8-32 x 21/64"
45	36777	Connecting Rod Ass'y.	290	29774	FuelLine
	00/11	(Incl. 46)	292	26460	Fuel Line Clamp
46	32610A	Connecting Rod Bolt	298	28763	Screw, 10-32 x 35/64"
48	27241	Valve Lifter	300	36916	FuelTank
50	36778	Camshaft (MCR)	301	36246	(Include. 292 & 301) Fuel Cap
52 69	29914 35261	Oil Pump Ass'y. * Mounting Flange Gasket	305	35647	Oil Fill Tube
70	34311E	Mounting Flange	306	36996	* "O"-Ring
	0.0.12	(Incl. 72 thru 83,306)	307	35499	"O"-Ring
72	30572	Oil Drain Plug (Incl. 73)	309	650562	Screw, 10-32 x 1/2"
73	28833	Drain Plug Gasket	310	35648	Dipstick
75	27897	Oil Seal	313	34080 650767	Spacer Screw, 8-32 x27/64"
80	30574A 30590A	Governor Shaft Washer	314 315	36952	Alternator Coll
81 82	30590A 30591	Governor Gear Assay.	322	35013	Connector Body
02	50501	(incl. 81)	322A	610885	Connector Body
83	30588A	Governor Spool	325	35249	Spring Clip
86	650488	Screw, 1/4-20 x 1-1/4"	325A	37152	Spring Clip
89	611004	Flywheel Key	347	651038	Screw, 10-32 x 51/64* Lubrication Decal
90	611150	Flywheel Belleville Washer	370A 370C	36261 37199	Primer Decal
92 93	650815 650816	Flywheel Nut	380	640174	Carburetor (Incl. 184)
100	34443B	Solid State Ignition	390	590739	Rewind Starter
101	610118	Spark Plug Cover	395	35709	Electric Starter Motor
103	651007	Screw, Torx T-15,			(12 Volt)
		10-24 x 15/16"	400	36792B	Gasket Set
110	37047	GroundWire			(Incl. Items Marked *)
110A		GroundWire	416	36085	Spark Arrestor Kit
1108		D.C. Starter Wire Cylinder Head Gasket	417	650821	(Incl. 417)(Optional) Screw, 10-32 x 1/2"
119 120	36787	Cylinder Head	417	000021	(Optional)
120	36825 37288	Exhaust Valve (Std.)	900	<u> </u>	Replacement Engine NONE
125	0/200	(include, 151)	900		Replacement S/B 750832,
126	37289	intake Valve (Std.) (Incl. 151)			order from 71-999
130	6021A	Screw, 5/16-18 x 1-1/2"			RPM High 2900 to 3200
135	35395	Resistor Spark Plug			
		(RJ19LM)	NOT	E: This engi	ine could have been built with
150	31672	Valve Spring		702 starter.	
151	31673	Valve Spring Cap			
151/		Intake Valve Seal <ul> <li>Valve Cover Gasket</li> </ul>		F. All	nonant dimensions siven in
169 172	36783 36784	Valve Cover Gasket	NOT		ponent dimensions given in
174	30200		43 <sup>U.S.</sup>	inches 1 in	ich = 25.4 mm
			-N		

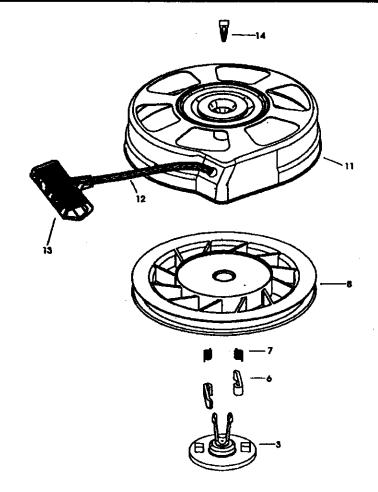




KEY	PART	DECODIDEION
NO.	NO.	DESCRIPTION
<u> </u>	35709	Electric Starter (12 Volt)
1	34955	Retainer Ring
2	34950	Spring Retainer
3	34954	Spring
4A .	34949A	Gear
5B	34953	Drive End Cap Ass'y.
6	33450	Lock Nut
7	34944	Armature
8	34945	Housing Ass'y.
10A	590500	ThrustWasher
11C	35714	Commutator End Cap Ass'y. (Incl. brushes)
12	34947	Bolt, 10-32 x 3-3/16"
13	34946	Pinion Driver
14	34951	CupWasher
15	34952	Retainer Ring
16	34948	Washer
17	34953	Drive Nut
18	590608	Washer



KEY	PART	
NO.	NO.	DESCRIPTION
	590702	Recoil Starter
1	590599A	Spring Pin (Incl. 4)
2	590600	Washer
3	590696	Retainer
4	590601	Washer
5	590697	Brake Spring
6	590698	Starter Dog
7	590699	DogSpring
8	590700	Pulley & Rewind Spring Ass'y.
11	590703	Starter Housing Ass'y. (40 degree grommet)
12	590535	Starter Rope (98" X 9/64" dia.)
13	590701	StarterHandle



KEY NO.	PART NO.	DESCRIPTION
3	590740	Retainer
6	590616	Starter Dog
7	590617	Dog Spring
8	590618A	Pulley & Rewind Spring Ass'y
11	590638	Starter Housing Ass'v (40 degree grommet)
12	590535	Starter Rope (Length 98" x 9/64" dia.)
13	590701	StarterHandle
14	590760	Spring Clip

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Para pedir servicio de reparación a domicilio 1-800-676-5811
In Canada for all your service and parts needs call Au Canada pour tout le service ou les pièces <b>1-800-665-4455</b>
For the repair or replacement parts you need: Call 6 am-11pm CST, 7 days a week
PartsDirect <sup>s</sup> M 1-900-366-DAPT (1,900,366,7079)
<b>1-800-366-PART</b> (1-800-366-7278)
Para ordenar piezas con entrega a domicilio 1-800-659-7084
For the location of a Sears Parts and Repair Center in your area:
Call 24 Hours a day, 7 days a week 1-800-488-1222
For information on purchasing a Sears Maintenance Agreement or to inquire about an existing Agreement: Call 9 am-5 pm, Monday - Saturday 1-800-827-6655
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