# Owner's Manual

# **CRAFTSMAN®**

# **ROTARY LAWN MOWER**

4.0 Horsepower20" Side Discharge

Model No. **944.365220** 



**CAUTION:** 

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

Sears Canada, Inc., Toronto, Ontario M5B 2B8

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### **WARRANTY**

### LIMITED ONE YEAR WARRANTY ON CRAFTSMAN POWER MOWER

For one year from date of purchase Sears Canada, Inc. will repair or replace at Sears option free of charge parts which are defective as a result of material or workmanship.

### COMMERCIAL OR RENTAL USE:

Warranty on Power Mower (Gas) will be ninety (90) days from date of purchase if used for commercial or rental purposes.

This Warranty does NOT cover:

- Pre-delivery set-up.
- In-home service
- 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 Centre/Department in Canada. This warranty applies only while this product is used in Canada.

This warranty is in addition to any statutory warranty and does not exclude or limit legal rights you may have but shall run concurrently with applicable provincial legislation. Furthermore, some provinces do NOT allow limitation on how long an implied warranty will last so the above limitations may not apply to you.

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### SAFETY RULES

IMPORTANT: This cutting machine is capable of amoutating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.

ALook for this symbol to point out important safety precautions. It means CAUTION!!! BECOME ALERT!!! YOUR SAFETY IS INVOLVED.

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

**A** CAUTION: Muffler and other engine parts become extremely hot during operation and remain hot after engine has stopped. To avoid severe burns on contact, stay away from these areas.



### I. GENERAL OPERATION

- · Read, understand, and follow all instructions on the machine and in the manual(s) before starting. Be thoroughly familiar with the controls and the proper use of the machine before starting.
- Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.
- Only allow responsible individuals, who are familiar with the instructions, to operate the machine.
- Clear the area of objects such as rocks, toys, wire, bones, sticks, etc., which could be picked up and thrown by blade.
- Be sure the area is clear of other people before mowing. Stop machine if anyone enters the area.
- Do not operate the mower when barefoot or wearing open sandals. Always

2 wear substantial foot wear.

- Do not pull mower backwards unless absolutely necessary. Always look down and behind before and while moving backwards.
- Never direct discharged material toward anyone. Avoid discharging material against a wall or obstruction. Material may richochet back toward the operator. Stop the blade when crossing gravel surfaces.
- Do not operate the mower without proper guards, plates, grass catcher or other safety protective devices in place.
- See manufacturer's instructions for proper operation and installation of accessories. Only use accessories approved by the manufacturer.
- Stop the blade(s) when crossing gravel drives, walks, or roads.
- Stop the engine (motor) whenever you leave the equipment, before cleaning the mower or unclogging the chute.
- Shut the engine (motor) off and wait until the blade comes to complete stop before removing grass catcher.
- Mow only in daylight or good artificial light.
- Do not operate the machine while under the influence of alcohol or drugs.
- Never operate machine in wet grass.
   Always be sure of your footing: keep a firm hold on the handle; walk, never run.
- Disengage the self-propelled mechanism or drive clutch on mowers so equipped before starting the engine.
- If the equipment should start to vibrate abnormally, stop the engine (motor) and check immediately for the cause. Vibration is generally a warning of trouble.
- Always wear safety goggles or safety glasses with side shields when operating mower.

### II. SLOPE OPERATION

Slopes are a major factor related to slip & fall accidents which can result in severe injury. All slopes require extra caution. If you feel uneasy on a slope, do not mow it. **DO:** 

- Mow across the face of slopes: never up and down. Exercise extreme caution when changing direction on slopes.
- Remove obstacles such as rocks, tree limbs, etc.
- Watch for holes, ruts, or bumps. Tall grass can hide obstacles.

### DO NOT:

 Do not trim near drop-offs, ditches or embankments. The operator could lose footing or balance.

- Do not trim excessively steep slopes.
- Do not mow on wet grass. Reduced footing could cause slipping.

### III. CHILDREN

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. *Never* assume that children will remain where you last saw them.

- Keep children out of the trimming area and under the watchful care of another responsible adult.
- Be alert and turn machine off if children enter the area.
- Before and while walking backwards, look behind and down for small children.
- Never allow children to operate the machine.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.

### IV. SAFE HANDLING OF GASOLINE

Use extreme care in handling gasoline. Gasoline is extremely flammable and the vapors are explosive.

- Extinguish all cigarettes, cigars, pipes and other sources of ignition.
- Use only an approved container.
- Never remove gas cap or add fuel with the engine running. Allow engine to cool before refueling.
- Never refuel the machine indoors.
- Never store the machine or fuel container where there is an open flame, spark or pilot light such as a water heater or on other appliances.
- Never fill containers inside a vehicle, on a truck or trailer bed with a plastic liner.
   Always place containers on the ground away from your vehicle before filling.
- Remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment with a portable container, rather than from a gasoline dispenser nozzle.
- Keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete. Do not use a nozzle lock-open device.
- If fuel is spilled on clothing, change clothing immediately.
- Never overfill fuel tank. Replace gas cap and tighten securely.

### V. GENERAL SERVICE

- Never run machine inside a closed area.
- Never make adjustments or repairs with the engine (motor) running. Disconnect the spark plug wire, and keep the wire away from the plug to prevent accidental starting.
- Keep nuts and bolts, especially blade attachment bolts, tight and keep equipment in good condition.
- Never tamper with safety devices. Check their proper operation regularly.
- Keep machine free of grass, leaves, or other debris build-up. Clean oil or fuel spillage. Allow machine to cool before storing.
- Stop and inspect the equipment if you strike an object. Repair, if necessary, before restarting.

- Never attempt to make wheel height adjustments while the engine is running.
- Grass catcher components are subject to wear, damage, and deterioration, which could expose moving parts or allow objects to be thrown. Frequently check components and replace with manufacturer's recommended parts, when necessary.
- Mower blades are sharp and can cut.
   Wrap the blade(s) or wear gloves, and use extra caution when servicing them.
- Do not change the engine governor setting or overspeed the engine.
- Maintain or replace safety and instruction labels, as necessary.

**AWARNING:** This lawn mower 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. A spark arrester for the muffler is available through your nearest Sears Service Centre (See the REPAIR PARTS section of this manual).

PRODUCT SPECIFICATIONS				
Serial Number:				
Date of Purchase:				
Gasoline Capacity / Type:	1,4 Litres (Unleaded Regular)			
Oil Capacity:	0,58 Litres			
Oil Type (API SG-SL):	SAE 30 (above 0°C/32°F); SAE 5W-30 (below 0°C/32°F)			
Spark Plug:	Champion RJ19LM (Gap: 0,76 mm)			
Blade Bolt Torque:	35-40 ft. lbs. (47-54 N-m)			
• The model and serial numbers will be found on a decal on the rear of the lawn mower housing. Record both serial number and date of purchase in space provided above.				

### **ASSEMBLY / PRE-OPERATION**

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. All parts such as nuts, washers, bolts, etc., necessary to complete the assembly have been placed in the parts bag. 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.

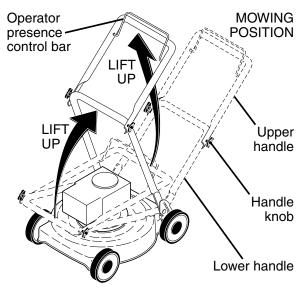
### TO REMOVE MOWER FROM CARTON

- 1. Remove loose parts included with mower.
- 2. 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 MOWER TO UNFOLD HANDLE

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

- 1. 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 "AD-JUST HANDLE" in the Service and Adjustments section of this manual.



### **OPERATION**

### **KNOW YOUR LAWN MOWER**

READ THIS OWNER'S MANUAL AND ALL 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.

















CAUTION OR WARNING

ENGINE ON

ENGINE OFF

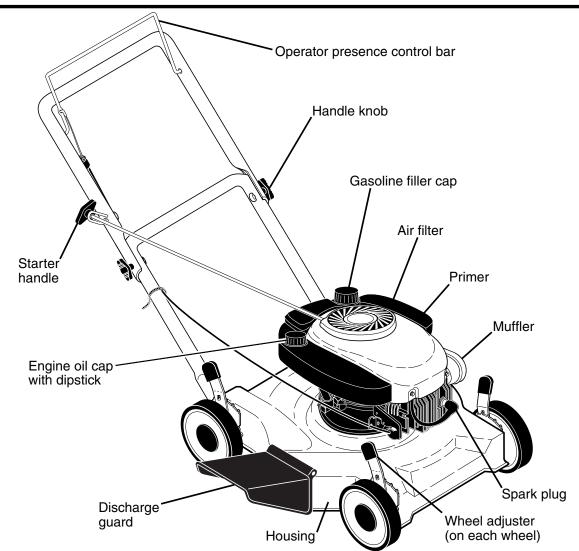
FAST

SLOW

CHOKE

FUEL

OIL DANGER, KEEP HANDS AND FEET AWAY



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

### 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.

Operator presence control bar – must be held down to the handle to start the engine. Release to stop the engine. Starter handle – used for starting engine. 6

**Primer** – pumps additional fuel from the carburetor to the cylinder for use when starting a cold engine.



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 standard safety glasses or a wide vision safety mask worn over spectacles.

# HOW TO USE YOUR LAWN MOWER ENGINE SPEED

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

### **ENGINE ZONE CONTROL**

**ACAUTION:** 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.

### TO ADJUST CUTTING HEIGHT

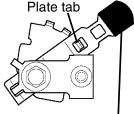
Raise wheels for low cut and lower wheels for high cut, adjust cutting height to suit your requirements. Medium position is best for most lawns.

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.







LEVER FORWARD TO RAISE MOWER Lever

# BEFORE STARTING ENGINE ADD OIL

Your lawnmower is shipped without oil in the engine. For type and grade of oil to use, see "ENGINE" in the Maintenance section of this manual. **A CAUTION:** DO NOT overfill engine with oil, or it will smoke on startup.

- 1. Be sure lawnmower is level and area around oil fill is clean.
- 2. Remove engine oil plug and fill to the top slot in filler hole. Pour oil slowly.

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

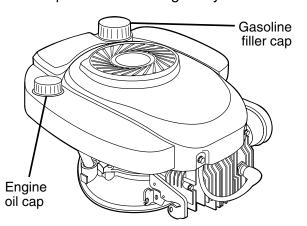
- 3. Reinstall engine oil plug and tighten. **IMPORTANT:**
- Check oil level before each use. Add oil if needed. Fill to top slot in filler hole.
- Change the oil after every 25 hours of operation or each season. You may need to change the oil more often under dusty, dirty conditions.

### **ADD GASOLINE**

Fill fuel tank to bottom of tank filler neck.
Do not overfill. 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.

**A CAUTION:** Wipe off any spilled oil or fuel. Do not store, spill or use gasoline near an open flame.

A CAUTION: 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. Empty the gas tank, start the engine and let it run until the fuel lines and carburetor are empty. Use fresh fuel next season. See Storage Instructions for additional information. Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.



### TO STOP ENGINE

 To stop engine, release operator presence control bar.

### TO START ENGINE

**NOTE:** Due to protective coatings on the engine, a small amount of smoke may be present during the initial use of the product and should be considered normal.

- To start a cold engine, push primer three
   (3) 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.

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

### **MOWING TIPS**

▲ CAUTION: Do not use de-thatcher blade attachments on your mower. Such attachments are hazardous, will damage your mower and could void your warranty.

 Under certain conditions, such as very tall grass, it may be necessary to raise

- the height of cut to reduce pushing effort and to keep from overloading the 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 the 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 be 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 grass. To prevent this, regularly hose catcher off with water and let dry before using.
- Keep top of engine around starter clear and clean of grass clippings and chaff. This will help engine air flow and extend engine life.

### **MAINTENANCE**

	MAINTENANCE SCHEDULE	BEFORE EACH USE	AFTER EACH USE	EVERY 10 HOURS	EVERY 25 HOURS OR SEASON	EVERY 100 HOURS	BEFORE STORAGE
Г	Check for Loose Fasteners	<b>V</b>					<b>/</b>
Ιř	Clean / Inspect Grass Catcher *	<b>V</b>	<b>/</b>				<b>/</b>
Iŵ	Check Tires	<b>V</b>					
ľŇ	Check Drive Wheels ***	<b>V</b>					
I.,	Clean Lawn Mower ****		<b>/</b>				<b>V</b>
M	Clean under Drive Cover ***			<b>V</b>			
0	Check Drive Belt / Pulleys ***				<b>V</b>		
I <u>w</u>	Check / Sharpen / Replace Blade				<b>√</b> 3		
E R	Lubrication				<b>V</b>		
	Clean and Recharge Battery **				<b>/</b>		<b>1</b> /4
	Check Engine Oil level	<b>1</b> 5					
E	Change Engine Oil				1,2		
N	Clean Air Filter				<b>1</b> /2		
G	Inspect Muffler				<b>/</b>		
Ņ	Replace Spark Plug					<b>V</b>	
	Replace Air Filter Paper Cartridge					<b>1</b> /2	
	Empty fuel system or add Stabilizer						<b>V</b>

- \* (if so equipped)
- \*\* Electric-Start mowers
- \*\*\* Power-Propelled mowers
- \*\*\*\* Use a scraper to clean under deck
- **1** Change more often if operating under a heavy load or in high outdoor temperatures.
- 2 Service more often if operating in dirty or dusty conditions.
- 3 Replace blades more often when mowing in sandy soil.
- 4 Charge 48 hours at end of season.
- 5 And after each 5 hours of use.

### 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 unit as instructed in this manual. Some adjustments will need to be made periodically to properly maintain your unit. At least once a season, check to see if you should make any of the adjustments described in the Service and Adjustments section of this manual.

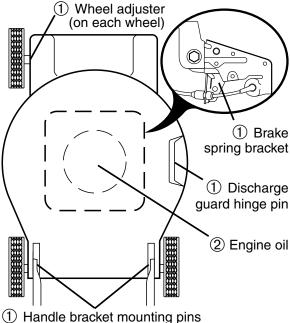
- At least once a year, replace the spark plug, clean or replace air filter element and check blade for wear. A new spark plug and clean/new air filter element assure proper air-fuel mixture and help your engine run better and last longer.
- Follow the maintenance schedule in this manual.

### **BEFORE EACH USE**

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

### **LUBRICATION**

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



- Handle bracket mounting pins
- 1 Spray lubricant
- 2 See "ENGINE" in Maintenance 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.

### **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, blade must be kept sharp. Replace bent or damaged blades.

♠ CAUTION: Use only a replacement blade approved by the manufacturer of your mower. Using a blade not approved by the manufacturer of your mower is hazardous, could damage your mower and void your warranty.

### TO REMOVE BLADE

- Disconnect spark plug wire from spark plug and place wire where it cannot come in contact with 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.

**NOTE:** Protect your hands with gloves and/or wrap blade with heavy cloth.

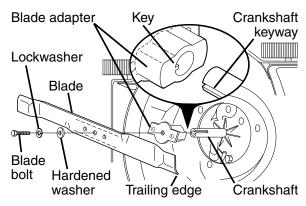
- Remove blade bolt by turning counterclockwise.
- 5. Remove blade and attaching hardware (bolt, lock washer, hardened washer).

**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

- 1. 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.
- 3. Be sure trailing edge of blade (opposite sharp edge) is up toward the engine.
- 4. 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 heat treated. If bolt needs replacing, replace only with approved bolt shown in the Repair Parts 9 section of this manual.



### 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.

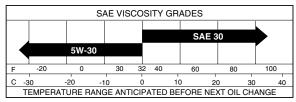
### **GRASS CATCHER**

(If purchased as an accesssory)

- 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 approved replacement catcher shown in the Repair Parts section of this manual. Give the lawn mower model number when ordering.

# ENGINE LUBRICATION

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

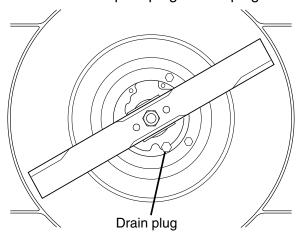


**NOTE:** Although multi-viscosity oils (5W30, 10W30 etc.) improve starting in cold weather, these multi-viscosity oils will result in increased oil consumption when

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 or at 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

- Disconnect spark plug wire from spark plug and place wire where it cannot come in contact with plug.
- 2. Be sure lawn mower is on level surface. **NOTE**: Oil will drain more freely when warm. Catch oil in a suitable container.
- 3. Remove bottom oil drain plug.
- 4. After oil has drained completely, replace oil drain plug and tighten securely.
- 5. Fill engine with oil. (See "ADD OIL" in the Operation section of this manual).
- 6. Reconnect spark plug wire to plug.



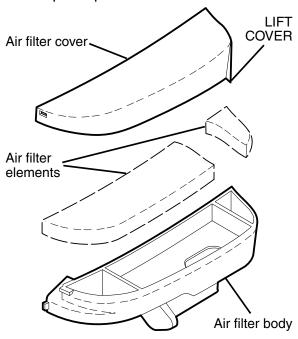
### **AIR FILTER**

Your engine will not run properly and may be damaged by using a dirty air filter. Clean the element after every 25 hours of operation or every season. Replace the air filter every 100 hours of operation or every season, whichever occurs first. Service air cleaner more often under dusty conditions.

### TO CLEAN AIR FILTER ELEMENT

- 1. Remove the air filter cover by lifting on edge of cover.
- 2. Remove filter element carefully to prevent dirt from entering carburetor.
- 3. Clean the inside of the cover and the body to remove any dirt accumulation.
- 4. Wash filter element in liquid detergent and water.
- 5. Wrap filter element in cloth and squeeze dry.
- 6. Lightly coat filter element with clean engine oil. Squeeze in towel to remove

- excess oil. Do not saturate.
- 7. Install filter element into filter body.
- 8. Install filter cover and press down to snap into place.



### **MUFFLER**

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

### SPARK PLUG

Replace spark plug at the beginning of each mowing season or after every 100 hours of operation, which ever occurs first. Spark plug type and gap setting are shown in the "PRODUCT SPECIFICA-TIONS" section of this manual.

### **CLEANING**

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

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

- 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.

### **SERVICE AND ADJUSTMENTS**

**AWARNING:** To avoid serious injury, before performing any service or adjustments:

- 1. Release control bar and stop engine.
- 2. Make sure the blade and all moving parts have completely stopped.
- 3. Disconnect spark plug wire from spark plug and place wire 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.

### **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's mowing position. If the deflector becomes damaged, it should be replaced.

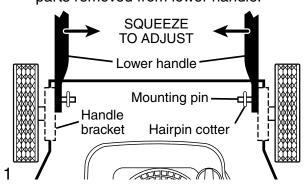
### **DISCHARGE GUARD**

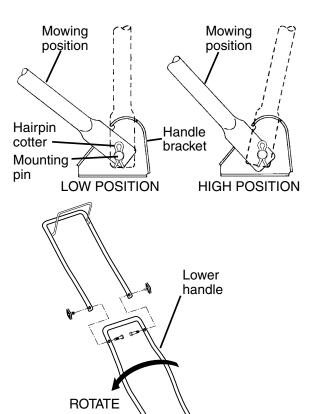
The discharge guard, attached to the discharge opening of your lawn mower, is provided to prevent the possibility of injury resulting from objects being thrown out of the discharge opening into the operator mowing position. If the discharge guard becomes damaged, it should be replaced. 11

### **TO ADJUST HANDLE**

The handle can be mounted in a high or low position. The mounting holes in the bottom of lower handle are off center for raising or lowering the handle.

- 1. Remove upper handle and wire tie(s) securing cable(s) to lower handle.
- Remove hairpin cotters from lower handle bracket mounting pin.
- 3. Squeeze lower handle in to remove it from mounting pins.
- Turn lower handle over to raise or lower handle.
- Squeezelowerhandleinandpositionholes onto mounting pins on handle bracket.
- 6. Reassemble upper handle and all parts removed from lower handle.





# 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 the engine is running too fast or too slow, take your lawn mower to a Sears or other qualified service center for repair and adjustment.

### **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 a Sears or other qualified service center for repair and/or adjustment.

IMPORTANT: Never tamper with the engine governor, which is factory set for proper engine speed. Overspeeding the engine above the factory high speed setting can be dangerous. If you think the engine-governed high speed needs adjusting, contact a Sears or other qualified service center, which has proper equipment and experience to make any necessary adjustments.

### **STORAGE**

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 "CLEANING" in the Maintenance section of this manual).
- 2. 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.
- 4. Touch up all rusted or chipped paint surfaces; sand lightly before painting.

### **HANDLE**

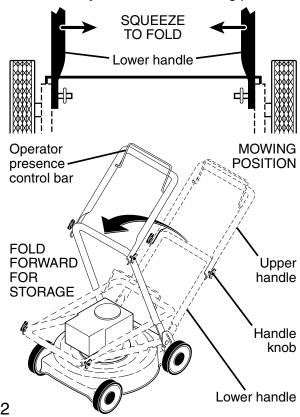
You can fold your mower handle for storage.

- Squeeze the bottom ends of the lower handle toward each other until the lower handle clears the handle bracket, then move handle forward.
- 2. 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**

### **FUEL SYSTEM**

**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. 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.

- Empty the fuel tank by starting the engine and letting 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 empty 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**

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

### **OTHER**

- Do not store gasoline from one season to another.
- Replace your gasoline can if your can starts to rust. Rust and/or dirt in your gasoline will cause problems.
- If possible, store your unit indoors and cover it to protect it 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.

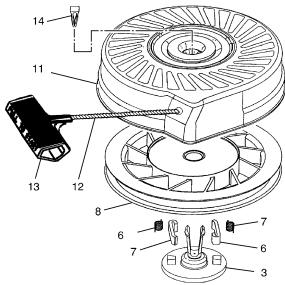
IMPORTANT: Never cover mower while engine and exhaust areas are still warm. 
⚠CAUTION: Never store the lawn mower with gasoline in the tank inside a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.

# TROUBLESHOOTING - See appropriate section in manual unless directed to a Sears Parts & Repair Centre.

PROBLEM	CAUSE	CORRECTION
Does not start	<ol> <li>Dirty air filter.</li> <li>Out of fuel.</li> <li>Stale fuel.</li> <li>Water in fuel.</li> <li>Spark plug wire is disconnected.</li> <li>Bad spark plug.</li> <li>Loose blade or broken blade adapter.</li> <li>Control bar in released position.</li> <li>Control bar defective.</li> <li>Fuel valve lever (if so equipped) in OFF position.</li> <li>Weak battery (if equipped).</li> <li>Disconnected battery connector (if equipped).</li> </ol>	<ol> <li>Clean/replace air filter.</li> <li>Fill fuel tank.</li> <li>Empty fuel tank and refill tank with fresh, clean gasoline.</li> <li>Empty fuel tank and refill tank with fresh, clean gasoline.</li> <li>Connect wire to plug.</li> <li>Replace spark plug.</li> <li>Tighten blade bolt or replace blade adapter.</li> <li>Depress control bar to handle.</li> <li>Replace control bar.</li> <li>Turn fuel valve lever to the ON position.</li> <li>Charge battery.</li> <li>Connect battery to engine.</li> </ol>

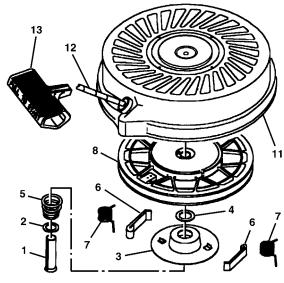
# **TROUBLESHOOTING - See appropriate section in manual unless directed to a Sears Parts & Repair Centre.**

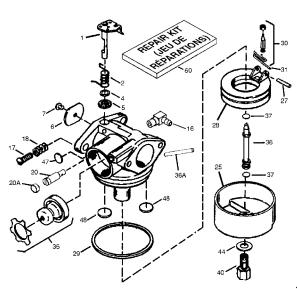
PROBLEM	CAUSE	CORRECTION			
Loss of power	<ol> <li>Rear of mower housing or blade dragging in grass.</li> <li>Cutting too much grass.</li> <li>Dirty air filter.</li> <li>Buildup of grass, leaves, and trash under mower.</li> <li>Too much oil in engine.</li> <li>Walking speed too fast.</li> </ol>	<ol> <li>Raise cutting height.</li> <li>Raise cutting height.</li> <li>Clean/replace air filter.</li> <li>Clean underside of mower housing.</li> <li>Check oil level.</li> <li>Cut at slower walking speed.</li> </ol>			
Poor cut – uneven	<ol> <li>Worn, bent or loose blade.</li> <li>Wheel heights uneven.</li> <li>Buildup of grass, leaves and trash under mower.</li> </ol>	<ol> <li>Replace blade. Tighten blade bolt.</li> <li>Set all wheels at same height.</li> <li>Clean underside of mower housing.</li> </ol>			
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 a Sears or other qualified service centre.</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 the starter rope.</li> <li>Contact a Sears or other qualified service centre.</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 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 mower housing one (1) setting higher.</li> <li>Empty grass catcher.</li> <li>Adjust handle height to suit.</li> </ol>			



### 590737

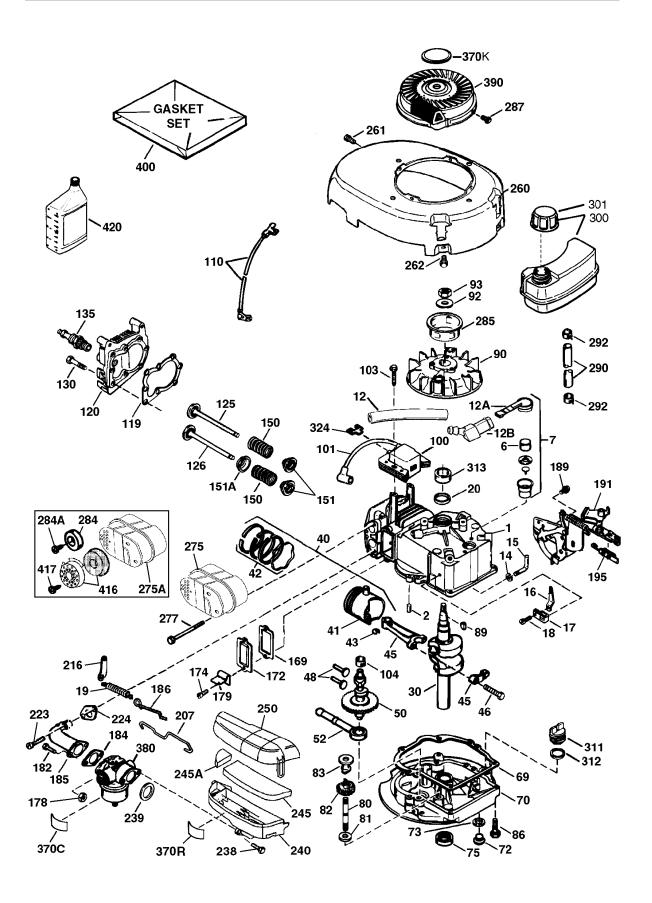
### 590694





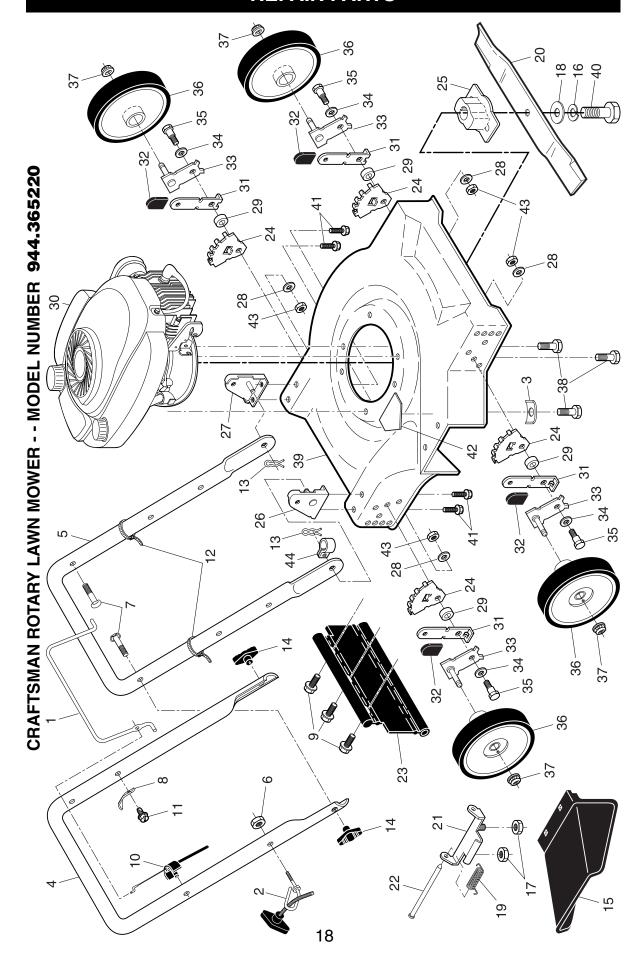
PART NO.	DESCRIPTION
590737 590740 590616 590617 590618A 590687B 590535 590701	Rewind Starter, Complete Retainer Starter Dog Dog Spring Pulley & Rewind Spring Assembly Starter Housing Assembly (40 Degree Grommet) Starter Rope (98" x 9/64" diameter) Starter Handle
PART NO.	Spring Clip  DESCRIPTION
590694 590599A 590600 590696 590691 590697 590698 590699 590700 590695A 590535 590701	Recoil Starter Assembly, Complete Spring Pin (Includes Key Number 4) Washer Retainer Washer Brake Spring Starter Dog Dog Spring Pulley & Rewind Spring Assembly Starter Housing Assembly (40 Degree Grommet) Starter Rope (98" x 9/64" diameter) Starter Handle
PART NO.	DESCRIPTION
631183 * 640070 650506 * 631807 651025 630766 640016 640200 631867 631024 * 632802 631028 * 631021A * 631022 640259 640080 632766	Carburetor (Includes Key Number 184 of Engine Parts List) Throttle Shaft and Lever Assembly Throttle Return Spring Dust Seal Washer Dust Seal, Throttle Throttle Shutter Shutter Screw Fuel Fitting Throttle Crack / Idle Speed Screw Tension Spring Idle Restrictor Screw Idle Restrictor Cap Screw (Black) Float Bowl Float Shaft Float (Plastic) Float Bowl "O" Ring Inlet Needle, Seat and Clip (Includes Key Number 31) Spring Clip Primer Bulb / Retainer Ring Main Nozzle Tube Carburetor Tube "O" Ring, Main Nozzle Tube High Speed Bowl Nut Bowl Nut Washer Welch Plug, Idle Mixture Well Welch Plug, Atmospheric Vent Repair Kit (Includes All Items Marked * )
	\$90737 590740 590616 590617 590618A 590635 590701 590760  PART NO.  590694 590599A 590600 590696 590601 590697 590698 590699 590700 590695A  \$90535 590701  PART NO.  640339 631615 631767 631184 * 631183 * 640070 650506 * 631807 651025 630766 640016 640200 631867 631024 * 632802 631028 * 631021A * 631022 640259 640080 632766 632547 * 640030 27110A * 630748 * 631027 *

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



KEY NO.	PART NO.		DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	37791		Cylinder	174	30200	Screw #10-24 x 9/16"
			(Includes Key Numbers 2 and 20)	178	29752	Nut and Lock Washer 1/4-28
2	26727		Dowel Pin	182	6201	Screw 1/4-28 x 7/8"
6	33734		Breather Element	184		Carburetor To Intake Pipe Gasket
7	36557		Breather Assembly	185	37794	Intake Pipe
10	00775		(Includes Key Numbers 6 and 12A)	186	32653	Governor Link
12 12A	36775 36558		Breather Tube Breather Cover and Tube	189 191	650839 36559A	Screw, 1/4-20 x 3/8" S.E. Brake Bracket
12A 12B	36694		Breather Tube Elbow	191	30333A	(Includes Key Number 195)
14	28277		Washer	195	610973	Terminal
15	30589		Governor Rod (Includes Key #14)	207	34336A	Throttle Link
16	34839A		Governor Lever	216	33086	R.P.M. Adjusting Lever
17	31335		Governor Lever Clamp	223	650451	Screw 1/4-20 x 1"
18	651018		Screw, T-15 #8-32 x 19/64"	224		Intake Pipe Gasket
19	33578		Extension Spring	238	650932	Screw #10-32 x 49/64"
20	32600		Oil Seal	239		Air Cleaner Gasket
30	37822		Crankshaft	241	35797	Air Cleaner Collar
40	40053		Piston, Pin & Ring Set (Standard)	245 250	35066 35986	Air Cleaner Filter Air Cleaner Cover
41	40051		Piston & Pin Assembly (Standard) (Includes Key Number 43)	260	37823	Blower Housing
42	40022		Ring Set (Standard Size)	261	30200	Screw #10-24 x 9/16"
43	20381		Piston Pin Retaining Ring	262	650831	Screw 1/4-20 x 1/2"
45	30963B		Connecting Rod Assembly	275	37192A	Muffler
			(Includes Key Number 46)	275A	36838A	Spark Arrestor Muffler (Optional)
46	32610A		Connecting Rod Bolt			(Includes Key Numbers 284,
48	27241		Valve Lifter			284A, 416 and 417)
50	37575		Camshaft (NCR)	277	650988	Screw 1/4-20 x 2-5/16"
	00044		(Includes Key Number 104)	284	36663	Muffler Deflector (Optional)
52	29914	*	Oil Pump Assembly	2011	650821	(Includes Key Number 284A) Screw #10-32 x 1/2" (Optional)
69 70	37609 37607	*	Mounting Flange Gasket Mounting Flange	285	35000A	Starter Cup
70	37007		(Includes Key Numbers 72 thru 83)	287	650926	Screw #8-32 x 21/64"
72	37614		Oil Drain Plug	290	29774	Fuel Line
75	27897		Oil Seal	292	26460	Fuel Line Clamp
80	30574A		Governor Shaft	300	37947	Fuel Tank (Includes
81	30590A		Washer			Key Numbers 292 and 301)
82	30591		Governor Gear Assembly	301	37844	Fuel Cap
00	005004		(Includes Key Number 81)	311	27625	Oil Fill Plug
83 86	30588A 650488		Governor Spool Screw 1/4-20 x 1-1/4"	312	29673	(Includes Key Number 312) Oil Fill Plug Gasket
89	611298		Flywheel Key	313	34080	Spacer
90	611299		Flywheel		37318	Primer Decal (3X)
92	650815		Belleville Washer		36695	Starter Decal
93	650816		Flywheel Nut	370R	37849	Warning Decal
100	34443C		Solid State Ignition	380	640339	Carburetor (Includes Key #184)
101	610118		Spark Plug Cover	390	590737	Rewind Starter
103	651007		Screw, T-15 #10-24 x 15/16"	400	37809	Gasket Set
104	37480		Cam Bushing	440	07500	(Includes All Items Marked * )
110	37047	*	Ground Wire	416	37530	Spark Arrestor Kit (Optional)
119 120	37755 37807		Cylinder Head Gasket Cylinder Head	417	650821	(Includes Key Number 417) Screw #10-32 x 1/2" (Optional)
125	37806		Exhaust Valve (Standard Size)	420	730225A	SAE 30 4-Cycle Engine Oil (Quart)
120	0,000		(Includes Key Number 151)			Replacement Engine (None)
126	37805		Intake Valve (Standard Size) (Includes Key Number 151)		750893	Shortblock
130 135	6021A 35395		Screw 5/16-18 x 1-1/2" Resistor Spark Plug (RJ19LM)		RPMs:	High 2900 to 3200
150	31672		Valve Spring	NOTE	: This engi	ne could have been built with
151	31673		Valve Spring Cap			starter number 590694.
	40016A		Intake Valve Seal			
169	36783	*	Valve Cover Gasket	NOTE		onent dimensions given in U.S. inches
172	36784		Valve Cover		1 inch = 2	25.4 mm

# **REPAIR PARTS**



# CRAFTSMAN ROTARY LAWN MOWER - - MODEL NUMBER 944.365220

DESCRIPTION	Blade Adapter Handle Bracket Assembly, RH Handle Bracket Assembly, LH Washer Spacer Engine, Tecumseh, Model Number LV148EA-334005 (See Breakdown) Selector Spring Selector Spring Selector Knob Axle Arm Assembly Belleville Washer Shoulder Bolt Wheel and Tire Assembly Nut, Hex Hex Head Thread Rolling Screw 3/8-16 x 1-1/8 Lawn Mower Housing Hex Head Screw 3/8-24 x 1-3/8 Grade 8 Thread Cutting Screw 5/16-18 x 3/4 Danger Decal Locknut, Hex 3/8-16 Clip, Cable	warning Decal (not shown) Owner's Manual, English Owner's Manual, French
KEY PART NO. NO.	25 850977 26 170345X479 28 61537 29 146630 30 31 700331X004 32 87877 33 145935X479 34 62335 35 142748 36 193850X427 37 83923 38 150406 39 196901 40 851084 41 149741 42 107339X 43 751592 44 192770	162300 196899 196900
DESCRIPTION	Control Bar Rope Guide Engine Washer Upper Handle Lower Handle Lower Handle Nut, Hex Handle Bolt 5/16-18 x 1-3/4 Up-Stop Bracket Hex Washer Head Screw #10-24 x 1/2 Engine Zone Control Cable Screw Wire Tie Hairpin Cotter Knob, Handle Discharge Guard Helical Lock Washer 3/8 Locknut, Hex 1/4-20 Hardened Washer Torsion Spring Blade, 20" Hinge Deflector	Hinge Hod Rear Deflector Wheel Adjusting Bracket
KEY PART NO. NO.		22 150215 23 189240 24 750085X007

**NOTE:** All component dimensions given in U.S. inches. 1 inch = 25.4 mm. **IMPORTANT:** Use only Original Equipment Manufacturer (O.E.M.) replacement parts. Failure to do so could be hazardous, damage your lawn mower and void your warranty.

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