# Get it fixed, at your home or ours!

Just Call:

### 1-800-4-MY-HOME®

(1-800-469-4663) 24 hours a day, 7 days a week

For the repair of major brand appliances **in your own home...** no matter who made it, no matter who sold it!

For your nearest **Sears Parts and Service I**ocation, to bring in products like vacuums, lawn equipment and electronics.

For **Sears Parts & Service**, to order the replacement parts, accessories and owner's manuals that you need to do-it-yourself.

www.sears.ca

To purchase or inquire about a Sears Maintenance Agreement, call:

**1-800-361-6665** 9 a.m. – 11 p.m. Mon. – Fri., EST, 9 a.m. – 4 p.m. Sat.

> Pour service en français: **1-800-LE-FOYER**<sup>MC</sup>

> > (1-800-533-6937) www.sears.ca

**SE/ARS** HomeCentral™

 $^{(\!\!R\!)}$  / TM Trademarks of Sears, Roebuck and Co. used under license by Sears Canada

MD Marque déposée / MC Marque de commerce de Sears, Roebuck and Co. utilisée en vertu d'une licence de Sears Canada

**Owner's Manual** 

# **CRAFTSMAN**®

# **ROTARY LAWN MOWER**

650 Series Briggs & Stratton Engine Power-Propelled 21" Multi-Cut

Model No. 944.367630



## **CAUTION:**

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

Printed in U.S.A.

### TABLE OF CONTENTS

Safety Rules	Maintenance11-14Service and Adjustments14-16Storage16-17Troubleshooting17-18Benair Parts20-28
	Repair Parts
Maintenance Schedule11	Sears ServiceBack Cover

### WARRANTY

### LIMITED TWO YEAR WARRANTY ON CRAFTSMAN POWER MOWER

For Two years 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 <u>NOT</u> cover:

- · Pre-delivery set-up.
- 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.
- · In-home service.

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.

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

### **SAFETY RULES**

**IMPORTANT:** This cutting machine is capable of amputating 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.

### A WARNING: 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.

# **SERVICE NOTES**

### **SERVICE NOTES**

- Do not operate the mower when barefoot or wearing open sandals. Always 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.

3

### **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).

PR	PRODUCT SPECIFICATIONS						
Serial Number:							
Date of Purchase:							
Gasoline Capacity / Type:	1,4 Liters (Unleaded Regular)						
Oil Type (API SG–SL):	SAE 30 (above 32°F/0°C); SAE 5W-30 (below 32°F/0°C)						
Oil Capacity:	0,57 Liters						
Spark Plug:	Champion RJ19HX (Gap: 0,76 mm)						
Blade Bolt Torque:	35-40 ft. lbs. / 47-54 N-m						
	bers will be found on a decal on the rear of the mower al number and date of purchase in space provided above.						

**BRIGGS & STRATTON 4-CYCLE ENGINE** 

### **KEY PART KEY PART** NO. NO. DESCRIPTION NO. NO. DESCRIPTION 404 690272 Washer (Governor Crank) 869 691155 Seat-Valve (Intake) 690670 Screw (Air Cleaner Cover) 425 870 690380 Seat-Valve (Exhaust) 443 692523 Screw 871 262001 Bushing-Guide (Exhaust) 63709 Bushing-Guide (Intake) (Air Cleaner Primer Base) 491588s Filter-Air Cleaner Cartridge 691881 Gasket-Exhaust 445 883 455 791960 Cup-Flvwheel 922 692135 Spring-Brake 692299 Plate-Pawl Friction 923 695891 Brake 456 281505s Pawl-Ratchet 957 Cap-Fuel Tank 459 793606 505 691251 Nut 966 792040 **Base-Air Cleaner Primer** (Governor Control Lever) 968 692298 Cover-Air Cleaner 499621 972 699374 Tank-Fuel 523 Dipstick Seal-Dipstick Tube 524 692296 975 493640 Bowl-Float **Tube-Dipstick** 525 495265 977 498261 Set-Carburetor Gasket 529 691923 Grommet 1036 - - -Label-Emissions (Available 562 691119 Bolt from an authorized Briggs (Governor Control Lever) & Stratton Service Dealer) Cover-Breather Passage Operator's Manual 584 697734 1058 MS3260 585 691879 Gasket-Breather Passage 1059 692311 Kit-Screw/Washer 690800 Nut (Rewind Starter) Assembly-Pulley/Spring 592 1210 498144 Screw (Pawl Friction Plate) 597 691696 (Pulley) Clamp-Hose 601 791850 1211 498144 Assembly-Pulley/Spring 497680 Starter-Rewind 608 (Spring) 790833 Screw (Muffler) 1329 126T02-0625 Replacement Engine 613 Retainer-Governor Shaft 615 690340 (Replacement Engine listed 698801 Crank-Governor is not available in the State 616 270344s•؇ Seal-O Ring of California. Repair with 617 (Intake Manifold) individual parts.) Repair Manual 621 692310 Switch-Stop 1330 270962 633 691321 ؇ Seal-Throttle Shaft 1386 790848 Vane-Air 633A 693867 ؇ Seal-Choke Shaft 1387 790849 Spring-Air Vane Boot-Spark Plug Screw (Air Vane) 635 793351 1388 790850 Spacer (Includes 2) (Auto Choke System) 668 493823 Spacer-Fuel Tank 670 692294 398067 Spark Arrester - -690345 Screw (available accessory) 684 (Breather Passage Cover) 689 691855 Spring-Friction Included in Engine Gasket Set, Key No. 358 690959 Pin-Locating 718 Gear-Timing 741 790345 Ø Included in Carb. Overhaul Kit, Key No. 121 745 691648 Screw (Brake) 691031 Seal-O Ring (Dipstick Tube) ‡ Included in Carb. Gasket Set, Key No. 977 842 Assembly-Dipstick/Tube 847 692047 Terminal-Spark Plug 851 692424 **NOTE:** All component dimensions given in U.S. 1 inch = 25.4 mm868 697338 Seal-Valve inches.

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	697322	Cylinder Assembly	60	281434s	Grip-Starter Rope
2	399269	Kit-Bushing/Seal	65	690837	Screw (Rewind Starter)
3	299819s	<ul> <li>Seal-Oil (Magneto Side)</li> </ul>	78	691108	Screw (Flywheel Guard)
4	493279	Sump-Engine	81	691740	Lock-Muffler Screw
5	691160	Head-Cylinder	97	696565	Shaft-Throttle
7	692249	<ul> <li>Gasket-Cylinder Head</li> </ul>	104	691242 Ø	Pin-Float Hinge
8	695250	Breather Assembly	108	790844	Valve-Choke
9	696125	Gasket-Breather	109	790843	Shaft-Choke
10	691125	Screw (Breather Assembly)	117	697355	Jet-Main (Standard)
11	691781	Tube-Breather	118	494870	Jet-Main (High Altitude)
12	692232	<ul> <li>Gasket-Crankcase</li> </ul>	121	498260	Kit-Carburetor Overhaul
13	690912	Screw (Cylinder Head)	125	790845	Carburetor
15	691680	Plug-Oil Drain	127	694468 Ø	Plug-Welch
16	691450	Crankshaft	130	696564	Valve-Throttle
20	399781s	<ul> <li>Seal-Oil (PTO Side)</li> </ul>	133	398187	Float-Carburetor
22	691092	Screw (Engine Sump)	134		Valve-Needle/Seat
23	691987	Flywheel	137		Gasket-Float Bowl
24	222698s	Key-Flywheel	163		Gasket-Air Cleaner
25	790359	Piston Assembly (Standard)	187	791766	Line-Fuel
	791326	Piston Assembly			(Cut to Required Length)
		(.020" Oversize)	188	693399	Screw (Control Bracket)
26	790360	Ring Set (Standard)	190	690940	Screw (Fuel Tank)
	791324	Ring Set (.020" Oversize)	202	691829	Link-Mechanical Governor
27	691866	Lock-Piston Pin	209	699056	Spring-Governor
28	499423	Pin-Piston	222	791128	Bracket-Control
29	499424	Rod-Connecting	227	690783	Control Lever-Governor
32	691664	Screw (Connecting Rod)	231	691636	Screw (Choke Valve)
32A	695759	Screw (Connecting Rod)	276		Sealing Washer
33	262651s	Valve-Exhaust	287	690940	Screw (Dipstick Tube)
34	262652s	Valve-Intake	291	790830	Thermostat
35	691270	Spring-Valve (Intake)	300	790828	Muffler
36 37	691270	Spring-Valve (Exhaust)	304 305	790826	Housing-Blower
	694086	Guard-Flywheel Retainer-Valve		691108	Screw (Blower Housing)
40	692194		306	790836	Shield-Cylinder
43	691997 690548	Slinger-Governor/Oil	307 332	690345 690662	Screw (Cylinder Shield)
45 46		Tappet-Valve Camshaft	333	793354	Nut (Flywheel)
40 48	691449 792741	Short Block	333 334	793354 691061	Armature-Magneto Screw (Armature Magneto)
40 50	497465	Manifold-Intake	337	802592s	Spark Plug
50 51	497405 272199s	Gasket-Intake	356	692390	Wire-Stop
54	691650	Screw (Intake Manifold)	358	497316	Engine Gasket Set
54 55	691650	Housing-Rewind Starter	363	19069	Flywheel Puller
58	697316	Rope-Starter	365	692524	Screw (Carburetor)
50	037010	(Cut to Required Length)	383	89838s	Wrench-Spark Plug
		(out to nequired Lengin)	000	000000	thenon-opark i lug

### **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 LAWN 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.
- 4. Roll lawn mower out of carton and check carton thoroughly for additional loose parts.

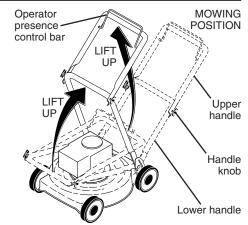
# HOW TO SET UP YOUR LAWN MOWER

### **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.
- 2. 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.

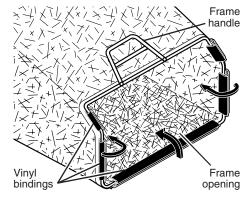
Your lawn mower handle can be adjusted for your mowing comfort. Refer to "AD-JUST HANDLE" in the Service and Adjustments section of this manual.



### TO ASSEMBLE GRASS CATCHER

- Put grass catcher frame into grass bag with rigid part of bag on the bottom. Make sure the frame handle is outside of the bag top.
- 2. Slip vinyl bindings over frame.

**NOTE**: If vinyl bindings are too stiff, hold them in warm water for a few minutes. If bag gets wet, let it dry before using.



### TO INSTALL ATTACHMENTS

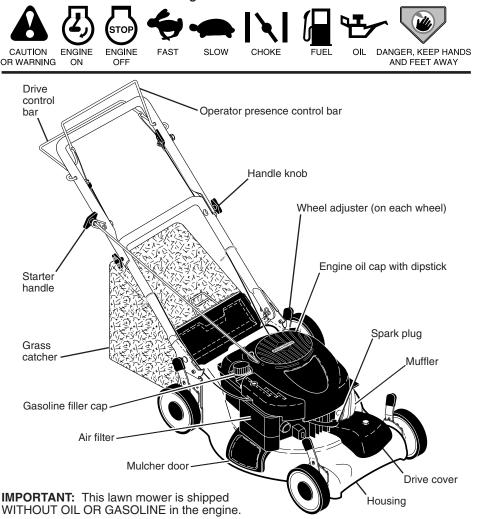
Your lawn mower was shipped ready to be used as a mulcher. To convert to bagging or discharging, see "TO CONVERT MOWER" in the Operation section of this manual.

### **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.



### 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.

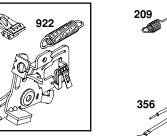
**Operator presence control bar** – must be held down to the handle to start the engine. Release to stop the engine. **Drive control bar** – used to engage power-propelled forward motion of mower. 6

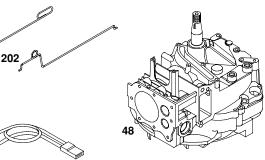
Starter handle – used for starting the engine.

Mulcher door – allows conversion to discharging or bagging operation.



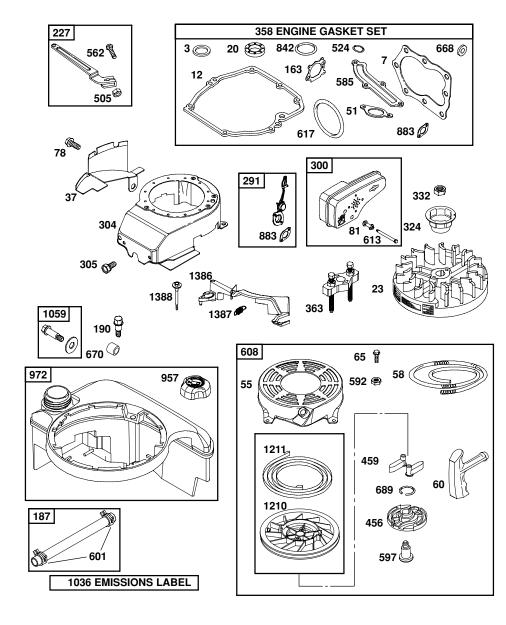
923





### **Engine Power Rating Information**

The gross power rating for individual gas engine models is labeled in accordance with SAE (Society of Automo-tive Engineers) code J11940 (Small Engine Power & Torque Rating Procedure), and rating performance has been obtained and corrected in accordance with SAE J1995 (Revision 2002-5). Actual gross engine power will be lower and is affected by, among other things, ambient operating conditions and engine-to-engine variability. Given both the wide array of products on which engines are placed and the variety of environmental issues applicable to operating the equipment, the gas engine will not develop the rated gross power when used in a given piece of power equipment (actual "on-site" or net horsepower). This difference is due to a variety of factors including, but not limited to, accessories (air cleaner, exhaust, charging, cooling, carburetor, fuel pump, etc.), application limitations, ambient operating conditions (temperature, humidity, altitude), and engine-to-engine variability. Due to manufacturing and capacity limitations, Briggs & Stratton may substitute an engine of higher rated power for this Series 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. It 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.

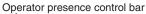
• Your lawn mower is equipped with an operator presence control bar which requires the operator to be positioned behind the lawn mower handle to start and operate the lawn mower.

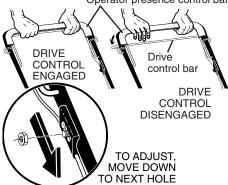
### **DRIVE CONTROL**

- Self-propelling is controlled by holding the operator presence control bar down to the handle and pulling the drive control bar up to the handle. The closer to the handle the bar is pulled, the faster the unit will travel.
- Forward motion will stop when either the operator presence control bar or drive control bar are released. To stop forward motion without stopping engine, release the drive control bar only. Hold operator presence control bar down against handle to continue mowing without self-propelling.

**NOTE:** If after releasing the drive control the mower will not roll backwards, push the mower forward slightly to disengage drive wheels.

• To keep drive control engaged when turning corners, push down on the handle to lift the front wheels off the ground while turning lawn mower.





### DRIVE CONTROL ADJUSTMENT

Over time, the drive control system may become "loose", resulting in decreased speed. There are holes in the drive control housing to increase tension on the drive cable. Proceed as follows:

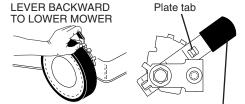
- 1. Turn unit off and disconnect spark plug wire from spark plug.
- 2. Loosen nut, move drive control housing down handle to the next hole and retighten nut.
- 3. Operate mower to test drive speed.
- 4. If condition fails to improve after the above steps (forward speed remains the same), your drive belt is worn and should be replaced.

### 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.



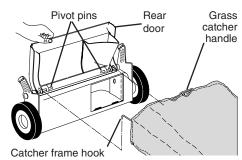
LEVER FORWARD TO RAISE MOWER Lever

### **TO CONVERT MOWER**

Your lawn mower was shipped ready to be used as a mulcher. To convert to bagging or discharging:

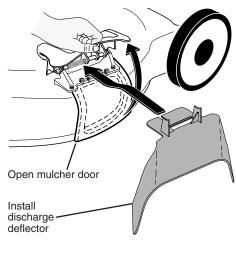
### REAR BAGGING

- Lift rear door of the lawn mower and place the grass catcher frame hooks onto the door pivot pins.
- To convert to mulching or discharging operation, remove grass catcher and close rear door.



### SIDE DISCHARGING

- Rear door must be closed.
- Open mulcher door and install discharge deflector under door as shown.
- Mower is now ready for discharging operation.
- To convert to mulching or bagging operation, discharge deflector must be removed and mulcher door must be closed.





MOWER IS NOW READY FOR DISCHARGING OPERATION

# SIMPLE STEPS TO REMEMBER WHEN CONVERTING YOUR LAWN MOWER

### FOR MULCHING -

- 1. Rear door closed.
- 2. Mulcher door closed.

### FOR REAR BAGGING -

- 1. Grass catcher installed.
- 2. Mulcher door closed.

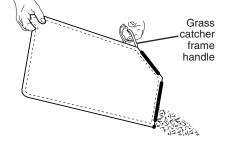
### FOR SIDE DISCHARGING -

- 1. Rear door closed.
- 2. Discharge deflector installed.

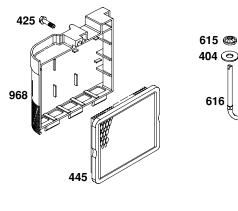
**ACAUTION:** Do not run your lawn mower without rear door closed or approved grass catcher in place. Never attempt to operate the lawn mower with the rear door removed or propped open.

### **TO EMPTY GRASS CATCHER**

- 1. Lift up on grass catcher using the frame handle.
- 2. Remove grass catcher with clippings from under lawn mower handle.
- 3. Empty clippings from bag. **NOTE**: Do not drag the bag when empty-
- ing; it will cause unnecessary wear.



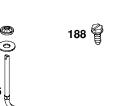


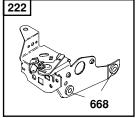


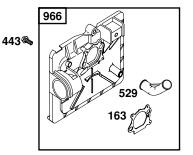
1329 REPLACEMENT ENGINE

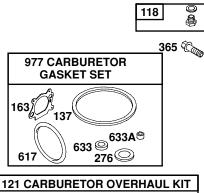
**1058 OWNER'S MANUAL** 

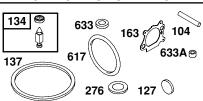
**1330 REPAIR MANUAL** 

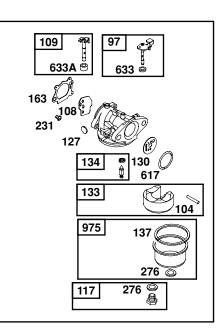




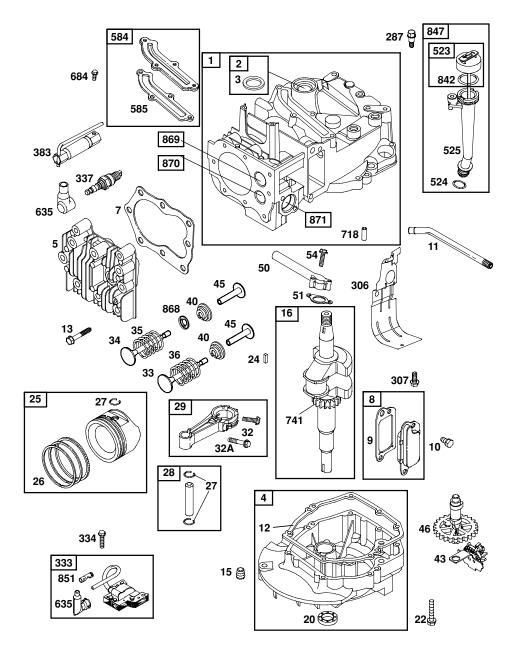








125



### 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 heavily from the muffler on startup.

- 1. Be sure lawnmower is level.
- 2. Remove oil dipstick from oil fill spout.
- 3. You receive a container of oil with the unit. Slowly pour the entire container

down the oil fill spout into the engine. NOTE: Initial oil fill requires only 18 oz. due to residual oil in engine from the manufacturers 100% quality testing. When changing oil you may need 20 oz. 4. Insert and tighten dipstick. IMPORTANT:

- Check oil level before each use. Add oil if needed. Fill to full line on dipstick.
- 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. See "TO CHANGE ENGINE OIL" in the Maintenance section of this manual.

### ATTACH FUEL CAP CARTRIDGE

Your mower is equipped with a special FRESH START<sup>TM</sup> fuel cap and continuous fuel preserver cartridge. See the information and instructions packed with the FRESH START<sup>TM</sup> cartridge.

1. Snap cartridge into bottom of fuel cap. **NOTE:** Do not remove the silver foil seal on the side of cartridge that snaps into fuel cap.

- 2. Grasp the white peel tab and pull to remove the entire seal.
- 3. Screw fuel cap onto fuel tank after filling tank with gasoline.

Replace cartridge when empty (about once a season). Check preserver level visually.

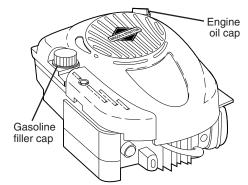
A DANGER: Cartridge fluid is HARMFUL OR FATAL IF SWALLOWED. Avoid contact to eyes, skin, or clothing. Do not take internally. Do not inhale fluid vapor. Keep out of reach of children. If swallowed, call a physician immediately.

### 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.

▲ 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. **NOTE:** Your engine is equipped with an automatic choke system. No priming or choking is required before starting.

• To start engine, hold operator presence control bar down to the handle and pull starter handle quickly. Do not allow starter rope to snap back.

### MOWING TIPS

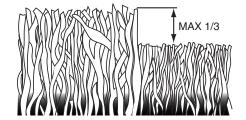
A CAUTION: Do not use de-thatcher blade attachments on your mower. Such attachments are hazardous, will damage your mower and could void your warranty.

- 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.
- When using a rear discharge lawn mower in moist, heavy grass, clumps of cut grass may not enter the grass catcher. Reduce ground speed (pushing speed) and/or run the lawn mower over the area a second time.
- If a trail of clippings is left on the right side of a rear discharge mower, mow in a clockwise direction with a small overlap to collect the clippings on the next pass.
- 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.

### **MULCHING MOWING TIPS**

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

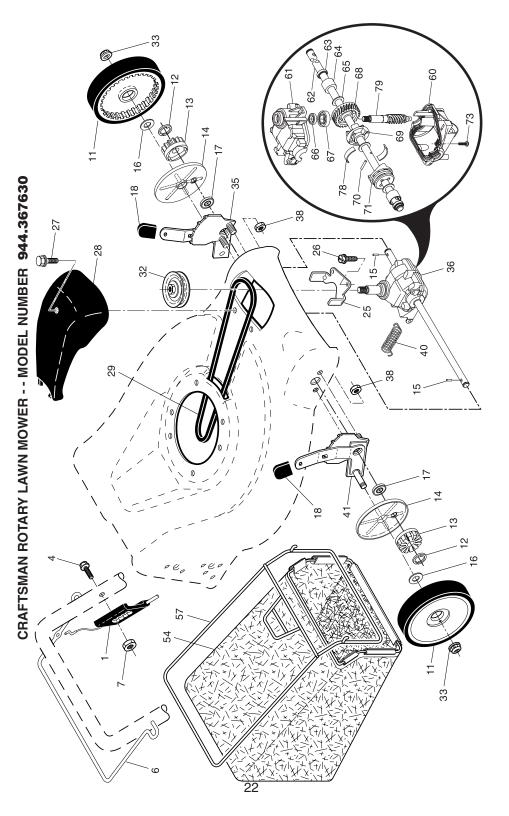
- The special mulching blade will recut the grass clippings many times and reduce them in size so that as they fall onto the lawn they will disperse into the grass and not be noticed. Also, the mulched grass will biodegrade quickly to provide nutrients for the lawn. Always mulch with your highest engine (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, yet the newly cut area will not be exposed to direct sunlight.
- 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 grass, 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 (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.

# 944.367630 - MODEL NUMBER . **CRAFTSMAN ROTARY LAWN MOWER**

Gear Case Assembly, Complete	Locknut 1/4-20	Spring	Kit, Wheel Adjuster, RH	(Includes Knob and Bearing)	Grassbag Assembly	Frame, Grassbag	Case, Lower	Case, Upper	Shaft, Output	Seal, Output Shaft	Bushing	Washer	Seal, Worm Shaft	Bearing, Ball	Gear, 28 Teeth	Fixed Dog Clutch	Pin	Movable Dog Clutch	Screw, Case	Spring, Leaf	Shaft, Worm
404833	73800400	406558	408861		413144	401802	410734	410726	410949	183508	183511	183509	183514	183506	410729	410732	410733	410730	183513	410731	410727
36	38	40	41		54	57	60	61	62	63	64	65	99	67	68	69	20	71	73	78	79
Drive Control Assembly (Includes Cable)	Screw, Threaded, Rolled #10-24 x 1/2	Control Bar, Drive	Locknut, Hex	Wheel & Tire Assembly	E-Ring	Pinion	Dust Cover	Pawl, Drive	Washer 1/2 x 1-1/2 x .134	Bearing, Wheel Adjuster	Selector Knob	Belt Keeper	Screw, Hi-Lo Thread #12 x 5/8	Pan Head Tapping Screw #10-24 x 2-3/4	Drive Cover	V-Belt	Pulley, Drive	Nut, Hex	Kit, Wheel Adjuster, LH	(Includes Knob and Bearing)	
407816	199687	194185X615	191730	194231X427	12000058	403849	189403	191017	67725	191039	701037	404843X004	163409	175262	194406X428	194149	194018	409148	408862		
-	4	9	7	1	12	13	14	15	16	17	18	25	26	27	28	29	32	33	35		
	Drive Control Assembly (Includes Cable) 36 404833	Drive Control Assembly (Includes Cable) 36 404833 Screw, Threaded, Rolled #10-24 x 1/2 38 73800400	Drive Control Assembly (Includes Cable) 36 404833 Screw, Threaded, Rolled #10-24 x 1/2 38 73800400 X615 Control Bar, Drive 40 406558	Drive Control Assembly (Includes Cable) 36 404833 Screw, Threaded, Rolled #10-24 x 1/2 38 73800400 X615 Control Bar, Drive 40 406558 Locknut, Hex 41 408861	Drive Control Assembly (Includes Cable)36404833Screw, Threaded, Rolled#10-24 x 1/23873800400X615Control Bar, Drive40406558Locknut, Hex41408861X427Wheel & Tire Assembly	Drive Control Assembly (Includes Cable)36404833Screw, Threaded, Rolled#10-24 x 1/23873800400X615Control Bar, Drive40406558Locknut, Hex41408861X427Wheel & Tire Assembly54413144	407816         Drive Control Assembly (Includes Cable)         36         404833           199687         Screw, Threaded, Rolled #10-24 x 1/2         38         73800400           194185X615         Control Bar, Drive         40         405558           191730         Locknut, Hex         41         408861           194231X427         Wheel & Tire Assembly         54         413144           1200058         E-Ring         54         413144           403849         Pinion         57         401802	407816       Drive Control Assembly (Includes Cable)       36       404833         199687       Screw, Threaded, Rolled #10-24 x 1/2       38       73800400         194185X615       Control Bar, Drive       40       40558         191730       Locknut, Hex       41       408861         194231X427       Wheel & Tire Assembly       54       413144         1200058       E-Ring       57       401802         189403       Dust Cover       60       410734	407816       Drive Control Assembly (Includes Cable)       36       404833         199687       Screw, Threaded, Rolled #10-24 x 1/2       38       73800400         194185X615       Control Bar, Drive       40       406558         191730       Locknut, Hex       41       408861         194231X427       Wheel & Tire Assembly       54       413144         194231X427       Wheel & Tire Assembly       54       413144         12000058       E-Ring       57       401802         189403       Dust Cover       60       410734         191017       Pawl, Drive       61       410726	407816       Drive Control Assembly (Includes Cable)       36       404833         199687       Screw, Threaded, Rolled #10-24 x 1/2       38       73800400         194185X615       Control Bar, Drive       40       406558         191730       Locknut, Hex       41       408861         194231X427       Wheel & Tire Assembly       41       408861         194231X427       Wheel & Tire Assembly       54       413144         194231X427       Wheel & Tire Assembly       54       413144         12000058       E-Ring       57       401802         189403       Dust Cover       60       410734         191017       Pawl, Drive       61       410726         67725       Washer 1/2 x 1-1/2 x .134       62       410949	407816       Drive Control Assembly (Includes Cable)       36       404833         199687       Screw, Threaded, Rolled #10-24 x 1/2       38       73800400         194185X615       Control Bar, Drive       40       406558         191730       Locknut, Hex       41       408861         194231X427       Whee & Tire Assembly       41       408861         194231X427       Whee & Tire Assembly       54       413144         194231X427       Whee & Tire Assembly       54       413144         193849       Pinion       57       401802         189403       Dust Cover       60       410734         191017       Pawl, Drive       61       410736         67725       Washer 1/2 x 1-1/2 x .134       63       183508         191039       Bearing, Wheel Adjuster       63       183508	407816       Drive Control Assembly (Includes Cable)       36       404833         199687       Screw, Threaded, Rolled #10-24 x 1/2       38       73800400         194185X615       Control Bar, Drive       40       406558         191730       Locknut, Hex       41       40861         194231X427       Whee & Tire Assembly       41       408661         194231X427       Whee & Tire Assembly       54       413144         194231X427       Whee & Tire Assembly       54       413144         19730       Locknut, Hex       60       410734         1903849       Pinion       57       401802         189403       Dust Cover       60       410734         191017       Pawl, Drive       61       410736         67725       Washer 1/2 x 1-1/2 x.134       63       183508         191037       Selector Knob       64       183511	407816       Drive Control Assembly (Includes Cable)       36       404833         199687       Screw, Threaded, Rolled #10-24 x 1/2       38       73800400         194185X615       Control Bar, Drive       40       406558         194185X615       Control Bar, Drive       40       406558         194185X615       Control Bar, Drive       41       40861         194185X615       Control Bar, Drive       41       406558         194185X615       Locknut, Hex       41       406558         194231X427       Wheel & Tire Assembly       54       413144         194231X427       Wheel & Tire Assembly       57       401802         194231X427       Wheel & Tire Assembly       57       401802         1943349       Pinion       57       401802         189403       Dust Cover       60       410734         191017       Pawl, Drive       60       410734         191037       Selector Knob       63       183508         701037       Selector Knob       64       183511         701037       Selector Knob       65       183509	407816       Drive Control Assembly (Includes Cable)       36       404833         199687       Screw, Threaded, Rolled #10-24 x 1/2       38       73800400         194185X615       Control Bar, Drive       40       406558         194185X615       Control Bar, Drive       40       406558         194185X615       Control Bar, Drive       40       406558         194185X615       Control Bar, Drive       41       40861         194185X615       Locknut, Hex       41       408558         194231X427       Wheel & Tire Assembly       41       408661         194231X427       Wheel & Tire Assembly       54       413144         403849       Pinion       57       401802         189403       Dust Cover       60       410734         191017       Pawl, Drive       60       410734         191039       Bearing, Wheel Adjuster       60       410726         191037       Selector Knob       64       183511         201037       Selector Knob       65       183509         163409       Screw, Hi-Lo Thread #12 x 5/8       66       183514	407816       Drive Control Assembly (Includes Cable)       36       404833         199687       Screw, Threaded, Rolled #10-24 x 1/2       38       73800400         194185X615       Control Bar, Drive       40       406558         191730       Locknut, Hex       40       406558         194185X615       Control Bar, Drive       40       406558         194185X615       Control Bar, Drive       41       40861         194231X427       Wheel & Tire Assembly       41       408661         194231X427       Wheel & Tire Assembly       54       413144         403849       Pinion       57       401802         12000058       E-Ring       57       401802         403849       Pinion       57       401802         189403       Dust Cover       60       410734         191017       Pawi, Drive       60       410734         191017       Pawi, Drive       62       410949         67725       Washer 1/2 x 1-1/2 x .134       67       410349         191039       Bearing, Wheel Adjuster       63       183508         701037       Selector Knob       64       183511         404843X004       Belt Keeper       <	407816       Drive Control Assembly (Includes Cable)       36       404833         199687       Screw, Threaded, Rolled #10-24 x 1/2       38       73800400         194185X615       Control Bar, Drive       40       406558         191730       Locknut, Hex       40       406558         194185X615       Control Bar, Drive       40       406558         194185X615       Control Bar, Drive       41       40861         194231X427       Wheel & Tire Assembly       54       413144         194231X427       Wheel & Tire Assembly       57       401802         194231X427       Wheel & Tire Assembly       57       401802         194231X427       Wheel Adjuster       60       410734         403849       Pinion       57       401802         191017       Pawi, Drive       60       410734         67725       Washer 1/2 x 1-1/2 x .134       67       410734         191039       Bearing, Wheel Adjuster       63       183508         701037       Selector Knob       64       183511         66       183514       65       183508         701037       Selector Knob       65       183508         701037       Selec	407816       Drive Control Assembly (Includes Cable)       36       404833         199687       Screw, Threaded, Rolled #10-24 x 1/2       38       73800400         194185X615       Control Bar, Drive       40       406558         191730       Locknut, Hex       40       406558         194185X615       Control Bar, Drive       40       406558         194185X615       Control Bar, Drive       41       40861         194231X427       Wheel & Tire Assembly       54       413144         194231X427       Wheel & Tire Assembly       57       401802         194231X427       Wheel & Tire Assembly       57       401802         194038       E-Ring       57       401802         403849       Pinion       57       401802         191017       Pawi, Drive       60       410734         67725       Washer 1/2 x 1-1/2 x .134       67       410349         191039       Bearing, Wheel Adjuster       67       410949         701037       Selector Knob       67       410736         701037       Selector Knob       63       183514         701037       Selector Knob       66       183514         77262       Pan Hea	407816       Drive Control Assembly (Includes Cable)       36       404833         199687       Screw, Threaded, Rolled #10-24 x 1/2       38       73800400         194185X615       Control Bar, Drive       40       406558         194185X615       Control Bar, Drive       40       406558         194185X615       Control Bar, Drive       40       406558         194185X615       Control Bar, Drive       41       40861         194231X427       Wheel & Tire Assembly       41       408651         194231X427       Wine & Tire Assembly       54       413144         403849       Pinion       57       401802         12000058       E-Ring       54       410734         403849       Pinion       57       401802         191017       Pawi, Drive       57       401802         191037       Pawi, Drive       57       401802         67725       Washer 1/2 x 1-1/2 x .134       67       410726         191037       Pawi, Drive       60       410724         701037       Selector Knob       67       183514         701037       Selector Knob       66       183514         175262       Pan Head Tapping Screw #10-2	407816       Drive Control Assembly (Includes Cable)       36       404833         199687       Screw, Threaded, Rolled #10-24 x 1/2       38       73800400         194185X615       Control Bar, Drive       40       406558         191730       Locknut, Hex       40       406558         194185X615       Control Bar, Drive       40       406558         194185X615       Control Bar, Drive       41       40861         194231X427       Wheel & Tire Assembly       54       413144         194231X427       Will       54       413144         403849       Pinion       57       401802         12000058       E-Ring       54       410734         403849       Pinion       57       401802         191017       Pawi, Drive       57       401802         191017       Pawi, Drive       60       410734         191037       Bearing, Wheel Adjuster       60       410726         191037       Selector Knob       63       183514         191038       Bearing, Wreel Adjuster       63       183514         191039       Bearing, Wreel Adjuster       63       183514         101037       Selector Knob       64 </th <th>407816       Drive Control Assembly (Includes Cable)       36       404833         199687       Screw, Threaded, Rolled #10-24 x 1/2       38       73800400         194185X615       Control Bar, Drive       40       406558         191730       Locknut, Hex       40       406558         194185X615       Control Bar, Drive       40       406558         194185X615       Control Bar, Drive       41       40861         194231X427       Wheel &amp; Tire Assembly       54       413144         194231X427       Will Bar, Drive       57       401802         403849       Pinion       57       401802         12000058       E-Ring       57       401802         403849       Pinion       57       401802         191017       Pawi, Drive       57       401802         191017       Pawi, Drive       57       401802         191037       Selector Knob       67       43056         191037       Selector Knob       63       183514         191037       Selector Knob       63       183514         191038       Selector Knob       64       183514         175262       Pan Head Tapping Screw #10-24 x 2-3/4</th> <th>407816       Drive Control Assembly (Includes Cable)       36       404833         199687       Screw, Threaded, Rolled #10-24 x 1/2       38       73800400         194185X615       Control Bar, Drive       40       406558         191730       Locknut, Hex       41       408861         191730       Locknut, Hex       41       408658         191730       Locknut, Hex       41       406558         194331X427       Wheel &amp; Tire Assembly       54       413144         12000058       F-Ring       57       401802         403849       Pinion       57       401802         191017       Pawl, Drive       61       410729         191037       Selector Knob       62       410949         191037       Selector Knob       63       183514         191037       Selector Knob       64       183514         191037       Selector Knob       64       183514         175262       Pan Head Tapping Screw #10-24 x 2-3/4       67       410</th>	407816       Drive Control Assembly (Includes Cable)       36       404833         199687       Screw, Threaded, Rolled #10-24 x 1/2       38       73800400         194185X615       Control Bar, Drive       40       406558         191730       Locknut, Hex       40       406558         194185X615       Control Bar, Drive       40       406558         194185X615       Control Bar, Drive       41       40861         194231X427       Wheel & Tire Assembly       54       413144         194231X427       Will Bar, Drive       57       401802         403849       Pinion       57       401802         12000058       E-Ring       57       401802         403849       Pinion       57       401802         191017       Pawi, Drive       57       401802         191017       Pawi, Drive       57       401802         191037       Selector Knob       67       43056         191037       Selector Knob       63       183514         191037       Selector Knob       63       183514         191038       Selector Knob       64       183514         175262       Pan Head Tapping Screw #10-24 x 2-3/4	407816       Drive Control Assembly (Includes Cable)       36       404833         199687       Screw, Threaded, Rolled #10-24 x 1/2       38       73800400         194185X615       Control Bar, Drive       40       406558         191730       Locknut, Hex       41       408861         191730       Locknut, Hex       41       408658         191730       Locknut, Hex       41       406558         194331X427       Wheel & Tire Assembly       54       413144         12000058       F-Ring       57       401802         403849       Pinion       57       401802         191017       Pawl, Drive       61       410729         191037       Selector Knob       62       410949         191037       Selector Knob       63       183514         191037       Selector Knob       64       183514         191037       Selector Knob       64       183514         175262       Pan Head Tapping Screw #10-24 x 2-3/4       67       410



### MAINTENANCE

	MAINTENANCE SCHEDULE	BEFORE EACH USE	AFTER EACH USE	EVERY 10 HOURS	EVERY 25 HOURS OR SEASON	EVERY 100 HOURS	BEFORE STORAGE
	Check for Loose Fasteners	~					<b>v</b>
Ľ	Clean / Inspect Grass Catcher *	<b>v</b>	~				~
Ŵ	Check Tires	<b>v</b>					
ĪŇ	Check Drive Wheels ***	<b>v</b>					
<b>–</b> –	Clean Lawn Mower ****		~				~
М	Clean under Drive Cover ***			<b>v</b>			
0	Check Drive Belt / Pulleys ***				<ul> <li>✓</li> </ul>		
W	Check / Sharpen / Replace Blade				✔3		
ER	Lubrication				<b>~</b>		
ľ	Clean and Recharge Battery **				~		✓4
	Check Engine Oil level	✓5					
Ε	Change Engine Oil				1,2		
N	Clean Air Filter				✓2		
G	Inspect Muffler				<ul> <li>✓</li> </ul>		
Ň	Replace Spark Plug					~	
Ē	Replace Air Filter Paper Cartridge					<b>√</b> 2	
	Empty fuel system or add Stabilizer						~

\* (if so equipped)

\*\* Electric-Start mowers

\*\*\* Power-Propelled mowers \*\*\*\* Use a scraper to clean under deck 3 - Replace blades more often when mowing in sandy soil.4 - Charge 48 hours at end of season.

2 - Service more often if operating in dirty or dusty conditions.

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.

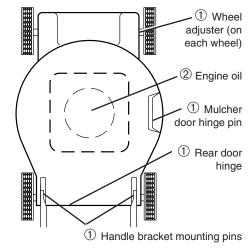
### **BEFORE EACH USE**

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

### LUBRICATION

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

### LUBRICATION CHART



### 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.

### **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, be sure to clean both front wheels.

- 1. Remove hubcaps, hairpin cotters and washers.
- 2. Remove wheels from wheel adjusters.
- 3. Remove any trash or grass cuttings from inside the dust cover, pinion and/ or drive wheel gear teeth.

4. Put wheels back in place.

NOTE: If after cleaning, the drive wheels do not turn freely, contact a Sears or other qualified service center.

### **BLADE CARE**

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

**A** 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

- 1. Disconnect spark plug wire from spark plug and place wire where it cannot come in contact with plug.
- 2. Turn lawn mower on its side. Make sure air filter and carburetor are up.
- 3. 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.

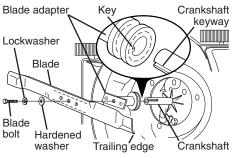
- 4. Remove blade bolt by turning counterclockwise.
- 5. Remove blade and attaching hardware (bolt, lock washer and hardened washer).

**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

- 1. Position the blade adapter on the engine crankshaft. Be sure key in adapter and crankshaft keyway are aligned.
- 2. Position blade on the blade adapter aligning the two (2) holes in the blade with the raised lugs on the adapter.
- 3. Be sure the 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.
- 5. 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. / 47-54 N-m. **IMPORTANT:** Blade bolt is heat treated.

If bolt needs replacing, replace only with approved bolt shown in the Repair Parts section of this manual.

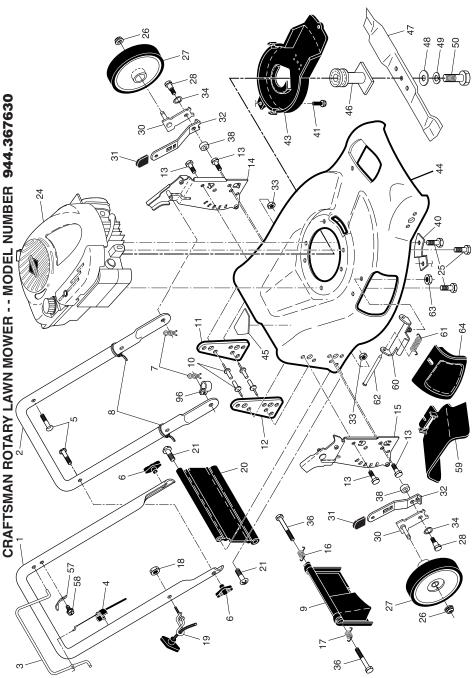


### TO SHARPEN BLADE

- 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.

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION	KE√ NO.	PART NO.	DESCRIPTION
-	194200X479	Upper Handle	24		Engine, Briggs & Stratton,	44	413115	Kit, Mower Housing (Includes
2	151721X479	Lower Handle			Model Number 124T02-			Key Numbers 10, 11, 12, 45)
ო	194199X428	Control Bar			0885-EA (See Breakdown)	45	404763	Danger Decal
4	183567	Cable, Operator Presence	25	150406	Screw, Hex Head, Threaded,	46	194037	Blade Adapter / Pulley
ß	191574	Handle Bolt			Rolled 3/8-16 x 1-1/8	47	406712	Blade, 21"
9	189713X428	Handle Knob	26	409148	Hex Flange Nut	48	851074	Hardened Washer
7	51793	Hairpin Cotter	27	400246X427	Wheel & Tire Assembly	49	850263	Helical Washer
ω	66426	Wire Tie	28	401638	Shoulder Bolt 5/16-18 x 33	50	851084	Screw, Machine, Hex Head,
6	401812X428	Rear Door Assembly	30	401178X004	Axle Arm Assembly, Rear			Grade 8 3/8-24 x 1-3/8
10	128415	Pop Rivet	31	701037	Selector Knob	57	850733X004	
⊊ 21	406573X479	Support Bracket, LH	32	401623X004	Selector Spring	58	750634	Screw
12	406574X479	Support Bracket, RH	33	198541	Nut, Hex 3/8-16	59	175071	Discharge Deflector
13	17060410	Screw 1/4-20 x 5/8	34	401630	Washer, Curved, Cylindrical	09	175735	Hinge Bracket
14	175082X428	Handle Bracket Assembly, LH	36	184193	Bolt	61	193000	Spring, Torsion
15	175081X428	Handle Bracket Assembly, RH	38	401629	Spacer	62	175650	Hinge Rod
16	405417	Spring, Rear Door, LH	40	188839X004	Mounting Bracket,	63	73800400	Nut, Hex
17	405418	Spring, Rear Door, RH			Debris Shield	64	175066	Mulcher Door
18	132004	Keps Locknut 1/4-20	41	192325	Screw, Debris Shield	96	197991	Clip, Cable
19	194788	Rope Guide	43	405844	Debris Shield	;	404764	Warning Decal (not shown)
20	189005	Rear Skirt				;	413310	Owner's Manual, English
21	88652	Hinge Screw 1/4-20 x 1-1/4				;	413311	Owner's Manual. French

### **REPAIR PARTS**



### **GRASS CATCHER**

- · 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.

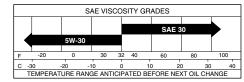
### **GEAR CASE**

- 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 1 Grease, Part No. 750369. Do not substitute.

### 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

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

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

- 2. Remove engine oil cap; lay aside on a clean surface.
- 3. 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.



- 4. Wipe off any spilled oil from lawn mower or side of engine.
- 5. Slowly pour oil down the oil fill spout, stopping every few ounces to check the oil level with the dipstick.
- 6. Stop adding oil when you reach the FULL mark on the dipstick. Wait a minute to allow oil to settle.
- 7. Continue adding small amounts of oil, rechecking the dipstick until oil level settles at FULL. DO NOT overfill. or engine will smoke heavily from the muffler on startup.
- 8. Always be sure to retighten oil dipstick before starting engine.
- 9. Reconnect spark plug wire to spark plug.

### **AIR FILTER**

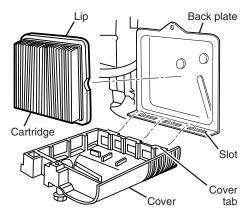
Your engine will not run properly and may be damaged by using a dirty air filter. Replace the air filter cartridge every 100 hours of operation or every season, whichever occurs first. Service air cleaner more often under dusty conditions.

### TO CLEAN AIR FILTER

- 1. Loosen screw and tilt cover to remove.
- Carefully remove cartridge.
- 3. Clean by gently tapping on a flat surface. If very dirty, replace cartridge.

**ACAUTION:** Petroleum solvents, such as kerosene, are not to be used to clean cartridge. They may cause deterioration of the cartridge. Do not oil cartridge. Do not use pressurized air to clean or dry cartridge.

4. Install cartridge, then replace cover making sure the tabs are aligned with the slots in the back plate. Fasten screw securely.



### 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, whichever occurs first. Spark plug type and gap setting are shown in the "PRODUCT SPECIFIC-ATIONS" 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.

### **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.

### 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

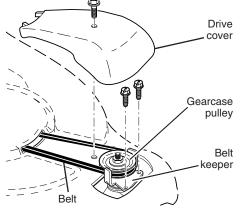
See "TO ADJUST CUTTING HEIGHT" in the Operation section of this manual.

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

### TO REMOVE DRIVE BELT

- 1. Remove drive cover and belt keeper.
- 2. Remove belt from gearcase pulley.
- 3. Turn lawn mower on its side with air filter and carburetor down.
- 4. Remove blade, engine pulley and debris shield.
- 5. Remove engine pulley and belt from debris shield.



# **SERVICE NOTES**

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

PROBLEM	CAUSE	CORRECTION
Does not start (continued)	<ol> <li>9. Control bar defective.</li> <li>10. Fuel valve lever (if so equipped) in OFF position.</li> <li>11. Weak battery (if equipped).</li> <li>12. Disconnected battery connector (if equipped).</li> </ol>	<ol> <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>
Loss of power	<ol> <li>Rear of lawn mower housing or cutting blade dragging in heavy 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 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 lawn mower housing or cutting 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>
Loss of drive or slowing of drive speed	<ol> <li>Belt wear.</li> <li>Belt off of pulley.</li> <li>Drive cable worn or broken.</li> </ol>	<ol> <li>Check/replace drive belt.</li> <li>Check/reinstall drive belt.</li> <li>Replace drive cable.</li> </ol>

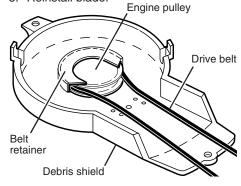
### TO REPLACE DRIVE BELT

- 1. Place new drive belt in engine pulley and belt retainer of debris shield.
- 2. Route the other end of the new drive belt through hole in housing.
- 3. Reinstall debris shield.
- 4. Return mower to upright position. 5. Install new belt on gearcase pulley.

6. Reinstall belt keeper and drive cover. NOTE: Always use factory approved belt

to assure proper fit and long life.

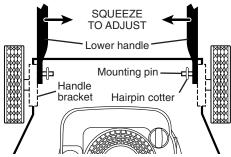
- 7. Turn lawn mower on its side with air filter and carburetor down.
- 8. Reinstall blade.

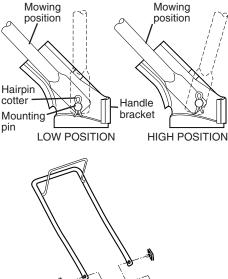


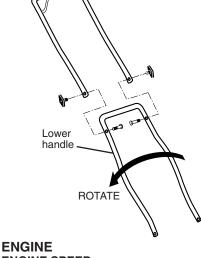
### TO ADJUST HANDLE

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.
- 2. Remove hairpin cotters from lower handle bracket mounting pin.
- 3. Squeeze lower handle in to remove it from mounting pins.
- 4. Turn lower handle over to raise or lower handle.
- 5. Squeeze lower handle in and position holes 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 centre for repair and adjustment.

### CARBURETOR

Your carburetor is not adjustable. If your engine does not operate properly due to suspected carburetor problems, take your lawn mower to a Sears or other qualified service centre for repair 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 centre, 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.

- 1. 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.
- Touch up all rusted or chipped paint surfaces; sand lightly before painting.

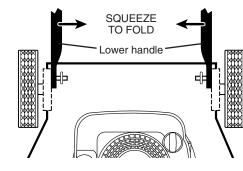
### HANDLE

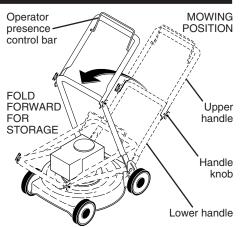
You can fold your lawn mower handle for storage.

- 1. 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 drain the gas tank and carburetor if using fuel stabilizer. **NOTE:** *FRESH START*<sup>™</sup> fuel cap and cartridge system automatically drips concentrated fuel preserver into your fuel tank and is an acceptable alternative to adding 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 30 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.

**ACAUTION:** 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 Service Centre.

PROBLEM	CAUSE	CORRECTION
Does not start	1. Dirty air filter.	1. Clean/replace air filter.
	2. Out of fuel.	2. Fill fuel tank.
	3. Stale fuel.	3. Empty fuel tank and refill tank with fresh, clean gasoline.
	4. Water in fuel.	4. Empty fuel tank and refill tank with fresh, clean 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 adapter.	7. Tighten blade bolt or replace blade adapter.
	<ol> <li>Control bar in released position.</li> </ol>	8. Depress control bar to handle.