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Owner's Manual

CRAFTSMAN®

ROTARY LAWN MOWER

5.5 Horsepower

21" Multi-Cut

Model No.

944.362490



CAUTION:

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

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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 NOT 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.

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.

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

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

⚠ **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 the 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 wear substantial foot wear.

CYLINDER BARREL

KEY NO.	PART NO.	DESCRIPTION
1	5579982	Cylinder Assembly
2	2399780	Clip, Valve Guide
3	5579990	Cover, Head
4	5580006	Cover Comp., Breather
5	0636845	Bolt, Flange (6 x 12)
6	0803619	Bolt, Flange (6 x 14)
7	5581038	Oil Seal 25.4 x 62 x 6
8	1441112	Spark Plug (BPR6ES NGK)

CRANKSHAFT

KEY NO.	PART NO.	DESCRIPTION
1	5580030	Crankshaft Comp. (N1-Type)
5	5581012	Washer Thrust

AIRCLEANER

KEY NO.	PART NO.	DESCRIPTION
1	5580154	Tube, Breather
2	5580402	Element, Air Cleaner
3	5581410	Case Assembly, Air Cleaner
5	5664560	Gasket, Air Cleaner
6	5580444	Cover, Air Cleaner
7	5580964	Bolt, Flange (6 x 86)
8	2374742	Bolt, Flange (6 x 14)

OIL PAN

KEY NO.	PART NO.	DESCRIPTION
1	5579974	Pan Assembly, Oil
2	4497947	Gasket, Oil Filler Cap
4	5580261	Shaft Comp., Governor Holder
5	5580279	Governor Assembly
6	5580287	Weight, Governor
7	5580295	Holder, Governor Weight
8	1427244	Pin, Governor Weight
9	1427251	Slider, Governor
10	5580303	Shaft, Governor Arm
11	0803619	Bolt Flange (6 x 14)
12	0748111	Bolt, Flange (6 x 25)
13	2413862	Washer, Thrust 6mm
14	2456697	Clip, Governor Holder
15	5581046	Oil Seal (28 x 41.25 x 6)
16	0345900	Washer, Plain, 6mm
17	0115527	Pin, Lock, 8mm
18	1417369	Pin, Dowel (8 x 20)
19	5722996	Gauge Assembly, Oil Level

PISTON CONNECTING ROD

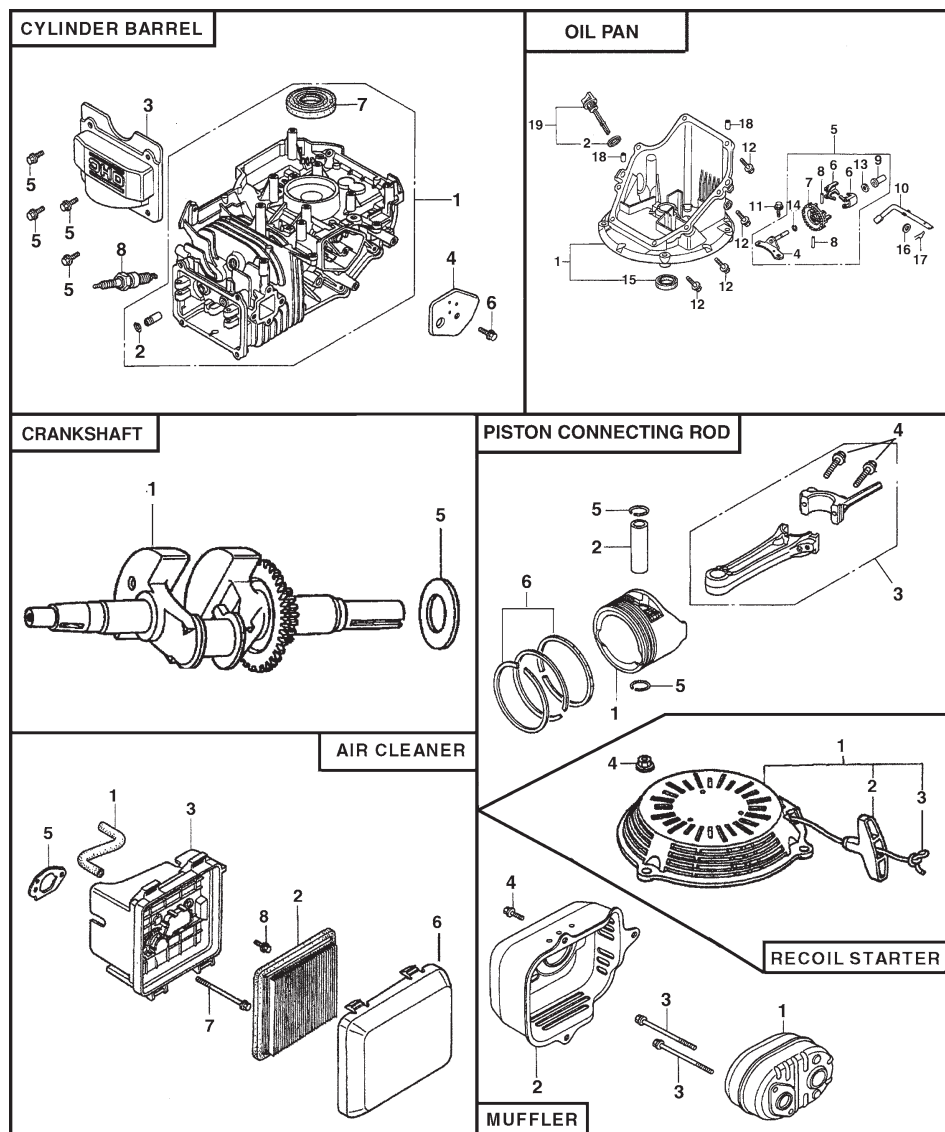
KEY NO.	PART NO.	DESCRIPTION
1	5580014	Piston
2	1426576	Pin, Piston
3	5580022	Rod Assembly, Connecting
4	1431055	Bolt, Connecting Rod
5	2605517	Clip, Piston Pin 13mm
6	5655949	Ring Set, Piston (Riken)
6	5655956	Ring Set, Piston (Teikoku)

RECOIL STARTER

KEY NO.	PART NO.	DESCRIPTION
1	5597869	Starter Assy., Recoil, NH1, Long Rope, Black
2	5580634	Knob, Recoil Starter
3	5580642	Rope, Recoil Starter
4	2866341	Nut, Flange, 6mm

MUFFLER

KEY NO.	PART NO.	DESCRIPTION
1	5580485	Muffler Comp.
2	5580501	Protector, Muffler
3	5580972	Bolt, Flange (6 x 79) CT200
4	0636845	Bolt, Flange (6 x 12)
5	5737457	Gasket, Muffler (Optional)



- Do not pull mower backwards unless absolutely necessary. Always look down and behind before and while moving backwards.
- 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 and walk; never run.
- Disengage the self-propelled mechanism or drive clutch on mowers so equipped before starting the engine (motor).
- 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 and fall accidents which can result in severe injury. All slopes require extra caution. If you feel uneasy on a slope, do not mow it.
- 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. SERVICE

- Use extra care in handling gasoline and other fuels. They are flammable and vapors are explosive.
 - Use only an approved container.
 - Never remove gas cap or add fuel with the engine running. Allow engine to cool before refueling. Do not smoke.
 - Never refuel the machine indoors.
 - Never store the machine or fuel container inside where there is an open flame, such as a water heater.
- Never run a 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 (motor) 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.

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.
3. 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.

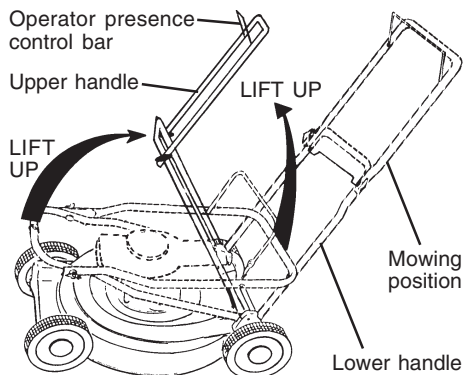
HOW TO SET UP YOUR LAWN MOWER

TO UNFOLD HANDLE

IMPORTANT: Unfold handles 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.
3. Remove handle padding holding operator presence control bar to upper handle.

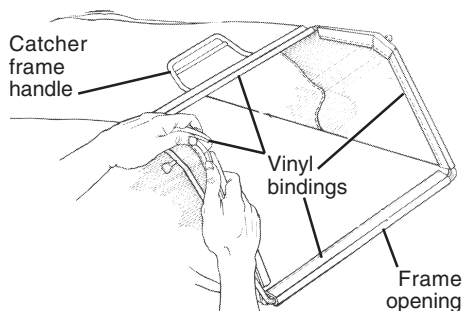
Your lawn mower handle can be adjusted for your mowing comfort. Refer to "ADJUST HANDLE" in the Service and Adjustments section of this manual.



TO ASSEMBLE GRASS CATCHER

1. 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.

HONDA 4-CYCLE ENGINE

MODEL NUMBER GCV-160-A1AE

CONTROL

KEY NO.	PART NO.	DESCRIPTION
1	5580311	Arm, Governor
2	5580329	Rod, Governor
3	5580345	Spring, Governor
4	5580352	Spring, Throttle Return
5	4439428	Spring, Lever
6	0800466	Holder, Cable
7	5580378	Base Comp., Control (Use up to Serial Number 1177559)
	6094122	Base Comp., Control (Use from Serial Number 1177560)
8	5580386	Rod, Choke
9	2418671	Bolt, Governor Arm
10	5580998	Bolt, Flange (6 x 45) (ct200)
11	0145557	Screw, Pan (5 x 16)
12	0471623	Nut, Flange, 6mm

CAMSHAFT PULLEY

KEY NO.	PART NO.	DESCRIPTION
1	5580055	Pulley Comp., Camshaft
2	5580063	Shaft, Cam Pulley
3	5580071	Belt, Timing
4	5580089	Arm, Intake Valve Rocker
5	5580097	Arm, Exhaust Valve Rocker
6	5580105	Shaft Rocker Arm
7	5580113	Valve, Intake
8	5580121	Valve, Exhaust
9	5580139	Spring, Valve
10	1426980	Retainer, Intake Valve Spring
11	0294819	Screw, Tappet Adjuster
12	0004598	Nut, Tappet Adjuster
13	0018044	O-ring
13	2373447	O-ring

CARBURETOR

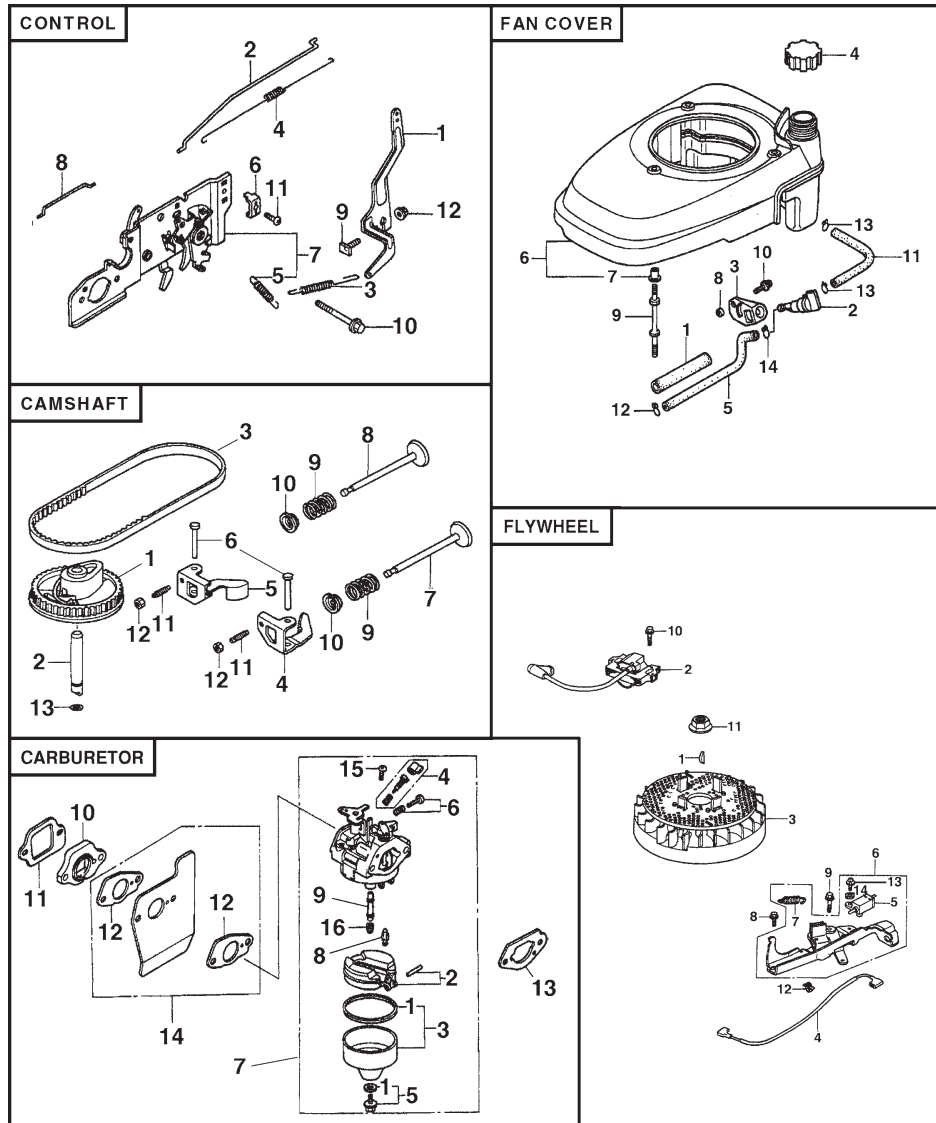
KEY NO.	PART NO.	DESCRIPTION
1	3088416	Gasket Set
2	5580162	Float Set
3	4930756	Chamber Set, Float
4	4481818	Screw Set
5	1441518	Screw Set
6	5580170	Screw Set
7	5664552	Carburetor Assembly
8	5580212	Valve Float
9	5580220	Nozzle Main
10	5580238	Insulator, Carburetor
11	5580246	Gasket, Insulator
12	4581120	Gasket, Carburetor
13	5580253	Gasket, Carburetor
14	5580535	Guide Comp., Air
15	0639419	Screw, Pan (5 x 6)
15	3344520	Screw, Pan (5 x 6)
16	0635474	Jet, Main #60 (optional)
16	0635482	Jet, Main #62 (optional)
16	0636126	Jet, Main #65 (optional)

FAN COVER

KEY NO.	PART NO.	DESCRIPTION
1	3683646	Rubber, Supporter, 107 mm
2	5028923	Petcock Assembly, Manual
3	5580394	Bracket, Petcock
4	5580451	Cap Assembly, Fuel Tank
5	5580469	Tube, Fuel
6	5580519	Cover Comp., Fan, NH1, Black
7	5580527	Collar, Fan Cover
8	2499440	Collar, Front Turn Signal
9	5581004	Bolt, Stud
10	0671636	Screw, Washer, 5 x 10
11	2449593	Bulk Hose, Fuel
12	0250647	Clip, Tube (B8)
13	0250985	Clip, Tube (B10)
14	0053447	Clip, Tube (C9)

FLYWHEEL

KEY NO.	PART NO.	DESCRIPTION
1	0348433	Key, Special Woodruff (25 x 18)
2	5580659	Coil Assembly, Ignition
3	5723747	Flywheel Assembly
4	5580675	Wire, Stop Switch
5	5580683	Switch Assembly, Engine Stop
6	5580782	Brake Assembly
7	5580790	Spring, Brake Lever
8	0803619	Bolt Flange (6 x 14)
9	1725050	Bolt, Flange (6 x 23)
10	0671552	Bolt, Flange (6 x 20)
11	0442038	Nut, Special, 14mm
12	1824630	Clip Cable
13	0485946	Screw, Washer (4 x 12)
14	1510361	Washer, Plain

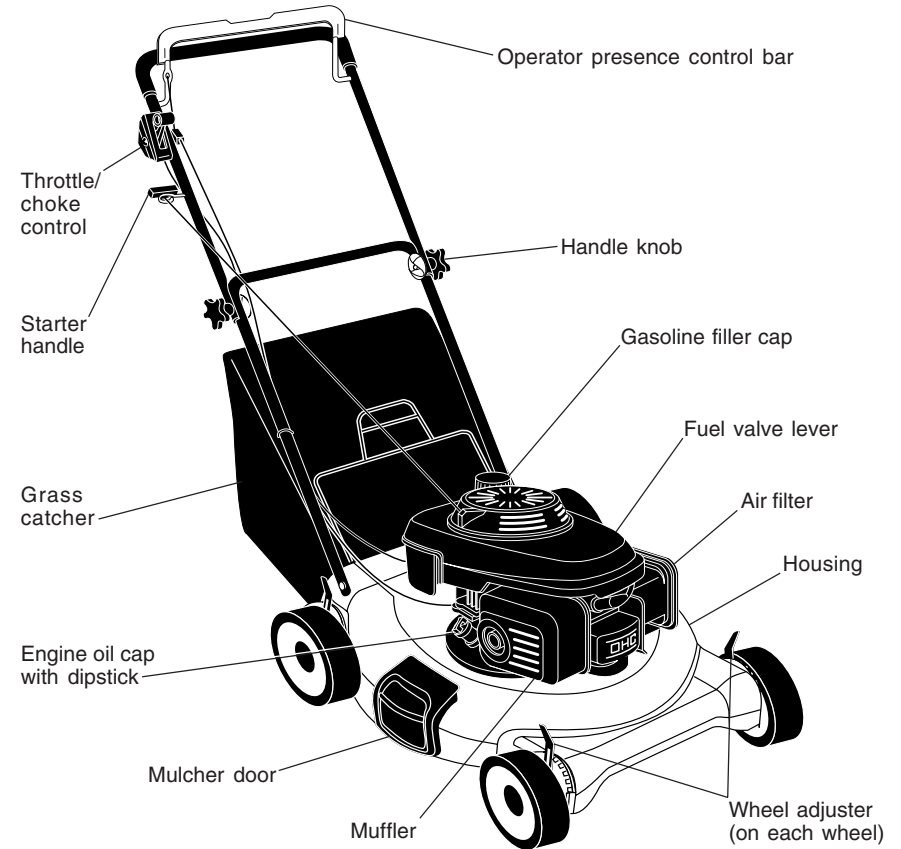
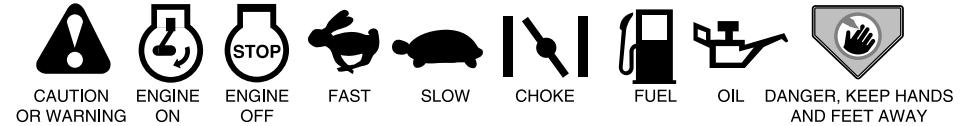


OPERATION

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.



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.
Mulcher door – allows conversion to discharging or bagging operation.

Throttle/choke control – used for starting the engine; & allows you to select either CHOKE or FAST engine speed.
Starter handle – used for starting the engine.

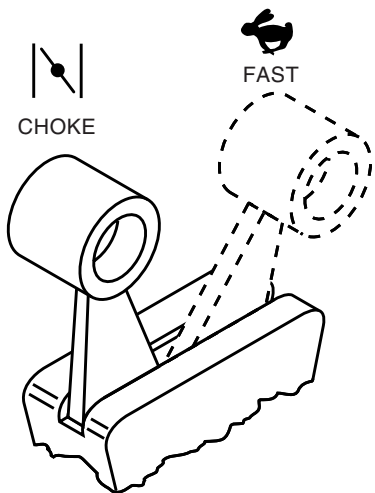


The operation of any lawn mower can result in foreign objects thrown into the eyes, which can result in severe eye damage.

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.

ENGINE CONTROL

The engine is controlled by a throttle control located on the side of the upper handle. CHOKE position is for starting a cold engine and FAST position is for starting a warm engine and normal operation. The engine speed is not adjustable.



ENGINE ZONE CONTROL

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

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

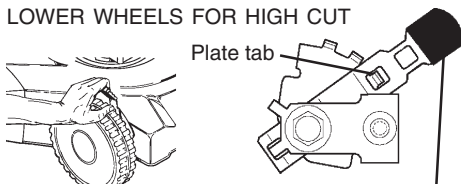
TO ADJUST CUTTING HEIGHT

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

- To change cutting height, squeeze adjuster lever toward wheel. Move wheel up or down to suit your requirements. Be sure all wheels are in the same setting.

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

LOWER WHEELS FOR HIGH CUT



RAISE WHEELS FOR LOW CUT

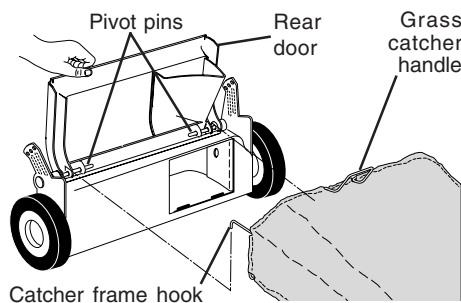
Lever

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.



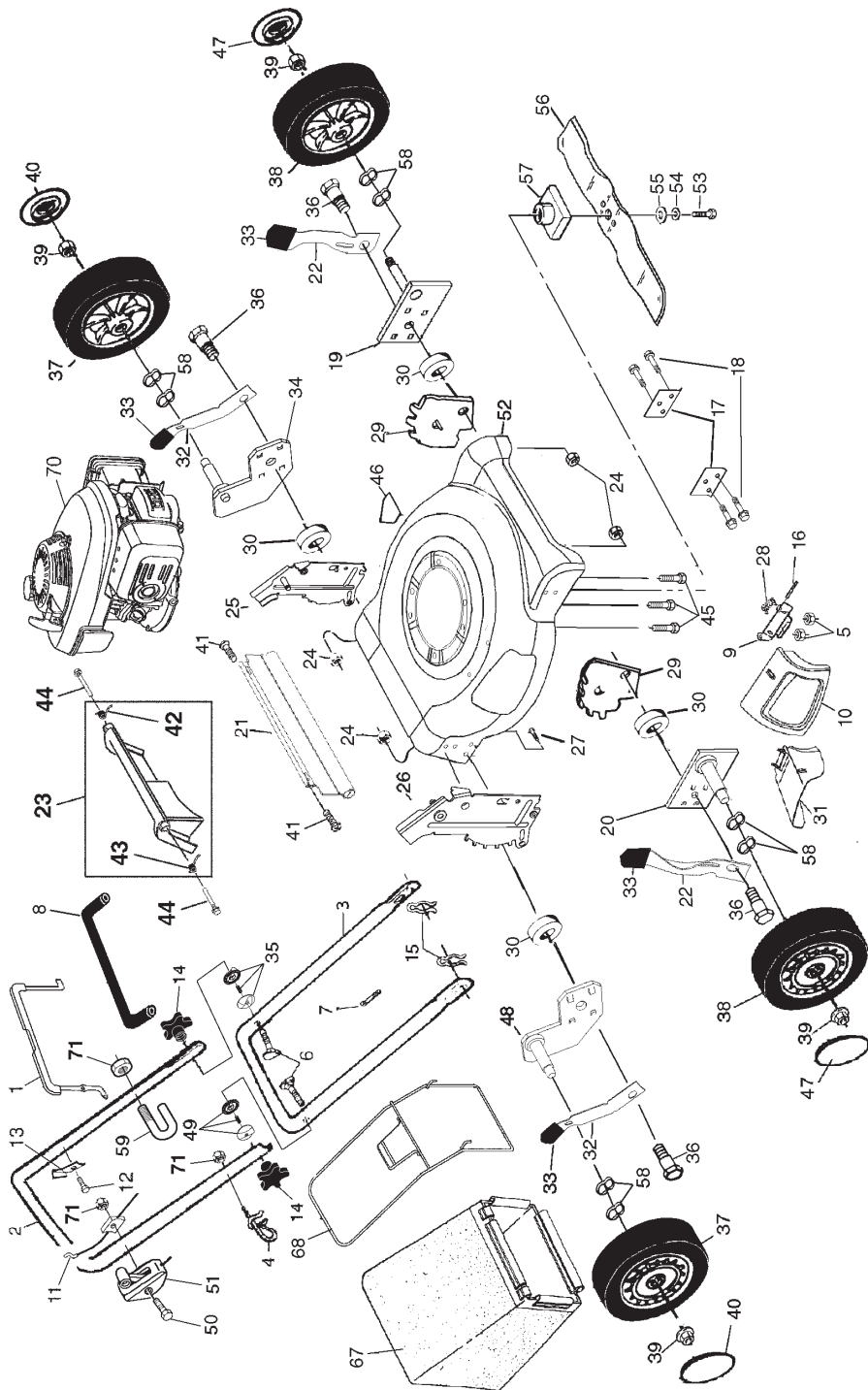
CRAFTSMAN ROTARY LAWN MOWER -- MODEL NUMBER 944.362490

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	182870	Control Bar	36	160828	Shoulder Bolt 5/16-18
2	181676	Upper Handle, with Grip	37	180183	Wheel Assembly, Rear
3	151721X479	Lower Handle	38	180541	Wheel Assembly, Front
4	179585	Rope Guide	39	83923	Flanged Locknut
5	63601	Locknut 1/4-20	40	182248	Hubcap
6	171407	Handle Bolt	41	88652	Hinge Screw
7	66426	Wire Tie	42	165766	Spring (LH)
8	183684	Grip, Foam	43	165767	Spring (RH)
9	154132	Hinge Bracket	44	165912	Door Bolt
10	165754	Mulcher Door	45	150406	Hex Head Thread Rolling Screw 3/8-16 x 1
11	183575	Engine Zone Control Cable	46	107339X	Danger Decal
12	750634	Hex Washer Head Screw	47	182247	Hubcap
13	850733X004	Up-Stop Bracket	48	181215X004	Axle Arm Assembly - RR
14	180833	Handle Knob	49	179753	Handle Adjuster Assembly, RH
15	51793	Hairpin Cotter	50	144929	Screw
16	147286	Hinge Rod	51	182603	Throttle Control
17	165946X479	Support Bracket	52	181681	Housing Assembly (Includes Key Numbers 17, 18 and 46)
18	17600406	Screw	53	851084	Hex Head Screw 3/8-24 x 1-3/8 Grade 8
19	167132X004	Axle Arm Assembly - LF	54	850263	Helical Lockwasher
20	167133X004	Axle Arm Assembly - RF	55	851074	Hardened Washer
21	165858	Rear Skirt	56	175064	2 1/2" Blade
22	168360X004	Selector Spring - Front	57	851514	Blade Adapter
23	166875	Rear Door Assembly Kit (Incl. Springs)	58	57143	Washer, Wave
24	751153	Locknut 5/16-18	59	182003	Clip, Wireform
25	166111X479	Handle Bracket Assembly (Left)	67	181368	Grass Bag
26	166112X479	Handle Bracket Assembly (Right)	68	180332	Catcher Frame
27	851856	Screw 1/4-20 x 3/8	70	---	Engine, Honda, Model Number GCV-160-A1AE (See Breakdown)
28	152124	Hinge Spring	71	132004	Nut, Hex
29	160835X007	Wheel Adjusting Bracket - Front	---	162300	Warning Decal (Not Shown)
30	19112206	Washer	---	181668	Owner's Manual, English
31	165760	Clip on Discharge Guard	---	181669	Owner's Manual, French
32	180077X004	Selector Spring - Rear			
33	180912	Selector Knob			
34	181214X004	Axle Arm Assembly - LR			
35	179752	Handle Adjuster Assembly, LH			

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

REPAIR PARTS

CRAFTSMAN ROTARY LAWN MOWER --- MODEL NUMBER 944.362490



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.

SIMPLE STEPS TO REMEMBER WHEN CONVERTING YOUR LAWN MOWER

FOR MULCHING -

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

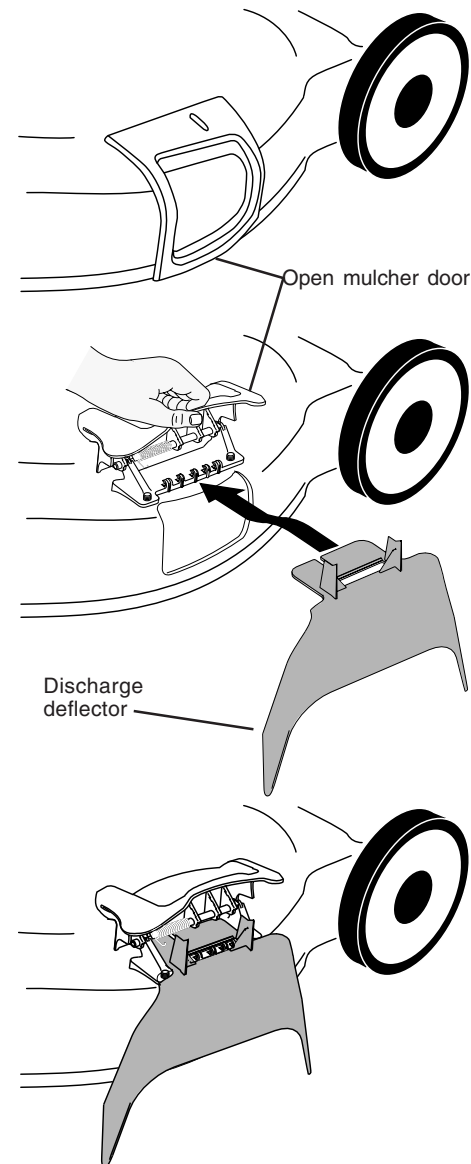
FOR REAR BAGGING -

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

FOR SIDE DISCHARGING -

1. Rear door closed.
2. Side discharge deflector installed.

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



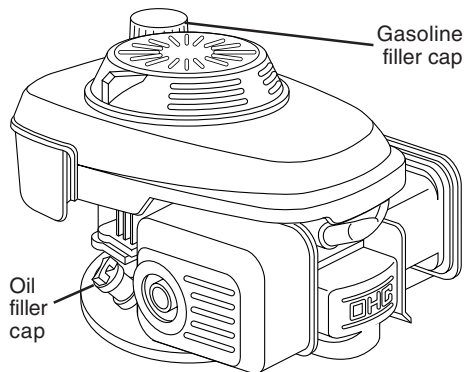
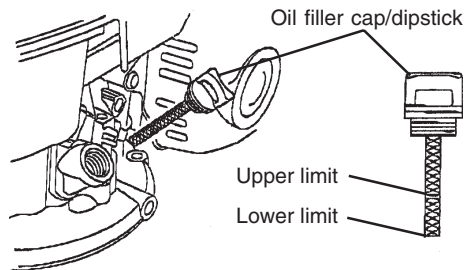
BEFORE STARTING ENGINE

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.

⚠ 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 oil dipstick from oil fill spout. Make sure that rim of spout is clean.
 3. You receive a container of oil with the unit. Slowly pour 3/4 (0,35L) of the oil from the container down the oil fill spout into the engine.
 4. Wait one minute to allow oil to settle. Use gauge on oil fill cap/dipstick for checking level. Insert dipstick into the tube and rest the oil fill cap on the tube. DO NOT thread the cap into the tube when taking reading.
 5. Continue adding small amounts of oil and rechecking the dipstick until it reads full. DO NOT overfill, or engine will smoke on startup.
 6. Always be sure to retighten oil dipstick before starting engine.
- 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.



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.

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

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.

1. Be sure fuel valve is in the ON position.
 2. To start a cold engine, move handle mounted throttle/choke control lever to CHOKE position.
 3. Hold operator presence control bar down to the handle and pull starter handle quickly. Do not allow starter rope to snap back.
 4. Slowly move throttle control lever to FAST position after engine starts.
- To start a warm engine, move throttle control lever to FAST position, then follow steps above.

TO STOP ENGINE

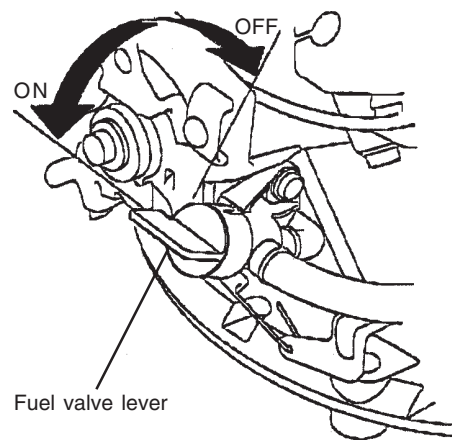
- To stop engine, release operator presence control bar. Wait until blade and all moving parts have stopped and turn fuel valve to OFF position if you do not intend to restart the engine soon.

TROUBLESHOOTING - See appropriate section in manual unless directed to a Sears Service Center.

PROBLEM	CAUSE	CORRECTION
Poor cut – uneven	<ol style="list-style-type: none"> 1. Worn, bent or loose blade. 2. Wheel heights uneven. 3. Buildup of grass, leaves and trash under mower. 	<ol style="list-style-type: none"> 1. Replace blade. Tighten blade bolt. 2. Set all wheels at same height. 3. Clean underside of mower housing.
Excessive vibration	<ol style="list-style-type: none"> 1. Worn, bent or loose blade. 2. Bent engine crankshaft. 	<ol style="list-style-type: none"> 1. Replace blade. Tighten blade bolt. 2. Contact a Sears or other qualified service center.
Starter rope hard to pull	<ol style="list-style-type: none"> 1. Engine flywheel brake is on when control bar is released. 2. Bent engine crankshaft. 3. Blade adapter broken. 4. Blade dragging in grass. 	<ol style="list-style-type: none"> 1. Depress control bar to upper handle before pulling starter rope. 2. Contact a Sears or other qualified service center. 3. Replace blade adapter. 4. Move lawn mower to cut grass or to hard surface.
Grass catcher not filling (If so equipped)	<ol style="list-style-type: none"> 1. Cutting height too low. 2. Lift on blade worn off. 3. Catcher not venting air. 	<ol style="list-style-type: none"> 1. Raise cutting height. 2. Replace blade. 3. Clean grass catcher.
Hard to push	<ol style="list-style-type: none"> 1. Grass is too high or wheel height is too low. 2. Rear of lawn mower housing or cutting blade dragging in grass. 3. Grass catcher too full. 4. Handle height position not right for you. 	<ol style="list-style-type: none"> 1. Raise cutting height. 2. Raise rear of lawn mower housing one (1) setting higher. 3. Empty grass catcher. 4. Adjust handle height to suit.

TROUBLESHOOTING - See appropriate section in manual unless directed to a Sears Service Center.

PROBLEM	CAUSE	CORRECTION
Does not start	<ol style="list-style-type: none"> 1. Dirty air filter. 2. Out of fuel. 3. Stale fuel. 4. Water in fuel. 5. Spark plug wire is disconnected. 6. Bad spark plug. 7. Loose blade or broken blade adapter. 8. Control bar in released position. 9. Control bar defective. 10. Fuel valve lever (if so equipped) in OFF position. 11. Weak battery (if equipped). 12. Disconnected battery connector (if equipped). 	<ol style="list-style-type: none"> 1. Clean/replace air filter. 2. Fill fuel tank. 3. Drain tank and refill with fresh, clean fuel. 4. Drain fuel tank and carburetor and refill tank with fresh gasoline. 5. Connect wire to plug. 6. Replace spark plug. 7. Tighten blade bolt or replace blade adapter. 8. Depress control bar to handle. 9. Replace control bar. 10. Turn fuel valve lever to the ON position. 11. Charge battery. 12. Connect battery to engine.
Loss of power	<ol style="list-style-type: none"> 1. Rear of lawn mower housing or cutting blade dragging in heavy grass. 2. Cutting too much grass. 3. Dirty air filter. 4. Buildup of grass, leaves, and trash under mower. 5. Too much oil in engine. 6. Walking speed too fast. 	<ol style="list-style-type: none"> 1. Set to "Higher Cut" position. 2. Set to "Higher Cut" position. 3. Clean/replace air filter. 4. Clean underside of mower housing. 5. Check oil level. 6. Cut at slower walking speed.



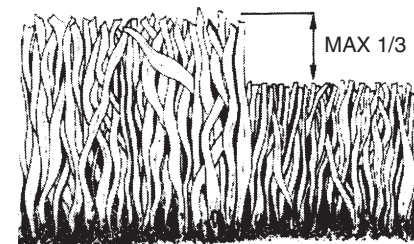
MOWING TIPS

- 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.
- 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 and the newly cut area will not be exposed to the direct sun.
- For best results, adjust the lawn mower cutting height so that the lawn mower cuts off only the top one-third of the grass blades. If the lawn is overgrown it will be necessary to raise the height of cut to reduce pushing effort and to keep from overloading the engine and leaving clumps of mulched grass. For extremely heavy mulching, reduce your width of cut by overlapping previously cut path and mow slowly.



- Certain types of grass and grass conditions may require that an area be mulched a second time to completely hide the clippings. When doing a second cut, mow across or perpendicular to the first cut path.
- Change your cutting pattern from week to week. Mow north to south one week then change to east to west the next week. This will help prevent matting and graining of the lawn.

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.
3. 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.

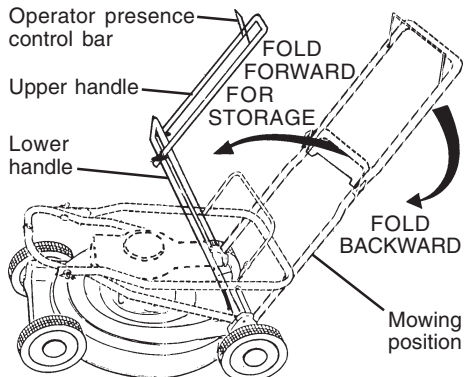
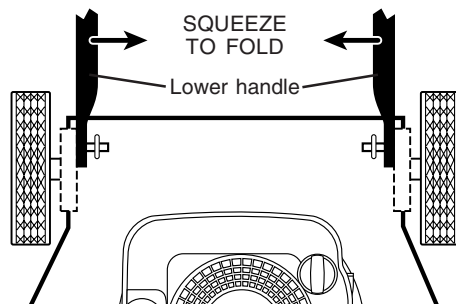
HANDLE

You can fold your 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.



PRODUCT SPECIFICATIONS

Serial Number:	
Date of Purchase:	
Gasoline Capacity / Type:	0,94 Litres (Unleaded Regular)
Oil Type (API-SF-SJ):	SAE 10W30
Oil Capacity:	0,55 Litres
Spark Plug (Gap: .030")	NGK BRP6ES
Blade Bolt Torque:	35-40 ft. lbs.

• The model and serial numbers will be found on a decal on the rear of the mower housing. Record both serial number and date of purchase in space provided above.

LAWN MOWER

Always observe safety rules when performing any maintenance.

TIRES

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

BLADE CARE

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

TO REMOVE BLADE

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

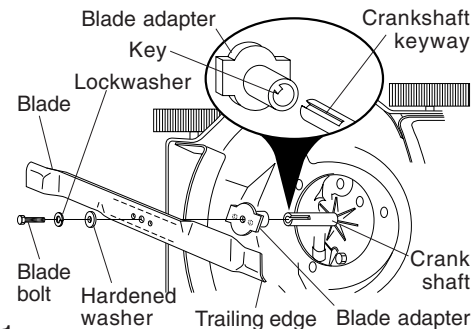
IMPORTANT: Blade bolt is grade 8 heat treated.

TO SHARPEN BLADE

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

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

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



GRASS CATCHER

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

ENGINE

LUBRICATION

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

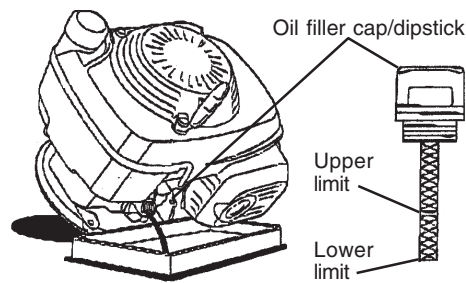
SAE VISCOSITY GRADES	
	SAE 30
	10W-30
°F	-20 0 30 32 40 60 80 100
°C	-30 -20 -10 0 10 20 30 40
TEMPERATURE RANGE ANTICIPATED BEFORE NEXT OIL CHANGE	

NOTE: Multi-viscosity oils (5W30, 10W30 etc.) improve starting in cold weather, and you should check your engine oil level 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, drain 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 spark 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. Fill engine with oil. (See "ADD OIL" in the Operation section of this manual).
6. Reconnect spark plug wire to spark plug.



AIR FILTER

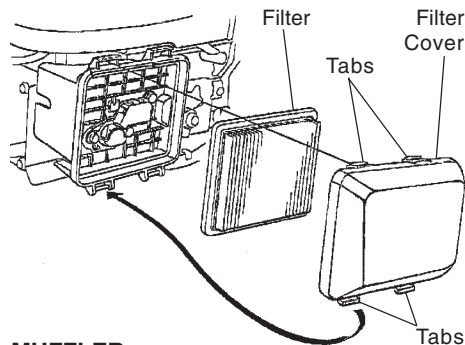
Your engine will not run properly and may be damaged by using a dirty air filter. Replace the air filter every 100 hours of operation or every season, whichever occurs first. Service air cleaner more often under dusty conditions.

TO CLEAN AIR FILTER

1. Remove cover.
2. Carefully remove cartridge.
3. Clean by gently tapping on a flat surface. If very dirty, replace cartridge.

CAUTION: 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.



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 "PRODUCT SPECIFICATIONS" in Maintenance 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.

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

- Clean the underside of your lawn mower by scraping to remove build-up of grass and trash.

SERVICE AND ADJUSTMENTS

WARNING: 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 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

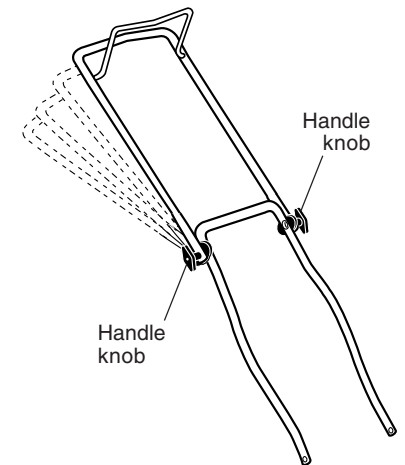
The rear deflector, attached between the rear wheels of your mower, is provided to minimize the possibility that objects will be thrown out of the rear of the mower into the operator mowing position. If the deflector becomes damaged, it should be replaced.

TO ADJUST HANDLE

The upper handle may be adjusted to four (4) different height positions.

1. Loosen both handle knobs only enough to allow the upper handle to pivot to the desired adjustment position.
2. Tighten both handle knobs securely.

- 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.



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 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 center 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 center, which has proper equipment and experience to make any necessary adjustments.