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# **Owner's Manual**

# SAFETY RULES

## Safe Operation Practices for Walk-Behind Mowers



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.

SAFETY STANDARDS REQUIRE OPERATOR PRESENCE CONTROLS TO MINIMIZE THE RISK OF INJURY. YOUR UNIT IS EQUIPPED WITH SUCH CONTROLS. DO NOT ATTEMPT TO DEFEAT THE FUNCTION OF THE OPERATOR PRESENCE CONTROLS UNDER ANY CIRCUMSTANCES.

#### TRAINING:

- Read this operator's manual carefully. Become familiar with the controls and know how to operate your mower properly. Learn how to quickly stop mower.
- Do not allow children to use your mower. Never allow adults to use mower without proper instructions.
- Keep the area of operation clear of all persons, especially small children and pets.
- Use mower only as the manufacturer intended and as described in this manual.
- Do not operate mower if it has been dropped or damaged in any manner. Always have damage repaired before using your mower.
- Do not use accessory attachments that are not recommended by the manufacturer. Use of such attachments may be hazardous.
- The blade turns when the engine is running.

#### PREPARATION:

- Always thoroughly check the area to be mowed and clear it of all stones, sticks, wires, bones, and other foreign objects. These objects will be thrown by the blade and can cause severe injury.
- Always wear safety glasses or eye shields when starting and while using your mower.
- Dress properly. Do not operate mower when barefoot or wearing open sandals. Wear only solid shoes with good traction when mowing.
- Check fuel tank before starting engine. Do not fill gas tank indoors, when the engine is running or when the engine is hot. Allow the engine to cool for several minutes before filling the gas tank. Clean off any spilled gasoline before starting the
- Always make wheel height adjustments before starting your mower. Never attempt to do this while the engine is running.
- Mow only in daylight or good artificial light.

#### **OPERATION:**

- Keep your eyes and mind on your mower and the area being cut. Do not let other interests distract you.
- Do not mow wet or slippery grass. Never run while operating your mower. Always be sure of your footing - keep a firm hold on the handles and walk.
- Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.
- Always stop the engine whenever you leave or are not using your mower, or before crossing driveways, walks, roads, and any gravel-covered areas.
- Never direct discharge of material toward bystanders nor allow anyone near the mower while you are operating it.
- Before cleaning, inspecting, or repairing your mower, stop the engine and make absolutely sure the blade and all moving parts have stopped. Then disconnect the spark plug wire and keep it away from the spark plug to prevent accidental starting.

- Do not continue to run your mower if you hit a foreign object. Follow the procedure outlined above, then repair any damage before restarting and operating you mower.
- Do not change the governor settings or overspeed the engine. Engine damage or personal injury may result.
- Do not operate your mower if it vibrates abnormally. Excessive vibration is an indication of damage; stop the engine, safely check for the cause of vibration and repair as required.
- Do not run the engine indoors. Exhaust fumes are dangerous.
- Never cut grass by pulling the mower towards you. Mow across the face of slopes, never up and down or you might lose your footing. Do not mow excessively steep slopes. Use caution when operating the mower on uneven terrain or when changing directions - maintain good footing.
- Never operate your mower without proper guards, plates, grass catcher or other safety devices in place.

#### MAINTENANCE AND STORAGE:

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



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.



# 🕰 WARNING 🕰



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

**CONGRATULATIONS** on your purchase of a new Lawn Mower. It has been designed, engineered and manufactured to give you the best possible dependability and performance.

Should you experience any problems you cannot easily remedy, please contact your nearest authorized service center. They have competent, well trained technicians and the proper tools to service or repair this unit.

- Read the SAFETY RULES and this manual in its entirety before you attempt to assemble or operate your new lawn mower to insure proper operation and to prevent injury to yourself and others. Save this manual for future reference.
- Your new lawn mower has been assembled at the factory with the exception of those parts left unassembled for shipping
  purposes. To ensure safe and proper operation of your lawn mower, all parts and hardware you assemble must be
  tightened securely. Use the correct tools as necessary to ensure proper tightness.
- All parts such as nuts, washers, bolts, etc., necessary to complete the assembly have been placed in the parts bag.

### TO REMOVE MOWER FROM CARTON

- Remove all loose parts from carton.
- Remove lawn mower housing with care. Avoid touching blade under housing. Always wear gloves or other protection when working under or lifting mower.

## THINGS TO KNOW BEFORE YOU ASSEMBLE OR OPERATE YOUR LAWN MOWER

#### Do I have a side or rear discharge lawn mower?

Look for the grass discharge opening on your mower. If the opening is on the right side of the mower housing, it is a side discharge mower. If the opening is at the back of the mower housing, it is a rear discharge mower. Only rear discharge lawn mowers have a grass catcher included with the mower. Approved grass catchers for side discharge mowers may be purchased from your nearest authorized dealer.

### Do I have a mulching lawn mower?

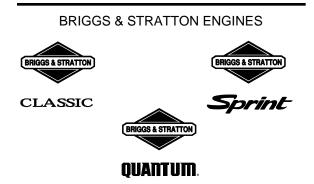
Look for the grass discharge opening on your mower. Raise the discharge guard (rear door on rear discharge mowers). If the opening is closed off by a plate, then your lawn mower is mulcher ready. To convert to a discharging mower, see the Operation section of this manual.

#### What is the right and left side of the lawn mower?

When right hand (RH) or left hand (LH) is mentioned in this manual, it means when you are in the operating position (standing behind the handle).

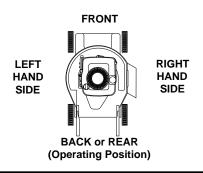
#### What kind of engine is on my lawn mower?

When learning how to operate your new lawn mower, you will need to know what kind of engine powers the mower. A decal on the engine will indicate the manufacturer and type or brand name of the engine.



**TECUMSEH ENGINES** 





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# **ASSEMBLY**



CAUTION: Do not operate this mower without the discharge guard or an entire approved grass catcher in place. These guards are for your protection and are required by the American National Standards Institute and Consumer Products Safety Commission.

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

## **HOW TO SET UP YOUR LAWN MOWER**

## **UNFOLD HANDLE (See Fig. 1)**

**IMPORTANT**: UNFOLD HANDLE CAREFULLY SO AS NOT TO PINCH OR DAMAGE CONTROL CABLES.

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

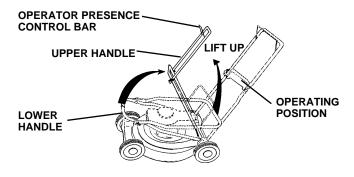


FIG. 1

#### ASSEMBLE GRASS CATCHER

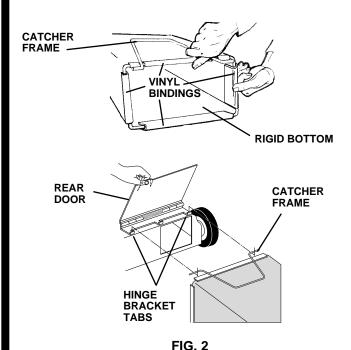
IMPORTANT: YOUR LAWN MOWER IS MULCHER READY AND THE MULCHER PLATE MUST BE REMOVED BEFORE USING MOWER AS A BAGGER. TO CONVERT MOWER TO BAGGING OR DISCHARGING, SEE THE OPERATION SECTION IN THIS MANUAL.

TO ASSEMBLE & ATTACH GRASS CATCHER (See Fig. 2)

- Put grass catcher frame into grass bag with rigid part of bag on the bottom.
- 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.

- Lift the rear door on the mower housing.
- Place the grass catcher frame onto the formed tabs on the rear door hinge bracket.
- The grass catcher is secured to the lawn mower housing when the rear door is lowered onto the grass catcher frame.





CAUTION: Do not run lawn mower without the discharge guard (rear door), approved grass catcher, clipping deflector or mulcher plate in place. Never attempt to operate mower with the discharge guard (rear door) removed or propped open.



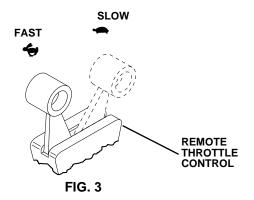
The operation of any lawn mower can result in foreign objects thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields while operating your lawn mower or performing any adjustments or repairs. We recommend a wide vision safety mask over the spectacles or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

# **HOW TO USE YOUR LAWN MOWER**

## **ENGINE SPEED CONTROL (See Fig. 3)**

Engine speed is controlled by the throttle control located on the upper handle.

- Move lever forward for fast ( ) engine speed, starting, and for better grass bagging.
- Move lever backward for slow ( ) engine speed.



# OPERATOR PRESENCE ENGINE CONTROL BAR

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



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.

# TO ADJUST CUTTING HEIGHT (See Fig. 4)

- Squeeze adjuster lever toward wheel. Move wheel up or down to suit your requirements. Release adjuster lever.
- Make sure all wheels are at the same height.

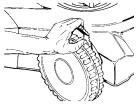


FIG. 4

#### TO CONVERT MOWER

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

REAR BAGGING (See Fig. 5) -

- Open rear door and remove mulcher plate. Store mulcher plate in a safe place.
- You can now install grass catcher.
- To convert to mulching or discharging operation, install mulcher plug into rear discharge opening of mower, making sure all tabs are seated properly.

#### SIDE DISCHARGING (See Fig. 6) -

- Mulcher plate must be installed into rear discharge opening of mower (see above instructions).
- Open discharge guard and install discharge deflector under guard as shown.
- Mower is now ready for discharging operation.
- To convert to mulching or bagging operation, discharge deflector must be removed and discharge guard must be closed.

# SIMPLE STEPS TO REMEMBER WHEN CONVERTING YOUR LAWN MOWER

#### FOR MULCHING -

- Rear mulcher plate installed.
- Side discharge guard closed.

#### FOR REAR BAGGING -

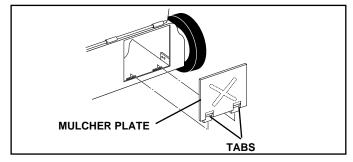
- Rear mulcher plate removed.
- Grass catcher installed.
- Side discharge guard closed.

#### FOR SIDE DISCHARGING -

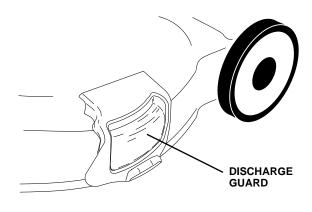
- Rear mulcher plate installed.
- Side discharge deflector installed.

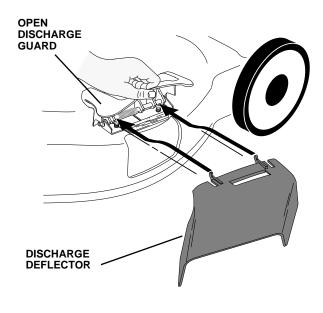


CAUTION: Do not run your lawn mower without rear mulcher plate in place or approved grass catcher in place. Never attempt to operate the lawn mower with the rear door removed or propped open.



5 FIG. 5





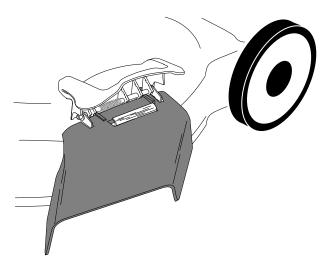


FIG. 6

# TO EMPTY GRASS CATCHER (See Fig. 7)

- To remove grass catcher, release operator presence control bar to stop engine.
- Lift up rear door and remove the grass catcher by the handle.
- Do not drag the bag when emptying; it will cause unnecessary wear.

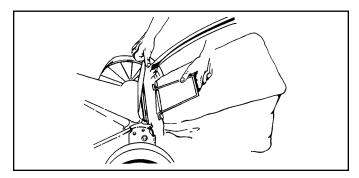


FIG. 7

## **BEFORE STARTING ENGINE**

## OIL (See Fig. 8A)

Your lawn mower is shipped without oil in the engine.

- Be sure mower is level and area around oil fill is clean.
- Remove engine oil cap w/dipstick and fill to the full line on the dipstick.
- Use 20 ozs. of oil. For type and grade of oil to use, see "ENGINE" in Customer Responsibilities section of this manual.
- · Pour oil slowly. Do not over fill.
- Check oil level before each use. Add oil if needed. Fill to full line on dipstick.
- To read proper level, tighten engine oil cap each time.
- Reinstall engine oil cap and tighten.
- After the first two (2) hours of mowing, change the oil, and every 25 hours thereafter. You may need to change the oil more often under dusty, dirty conditions.

## GAS (See Fig. 8A)

Fill gasoline tank with fresh, clean, unleaded gasoline.
 DO NOT USE PREMIUM GASOLINE. BE CAREFUL NOT TO OVER FILL TANK.

**WARNING:** Experience indicates that alcohol blended fuels (called gasohol or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage. To avoid engine problems, the fuel system should be emptied before storage of 30 days or longer. Drain the fuel tank, start the engine and let it run until fuel lines and carburetor are empty. Use fresh fuel next season. See Storage Instructions for additional information. Never use engine or carburetor cleaner products in fuel tank or permanent damage may occur.

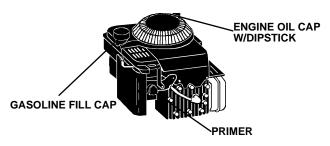


FIG. 8A

# TO START ENGINE (See Figs. 3, 8A, & 8B)



CAUTION: The mower blade rotates whenever the engine is running.

#### RECOIL STARTER

- To start a cold engine, push primer three (3) times before trying to start. Use a firm push. This step is not usually necessary when starting an engine which has already run for a few minutes.
- Move throttle control lever to fast ( ) position.
- Hold operator presence control bar down to the handle and pull starter handle quickly. Do not allow starter rope to snap back.
- To stop engine, release operator presence control bar.

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

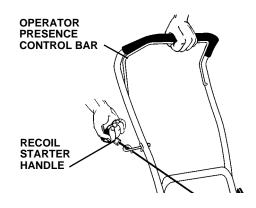
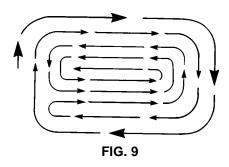


FIG. 8B

### **MOWING TIPS**

- For most cutting conditions and better bagging performance, the engine speed should be set in the fast (4) position.
- Under certain conditions, such as when mowing very tall grass, raise the mower height on the first cut to reduce pushing effort, to avoid overheating the engine, and to avoid leaving clumps of grass clippings. Make the second cut to the desired height.
- For extremely heavy cutting, reduce the width of cut.
- For side discharge lawn mowers, cut in a counterclockwise direction, starting at the outside of the area to be cut, in order to spread grass clippings more evenly and to put less load on the engine. To keep clippings off of walkways, flower beds, etc., make the first cuts in a clockwise direction (See Fig. 9).



- 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 grass clipping is left on the right side of a rear discharge lawn 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 the catcher will collect less grass.
   To prevent this, regularly hose catcher off with water and let dry before use.

## **MULCHING MOWING TIPS**

**IMPORTANT**: FOR BEST PERFORMANCE, KEEP MOWER HOUSING FREE OF BUILT-UP GRASS AND TRASH. SEE "CLEANING" IN CUSTOMER RESPONSIBILITIES 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 (See Fig. 10). 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.

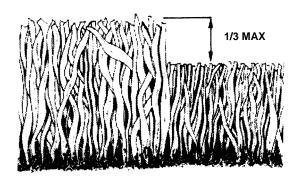


FIG. 10

# **CUSTOMER RESPONSIBILITIES**

	MAINTENANCE SCHEDULE  FILL IN DATES  AS YOU COMPLETE  REGULAR SERVICE  Check for Loose Fasteners													
	FILL IN DATES AS YOU COMPLETE REGULAR SERVICE		3EFOR	EER	EACT	2HOU EVERY	10 HO VERY	25 HO VERY BE	SEAS FORE	SEI	RVIC	E DA	ATES	
M	Check for Loose Fasteners Clean/Inspect Grass Catcher (If Equipped)	<b>V</b>	<b>'</b>					7						
O W	Clean Lawn Mower		1					<b>V</b>						
E	Clean Under Drive Cover (Self-Propelled Mowers)				/									
R	Check/Sharpen/Replace Blade					<b>1</b> 3								
	Lubrication Chart					<b>/</b>		<b>/</b>						
	Clean Battery/Recharge (Electric Start Mowers)					/		<b>1</b> 4						
E	Check Engine Oil Level	1												
ΙÑ	Change Engine Oil			1		1,2								
G	Clean Air Filter					<b>1</b> 2								
Ιĭ	Inspect Muffler					/								
Ν	Clean or Replace Spark Plug						<b>/</b>							
E	Replace Air Filter Paper Cartridge						<b>√</b> 2							

- 1 Change more often when operating under a heavy load or in high ambient temperatures.
- 2 Service more often when operating in dirty or dusty conditions.
- 3 Replace blades more often when mowing in sandy soil.
- 4 Charge 48 hours at end of season.

#### GENERAL RECOMMENDATIONS

The warranty on this lawn mower does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, operator must maintain mower as instructed in this manual.

Some adjustments will need to be made periodically to properly maintain your unit. All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

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

#### **BEFORE EACH USE**

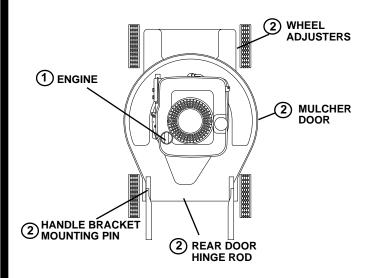
- Check engine oil level.
- Check for loose fasteners.

## LUBRICATION

Keep unit well lubricated.

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.

# **LUBRICATION CHART**



- 1 REFER TO CUSTOMER RESPONSIBILITIES "ENGINE" SECTION
- (2) SPRAY LUBRICANT

# **CUSTOMER RESPONSIBILITIES**

## **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 REPLACE BLADE (See Fig. 11)

- Turn lawn mower on its side. Make sure air filter and carburetor are up.
- Use a wood block between blade and mower housing to prevent blade from turning when removing blade bolt.
- Protect your hands with gloves and/or wrap blade with heavy cloth.
- · Remove blade bolt, lock washer and flat washer.
- · Remove blade and blade adapter.
- Inspect the key inside blade adapter. Replace adapter if damaged.

#### IMPORTANT: BLADE BOLT IS GRADE 8 HEAT TREATED.

- Install new or sharpened blade with trailing edge up toward the engine.
- Position blade on blade adapter. Align the two (2) holes in blade with raised lugs of adapter.
- Reassemble blade bolt, lock washer and flat washer into blade adapter and crankshaft in exact order as shown.
- Position block of wood between blade and mower housing.
- Tighten blade bolt securely. Recommended tightening torque is 35-40 ft. lbs.

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

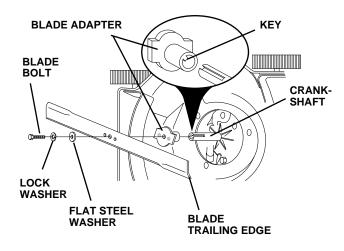


FIG. 11

#### TO SHARPEN BLADE

Care should be taken to keep the blade balanced. An unbalanced blade will cause excessive vibration and eventual damage to lawn mower and 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.

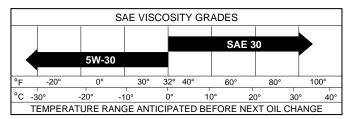
# **CUSTOMER RESPONSIBILITIES**

### **ENGINE**

Read the maintenance section of your engine manual.

#### **LUBRICATION**

Use only high quality detergent oil rated with API service classification SF or SG. 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.

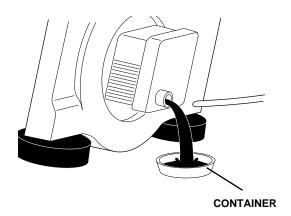
Change the oil after the first two hours of operation and every 25 hours thereafter or at least once a year if the lawn mower is not used for 25 hours in one year.

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 (See Fig. 12)

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

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



#### AIR FILTER

Your engine will not run properly and may be damaged by using a dirty air filter. Clean the element after every 25 hours of operation, more often if lawn mower is used in very dusty, dirty conditions.

See the maintenance section of your engine manual.

#### SPARK PLUG

Change the spark plug once a year to make the engine run better and easier to start. Set spark plug gap at .030".

See the maintenance section of your engine manual.

#### **MUFFLER**

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

## **CLEANING**

**IMPORTANT:** FOR BEST PERFORMANCE, KEEP MOWER HOUSING FREE OF GRASS BUILD-UP AND TRASH. CLEAN THE UNDERSIDE OF YOUR MOWER AFTER EACH USE.

Clean the underside of your mower after each use.

- Turn lawn mower on its side. Make sure air filter and carburetor are up. Clean the underside of your lawn mower by scraping to remove buildup 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 your lawn mower unless the electrical system, muffler, air filter, and carburetor are covered to keep water out. Water in engine can shorten engine life.

#### **GRASS CATCHER**

Grass catcher may be hosed with water but must be dry when used.



CAUTION: Under normal usage, the catcher material is subject to deterioration and wear and should therefore be checked to ensure compliance with original manufacturer specifications.

FIG. 12 11

# **SERVICE AND ADJUSTMENTS**



**CAUTION: BEFORE PERFORMING ANY SERVICE OR ADJUSTMENTS -**

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

### LAWN MOWER

### TO ADJUST CUTTING HEIGHT

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

## TO ADJUST HANDLE (See Figs.13-15)

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.

- Remove upper handle and all parts attached to lower handle.
- Remove trimplate from lower handle.
- Remove hairpin cotters from lower handle bracket mounting pin.
- Squeeze lower handle in to remove it from mounting pins.
- Turn lower handle over to raise or lower handle.
- Squeeze lower handle in and position holes onto mounting pins on handle bracket.
- Reassemble trimplate to lower handle.
- Reassemble upper handle and all parts removed from lower handle.

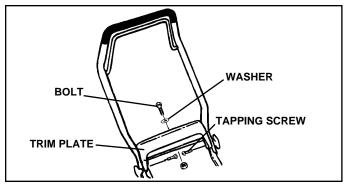


FIG. 13

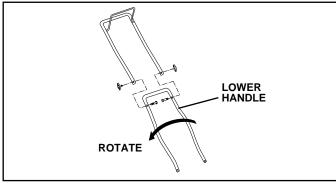


FIG. 14

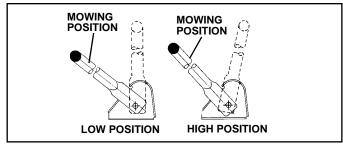


FIG. 15

### **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.

## **ENGINE**

### **CARBURETOR**

The carburetor has been preset at the factory and adjustment should not be necessary. However, minor adjustment may be required to compensate for differences in fuel, temperature, altitude or load.

- The air filter must be assembled to the carburetor when running engine.
- Best carburetor adjustment is obtained when fuel tank is 1/4 full.
- In order for the engine to run, the operator presence control bar must be held in the operating position. Therefore, and assistant will be required to hold the control bar in the operating position when making final adjustment to the carburetor.

See the adjustment section of your engine manual for further instructions.

#### **ENGINE SPEED**

The engine speed has been factory set. Do not attempt to increase engine speed as it may result in personal injury. If you believe the engine is running too fast or too slow, take your lawn mower to an authorized engine service center for repair and adjustment.

#### THROTTLE CONTROL

If it becomes necessary to adjust or replace the throttle control, see the adjustment section of your engine manual.

# **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.



CAUTION: Never store the lawn mower with gasoline in the tank inside a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.

## **LAWN MOWER**

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

- Clean entire lawn mower (See "CLEANING" in the Customer Responsibilities section of this manual).
- Lubricate as shown in the Customer Responsibilities 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 (See Fig. 16)

Your handle may be folded for storage as shown.

- Squeeze the bottom ends of lower handle towards each other until handle clears the handle brackets and swing handles forward over mower.
- Loosen upper handle mounting hardware enough to allow upper handle to be folded back.

**IMPORTANT:** WHEN FOLDING HANDLES FOR STORAGE OR TRANSPORTATION, BE SURE TO FOLD HANDLES AS SHOWN OR YOU MAY DAMAGE THE CONTROL CABLES.

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

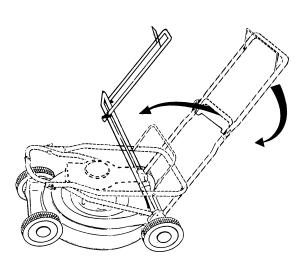


FIG. 16

### **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. ALSO, EXPERIENCE INDICATES THAT ALCOHOL BLENDED FUELS (CALLED GASOHOL OR USING ETHANOL OR METHANOL) CAN ATTRACT MOISTURE WHICH LEADS TO SEPARATION AND FORMATION OF ACIDS DURING STORAGE. ACIDIC GAS CAN DAMAGE THE FUEL SYSTEM OF AN ENGINE WHILE IN STORAGE.

- Drain the fuel tank.
- Start the engine and let it run until the fuel lines and carburetor are empty.
- Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.
- Use fresh fuel next season.

**NOTE:** Fuel stabilizer is an acceptable alternative in minimizing the formation of fuel gum deposits during storage. Add stabilizer to gasoline in fuel tank or storage container. Always follow the mix ratio found on stabilizer container. Run engine at least 10 minutes after adding stabilizer to allow the stabilizer to reach the carburetor. Do not drain the gas tank and carburetor if using fuel stabilizer.

#### **ENGINE OIL**

Drain oil (with engine warm) and replace with clean oil. (See "ENGINE" in the Customer Responsibilities section of this manual).

#### **CYLINDER**

- Remove spark plug.
- Pour one ounce (29 ml) of oil through spark plug hole into cylinder.
- Pull starter handle slowly to distribute oil.
- · 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 give protection from dust and dirt.
- Cover your unit with a suitable protective cover that does not retain moisture. Do not use plastic. Plastic cannot breathe which allows condensation to form and will cause your unit to rust.

**IMPORTANT**: NEVER COVER MOWER WHILE ENGINE AND EXHAUST AREAS ARE STILL WARM.



CAUTION: Never store the lawn mower with gasoline in the tank inside a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.

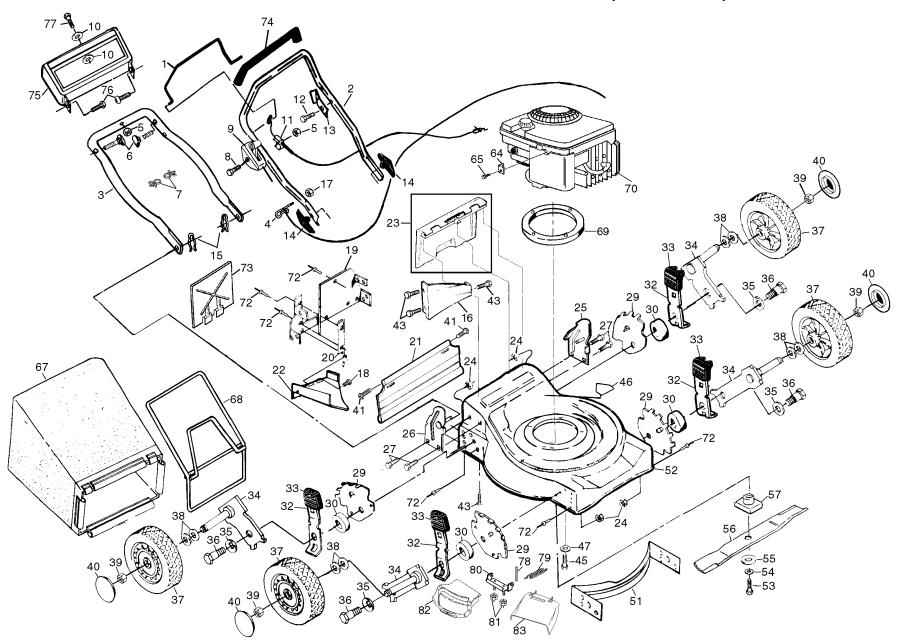
# **TROUBLESHOOTING POINTS**

PROBLEM	CAUSE	CORRECTION			
Does not start	<ol> <li>Dirty air filter.</li> <li>Out of fuel.</li> <li>Stale fuel.</li> <li>Water in fuel.</li> <li>Spark plug wire is disconnected.</li> <li>Bad spark plug.</li> <li>Loose blade or broken blade adapter.</li> <li>Control bar in released position</li> <li>Control bar defective</li> </ol>	<ol> <li>Clean/replace air filter.</li> <li>Fill fuel tank.</li> <li>Drain tank and refill with fresh clean fuel.</li> <li>Drain fuel tank and carburetor and refill tank with fresh gasoline.</li> <li>Connect wire to plug.</li> <li>Replace spark plug.</li> <li>Tighten blade bolt or replace blade adapter.</li> <li>Depress control bar to handle.</li> <li>Replace control bar.</li> </ol>			
Loss of power	<ol> <li>Rear of lawn mower housing/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>Set in "Higher Cut" position.</li> <li>Set in "Higher Cut" position.</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>Low engine speed.</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>Contact an authorized service center/department.</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>	Replace blade. Tighten blade bolt.     Contact an authorized service center/department.			
Starter rope hard to pull	<ol> <li>Engine flywheel brake is on when control bar is released.</li> <li>Bent engine crankshaft</li> <li>Blade adapter broken.</li> <li>Blade dragging in grass.</li> </ol>	<ol> <li>Depress control bar to upper handle before pulling starter rope.</li> <li>Contact an authorized service center/department.</li> <li>Replace blade adapter.</li> <li>Move lawn mower to cut grass or to hard surface to start engine.</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> <li>Low engine speed.</li> </ol>	<ol> <li>Raise cutting height.</li> <li>Replace blade.</li> <li>Clean grass catcher.</li> <li>Contact an authorized service center/department.</li> </ol>			
Hard to push	<ol> <li>Grass is too high or wheel height is too low.</li> <li>Rear of lawn mower housing/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>			

# **SERVICE NOTES**

# **REPAIR PARTS**

# 20" ROTARY LAWN MOWER - - MODEL NO. 51 (954076608A)



16

# **REPAIR PARTS**

# 20" ROTARY LAWN MOWER - - MODEL NO. 51 (954076608A)

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
NO.  1 2 3 4 5 6 7 8 9 11 12 13 14 15 16 17 18	NO.  532850735 532150041 532153031 532132001 532063601 532131959 532151517 532144929 532700417 532085723 532130861 532750097 532125162 532136376 532155035 573510400 532150050	Control Bar Upper Handle Lower Handle Rope Guide Locknut 1/4-20 Handle Bolt Cable Clips Machine Screw 1/4-20 x 2.12 Throttle Control Washer Engine Zone Control Cable Hex Washer Head Screw #10-24 x 1/2 Up-Stop Bracket Handle Knobs Hairpin Cotter Rear Baffle Keps Locknut 1/4-20 Hex Head Screw			Locknut Hubcap Hinge Screw Hex Tapping Screw 1/4-20 x 1/2 Hex Head Thread Rolling Screw 3/8-16x1 Danger Decal Washer Front Baffle Housing Assembly (Incl. Ref. #46) Hex Head Screw 3/8-24 x 1-3/8 Grd. 8 Helical Lock Washer Hardened Washer 20" Blade Blade Adapter * Cable Clamp Screw #10 x 5/8 Grass Bag Catcher Frame Spacer Assembly Engine
20 5 21 5 22 5 23 5 24 5 25 5 26 5 27 5 30 5 32 5 33 5 34 5 35 5	532138865 532138866 532140657 532125378 532147613 532751592 532153030 532153029 532150078 532142328 532146630 532141730 532701037 532149857 532062335 532142748 532800333 532057143	Back Plate Side Baffle Rear Skirt Discharge Baffle Rear Door Assembly Kit (Incl. Ref. # 58) Locknut 3/8-16 Handle Bracket Assembly (Left) Handle Bracket Assembly (Right) Screw 5/16-18 x 3/4 Wheel Adjusting Bracket Spacer Selector Spring Selector Knob Deluxe Axle Arm Assembly Belleville Washer Shoulder Bolt 3/8-16 Wheel Assembly Washer	70 72 73 74 75 76 77 78 79 80 81 82	532128415 532128415 532142167 532850724 532800547 532036953 532085436 532147286 532152186 532152186 532150654 532150654 532150653 532150992 532131843 532150321 532154573	* Engine - Briggs/Stratton Model No. 128802 Pop Rivet Mulcher Plate Handle Grip Trim Plate Screw Screw Rod Hinge Hinge Spring Bracket Hinge Assembly Nut Lock Door Mulcher Combi-Cut Clip on Guard Decal Combi-Cut Housing Decal Trim Plate Decal Owner's Manual (English/French)

<sup>\*</sup>These parts must be purchased through an authorized Briggs and Stratton dealer.



# **WARRANTY STATEMENT**

#### **SECTION 1: LIMITED WARRANTY**

Husqvarna Forest & Garden Company ("Husqvarna") warrants Husqvarna product to the original purchaser to be free from defects in material and workmanship from the date of purchase for the "Warranty Period" of the product as set forth below:

Lifetime Warranty: All tiller tines, trimmer shafts, ignition coils and modules on hand held product.

2 Year Warranty: Riding lawn mowers, yard and garden tractors, walk behind mowers, tillers, trimmers, brushcutters, snow blowers, handheld blowers, hedge trimmers, and electrical products for noncommercial, nonprofessional, noninstitutional or nonincome producing use, except as herein stated.

Emission control system components necessary to comply with CARB-95 and EPA regulations, except for those components which are part of engine systems manufactured by third party engine manufacturers for which the purchaser has received a separate warranty with product information supplied at time of purchase.

**1 Year Warranty:** Chain saws, clearing saws and backpack blowers for noncommercial, nonprofessional, noninstitutional or nonincome producing use. Trimmer models 120, 125, 122, 132, 225, 232 and 235 used for commercial purposes.

**90 Day Warranty:** Any Husqvarna product used for rental, commercial, institutional, professional or income producing use except as otherwise provided herein.

30 Day Warranty: Husqvarna bow guide and replacement parts.

#### SECTION 2: HUSQVARNA'S OBLIGATIONS UNDER THE WARRANTY

Husqvarna will repair or replace defective components without charge for parts or labor if a component fails because of a defect in material or workmanship during the warranty period.

#### **SECTION 3: ITEMS NOT COVERED BY THIS WARRANTY**

The following items are not covered by this warranty:

- (1) Normal customer maintenance items which become worn through normal regular use, including, but not limited to, belts, blades, blade adapters, bulbs, filters, guide bars, lubricants, rewind springs, saw chain, spark plugs, starter ropes and tines;
- (2) Natural discoloration of material due to ultraviolet light;
- (3) Engine and drive systems not manufactured by Husqvarna; these items are covered by the respective manufacturer's warranty as provided in writing with the product information supplied at the time of purchase; all claims must be sent to the appropriate manufacturer;
- (4) Lawn and garden attachments are covered by a third party which gives a warranty, all claims for warranty should be sent to the manufacturer; and
- (5) Emission Control System components necessary to comply with CARB-95 and EPA regulations which are manufactured by third party engine manufacturer.

#### **SECTION 4: EXCEPTIONS AND LIMITATIONS**

This warranty shall be inapplicable to defects resulting from the following:

 Accident, abuse, misuse, negligence and neglect, including stale fuel, dirt, abrasives, moisture, rust, corrosion, or any adverse reaction due to incorrect storage or use habits;

- (2) Failure to operate or maintain the unit in accordance with the Owner's/Operator's manual or instruction sheet furnished by Husqvarna:
- (3) Alterations or modifications that change the intended use of the product or affects the product's performance, operation, safety, or durability, or causes the product to fail to comply with any applicable laws: or:
- (4) Additional damage to parts or components due to continued use occurring after any of the above.

REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE PURCHASER. HUSQVARNA SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THESE PRODUCTS EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THESE PRODUCTS IS LIMITED IN DURATION TO THE WARRANTY PERIOD AS DEFINED IN THE LIMITED WARRANTY STATEMENT. HUSQVARNA RESERVES THE RIGHT TO CHANGE OR IMPROVE THE DESIGN OF THE PRODUCT WITHOUT NOTICE, AND DOES NOT ASSUME OBLIGATION TO UPDATE PREVIOUSLY MANUFACTURED PRODUCTS.

Some states do not allow the exclusion of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

#### **SECTION 5: CUSTOMER RESPONSIBILITIES**

The product must exhibit reasonable care, maintenance, operation, storage and general upkeep as written in the maintenance section of the Owner's/Operator's manual. Should an operational problem or failure occur, the product should not be used, but delivered as is to an authorized Husqvarna dealer for evaluation. Proof of purchase, as explained in section 6, rests solely with the customer.

#### SECTION 6: PROCEDURE TO OBTAIN WARRANTY CONSIDERATION

It is the Owner's and Dealer's responsibility to make certain that the Warranty Registration Card is properly filled out and mailed to Husqvarna Forest & Garden Company. This card should be mailed within ten (10) days from the date of purchase in order to confirm the warranty and to facilitate post-sale service.

Proof of purchase must be presented to the authorized Husqvarna dealer in order to obtain warranty service. This proof must include date purchased, model number, serial number, and complete name and address of the selling dealer.

To obtain the benefit of this warranty, the product believed to be defective must be delivered to an authorized Husqvarna dealer in a timely manner, no later than thirty (30) days from date of the operational problem or failure. The product must be delivered at the owner's expense. Pick-up and delivery charges are not covered by this warranty. An authorized Husqvarna dealer can be normally located through the "Yellow Pages" of the local telephone directory or by calling 1-800-HUSKY62 for a dealer in your area.

HUSQVARNA FOREST & GARDEN COMPANY 9006-J PERIMETER WOODS DRIVE CHARLOTTE, NC 28216