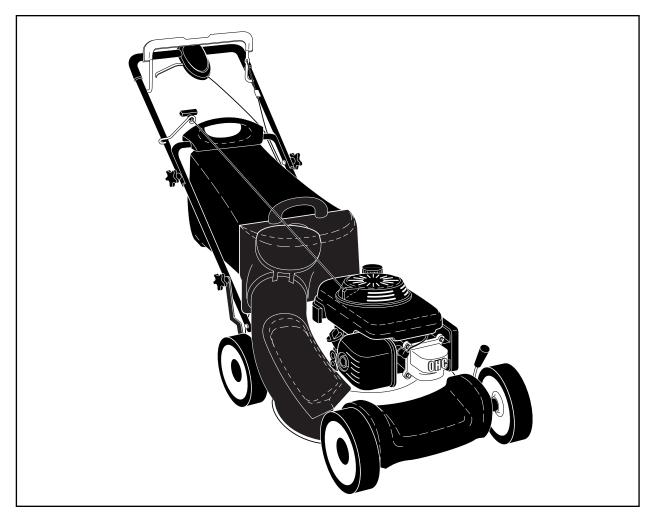
# **Husqvarna**



# **55R21HV**

# **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.



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: Engine exhaust, some of its constituents, and certain vehicle components contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.



WARNING: Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.



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.
- 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 and walk; never run.
- Disengage the self-propelled mechanism or drive clutch onmowerssoequippedbeforestartingtheengine (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.

#### DO:

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

#### DO NOT:

- Do not trim near drop-offs, ditches or embankments. The operator could lose footing or balance.
- Do not trim excessively steep slopes.
- Do not mow on wet grass. Reduced footing could cause slipping.

#### **III. CHILDREN**

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

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

#### **IV. SAFE HANDLING OF GASOLINE**

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

- Extinguish all cigarettes, cigars, pipes and other sources of ignition.
- Use only an approved container.
- Never remove gas cap or add fuel with the engine running. Allow engine to cool before refueling.

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

#### V. GENERAL SERVICE

- Never run a machine inside a closed area.
- Never make adjustments or repairs with the engine (motor) running. Disconnect spark plug wire, and keep

wire away from plug to prevent accidental starting.

- Keep nuts and bolts, especially blade attachement 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 blade is sharp and can cut. Wrap the blade or wear gloves, and use extra caution when servicing it.
- 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.

In the state of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester for the muffler is available through your nearest authorized service center.

**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 problem you cannot easily remedy, please contact your nearest authorized service center/department. We have competent, well-trained technicians and the proper tools to service or repair this lawn mower.

Please read and retain this manual. The instructions will enable you to assemble and maintain your lawn mower properly. Always observe the "SAFETY RULES".

SERIAL NUMBER:

DATE OF PURCHASE: \_\_\_

THE MODEL AND SERIAL NUMBERS WILL BE FOUND ON A DECAL ATTACHED TO THE REAR OF THE LAWN MOWER HOUSING.

YOU SHOULD RECORD BOTH SERIAL NUMBER AND DATE OF PURCHASE AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.

# **PRODUCT SPECIFICATIONS**

| Gasoline Capacity and Type:     | 1.0 Quarts<br>(Unleaded Regular Only)                      |
|---------------------------------|--|
| Oil Type (API SG–SL):           | SAE 30 (above 0°C / 32°F)<br>SAE 10W-30 (below 0°C / 32°F) |
| Oil Capacity:                   | 18.5 Ounces  |
| Spark Plug:                     | NGK BPR6ES (Gap: .030")                                    |
| Valve Clearance:<br>(± 0.04 mm) | Intake: 0.015 mm<br>Exhaust: 0.020 mm                      |
| Blade Bolt Torque:              | 35-40 ft. lbs.   |

## **CUSTOMER RESPONSIBILITIES**

- Read and observe the safety rules.
- Follow a regular schedule in maintaining, caring for and using your lawn mower.
- Follow the instructions under "Maintenance" and "Storage" sections of this owner's manual.

# TABLE OF CONTENTS

3

| SAFETY RULES              | 2-3  |
|---------------------------|------|
| PRODUCT SPECIFICATIONS    | 3    |
| CUSTOMER RESPONSIBILITIES | 3    |
| ASSEMBLY                  | 4-5  |
| OPERATION                 | 6-10 |
| MAINTENANCE SCHEDULE      | 11   |

| MAINTENANCE             |       |
|-------------------------|-------|
| SERVICE AND ADJUSTMENTS |       |
| STORAGE                 | 15-16 |
| TROUBLESHOOTING         |       |
| REPAIR PARTS            |       |
| WARRANTY                | 24    |

# ASSEMBLY

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 WITH-OUT 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 thorougly for additional loose parts.

### HOW TO SET UP YOUR LAWN MOWER TO UNFOLD HANDLE (See Figs. 1 and 2)

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

- 1. Raise lower handle to operating position and align hole in handle with one of the height positioning holes in the handle bracket.
- 2. Insert handle bolt through handle and bracket and secure with knob.
- 3. Repeat for opposite side of handle.
- 4. Remove protective padding, raise upper handle section into place on lower handle and tighten both handle knobs.
- 5. Remove packing material from around control bar.

Your handles may be adjusted for your mowing comfort. Refer to "ADJUST HANDLE" in the Service and Adjustments section of this manual.

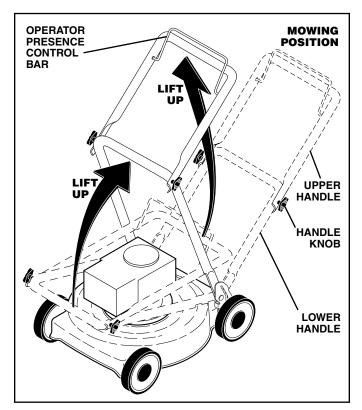


FIG. 1

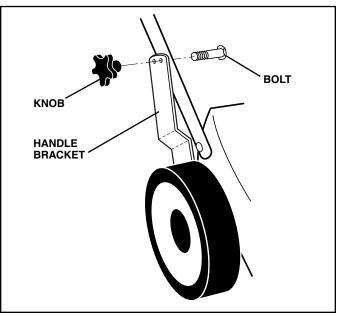


FIG. 2

# ASSEMBLY

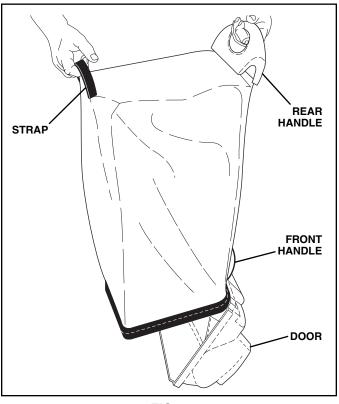
# TO ASSEMBLE GRASS CATCHER (See Figs. 3 and 4)

- 1. Slide grass catcher bag over the frame. Make sure the rear handle is on top (the same side as the front handle) and the strap is on the bottom.
- 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.

3. Close grass catcher door.

**NOTE:** When fully closed, door will "snap" shut over frame and vinyl bindings.





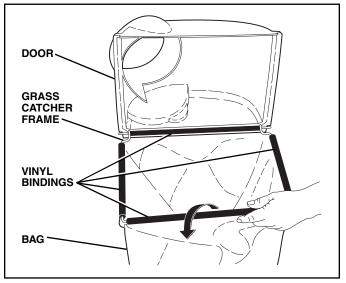


FIG. 4

#### TO INSTALL ATTACHMENTS

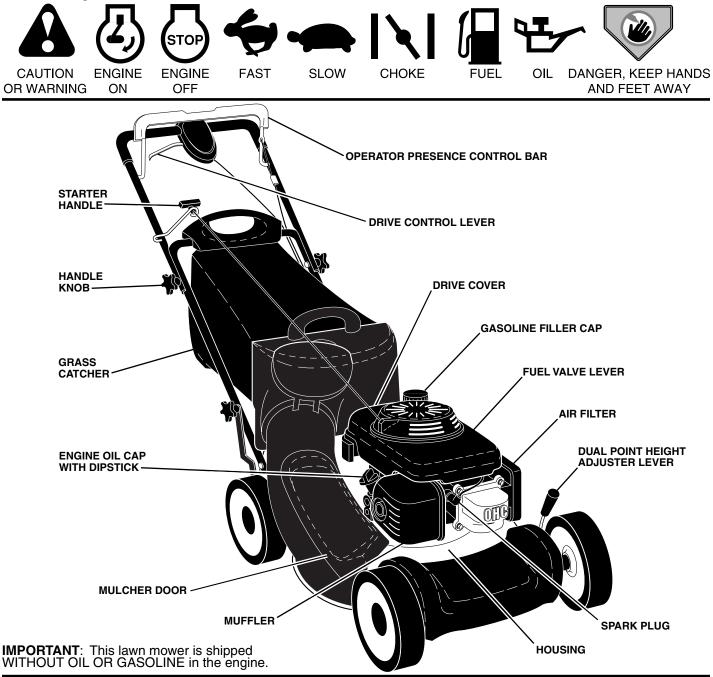
Your lawn mower was shipped ready to be used as a mulcher. To convert mower to bagging or discharging, see "TO CONVERT MOWER" in the Operation section of this manual.

# KNOW YOUR LAWN MOWER

READ THIS OWNER'S MANUAL AND 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

Our 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 engine. Release to stop engine. **MULCHER DOOR** – allows conversion to discharge or bagging operation. **DRIVE CONTROL LEVER** – used to engage power-propelled forward motion lawn mower.

**DUAL POINT HEIGHT ADJUSTER** – used to adjust cutting height of lawn mower.

**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 over spectacles.

# HOW TO USE YOUR LAWN MOWER

## ENGINE SPEED

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

## **ENGINE ZONE CONTROL**



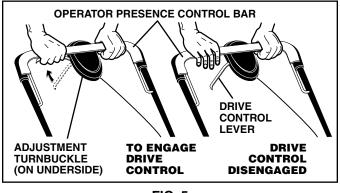
CAUTION: Federal regulations require an engine control to be installed on this lawn mower in order to minimize the risk of blade contact injury. Do not under any circumstances attempt to defeat the function of the operator control. The blade turns when the engine is running.

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

# DRIVE CONTROL (See Fig. 5)

- Self-propelling is controlled by holding the operator presence control bar down to the handle and pulling the drive control lever rearward to the handle. The farther toward the handle the lever is pulled, the faster the unit will travel.
- Forward motion will stop when either the operator presence control bar or drive control lever are released. To stop forward motion without stopping engine, release the drive control lever 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.





## DRIVE CONTROL ADJUSTMENT (See Fig. 5)

Over time, the drive control system may become "loose", resulting in decreased speed. There is a turnbuckle on the underside of the drive control housing to increase tension on the drive cable. Proceed as follows:

1. Turn unit off and disconnect spark plug wire from plug.

- 2. Turn nut on underside of drive control to increase drive speed.
- 3. Operate mower to test drive speed. Readjust as required.
- 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 (See Fig. 6)

Both front wheels are adjusted by a single lever on the left front wheel. Likewise, both rear wheels are adjusted by a single lever on the left rear wheel.

• Pull adjuster lever toward wheel. To raise mower, move lever forward to desired position. To lower mower, move the lever toward the rear.

Be sure to adjust both front and rear wheels to same height.

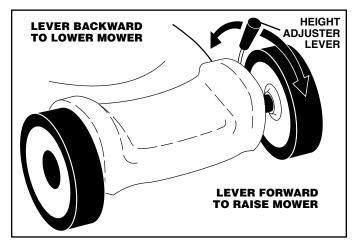


FIG. 6

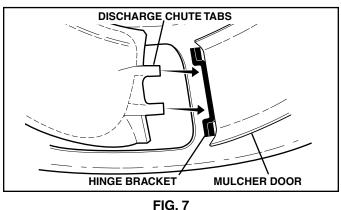
# TO CONVERT MOWER (See Figs. 7 thru 9)

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

#### REAR BAGGING

7

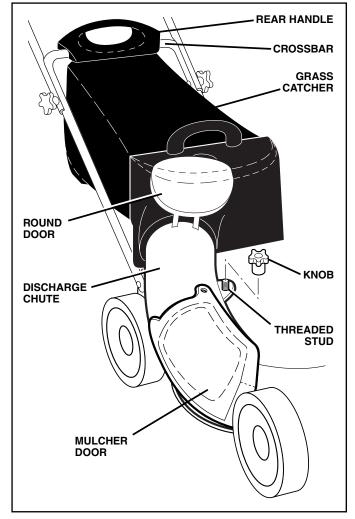
- Remove knob securing mulcher door to mower housing.
- Open mulcher door and insert tabs of discharge chute into hinge bracket opening and position rear of chute over threaded stud.



- Secure rear of discharge chute to lawn mower housing with knob.
- Place rear handle of grass catcher on the crossbar of the lawn mower's lower handle as shown.
- Lift the round door of the discharge chute and place the grass catcher into place on the discharge chute.

**NOTE:** Be sure round door of discharge chute rests on grass catcher as shown.

- Mower is now ready for rear bagging operation.
- To convert to mulching operation, remove grass catcher and discharge chute. Secure mulcher door to mower housing with knob.
- To convert to side discharging operation, remove grass catcher and discharge chute. Install side discharge deflector and secure it to mower housing with knob.





#### SIDE DISCHARGING

- Grass catcher and discharge chute must be removed.
- Open mulcher door and install front of side discharge deflector beneath it as shown.
- Secure rear of side discharge deflector to lawn mower housing with knob.

- Mower is now ready for side discharging operation.
- To convert to mulching operation, side discharge deflector must be removed and mulcher door secured to mower housing with knob.
- To convert to rear bagging operation, side discharge deflector must be removed; discharge chute and grass catcher installed and discharge chute secured to mower housing with knob.

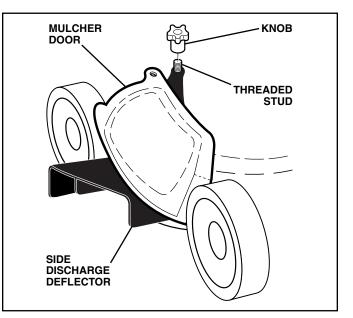


FIG. 9

#### SIMPLE STEPS TO REMEMBER WHEN CONVERTING YOUR LAWN MOWER

FOR MULCHING -

- 1. Grass catcher, discharge chute and side discharge deflector removed.
- 2. Mulcher door secured to mower housing with knob.

FOR REAR BAGGING -

- 1. Side discharge deflector removed.
- 2. Grass catcher and discharge chute installed with discharge chute secured to lawn mower housing with knob.
- 3. Round door of discharge chute resting on top of grass catcher.

FOR SIDE DISCHARGING -

- 1. Grass catcher and discharge chute removed.
- 2. Side discharge deflector installed and secured to mower housing with knob.



CAUTION: Do not run your lawn mower without mulcher door closed; side discharge deflector installed, or discharge chute and approved grass catcher in place. Never attempt to operate the lawn mower with mulcher door or round door removed or propped open.

#### TO EMPTY GRASS CATCHER (See Figs. 10–11)

1. Open round door of discharge chute to move starter rope out and away from grass catcher.

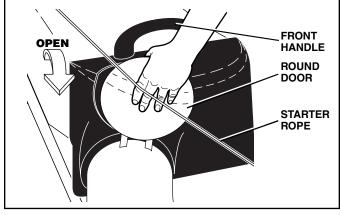


FIG. 10

- Remove grass catcher with clippings from lawn mower using both front and rear handles.
- 3. Empty clippings from bag using rear handle and strap. The weight of the grass will open the door.
- 4. Snap door shut over frame before installing grass catcher on mower.

**NOTE**: Do not drag the bag when emptying; it will cause unnecessary wear.

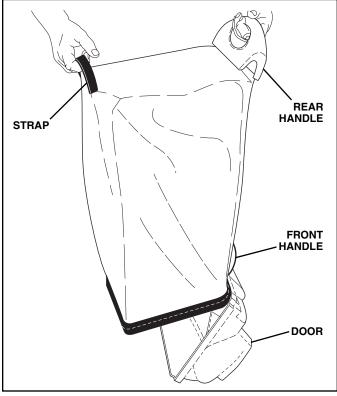


FIG. 11

## BEFORE STARTING ENGINE ADD OIL (See Fig. 12)

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 heavily from the mufler 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.
- 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 EN-GINE OIL" in the Maintenance section of this manual.

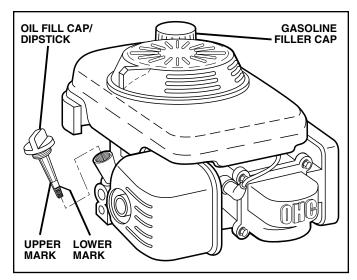


FIG. 12

#### ADD GASOLINE (See Fig. 12)

 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.



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**

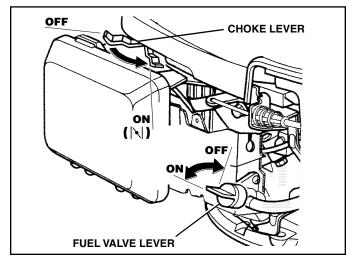
• To stop engine, release operator presence control bar. Wait until blade and all moving parts have stopped and turn fuel valve to OFF position if you do not intend to restart the engine soon.

#### TO START ENGINE (See Fig. 13)

**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. Move choke lever to ON(|x|) position.
- 3. Hold operator presence control bar down to the handle and pull starter handle quickly. Do not allow starter rope to snap back.

**NOTE:** The choke lever automatically begins moving to the OFF position when operator presence control bar is held down to handle.



#### **MOWING TIPS**



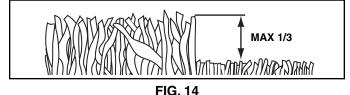
CAUTION: Do not use de-thatcher blade attachments on your mower. Such attachments are hazardous, will damage yourmowerandcouldvoidyourwarranty.

- 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 HOUSINGFREEOFBUILT-UPGRASS/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 (See Fig. 14). 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 (perpendicular) to the first cut path.
- Change your cutting pattern from week to week. Mow north to south one week then change to east to west the next week. This will help prevent matting and graining of the lawn.



# MAINTENANCE

|        | MAINTENANCE<br>Schedule             | BEFORE<br>EACH<br>USE | AFTER<br>EACH<br>USE | EVERY<br>10<br>HOURS | EVERY<br>25 HOURS<br>OR SEASON | EVERY<br>100<br>HOURS | BEFORE<br>STORAGE |
|--------|-------------------------------------|-----------------------|----------------------|----------------------|--------------------------------|-----------------------|-------------------|
| _      | Check for Loose Fasteners           | <b>~</b>              |                      |                      |                                |                       | <b>~</b>          |
| L.     | Clean / Inspect Grass Catcher *     | V                     | <b>v</b>             |                      |                                |                       | <b>/</b>          |
|        | Check Tires                         | <b>v</b>              |                      |                      |                                |                       |                   |
| N      | Check Drive Wheels ***              | <b>v</b>              |                      |                      |                                |                       |                   |
|        | Clean Lawn Mower ****               |                       | <b>v</b>             |                      |                                |                       | <b>~</b>          |
| Μ      | Clean under Drive Cover ***         |                       |                      | <b>v</b>             |                                |                       |                   |
| 0      | Check Drive Belt / Pulleys ***      |                       |                      |                      | <b>~</b>                       |                       |                   |
| W      | Check / Sharpen / Replace Blade     |                       |                      |                      | ✔3                             |                       |                   |
| E<br>R | Lubrication                         |                       |                      |                      | <b>~</b>                       |                       |                   |
| ••     | Clean and Recharge Battery **       |                       |                      |                      | <ul> <li>✓</li> </ul>          |                       | 4                 |
|        | Check Engine Oil level              | ✓5                    |                      |                      |                                |                       |                   |
| E      | Change Engine Oil                   |                       |                      |                      | 1,2                            |                       |                   |
|        | Clean Air Filter                    |                       |                      |                      | ✓2                             |                       |                   |
| G      | Inspect Muffler                     |                       |                      |                      | <ul> <li>✓</li> </ul>          |                       |                   |
| Ň      | Replace Spark Plug                  |                       |                      |                      |                                | <b>v</b>              |                   |
| E      | Replace Air Filter Paper Cartridge  |                       |                      |                      |                                | ✓2                    |                   |
|        | Empty fuel system or add Stabilizer |                       |                      |                      |                                |                       |                   |

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

# **GENERAL RECOMMENDATIONS**

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

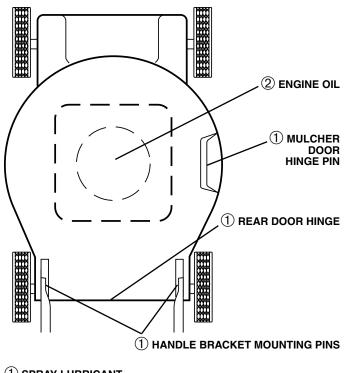
- 1. Check engine oil level.
- 2. Check for loose fasteners.

#### LUBRICATION

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

**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



**② SEE "ENGINE" IN MAINTENANCE SECTION** 

# MAINTENANCE

# LAWN MOWER

Always observe safety rules when performing any main-tenance.

### 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 rear 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 rear wheels.

## **BLADE CARE**

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



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

TO REMOVE BLADE (See Fig. 15)

- 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 counter-clockwise.
- 5. Remove blade and attaching hardware (bolt, lock washer and hardened washer).

#### TO REPLACE BLADE (See Fig. 15)

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

**IMPORTANT**: BLADE BOLT IS HEAT TREATED. IF BOLT NEEDS REPLACING, REPLACE ONLY WITH APPROVED BOLT SHOWN IN THE REPAIR PARTS SECTION OF THIS MANUAL.

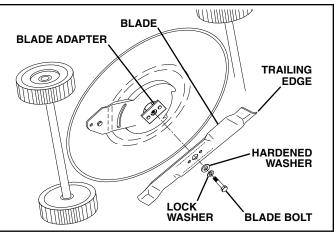


FIG. 15

#### 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**

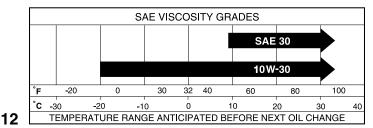
- The grass catcher may be hosed with water, but must be dry when used.
- Check your grass catcher often for damage or deterioration. Through normal use it will wear. If catcher needs replacing, replace only with approved replacement catcher shown in the Repair Parts section of this manual. Give the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

# ENGINE

Maintenance, repair, or replacement of the emission control devices and systems, which are being done at the customers expense, may be performed by any non-road engine repair establishment or individual. Warranty repairs must be performed by an authorized engine manufacturer's service outlet.

#### 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.



# MAINTENANCE

**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 (See Figs. 16 & 17)

**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 oil fill cap/dipstick; 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.

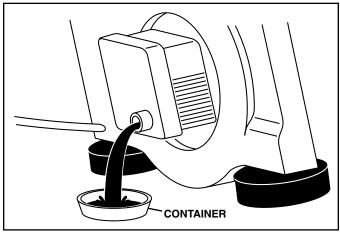
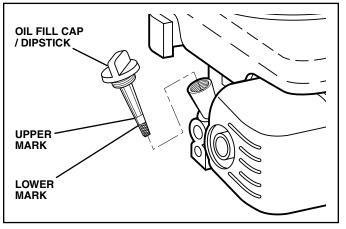


FIG. 16

- 4. Wipe off any spilled oil from mower or side of engine.
- 5. Fill engine with oil. Slowly pour oil down the oil fill spout into the engine.
- 6. Wait one minute to allow oil to settle. Use guage 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.



- 7. Continue adding small amounts of oil and rechecking the dipstick until it reads full. DO NOT overfill, or engine will smoke on startup.
- 8. Always be sure to retighten oil fill cap/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 every 100 hours of operation or every season, whichever occurs first. Service air cleaner more often under dusty conditions. See the maintenance section of your engine manual.

#### 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 SPECIFICATIONS" 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 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

CAUTION: TO AVOID SERIOUS INJURY, BEFORE PERFORMING ANY SERVICE OR ADJUSTMENTS:



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

# LAWN MOWER TO ADJUST CUTTING HEIGHT

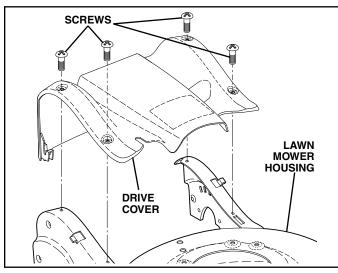
See "TO ADJUST CUTTING HEIGHT" in the Operation section of this manual.

## REAR DEFLECTOR

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

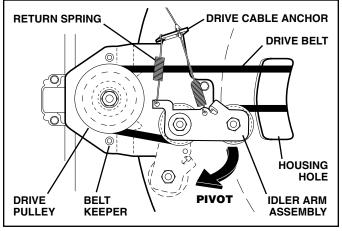
## TO REMOVE DRIVE BELT (See Figs. 18-20)

- 1. Disconnect spark plug wire from spark plug and place wire where it cannot come in contact with plug.
- 2. Remove screws retaining drive cover and remove drive cover from lawn mower housing (See Fig. 18).

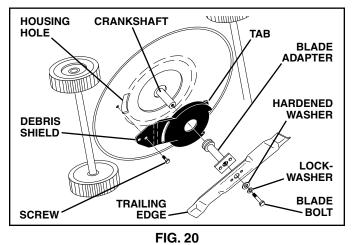




3. Remove drive cable from anchor, then detach it and return spring from idler arm assembly (See Fig. 19).



- 4. Pivot idler arm assembly to slacken drive belt, then remove drive belt from drive pulley, belt keepers and idler arm.
- 5. Turn lawn mower on its side. Make sure air filter and carburetor are up.
- 6. Remove screw securing debris shield. Note that the debris shield has a tab which fits into a gap in the housing (See Fig. 20).



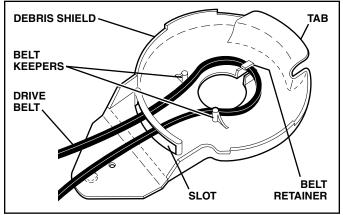
7. Use a wood block between blade and mower housing to prevent blade from turning when removing blade bolt.

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

- 8. Remove blade bolt.
- 9. Remove blade, attaching hardware (bolt, lock washer, hardened washer), blade adapter and debris shield as one assembly.
- 10. Remove drive belt from blade adapter and debris shield; discard old belt.

#### TO REPLACE DRIVE BELT (See Figs. 18–21)

1. Place new drive belt in the belt retainer of the debris shield. Be sure to route belt between belt keepers and through slot as shown (See Fig. 21).



# SERVICE AND ADJUSTMENTS

- 2. Route the other end of the new drive belt through hole in housing.
- Reattach debris shield to housing with screw previously removed. Be sure tab of debris shield is in gap of housing.
- Position blade on the blade adapter aligning the two (2) holes in the blade with the raised lugs on the adapter.
- 5. Be sure the trailing edge of blade (opposite sharp edge) is up toward the engine as shown (See Fig. 20).
- 6. Install the blade bolt with the lock washer and hardened washer into blade adapter and crankshaft.
- 7. Use block of wood between blade and lawn mower housing and tighten the blade bolt, turning clockwise.
- The recommended tightening torque is 35-40 ft. lbs.

**IMPORTANT:** BLADE BOLT IS HEAT TREATED. IF BOLT NEEDS REPLACING, REPLACE ONLY WITH APPROVED BOLT SHOWN IN THE REPAIR PARTS SECTION OF THIS MANUAL.

- 8. Return mower to upright position.
- 9. Install new drive belt into idler arm assembly, then around the drive pulley. Be sure belt is inside of belt keepers (See Fig. 19).

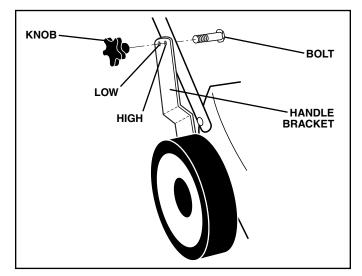
**NOTE:** Pulling on the drive belt (to install it on the drive pulley) will cause the other end of the belt to free itself from the debris shield retainer and come into contact with the pulley end of the blade adapter.

- 10. Reattach drive cable and return spring to the idler arm assembly, then reattach drive cable to anchor.
- 11. Reattach drive cover with screws previously removed (See Fig. 18).
- 12. Connect spark plug wire to spark plug.

#### TO ADJUST HANDLE (See Fig. 22)

The handle on your lawn mower has multiple height positions - adjust to height that suits you.

- 1. Remove knob and carriage bolt on one side of the lower handle.
- 2. While holding handle assembly, remove knob and carriage bolt from opposite side, align hole in handle with desired hole in handle bracket and reassemble bolt and knob and tighten securely.
- 3. Align opposite side of handle with same positioning hole and secure with bolt and knob.



## ENGINE

FIG. 22

Maintenance, repair, or replacement of the emission control devices and systems, which are being done at the customers expense, may be performed by any non-road engine repair establishment or individual. Warranty repairs must be performed by an authorized engine manufacturer's service outlet.

#### 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 an authorized 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 an authorized service center for repair and/or adjustment.

**IMPORTANT:** NEVERTAMPERWITHTHEENGINEGOVERNOR, 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, CONTACTYOUR NEAREST AUTHORIZED SERVICE CENTER, WHICH HAS PROPER EQUIPMENT AND EXPERIENCE TO MAKE ANY NECESSARY ADJUSTMENTS.

# STORAGE

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

# LAWN MOWER

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

- 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.

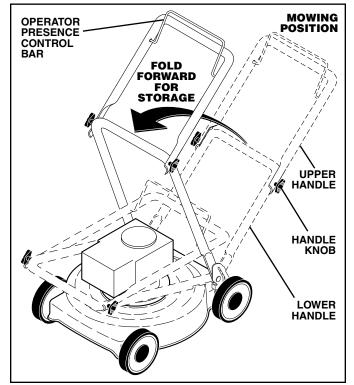
# STORAGE

## HANDLE (See Figs. 23 and 24)

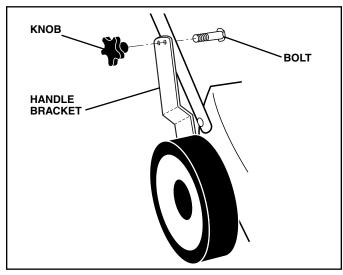
You can fold your lawn mower handle for storage.

- 1. Loosen the two (2) handle knobs on sides of the upper handle and allow handle to fold down to the rear.
- 2. Remove the two (2) handle knobs and carriage bolts on sides of the lower handle and pivot entire handle assembly forward and allow it to rest on mower.
- 3. Reinstall knobs and carriage bolts to lower handle or handle brackets for safe keeping.
- When setting up your handle from the storage position, you must manually lock the lower handle into the mowing position.

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







# ENGINE

### FUEL SYSTEM

**IMPORTANT**: IT IS IMPORTANT TO PREVENT GUM DEPOSITS FROM FORMING IN ESSENTIAL FUEL SYSTEM PARTS SUCH AS CARBURETOR, FUEL FILTER, FUEL HOSE, OR TANK DURING STORAGE. ALCOHOL BLENDED FUELS (CALLED GASOHOL OR USING ETHANOL OR METHANOL) CAN ATTRACT MOISTURE WHICH LEADS TO SEPARATION AND FORMATION OF ACIDS DURING STORAGE. ACIDIC GAS CAN DAMAGE THE FUEL SYSTEM OF AN ENGINE WHILE IN STORAGE.

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

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

#### **ENGINE OIL**

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

## CYLINDER

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

# OTHER

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

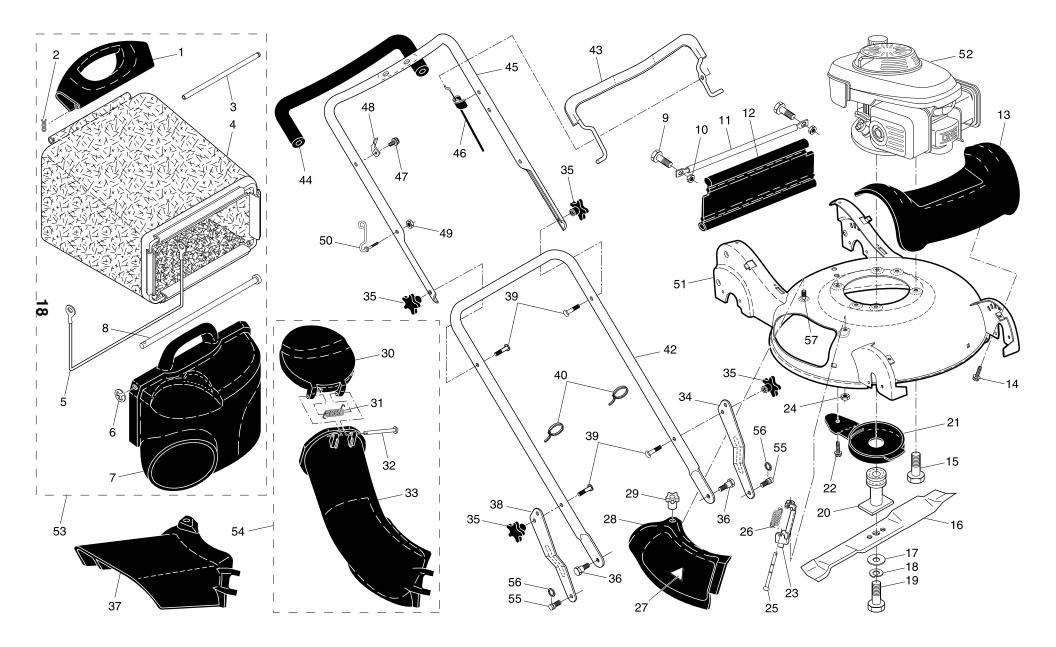
**IMPORTANT**: NEVER COVER MOWER WHILE ENGINE AND EXHAUST AREAS ARE STILL WARM.



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.

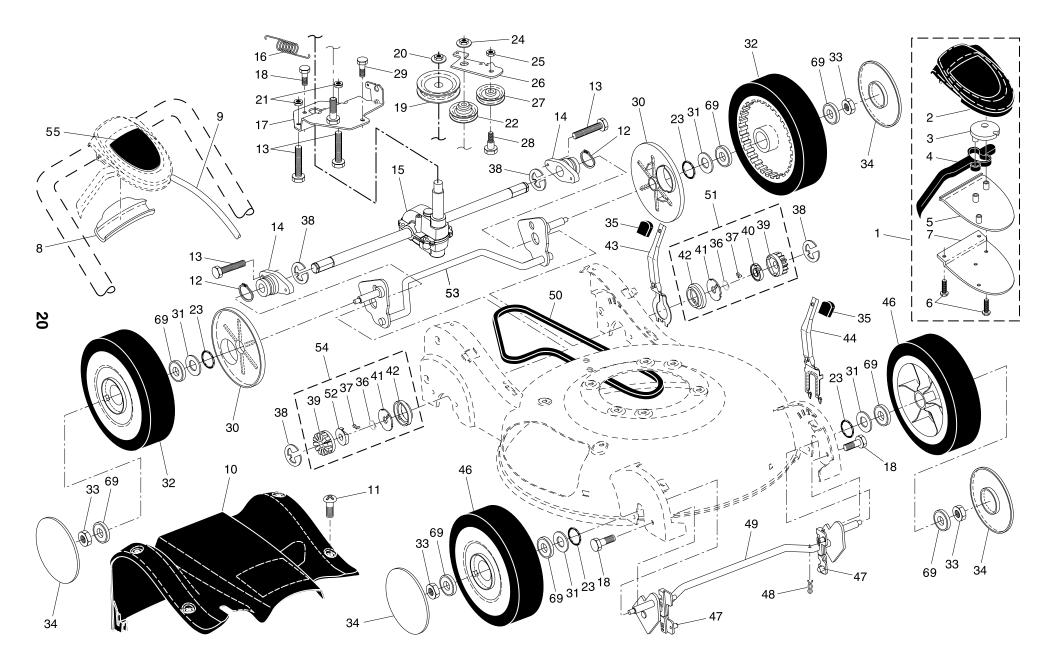
# **TROUBLESHOOTING POINTS**

| 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> <li>Fuel valve lever (if equipped) in OFF position.</li> <li>Weak battery (if equipped).</li> <li>Disconnected battery connector (if equipped).</li> </ol> | <ol> <li>Clean/replace air filter.</li> <li>Fill fuel tank.</li> <li>Empty fuel tank and refill tank with fresh,<br/>clean gasoline.</li> <li>Empty fuel tank and refill tank with fresh,<br/>clean gasoline.</li> <li>Connect wire to plug.</li> <li>Replace spark plug.</li> <li>Tighten blade bolt or replace blade adapter.</li> <li>Depress control bar to handle.</li> <li>Replace control bar.</li> <li>Turn fuel valve lever to the ON position.</li> <li>Charge battery.</li> <li>Connect battery to engine.</li> </ol> |
| Loss of power                                    | <ol> <li>Rear of lawn mower housing or cutting<br/>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<br/>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 –<br>uneven                             | <ol> <li>Worn, bent or loose blade.</li> <li>Wheel heights uneven.</li> <li>Buildup of grass, leaves and trash under<br/>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 qualified service center.</li> </ol>  |
| Starter rope<br>hard to pull                     | <ol> <li>Engine flywheel brake is on when control<br/>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<br/>pulling starter rope.</li> <li>Contact a qualified service center.</li> <li>Replace blade adapter.</li> <li>Move lawn mower to cut grass or other<br/>hard surface before starting.</li> </ol>   |
| Grass catcher<br>not filling<br>(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<br/>blade dragging in heavy 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<br>(or slowing of<br>drive speed)  | <ol> <li>Belt wear.</li> <li>Belt off of pulley.</li> <li>Drive cable worn or broken.</li> <li>"Loose" drive control system.</li> </ol>   | <ol> <li>Check/replace drive belt.</li> <li>Check/reinstall drive belt.</li> <li>Put belt on pulleys / replace belts if broken.</li> <li>Adjust drive control.</li> </ol>  |



| KEY<br>NO. | PART<br>NO.  | DESCRIPTION                    | KEY<br>NO. | PART<br>NO.  | DESCRIPTION                                 |
|------------|--------------|--------------------------------|------------|--------------|---|
| 1          | 532 19 05-82 | Handle, Grassbag, Rear         | 32         | 532 18 34-45 | Rod, Door, Discharge Chute                  |
| 2          | 532 06 53-22 | Hairpin Cotter                 | 33         | 532 19 05-78 | Discharge Chute, Plastic                    |
| 3          | 532 18 34-83 | Rod, Rear Handle, Grassbag     | 34         | 532 19 06-19 | Adjustment Bracket, Lower Handle, LH        |
| 4          | 532 19 47-36 | Grassbag                       | 35         | 532 18 55-88 | Knob, Star                                  |
| 5          | 532 18 85-06 | Frame, Grassbag                | 36         | 532 18 34-65 | Bolt, Shoulder                              |
| 6          | 812 00 00-14 | E-Ring                         | 37         | 532 18 59-96 | Deflector, Discharge                        |
| 7          | 532 19 05-81 | Door, Grassbag                 | 38         | 532 19 06-21 | Adjustment Bracket, Lower Handle, RH        |
| 8          | 532 18 34-79 | Rod, Pivot                     | 39         | 532 19 15-74 | Bolt, Handle                                |
| 9          | 872 14 04-05 | Bolt                           | 40         | 532 06 64-26 | Wire Tie                                    |
| 10         | 873 80 04-00 | Nut, Hex                       | 42         | 532 18 70-96 | Handle Assembly, Lower                      |
| 11         | 532 19 06-92 | Tube, Rear Skirt               | 43         | 532 18 62-98 | Bail, Control                               |
| 12         | 532 19 64-74 | Skirt, Rear                    | 44         | 532 18 27-48 | Grip, Foam                                  |
| 13         | 532 19 05-19 | Cover, Front                   | 45         | 532 18 62-96 | Handle Assembly, Upper (Includes Foam Grip) |
| 14         | 532 18 45-72 | Screw, Hex Washer Head         | 46         | 532 16 43-22 | Cable, Engine Zone Control                  |
| 15         | 532 15 04-06 | Bolt, Engine Mounting          | 47         | 532 75 06-34 | Screw                                       |
| 16         | 532 18 90-28 | Blade, 21"                     | 48         | 532 12 52-03 | Bracket, Upstop                             |
| 17         | 532 85 10-74 | Washer, Hardened               | 49         | 532 13 20-04 | Nut, Hex 1/4-20                             |
| 18         | 532 85 02-63 | Washer, Lock                   | 50         | 532 18 85-01 | Rope Guide                                  |
| 19         | 532 18 34-31 | Screw, Hex Head, Grade 8       | 51         | 532 18 97-92 | Kit, Housing                                |
| 20         | 532 18 34-28 | Adapter, Blade                 | 52         |              | Engine, Honda, Model Number GCV160          |
| 21         | 532 19 05-16 | Debris Shield                  |            |              | (For engine service and replacement parts,  |
| 22         | 817 60 04-06 | Screw, Hex Head, Serrated      |            |              | call Honda at 1-800-426-7701)               |
| 23         | 532 18 36-09 | Mounting Bracket, Mulcher Door | 53         | 532 19 47-35 | Grassbag Assembly, Complete                 |
| 24         | 532 75 11-52 | Nut, Hex                       |            |              | (Consists of Key Numbers 1-8)               |
| 25         | 532 18 34-45 | Rod, Hinge                     | 54         | 532 18 90-14 | Discharge Chute Assembly, Complete          |
| 26         | 532 18 34-46 | Spring, Mulcher Door           |            |              | (Consists of Key Numbers 30 through 33)     |
| 27         | 532 10 73-39 | Decal, Danger                  | 55         | 532 18 86-28 | Stud, Shoulder, T45                         |
| 28         | 532 19 05-15 | Mulcher Door                   | 56         | 812 00 00-58 | E-Ring, T45                                 |
| 29         | 532 18 34-47 | Knob                           | 57         | 532 18 86-34 | Stud, Threaded 1/4-20 x 5/8                 |
| 30         | 532 19 05-80 | Door, Discharge Chute          |            | 532 16 23-00 | Decal, Warning (not shown)                  |
| 31         | 532 18 34-78 | Spring, Door, Discharge Chute  |            | 532 19 39-85 | Owner's Manual, English / French            |

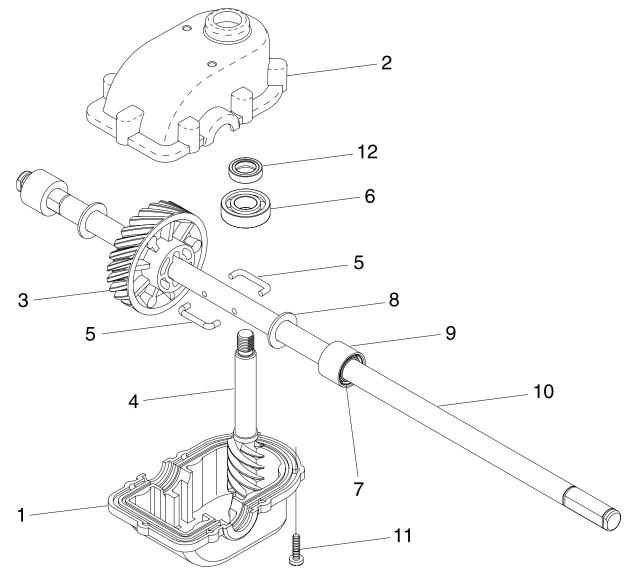
**NOTE:** All component dimensions given in U.S. inches. 1 inch = 25.4 mm. **IMPORTANT:** Use only Original Equipment Manufacturer (O.E.M.) replacement parts. Failure to do so could be hazardous, damage your lawn mower and void your warranty.



| KEY<br>NO. | PART<br>NO.  | DESCRIPTION                           | KEY<br>NO. | PART<br>NO.  | DESCRIPTION                          |
|------------|--------------|---------------------------------------|------------|--------------|--------------------------------------|
| 1          | 532 19 67-54 | Drive Control Assembly, Complete      | 28         | 532 16 08-29 | Bolt, Hex Head, Shoulder             |
|            |              | (Consists of Key Numbers 2 through 7) | 29         | 817 06 04-10 | Screw 1/4-20 x 1/16                  |
| 2          | 532 18 82-79 | Cover, Drive Control, Top             | 30         | 532 18 34-57 | Cover, Dust, Wheel                   |
| 3          | 532 18 73-53 | Pulley, Drive Control                 | 31         | 532 08 83-48 | Washer, Flat 3/8                     |
| 4          | 532 19 00-37 | Lever, Drive Control (blue)           | 32         | 532 19 26-22 | Wheel Assembly, Rear 9 x 2-1/4       |
| 5          | 532 18 82-78 | Cover, Drive Control, Bottom          | 33         | 532 08 39-23 | Nut, Hex                             |
| 6          | 532 18 16-98 | Screw, Torx Head #8-5/8               | 34         | 532 18 36-95 | Hubcap                               |
| 7          | 532 18 70-97 | Bracket, Mounting, Drive Control      | 35         | 532 18 59-94 | Knob                                 |
| 8          | 532 18 62-97 | Cap, Drive Control, Bottom            | 36         | 532 18 82-91 | Spring, Torsion                      |
| 9          | 532 19 57-92 | Cable, Drive Control                  | 37         | 532 17 50-98 | Pawl                                 |
| 10         | 532 19 05-65 | Cover Assembly, Drive                 | 38         | 812 00 00-58 | E-Ring                               |
| 11         | 532 18 45-71 | Screw                                 | 39         | 532 17 51-03 | Gear                                 |
| 12         | 812 00 00-12 | Ring, Retaining                       | 40         | 532 17 51-05 | Retainer, Drive, LH                  |
| 13         | 532 18 34-50 | Screw                                 | 41         | 532 17 51-04 | Disc, Drive                          |
| 14         | 532 18 71-20 | Bearing / Axle Support                | 42         | 532 18 41-72 | Seal, Friction                       |
| 15         | 532 18 82-94 | Gear Case Assembly (See Breakdown)    | 43         | 532 19 05-20 | Lever, Selector, Wheel Height, Rear  |
| 16         | 532 19 41-24 | Spring, Return                        | 44         | 532 19 05-18 | Lever, Selector, Wheel Height, Front |
| 17         | 532 19 61-91 | Bracket, Gear Case / Drive Pulley     | 45         | 532 16 34-09 | Screw                                |
| 18         | 532 16 34-09 | Screw                                 | 46         | 532 19 22-32 | Wheel Assembly, Front 9 x 2-1/4      |
| 19         | 532 18 94-08 | Pulley, Drive                         | 47         | 532 18 34-38 | Bushing, Front Axle                  |
| 20         | 532 13 20-10 | Nut, Hex, Flangelock                  | 48         | 532 16 96-75 | Retainer, Hairpin Cotter             |
| 21         | 532 13 20-04 | Nut, Hex                              | 49         | 532 19 64-69 | Torque Shaft Assembly, Front         |
| 22         | 532 19 37-91 | Pulley Assembly, V-Groove             | 50         | 532 18 36-88 | Belt, Drive                          |
| 23         | 532 18 81-52 | O-Ring                                | 51         | 532 18 83-31 | Pinion Assembly, LH                  |
| 24         | 532 14 52-12 | Nut, Hex, Flangelock                  | 52         | 532 17 51-02 | Retainer, Drive, RH                  |
| 25         | 873 93 05-00 | Nut, Hex, Lock                        | 53         | 532 19 59-95 | Rear Axle Assembly                   |
| 26         | 532 19 65-42 | Idler Arm                             | 54         | 532 18 83-30 | Pinion Assembly, RH                  |
| 27         | 532 16 60-43 | Pulley, Idler                         | 55         | 532 18 90-74 | Decal, Drive Control                 |
|            |              | -                                     | 69         | 532 75 10-68 | Bearing, Ball (Wheel)                |

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

## ROTARY LAWN MOWER - - MODEL NUMBER **55R21HV** (96143000500) PRODUCT NUMBER 961 43 00-05 GEAR CASE ASSEMBLY - - PART NUMBER 532 18 82-94



| KEY<br>NO.  | PART<br>NO.  | DESCRIPTION   |
|---|--|---|
| 1<br>2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11<br>22 | 532 18 75-30<br>532 19 12-45<br>532 18 75-32<br>532 19 12-46<br>532 18 35-05<br>532 18 35-06<br>532 18 35-08<br>532 18 35-09<br>532 18 35-11<br>532 19 12-47<br>532 18 35-13<br>532 18 35-14 | Case, Lower<br>Case, Upper<br>Gear, 24 Teeth<br>Shaft, Worm<br>Wireform<br>Bearing, Ball<br>Seal, Output Shaft<br>Washer<br>Bushing<br>Shaft, Output<br>Screw<br>Seal, Worm Shaft |
|   | 532 75 03-69   | Grease, Texaco Starplex Premium 1<br>(Do not substitute) (1.4 ounce capacity)   |

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

# SERVICE NOTES

| Husqvarna   | WARRANTY STATEMENT   |
|---|--|
| SECTION 1: LIMITED WARRANTY   | SECTION 4: EXCEPTIONS AND LIMITATIONS  |
| Husqvarna Forest & Garden Company ("Husqvarna") warrants Husqvarna product to the original pur-<br>chaser to be free from defects in material and workmanship from the date of purchase for the "Warranty<br>Period" of the product as set forth below:<br>Lifetime Warranty: All tiller tines against breakage, trimmer shafts, ignition coils and modules on hand<br>held product.  | This warranty shall be inapplicable to defects resulting from the following:<br>(1)Accident, abuse, misuse, negligence and neglect, including stale fuel, dirt, abrasives, moisture, rust,<br>corrosion, or any adverse reaction due to incorrect storage or use habits;<br>(2)Failure to operate or maintain the unit in accordance with the Owner's/Operator's manual or instruc-<br>tion sheat furnished by Miscorara     |
| <ol> <li>3 Year Warranty: Spindles (on Zero Turn Riders and Commercial Walk-Behinds)</li> <li>2 Year COMMERCIAL-Warranty: Husqvarna Commercial Turf Equipment—zero turn riders, wide area walks, and ground engaging commercial equipment.</li> </ol>   | (3)Alterations or moderating, 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:<br>(4)Additional damage to parts or components due to continued use occurring after any of the above.  |
| 2 Year NON-COMMERCIAL Warranty: Automatic Mower, Riding lawn mowers, yard and garden tractors, walk behind mowers, tillers, chain saws, trimmers, brushcutters, clearing saws, snow blowers, handheld blowers, backpack blowers, hedge trimmers, electrical products and power-assist collection systems for noncommercial. nonprofessional. noninstitutional or nonincome producing use. except as herein stated. Emission control system commonants necessary to commit with CARP-TIFR-II and EDA requisions. | REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF<br>THE PURCHASER. HUSQVARNA SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL<br>DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THESE PRODUCTS EXCEPT<br>TO THE EXTENT PROHIBITED BY APPLICABLE LAW. ANY IMPLIED WARRANTY OF MERCHANTABIL-<br>TTY OR FITNESS FOR A PARTICIIL AN INPOSE PRODUICTS IS I IMITED IN DIMATION TO |
| Extraction control system components necessary to comply with control with those components which are part of engine systems manufactured by third party engine manu-<br>except for which the purchaser has received a separate warranty with product information supplied at time of purchase.   | THE WARRANTY PERIOD AS DEFINED IN THE LIMITED AND OUT AND OUT AND  |
| 1 Year Warranty: Power cutters, stump grinder, pole pruners and pole saws for non-commercial, non-pro-<br>fessional, non-institutional or non-income producing use. All trimmers, brushcutters, clearing saws, hover-<br>ing trimmers, stick edgers, backpack blowers, hand held blowers, hedge trimmers, power-assist collection<br>systems used for commercial, institutional, professional or income producing purposes or use.  | Some states do not allow the exclusion of incidental or consequential damages, or limitations on how long<br>an implied warranty lasts, so the above limitations or exclusions may not apply to you. This warranty gives<br>you specific legal rights, and you may also have other rights which vary from state to state.  |
| Batteries have a one-year prorated limited warranty with 100% replacement during the first 6 months.  | SECTION 5: CUSTOMER RESPONSIBILITIES   |
| <b>90 Day Warranty:</b> Automatic Mower, Chain saws, power cutters, stump grinders, pole saws, pole pruners, snow throwers, model series 580 & 600 walk-behind mowers and commercial turf equipment or any Husqvarna product used for <u>commercial</u> , institutional, <u>professional</u> , or income <u>producing purposes or use except as otherwise provided herein</u> .   | The product must exhibit reasonable care, maintenance, operation, storage and general upkeep as written<br>in the maintenance section of the Owner's/Operator's manual. Should an operational problem or failure occur,<br>the product should not be used, but delivered as is to an authorized Husqvarma dealer for evaluation. Proof<br>of purchase, as explained in section 6, rests solely with the customer.            |
| Husqvarna Safety Apparel carries a 90-day warranty from the date of the customer's original purchase<br>for defects in material and workmanship. Normal wear, tear or abuse is not covered under warranty. Prod-<br>not must be retruned to Charlotte with a warranty claim form All care and maintenance instructions must   | SECTION 6: PROCEDURE TO OBTAIN WARRANTY CONSIDERATION  |
| be followed as stated by the manufacturer on the care label. The fit of the protective apparel/boot is not covered under warranty.  | It is the Owner's and Dealer's responsibility to make certain that the Warranty Registration Card is properly<br>filled out and mailed to Husqvarna Forest & Garden Company. This card should be mailed within ten (10) days<br>from the date of purchase in order to confirm the warranty and to facilitate post-sale service.  |
| anty  | Proof of purchase must be presented to the authorized Husqvarna dealer in order to obtain warranty ser-  |
| SECTION 2: HUSQVARNA'S OBLIGATIONS UNDER THE WARRANTY<br>Husqvarna will repair or replace defective components without charge for parts or labor if a component   | vice. This proof must include date purchased, model number, serial number, and complete name and address of the selling dealer.  |
| fails because of a defect in material or workmanship during the warranty period.<br>SECTION 3: ITEMS NOT COVERED BY THIS WARRANTY   | To obtain the benefit of this warranty, the product believed to be defective must be delivered to an au-<br>thorized Husqvarna dealer in a timely manner, no later than thirty (30) days from date of the operational<br>problem of failure. The product must be delivered at the owner's expanse Dick in and delivery channes are   |
| The following items are not covered by this warranty:<br>(1)Normal customer maintenance items which become worn through normal regular use, including, but<br>not limited to, belts, blades, blade adapters, bulbs, filters, guide bars, lubricants, rewind springs, saw  | product of many methods much mark by derivers a superviser is the part of mark of the superviser is the part of the "Vellow<br>not covered by this warranty. An authorized Hustvarina dealer can be normally located through the "Vellow<br>Pages" of the local telephone directory or by calling 1-800-HUSKY62 for a dealer in your area.   |
| chain, spark plugs, starter ropes and tines;<br>(2)Natural discoloration of material due to ultraviolet light;<br>(3)Engine and drive systems not manufactured by Husqvarna; these items are covered by the respective<br>manufacturer's warranty as provided in writing with the product information supplied at the time of pur-  |  |
| chase; all claims must be sent to the appropriate manufacturer;<br>(4)Lawn and garden attachments are covered by a third party which gives a warranty, all claims for war-<br>ranty chould be sent to the manufacturer and  | 531 83 81-23 2002  |
| (5)Emission Control System components necessary to comply with CARB-TIER-II and EPA regulations which are manufactured by third party engine manufacturer.  |  |

24