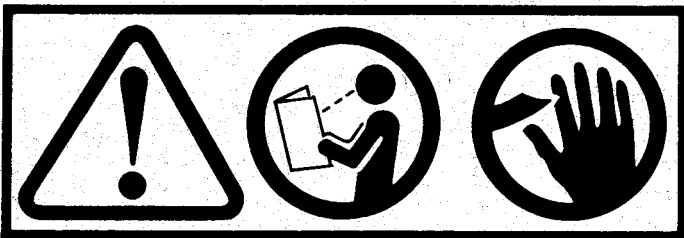


# OPERATOR'S MANUAL

## Mulching Mower 20" Cut



MODEL 1570PS  
MFG. NO. 1691922

MODEL 1575PP  
MFG. NO. 1691923

# *Simplicity*

# BASIC SAFETY PRECAUTIONS

## TRAINING

- Read the operating and service instruction manual carefully. Be thoroughly familiar with the controls and the proper use of the equipment.
- Never allow children to operate a power mower.
- Keep the area of operation clear of all persons, particularly small children, and pets.

## PREPARATION

- Thoroughly inspect the area where the equipment is to be used and remove all stones, sticks, wires, bones, and other foreign objects.
- Do not operate the equipment when barefoot or wearing open sandals. Always wear substantial footwear.
- Check the fuel before starting the engine. Do not fill the gasoline tank indoors, when the engine is running, or until the engine has been allowed to cool for several minutes after running. Clean off any spilled gasoline before starting the engine.
- Never attempt to make a wheel height adjustment while the engine (motor) is running.
- Mow only in daylight or in good artificial light.
- Never operate the equipment in wet grass. Always be sure of your footing; keep a firm hold on the handle and walk; never run.

## OPERATION

- Do not change the engine governor settings or over-speed the engine.
- Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.
- Stop the blade (s) when crossing gravel drives, walks, or roads.
- After striking a foreign object, stop the engine (motor), remove the wire from the spark plug, thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower.
- 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.

- Stop the engine (motor) whenever you leave the equipment, before cleaning the mower housing, and when making any repairs or inspections.
- When cleaning, repairing, or inspecting, make certain the blade and all moving parts have stopped. Disconnect the spark plug wire, and keep the wire away from the plug to prevent accidental starting.
- Do not run the engine indoors.
- Shut the engine (motor) off and wait until the blade comes to a complete stop before removing the grass catcher or unclogging chute.
- Mow across the face of slopes; never up and down. Exercise extreme caution when changing direction on slopes. Do not mow excessively steep slopes.
- Never operate the mower without proper guards, plates, or other safety protective devices in place.
- Keep washout ports and other mower-housing service openings closed when mowing.

## MAINTENANCE AND STORAGE

- Check the blade and the engine mounting bolts at frequent intervals for proper tightness.
- The cutting edges of the mower blade are sharp and can lacerate (cut) skin tissue. Care should be taken when doing any repair work on or around the mower blade. To prevent injury, it is recommended that gloves be worn or the cutting edge be wrapped with newspaper or any other suitable material when working on the blade.
- Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition.
- Never store the equipment 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 enclosures.
- To reduce fire hazard, keep the engine free of grass, leaves, or excessive grease.
- Check the bag frequently for deterioration and wear and replace worn bags. Check that replacement bags comply with original manufacturer's recommendations or specifications.

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## INFORMATION FOR THE PURCHASER

### MOWER OPERATOR'S MANUAL

Please read this manual thoroughly before proceeding with assembly. To avoid possible damage, such as crimping the control cables, it is necessary to unpack and assemble the unit per our instructions.

While unpacking the mower, inspect for shipping damage. If you find any damage, notify the store or dealer who sold you the mower.

This operator's manual gives instructions for unpacking and initial assembly, operation and care of the mower. Detailed instructions for maintenance and adjustment are limited to things a user may be expected to perform. For services which, if inexpertly performed, might lead to unit damage or unsafe performance, we recommend an authorized servicing dealer. He has the experience and the genuine factory service parts to do the work.

Descriptions and illustrations are as accurate as possible at the time of publication. Illustrations may include optional equipment or accessories and may not show all models covered by this literature.

### SEPARATE ENGINE MANUAL SUPPLIED

In addition to the mower operator's manual you are now reading, an operating and maintenance manual is supplied for the 4-cycle engine. The engine manual covers engine safety, starting, maintenance and adjustment.

### WARRANTY INFORMATION

The limited warranty packed with your mower will give the length of time, and conditions under which your machine is warranted.

Please record the model number and the serial number, both of which are on a plate at the rear of the mower deck. Give these numbers in any correspondence or phone contacts you may have with your authorized servicing dealer or our Manager of Customer Relations.

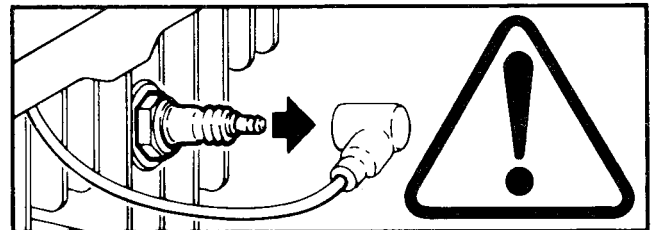
## SAFETY DEFINITIONS

### DANGER

The signal word "DANGER" signifies that a source of extreme danger to a person on or near a machine exists as a result of the very nature of the machine itself. This danger to persons is such that it would result in a high likelihood of death or permanent injury if the recommended precautions are not taken.

### WARNING

The signal word "WARNING" indicates that a source of danger to a person on or near a machine exists which may result in death or injury if the recommended precautions are not taken.



DISCONNECT SPARK PLUG BEFORE PERFORMING MAINTENANCE, ADJUSTMENT, LUBRICATION AND STORAGE.



DANGER!



READ YOUR PRODUCT LITERATURE.



DANGER - KEEP HANDS AND FEET AWAY.



KEEP CHILDREN AND PETS AWAY.

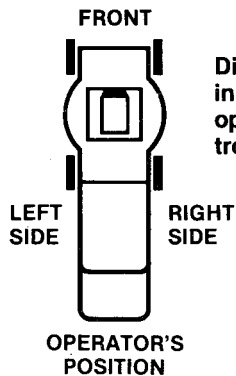
# SET - UP INSTRUCTIONS

## UNPACKING MOWER AND ADJUSTING HANDLES

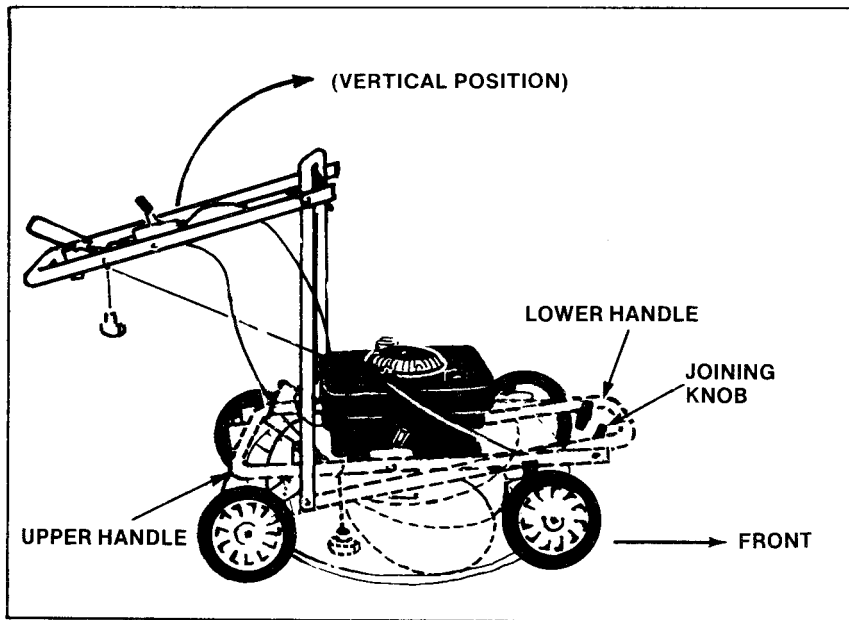
### IMPORTANT

Do not attempt to lift the mower from the carton, because doing so could result in control cable damage.

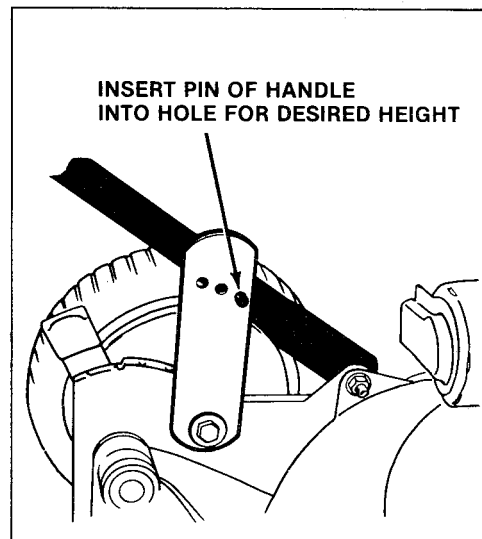
1. Place carton on a large clear work space and open only the top.
2. Slit all four corners and lay the sides of the carton out flat.



**NOTE**  
Directions (front, rear, left, right, etc.) in this manual are oriented from the operator's position behind the control handle.



**FIGURE 1**



**FIGURE 2**

3. Remove protective packing.
4. Raise lower handle to vertical position.
5. Lift upper handle to horizontal position being careful not to pinch the starter rope at the handle joint.
6. Raise upper handle to vertical position and tighten the handle joining knobs.

7. Pull the handle rearward to an angle where you can insert the pin of each leg into one of three holes in the handle support. (See Figure 2.)
8. From the operator's position behind the handle, check the handle height. If you wish to change the height, insert the handle pins into another set of holes.

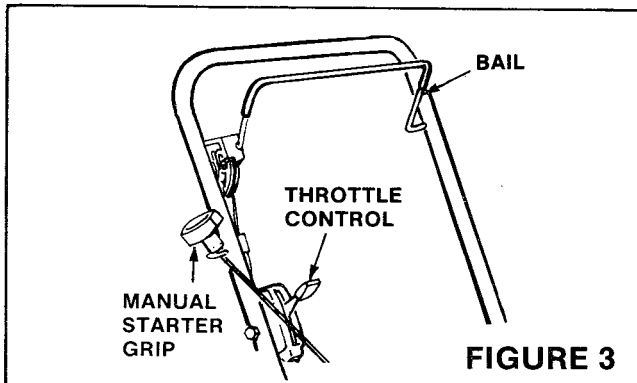
# OPERATING CONTROLS

## BAIL (ENGINE CONTROL BAR) (See Figure 3)

The *bail* is the long bar between the handle uprights. Holding the *bail* against the upper handle indexes the engine control to permit rotation of the engine crankshaft. In accordance with current regulations of the Consumer Products Safety Commission, this control is designed to stop the engine within three seconds after release of the bail by the operator.

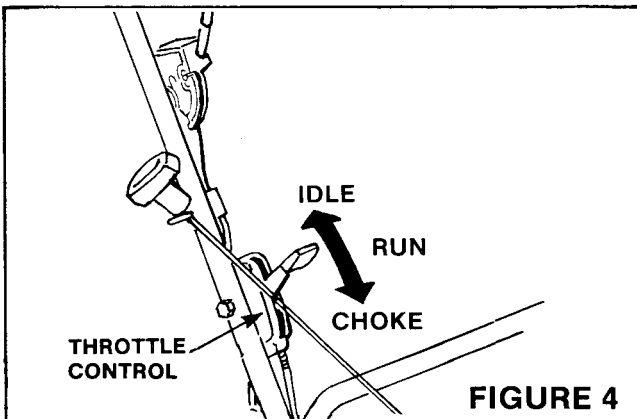
### **WARNING**

Should the engine fail to stop within 3 seconds when the bail is released, do not use the mower until the faulty control or braking mechanism has been properly serviced by an authorized servicing dealer.



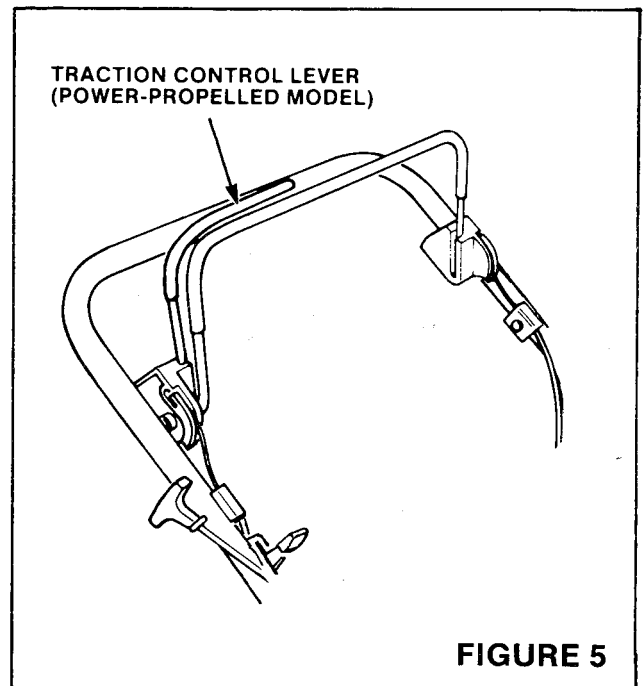
## THROTTLE CONTROL (See Figure 4)

This control on the right side of the upper handle is connected to the carburetor throttle lever. Its function is to adjust the engine speed from IDLE to RUN to CHOKE. This control has nothing to do with stopping the engine. Pushing the control knob forward increases engine speed. For maximum performance always mow with the throttle lever in the RUN position. Should the adjustment fail to cover the operating speed range, see the "Maintenance and Adjustment" section.



## TRACTION DRIVE (See Figure 5)

1. On power-propelled models, the operator has the option of pushing the mower or engaging the traction drive for forward propulsion. The drive is engaged by holding the *traction control lever* at the right end of the bail against the upper handle. When operation without rear wheel propulsion is desired, only the bail should be depressed.
2. The traction drive of the new mower should be checked by the owner. If it does not properly engage and disengage during the following procedure, it should be repaired.
  - a) With engine not running and traction control lever not held down, pull mower backward to see that the rear wheels turn.
  - b) With engine not running, hold traction control lever against handle and pull mower backwards to determine that the rear wheels have been engaged and will not turn.



### **WARNING**

For safe operation, the traction drive must disengage immediately when the *traction control lever* is released. If it does not, have the machine properly serviced.

# STARTING AND STOPPING THE ENGINE



## PRE-STARTING CHECK LIST

1. Are handles tightened securely?
2. Is underside of mower clean and free from obstructions?
3. Is the blade in good condition? (See "Maintenance and Adjustment" for examination and sharpening.)

### IMPORTANT

If the mower has been tilted enough for crankcase oil to flow into the cylinder, DO NOT TRY TO START ENGINE until mower has been in the normal upright position for the 3 to 5 minutes required for the oil to drain back into the crankcase. If the starter can not be pulled with ease after this time, there may still be oil trapped in the cylinder. To

clear the cylinder: remove spark plug, crank engine several times, then reinstall the spark plug after wiping it dry.

4. Is cutting height adjusted to your liking? (See "Cutting Height" section.)
5. Is the oil at proper level in the crankcase? Check the dipstick. (See engine manual.)
6. Does the fuel tank contain fresh fuel? (Always use fresh regular grade automobile gasoline. Fill tank completely. DO NOT MIX OIL WITH THE GASOLINE.)
7. Open fuel shut-off valve.

## STEPS FOR STARTING AND STOPPING ENGINE (See Figure 6)

### DANGER

Blade rotates when engine is running. Contact with the mower blade will cause serious bodily injury. This mower has been designed with safety features which permit starting the mower only from the operator's position behind the handles. Do not defeat or disconnect the engine control bar, or try to operate the engine from anywhere except the operator's position.

1. Put the mower on clear level ground or already mown grass (not uncut grass). Open fuel valve.
2. Move the throttle control handle to the CHOKE position.
3. Depress and hold the *bail* against the upper handle. (See Figure 6.) The bail is part of the safety and engine stopping system. The engine cannot be started if the bail is not depressed. The engine will stop running when the bail is released.
4. Grasp the starter grip and pull slowly until starter engages. Then pull cord rapidly to overcome compression, prevent kickback and start engine. Repeat if necessary with throttle in the RUN position until engine starts.
5. Allow the engine to warm up.

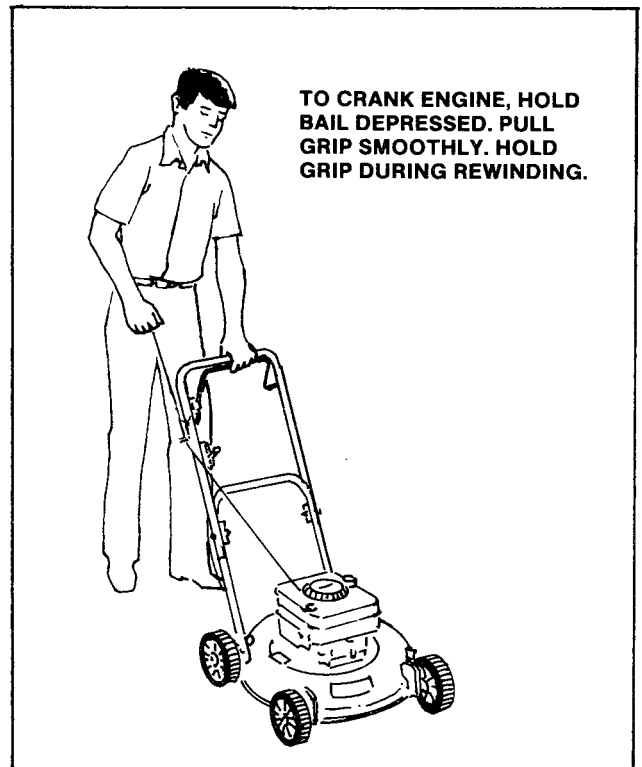


FIGURE 6

# OPERATING INSTRUCTIONS

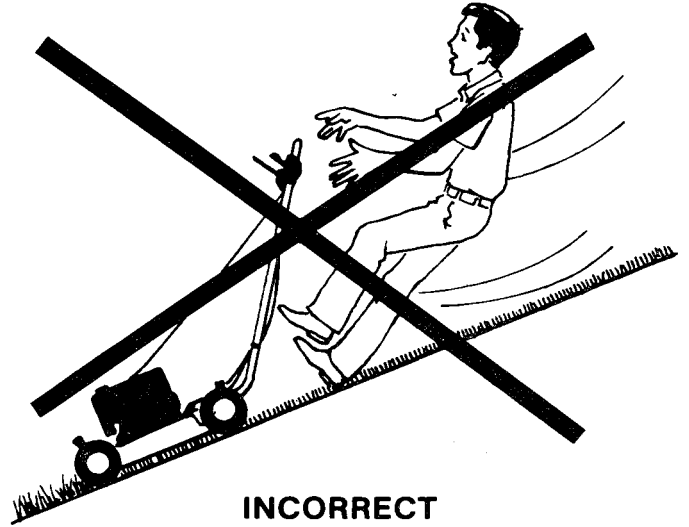
## OVERLAPPING THE RUNS

Overlap each run for maximum width with a minimum of wheel tracks. Run the inside of the front wheel along edge of uncut grass.

On hillside mowing, when possible, keep air cleaner and carburetor on the uphill side (see Figure 7). Make sure that the crankcase is properly filled with oil. See engine manual.

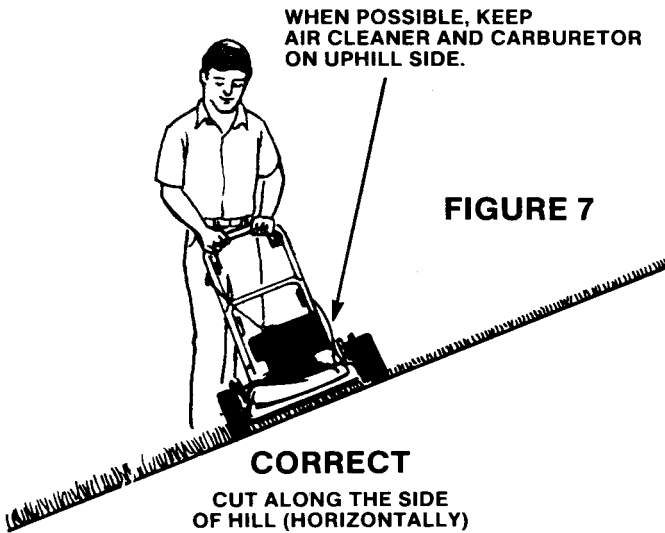
**⚠ DANGER**

The least dangerous method for mowing on hills and terraces is to cut horizontally along the slope (as in Figure 7) instead of up and down (as in Figure 8). This will place you away from the mower if you slip. It will also reduce scalping on crowns of hills. Exercise extreme caution to avoid slipping and contacting the rotating blade while mowing on hills. Because of the increased danger of slipping (even on level surfaces) never mow when grass is wet or damp. Always wear adequate footwear.



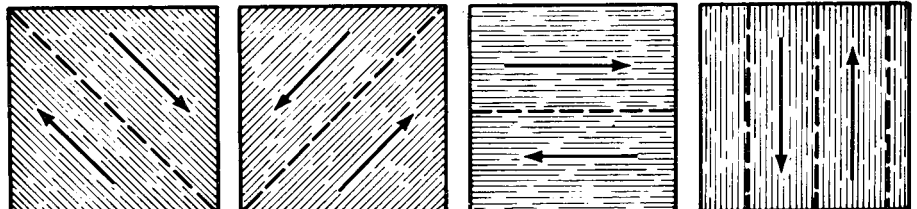
**INCORRECT**  
DO NOT CUT UP AND DOWN  
HILLS — DANGER OF SLIPPING  
AND CONTACTING ROTATING BLADE.

**FIGURE 8**



## MOWING PATTERNS

If the mowing pattern and direction of progress are changed each time, every cutting will help to eliminate matting, graining and corrugation, thereby enhancing the appearance of your lawn. Instead of cutting in circles, try the various mowing patterns shown.



## PROS AND CONS OF GRASS MULCHING

Grass mulching is the recycling of nutrients into the soil in a form that is readily degradable. According to scientists specializing in turf study, finely chopped particles of grass will disintegrate into the soil and be absorbed by the grass roots within 14 days. So there is no need to sweep or bag finely mulched clippings.

To understand how your twin blade mulcher cuts and recuts grass clippings into a fine mulch, think of the cutter bar and recutter bar as a four-blade fan. The cutter bar blades blow the grass clippings upward, cutting them over and over as they whirl around the circular track of the underdeck. When the track is loaded with clippings, those nearest the inside wall of the track are impelled downward by down-pitched portions of the cutter bar blades. On their way down, the clippings are cut even finer by the recutter blades. The particles are blown straight into the turf. (See Figures 9 and 10.)

A mulcher-cut lawn needs less fertilization and top dressing than is usually applied to keep the grass healthy, because nothing is being taken away.

Although there is no build up of thatch during mowing under the proper conditions, the layer of fine clippings retards evaporation from the soil. The absence of thatch means no souring and no mildew which often are the reasons for bare spots.

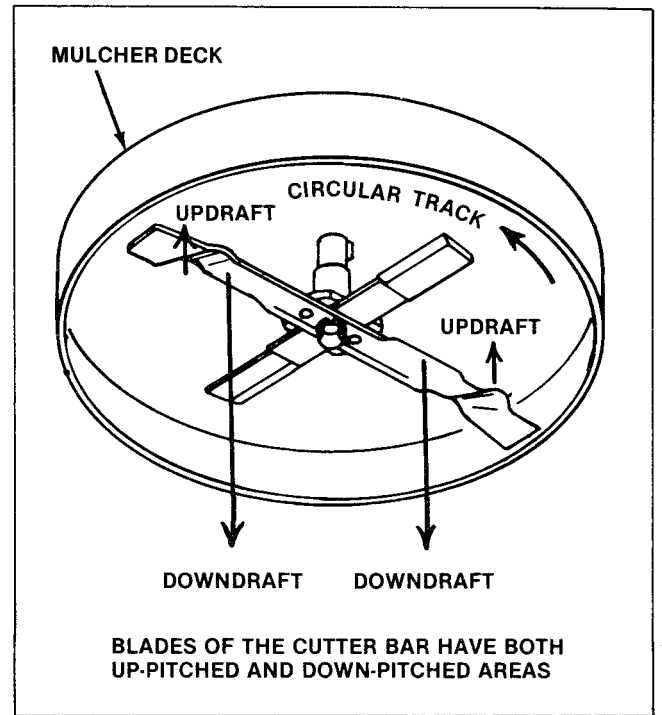
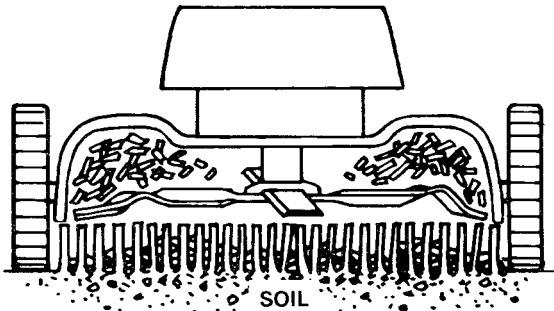


FIGURE 9

## DIFFERENCES IN MOWING ACTION AND THE END EFFECTS

**TWIN BLADE MULCHER:** Cuttings suspended in deep mowing deck are chopped and rechopped before being driven down into the soil.



**SIDE DISCHARGE MOWER:** Blows large cuttings into rows or piles which end up as root-destroying thatch, unless cuttings are removed.

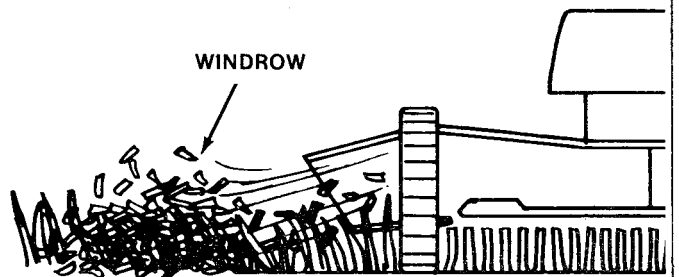


FIGURE 10

For effective mulching the grass must be dry and not so tall as to overload the circular track of the underdeck. When the grass is tall, overloading may be avoided by making two shallow cuttings as shown in Figure 11. The maximum height setting of this mower is 3 inches (76 mm). If the grass mowing has been delayed and the grass is allowed to grow tall, do not use your mulcher. Use another mower to reduce the grass height to 4" maximum before using the mulcher in its highest position.

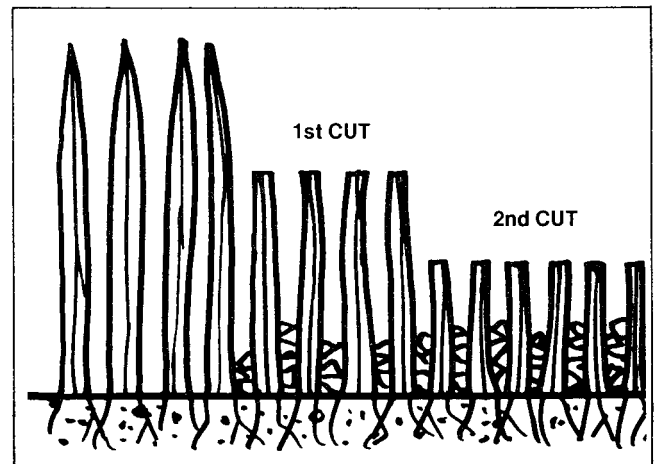


FIGURE 11



# MAINTENANCE AND ADJUSTMENT



## DANGER

To avoid the possibility of accidental engine start-up and resulting serious bodily injury, disconnect the spark plug wire before you begin any work on the cutter bar or underside of the deck. Before turning the deck on the right side, empty the fuel tank in a suitable container. Wear gloves to protect against sharp blade and edges of deck.

## CUTTING HEIGHT

All four wheels were set at the factory to a 1" (25 mm) cutting height. Until you have determined the right cutting height for your lawn, we recommend your setting the height at 2" (51 mm). The mower has height settings in 1/2" (13 mm) increments from 1" (25 mm) to 3" (76 mm). Put all four wheels in the same position for even cutting. Do not place fingers under deck when making cutting height settings. Never adjust mower height with the engine running.

## INSPECTING CUTTER BARS

1. Both bars — cutter bar and recutter bar — must be straight (See Figure 12.) Any impact severe enough to bend a bar has also caused microscopic cracks in the bar steel. Bent bars should be replaced because the cracked portions could break off, becoming projectiles capable of inflicting serious injuries.

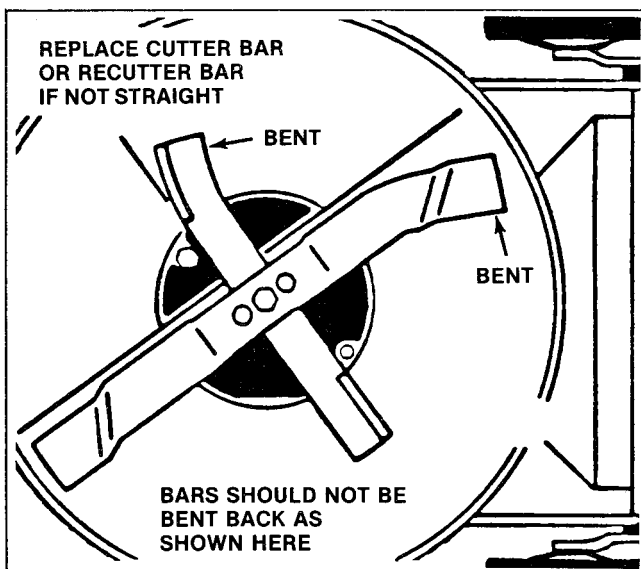


FIGURE 12

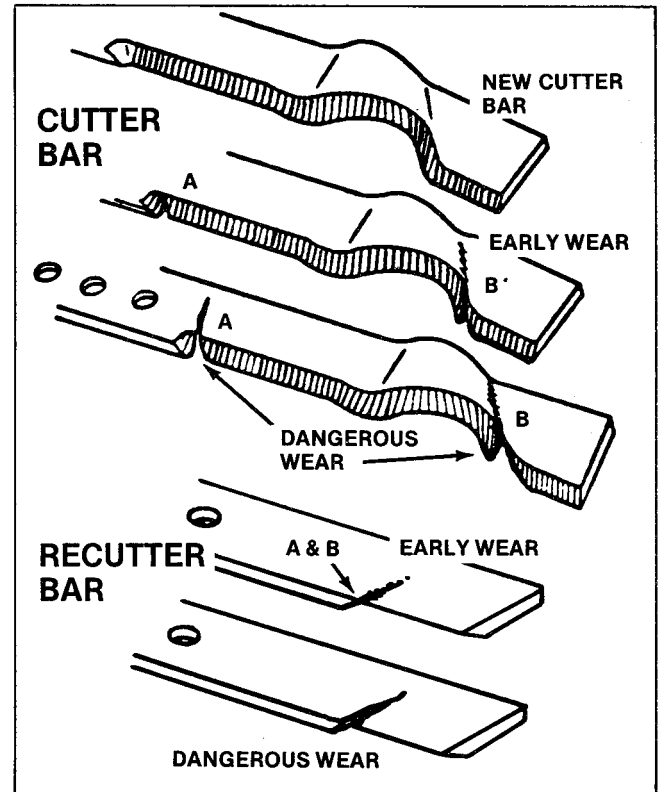


FIGURE 13

2. The blade ends of both bars should be inspected for cracks developing at points marked "A" and "B" in Figure 13. These are transition points, either from unsharpened to sharpened edges, or from rounded to flat areas of the blade. Abrasive particles cause cracks by wearing the steel during mowing. At the first sign of a crack, the cutter bar or recutter bar should be replaced.

## CHANGING CUTTER BARS

1. Set the mower on a driveway or concrete floor and tip it over on its right side so crankcase oil will not drain into the carburetor and air filter.
2. Put on gloves for protection against the blade edges.
3. As shown in Figure 14, use a piece of 2" x 4" lumber about 14-inches long (rough metric equivalent: 4 x 9 x 36 cm) as a stop. Insert the stop between the cutter blade and the floor.
4. Use a wrench to remove the mounting bolt, lock-washer, cutter bar and recutter bar.
5. Install sharp recutter bar and cutter bar as shown in Figures 14 and 15. Be sure both bars are correctly mounted in the adapter. Install the lockwasher and bolt and make the bolt finger tight.
6. Reinsert the 2" x 4" stop between the floor and the cutter bar, but this time at the rear of the deck. Tighten the bolt with a wrench (to 55-65 ft.-lbs. or 75-88 Nm).

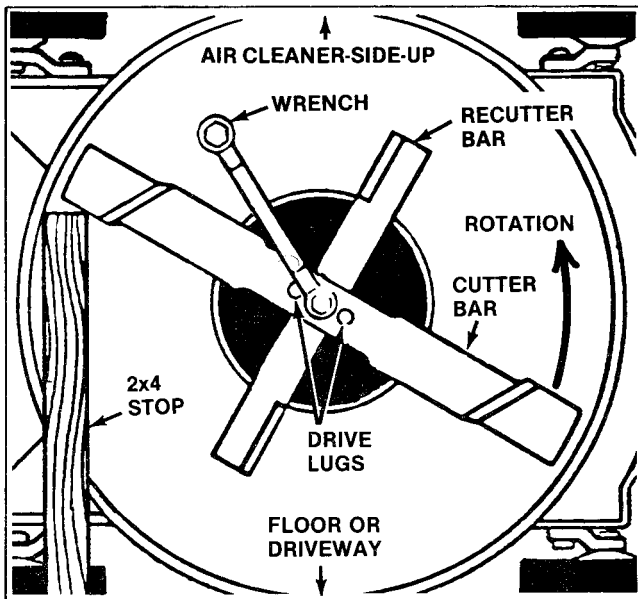


FIGURE 14

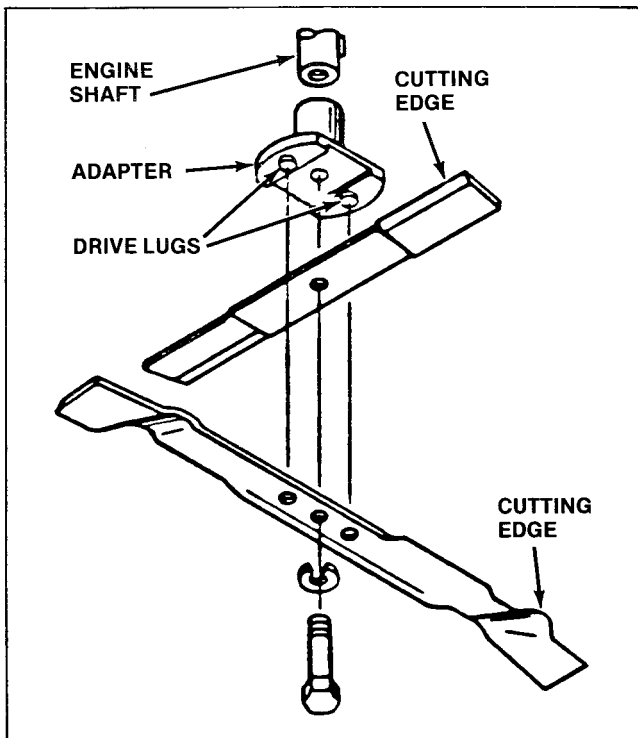


FIGURE 15

**⚠ WARNING**

Failure to properly assemble the recutter and cutter bars in the adapter may result in cracks in the cutter bars or loosening of the mounting bolt. Either of these developments could result in serious bodily injury from pieces being discharged from underneath the mower.

**BLADE SHARPENING**

1. When sharpening blades of cutter and recutter bars, do not follow the original angle of grind as shown in "A" of Figure 16. Instead, grind new cutting edges on a diagonal as shown in "B." Make sure that each cutting edge receives an amount of grinding necessary for the bar to remain balanced.
2. The remaining straight edge portion of the bar may be smoothed just enough to remove burrs.
3. To check balance, suspend bar on a screwdriver or drill shank at center hole. If one end hangs down, grind more steel from that end until bar balances.

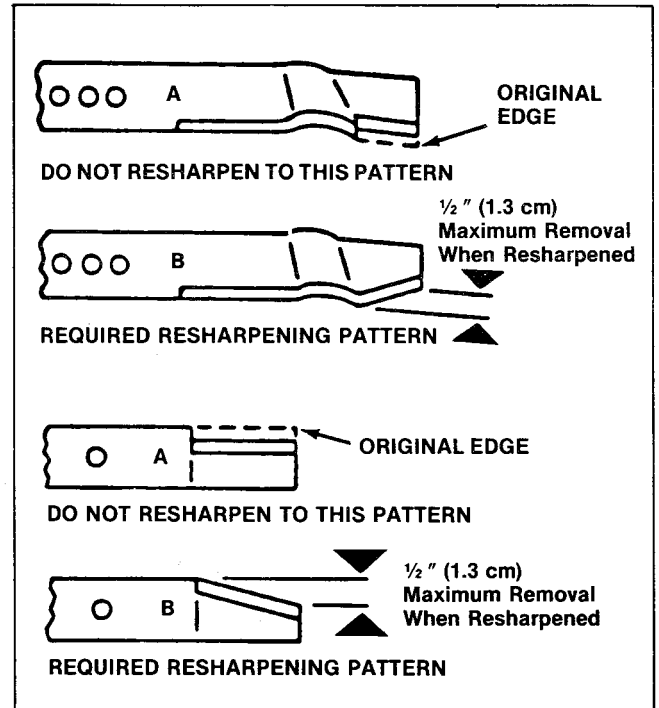


FIGURE 16

**⚠ WARNING**

Incorrect sharpening of recutter and cutter bars as displayed in "A" of Figure 16, could cause the blade tips to break off after a sudden impact of the bar with a foreign object during operation. Broken pieces of the bar thrown from the mower could inflict serious bodily injury.

## BELT REPLACEMENT (Power-Propelled Model)

Replacement belts are available from your authorized servicing dealer. Follow the procedure given below.

1. Disconnect spark plug wire from the spark plug.
2. Remove the bolts holding the belt cover to the deck. Then slide out the cover.
3. Slip the belt over and off the gear reducer pulley.
4. Tip the mower on its right side letting it rest on its handles.

### CAUTION

Do this procedure with less than 1/4 tank of gasoline and the oil dipstick must be tight.

5. Pull the belt through slot in deck so that entire belt is under deck.
6. Slip belt over end of blade and remove.
7. Reverse the above procedure to install new belt.

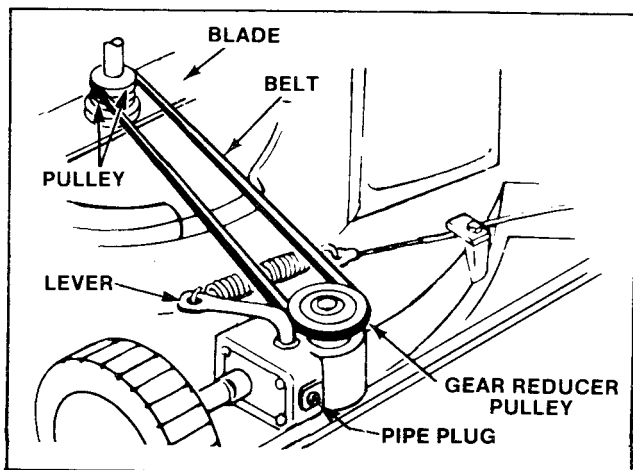


FIGURE 17

## WASHING

We recommend that the underside of the deck be washed whenever material collects there. In very lush conditions, this may have to be done frequently.

**AFTER WASHING, RUN THE ENGINE FOR A FEW MINUTES TO EVAPORATE THE WATER.**

## FAILURE OF POWER-PROPELLED MODEL TO DE-CLUTCH

If the mower creeps (or the transmission remains engaged) when the traction control lever is released, check the control cable for dirt or frayed wires which could hinder smooth travel through the cable conduit. Clean the cable. If trouble persists, see your authorized servicing dealer for repair before further use of the mower.

## TRACTION DRIVE ADJUSTMENT (Power-Propelled Model)

Parts wear or stretching of the traction control cable eventually may cause excessive slipping which first becomes apparent during maximum loading situations such as uphill mowing.

1. Disconnect the spark plug wire.
2. Loosen cable clamp screw.
3. Push cable from the slot in the clamp and move it to the right until the slack is removed from the cable.

4. Push cable into slot and tighten cable clamp screw.
5. Install spark plug wire on spark plug.
6. Test drive adjustment. If mower drive does not release readjust adding slack to the system.

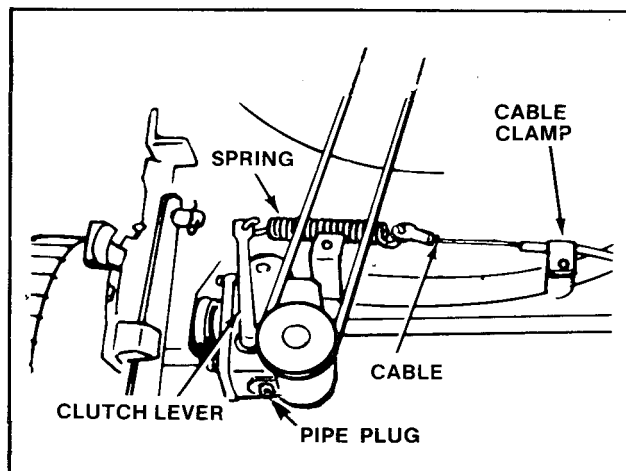


FIGURE 18

### IMPORTANT

After tipping mower up for inspection or any other reason **DO NOT ATTEMPT TO START ENGINE** until mower is allowed to set in normal upright position for at least 3 to 5 minutes. It is important to give oil enough time to drain back into crankcase. If after 5 minutes, starter cord still does not pull easily, remove the spark plug, slowly crank engine to expel any oil still trapped in cylinder, and reinstall spark plug. Engine may now be started.

## CARBURETOR ADJUSTMENT

### ⚠ WARNING

Carburetor adjustment requires high speed operation of the engine during the process. It is, accordingly, required that a mature person, well-acquainted with the dangers of improper procedure, assist by controlling the engine from the operator's position while the adjustments are being made. **DO NOT PUT FINGERS OR TOES NEAR THE MOWER DECK DURING THIS ADJUSTMENT.**

Minor carburetor adjustment may be required to compensate for differences in fuel, temperature, altitude and load. All carburetor adjustments must be made with the air cleaner in place on the carburetor. The engine will not run with the air cleaner mounting screw removed. Best adjustment is made with fuel tank half full of gasoline. See your engine manual for instructions for carburetor adjustment.

## THROTTLE CONTROL ADJUSTMENT

The throttle control must be properly adjusted to start and operate the engine at maximum speed. Read the engine manual supplied with mower for proper adjustment.

## AIR CLEANER

Clean the air cleaner every 25 hours under normal conditions and every few hours under extremely dusty conditions. Poor engine performance and flooding usually indicate need to service the air cleaner. Follow cleaning instructions in your engine manual.

## ENGINE OIL

Read engine manual supplied with mower.

## COOLING SYSTEM

Grass, chaff or dirt may clog the air cooling system, especially after prolonged cutting of dry grasses. To avoid overspeeding, overheating and engine damage, remove the blower housing and clean out dirt and debris as instructed in your engine manual. This should be a regular maintenance operation.

# LUBRICATION

## WHEELS ON PUSH MODEL — FRONT WHEELS ONLY ON POWER-PROPELLED MODEL

Lubricate wheels and the support shafts once a month or every 40 operating hours with SAE 30 oil. Tip mower on its side and apply oil to axle and hub. Spin wheel to allow oil to move into bearing. Oil the wheel support shafts at point where they enter deck. Move indexing levers of height adjusters back and forth to allow oil to move into bearing surfaces.

In extremely dusty conditions, wheels may become tight because of dust in bearing area. When this condition occurs, remove the wheels. Clean axle and wheel bearing surfaces with solvent or emery cloth, then oil and reassemble. Torque to 190-285 in. lbs. (21 to 32 Nm).

## REAR WHEELS ON POWER-PROPELLED MODEL

At the beginning of each season lubricate the wheels and pinions. Block up mower at rear of deck until the rear wheels are free.

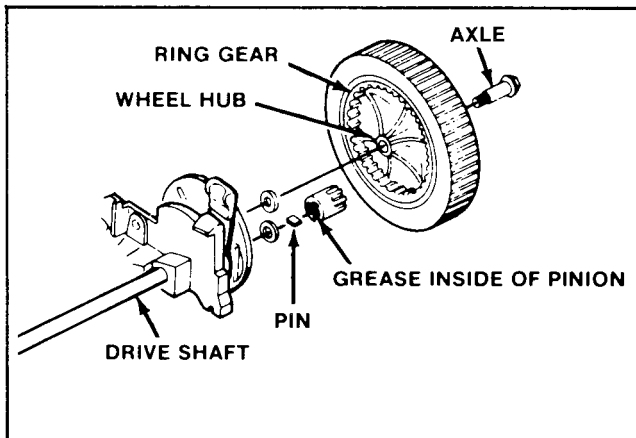


FIGURE 19

Remove the axle screws and pull off the wheels. Apply a liberal amount of grease to pinion, ring gear, wheel hub, and axle (see Figure 19).

Reinstall the wheels, making sure the pinion and gears mesh properly. Be careful to install the pinions on the proper sides, as they are not interchangeable. Propulsion will occur only if parts are correctly installed (see Figure 20).

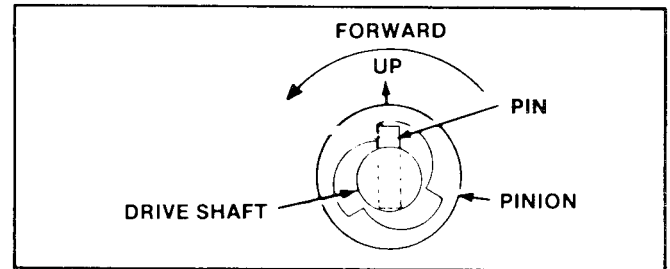


FIGURE 20

## REDUCTION GEARBOX OF POWER-PROPELLED MODEL

The reduction gearbox is filled with oil at the factory. Additional oil will not be required under normal use. Every 25 hours, or if leakage is apparent, remove the pipe plug. (see Fig. 18) If oil level is below the hole, fill until oil is level with bottom of hole. Use Type "F" Automatic Transmission Fluid.

Do not substitute lubricant. If repair is necessary, see your authorized servicing dealer.

### IMPORTANT:

Overfilling or use of improper lubricant will cause premature gear box failure.

# STORAGE

## AT THE END OF EACH SEASON

Any time the mower is to be out of service for a long time it should be washed and dried, then lubricated prior to being stored.

Tilt mower on its right side. Apply a stream of water to the under surfaces of the deck to dislodge as much grass and dirt as possible. Wipe stubborn spots clean. Let machine set upright for 3 to 5 minutes, then run engine long enough to dry off the mower.

Lubricate the wheels and bearings (see "Lubrication"). Then wipe upper surfaces and wheels clean, and prepare the engine for storage.

## ENGINE STORAGE

Tilt the mower forward. Drain fuel into a suitable container. (Do not drain over grassy areas.) Run engine until it stops from lack of fuel. Dispose of cleaning rags in well-ventilated areas to avoid possibility of spontaneous combustion.

Remove spark plug. Pour 1/2 ounce or (15 ml) of SAE-30 oil into the cylinder head and distribute the oil by cranking engine slowly. Install spark plug in cylinder head, but place the spark plug wire in grounded holder on the engine.

Follow instructions in the engine manual to clean the cylinder, cylinder head and the blower housing.

## FOLDING HANDLES

(See Figure 21)

1. Press handle support brackets inward, releasing the handle. Raise entire handle to vertical position.
2. After loosening the joining knobs (wing nuts) fold upper handle rearward over engine cowling. See that the cables are not sharply bent.

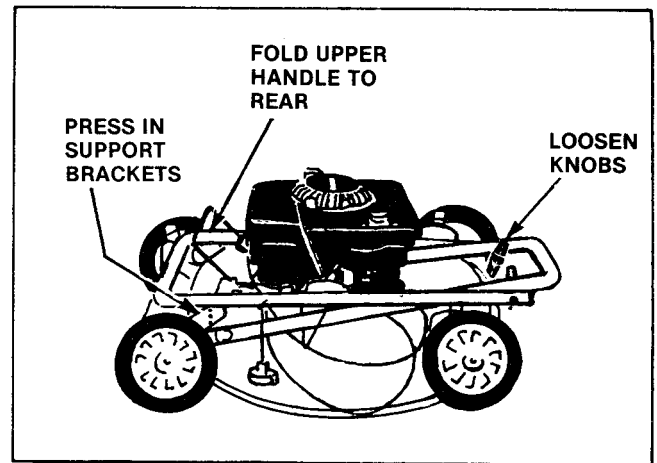


FIGURE 21

### IMPORTANT

To avoid damage to cables, do not fold the upper handle forward. If slack is needed in starting rope during any folding step, depress bail and pull out more rope.



## WARNING

To avoid damage to cables, never fold the upper handle forward. To avoid possibly serious bodily injury when handles have been folded, never grasp or lift mower by the bottom edge of the deck, or attempt to start the engine or operate the controls. They will not function properly with handles folded.

# TROUBLESHOOTING

## **WARNING**

**To avoid possibly serious bodily injury, when performing any maintenance other than carburetor adjustment on engine, remove the spark plug wire and place the wire away from the plug to prevent accidental starting.**

PROBLEM	CAUSE	CORRECTION
DOES NOT START	<ol style="list-style-type: none"> <li>1. Out of fuel.</li> <li>2. Spark plug wire disconnected from the spark plug.</li> <li>3. Fouled spark plug.</li> <li>4. Throttle control not in "RUN" position.</li> <li>5. Stale fuel.</li> <li>6. Moisture or contamination in fuel.</li> <li>7. Engine flooded.</li> <li>8. Grass too high.</li> </ol>	<ol style="list-style-type: none"> <li>1. Fill fuel tank, (open fuel shut off valve)</li> <li>2. Connect wire to spark plug.</li> <li>3. Clean or replace spark plug - set gap to .030 of an inch.</li> <li>4. Place throttle in "RUN" position. See Figure 4.</li> <li>5. Drain fuel tank and refill with fresh fuel.</li> <li>6. Drain fuel tank and refill with fresh fuel.</li> <li>7. See starting instructions, page 6.</li> <li>8. Move to low grass or no grass area.</li> </ol>
LOSS OF POWER	<ol style="list-style-type: none"> <li>1. Dirty air cleaner.</li> <li>2. Moisture or dirt in fuel.</li> <li>3. Carburetor misadjusted.</li> <li>4. Build up of grass in the cutting deck.</li> <li>5. Throttle not in proper operating position.</li> <li>6. Cutting too much grass.</li> <li>7. Throttle cable not adjusted.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean - follow instructions on page 11.</li> <li>2. Drain fuel tank and refill with fresh fuel.</li> <li>3. Adjust carburetor - see engine manual.</li> <li>4. Clean.</li> <li>5. Adjust throttle.</li> <li>6. Set height adjusters in higher position -see page 9.</li> <li>7. Adjust - see engine manual.</li> </ol>
EXCESSIVE VIBRATION	<ol style="list-style-type: none"> <li>1. Worn or bent blade.</li> <li>2. Loose blade.</li> <li>3. Incorrect sharpening.</li> <li>4. Excessive grass buildup in deck.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace blade - see page 9.</li> <li>2. Tighten blade bolt - see page 9.</li> <li>3. Balance blade - see page 10.</li> <li>4. Clean.</li> </ol>
EXCESSIVE ENGINE SPEED	Grass buildup around air cooling system.	<ol style="list-style-type: none"> <li>1. See "Cooling System", page 11.</li> </ol>
POOR QUALITY CUT	<ol style="list-style-type: none"> <li>1. Bent blade.</li> <li>2. Worn blade.</li> <li>3. Wheels set at different levels.</li> <li>4. Engine running too slowly.</li> <li>5. Build up of grass in the cutting deck.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace blade - see page 9.</li> <li>2. Sharpen - see page 10.</li> <li>3. Place all wheels at same height.</li> <li>4. See "Loss of Power".</li> <li>5. Clean the deck.</li> </ol>
TRACTION DRIVE MALFUNCTION	<ol style="list-style-type: none"> <li>1. Broken or disconnected cable.</li> <li>2. Slipping or slow engagement.</li> <li>3. Belt out of pulley groove or broken.</li> <li>4. Pinion or pin reversed,(no drive or free-wheeling).</li> </ol>	<ol style="list-style-type: none"> <li>1. Have serviced.</li> <li>2. See page 11.</li> <li>3. See belt installation, page 11.</li> <li>4. See page 12.</li> </ol>



**Simplicity Manufacturing, Inc.**  
**500 N. Spring Street**  
**P.O. Box 997**  
**Port Washington, WI 53074-0997**

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