



OPERATOR'S MANUAL



20" Side Discharge
High Wheel Mower
570 Series



IMPORTANT: READ SAFETY RULES AND INSTRUCTIONS CAREFULLY

Warning: This unit 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 engine authorized service dealer or contact the service department, P.O. Box 368022 Cleveland, Ohio 44136-9722.

MTD PRODUCTS INC. P.O. BOX 368022 CLEVELAND, OHIO 44136-9722

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SECTION 1: IMPORTANT SAFE OPERATION PRACTICES



This symbol points out important safety instructions which, if not followed, could endanger the personal safety and/or property of yourself and others. Read and follow all instructions in this manual before attempting to operate your lawn mower. Failure to comply with these instructions may result in personal injury. When you see this symbol—**heed its warning.**



DANGER: Your lawn mower was built to be operated **according to the rules for safe operation in this manual.** As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. **If the operator violates any of these rules, he/she may cause serious injury to himself/herself or others.**

1. GENERAL OPERATION

- Read this owner's guide carefully in its entirety before attempting to assemble this machine. Read, understand, and follow all instructions on the machine and in the manual(s) before operation. Be completely familiar with the controls and the proper use of this machine before operating it. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
- Your rotary mower is a precision piece of power equipment, not a plaything. Therefore, exercise extreme caution at all times. Your unit has been designed to perform one job: to mow grass. Do not use it for any other purpose.
- Never allow children under 14 years old to operate a power mower. Children 14 years old and over should only operate mower under close parental supervision. Only responsible individuals who are familiar with these rules of safe operation should be allowed to use your mower.
- Keep the area of operation clear of all persons, particularly small children and pets. Stop engine when they are in the vicinity of your mower to help prevent blade contact or thrown object injury. Although the area of operation should be completely cleared of foreign objects, an object may have been overlooked and could be accidentally thrown by the mower in any direction and cause serious personal injury to the operator or any others allowed in the area.
- Thoroughly inspect the area where the equipment is to be used. Remove all stones, sticks, wire, bones, toys and other foreign objects which could be picked up and thrown by the mower in any direction and cause serious personal injury to the operator or any others allowed in the area. Plan your mowing pattern to avoid discharge of material toward roads, sidewalks, bystanders and the like. To help avoid a thrown object's injury, keep children, bystanders and helpers at least 75 feet from the mower while it is in operation.
- Always wear safety glasses or safety goggles during operation or while performing an adjustment or repair, to protect eyes from foreign objects that may be thrown from the machine in any direction.
- Wear sturdy, rough-soled work shoes and close-fitting slacks and shirts. Shirts and pants that cover the arms and legs and steel-toed shoes are recommended. Do not wear loose fitting clothes or jewelry. They can be caught in moving parts. Never operate a unit in bare feet, sandals, or sneakers.
- Do not put hands or feet near or under rotating parts. Keep clear of discharge opening at all times as the rotating blade can cause injury.
- Many injuries occur as a result of the mower being pulled over the foot during a fall. Do not hang on to the mower if you are falling; release the handle immediately.
- Never pull the mower toward you while you are walking. If you must back the mower away from a wall or obstruction first look down and behind, and then follow these steps:
- Step back from the mower to fully extend your arms.
- Be sure you are well balanced with sure footing.
- Pull the mower back slowly, no more than half way toward you.
- Repeat these steps as needed.
- Do not operate the mower while under the influence of alcohol or drugs.
- The blade control handle is a safety device. Never attempt to bypass its operation. Doing so makes the safety device inoperative and may result in personal injury through contact with the rotating blade. The blade control handle must operate easily in both directions and automatically return to the disengaged position when released.
- Never operate the mower in wet grass. Always be sure of your footing. A slip and fall can cause serious personal injury. Keep a firm hold on the handle and walk, never run. Mow only in daylight or in good artificial light.
- Stop the blade when crossing gravel drives, walks or roads.
- If the equipment should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
- Shut the engine off and wait until the blade comes to a complete stop before removing the grass catcher or unclogging the chute. The cutting blade continues to rotate for a few seconds after the engine is shut off. Never place any part of the body in the blade area until you are sure the blade has stopped rotating.
- Never operate mower without proper guards, grass catcher, plates or other safety protective devices in place.
- Muffler and engine become hot and can cause a burn. Do not touch.
- Only use accessories approved for this machine by the manufacturer. Read, understand, and follow all instructions provided with the approved accessory.
- If situations occur which are not covered in this manual, use care and good judgment. Contact your dealer for assistance.

2. SLOPE OPERATION

For your safety, use the slope gauge included as part of this manual to measure slopes before operating this unit on a sloped or hilly area. If the slope is greater than 15 degrees as shown on the slope gauge, do not operate this

DO:

- Mow across the face of slopes; never up and down. Exercise extreme caution when changing direction on slopes.
- Watch for holes, ruts, hidden objects, or bumps. Tall grass can hide obstacles.
- Always be sure of your footing. A slip and fall can cause serious personal injury. If you feel you are losing your balance release the blade control handle immediately and the blade will stop in less than 3 seconds.

DO NOT:

- Do not mow near drop-offs, ditches or embankments. The operator could lose footing or balance.
- Do not mow slopes greater than 15 degrees as shown on the slope gauge.
- Do not mow on wet grass. Reduced footing could cause slipping.

3. CHILDREN

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

- Keep children out of the mowing area and under the watchful care of a responsible adult other than the operator.
- Be alert and turn mower off if a child enters the area.
- Before and while moving backwards, look behind and down for small children.
- Never allow children under age 14 to operate the mower.
- Use extreme care when approaching blind corners, shrubs, trees, or other objects that may obscure your vision of a child or hazard.

4. SERVICE

- Use extreme care in handling gasoline and other fuels. They are extremely flammable and the vapors are explosive.
- Use only an approved gasoline container.
- Never remove gas cap or add fuel while the engine is running. Allow engine to cool at least two minutes before refueling.
- Replace gasoline cap securely and wipe off any spilled gasoline before starting the engine as it may cause a fire or explosion.
- Extinguish all cigarettes, cigars, pipes and other sources of ignition.
- Never refuel machine indoors because flammable vapors will accumulate in the area.
- Never store the machine or fuel container inside where there is an open flame or spark such as a gas water heater, space heater, or furnace.
- Never run an engine inside a closed area.
- To reduce fire hazard, keep mower free of grass, leaves, or other debris build-up. Clean up oil or fuel spillage. Allow mower to cool at least 5 minutes before storing.
- Before 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 spark plug to prevent accidental starting.
- Check the blade and engine mounting bolts at frequent intervals for proper tightness. Also, visually inspect blade for damage (e.g., bent, cracked). Replace with blade which meets original equipment specifications.

- Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
- Never tamper with safety devices. Check their proper operation regularly.
- After striking a foreign object, stop the engine, remove the wire from the spark plug, and thoroughly inspect the mower for any damage. Repair the damage before starting and operating the mower.
- Never attempt to make a wheel or cutting height adjustment while the engine is running.
- Grass catcher components are subject to wear, damage and deterioration, which could expose moving parts or allow objects to be thrown. For safety protection, frequently check components and replace with manufacturer's recommended parts, when necessary.
- Mower blades are sharp and can cut. Wrap the blade(s) or wear gloves, and use extra caution when servicing them.
- Do not change the engine governor setting or overspeed the engine. Excessive engine speeds are dangerous.



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

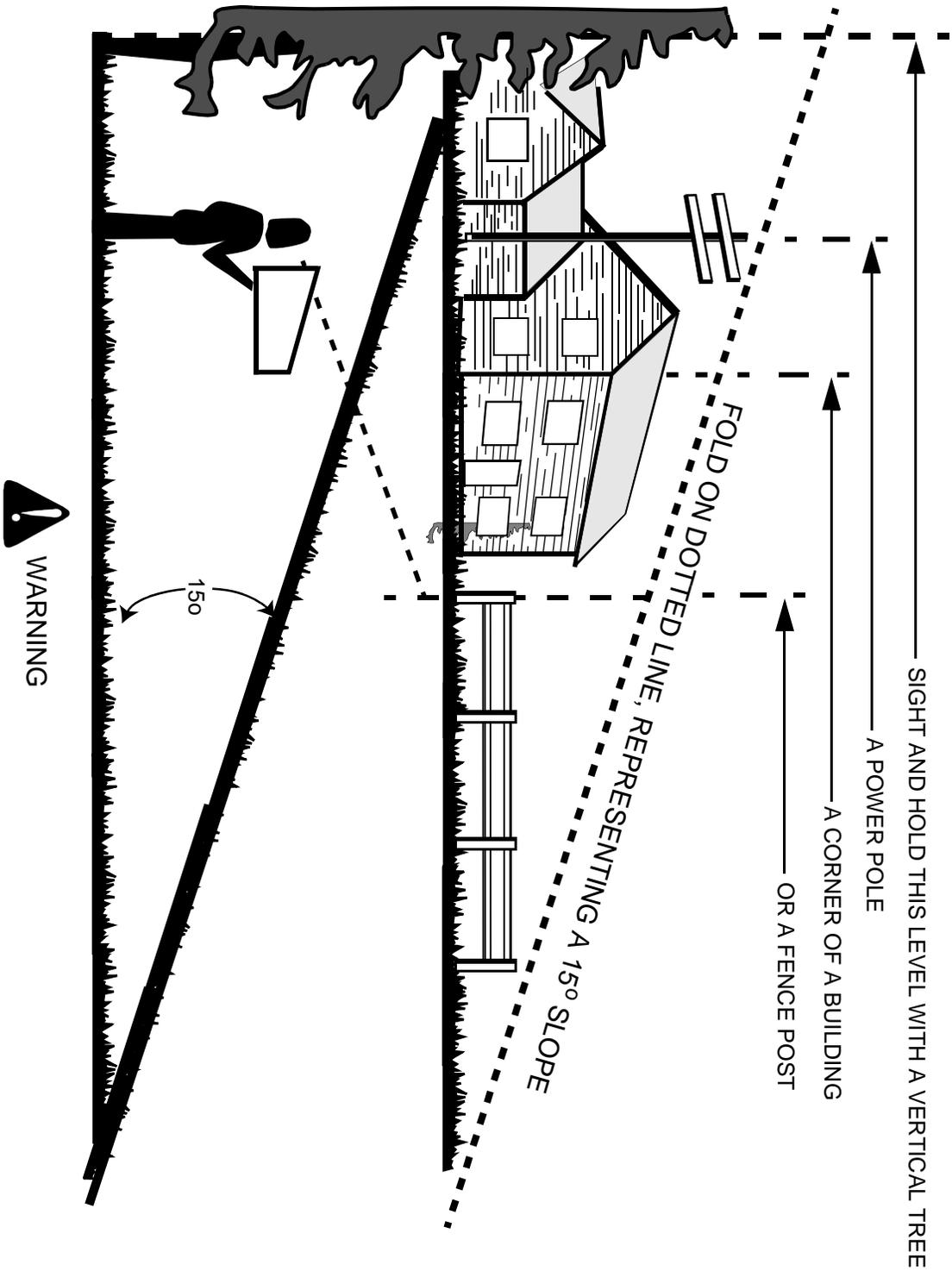
5. Your Responsibility

- Restrict the use of this power machine to persons who read, understand and follow the warnings and instructions in this manual and on the machine.
- Following are representations of the safety labels on your lawn mower. Maintain safety while operating the mower.



SECTION 2: SLOPE GAUGE

Use this page as a guide to determine slopes where you may not operate safely.



WARNING

Do not mow on inclines with a slope in excess of 15 degrees (a rise of approximately 2-1/2 feet every 10 feet). A riding mower could overturn and cause serious injury. If operating a walk-behind mower on such a slope, it is extremely difficult to maintain your footing and you could slip, resulting in serious injury.

Operate RIDING mowers up and down slopes, never across the face of slopes.

SECTION 3: FINDING MODEL NUMBER

This owner's guide is an important part of your new Yard-Machine lawn mower. It will help you to assemble, prepare and maintain your mower. Please read and understand what it says.

Before you start assembling the mower for its first use, please locate its model plate and copy the information on to this owner's guide. The information on the model plate is very important if you need help from your nearest service center or the Yard-Machine customer support department.

- Every mower has a model plate. You can locate it by standing behind the unit in the operating position and looking down at the cutting deck.
- The model plate will look like Figure 1.

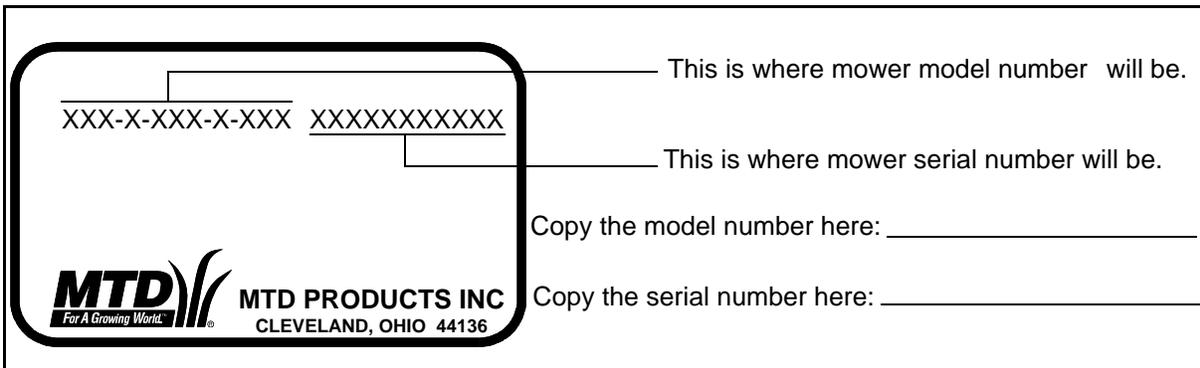


FIGURE 1

SECTION 4: UNPACKING

Removing Unit From Carton

- Remove staples, break glue on top flaps, or cut tape at carton end and peel along top flap to open carton.
- Remove loose parts included with the unit. A list of loose parts is given below. It is recommended that you compare this list with the loose parts included in the carton and identify each part before starting to assemble the unit.
- Cut along dotted lines and lay carton down flat. Remove packing material.
- Roll or slide unit out of carton. Check carton thoroughly for loose parts. Make sure that no part is missing.

NOTE: Make sure not to crimp the cables while removing the loose parts or the entire unit from the carton.

NOTE: Reference to right or left hand side of the mower and/or front or behind the mower is observed from the operating position.

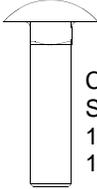
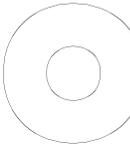
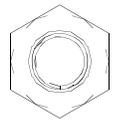
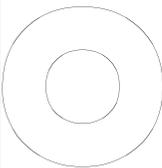
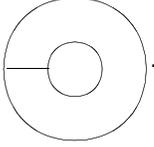
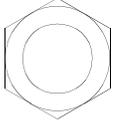
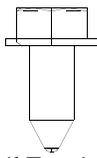
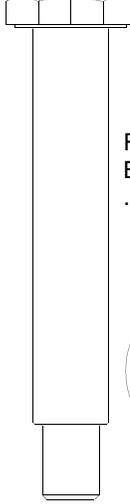
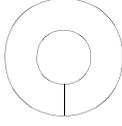
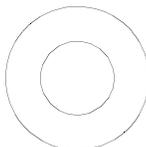
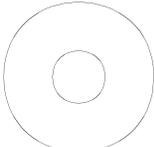
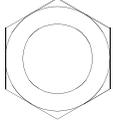
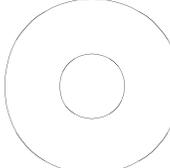
Loose Parts

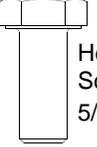
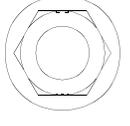
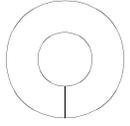
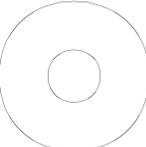
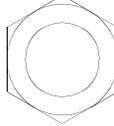
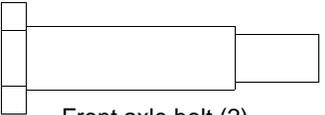
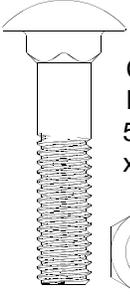
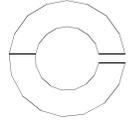
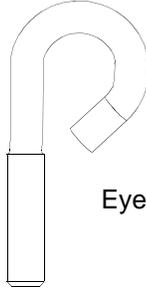
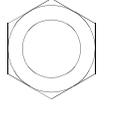
1. Upper handle
2. Lower handle
3. Hardware pack (See following page for an illustrated list of the hardware pack.)
4. Rear hi-wheel
5. Front wheel

NOTE: Remember that all hardware necessary for assembling the mower is contained in the hardware pack, and is identified in the following section.

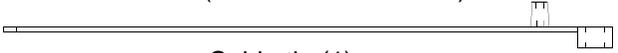
SECTION 5: HARDWARE PACK

Please identify each piece of hardware in the hardware pack with the following illustrated list. This illustrated list is divided into sections according to the mower assembly procedure. For convenience in assembly, sort out the hardware according to the sections given here. **NOTE:** The actual number of hardware pieces necessary for an assembly procedure is given in parenthesis after each description. For actual location of the hardware on the unit, refer to parts list at the end of this manual.

<p>Chute to deck:</p>  <p>Carriage Screw (2) 1/4-20 x 1.0</p>  <p>Flat Washer (2) .28 ID x .74 OD</p>  <p>Lock Nut (2) 1/4-20</p>	<p>Handle bracket to deck:</p>  <p>Hex Bolt (2) 3/8-16 x .75</p>  <p>Flat Washer (2) .385 x 1.0 OD x .135</p>  <p>Bell Washer (2) .401 x .870 x .063</p>  <p>Hex Nut (2) 3/8-16</p> <p>Handle bracket to handle:</p>  <p>Self-Tapping Screw (2)</p>	<p>Rear wheel to handle bracket:</p>  <p>Rear Axle Bolt (2) .500 x 2.62</p>  <p>Bell Washer (2) .401 x .870 x .063</p>  <p>Spring Washer (2)</p>  <p>Bell Washer (2) .39 ID x 1.13 OD x .062</p>  <p>Hex Nut (2) 3/8-16</p>  <p>Flat Washer (2) .510 x 1.373 x .04</p>
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<p>Handle bracket through handle & deck:</p>  <p>Hex Screw (4) 5/16-18</p>  <p>Hex Flange Lock Nut (4)</p>	<p>Front wheel to deck:</p>  <p>Bell Washer (2) .401 x .870 x .063</p>  <p>Bell Washer (2) .39 ID x 1.13 OD x .062</p>  <p>Hex Nut (2) 3/8-16</p>  <p>Front axle bolt (2) .498 x 1.635</p>	<p>Upper handle to lower handle:</p>  <p>Carriage Bolt (2) 5/16-18 x 1.5</p>  <p>Hex Nut (2) 5/16-18</p>  <p>Lock washer (2)</p>	<p>Starter rope guide:</p>  <p>Eye Bolt (1)</p>  <p>Lock Nut (1) 1/4-20</p>
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Cable to handle: (illustrated in half size)



Cable tie (1)

SECTION 6: SETTING UP MOWER

Tools Required

- Pair of Pliers
- Funnel
- Set of adjustable wrenches

Disconnecting Spark Plug

- Before setting up your lawn mower, disconnect the spark plug wire from the spark plug, and ground it against the engine. If the engine is equipped with the optional rubber boot, attach the boot to a bolt on the engine to ground. See Figure 2.

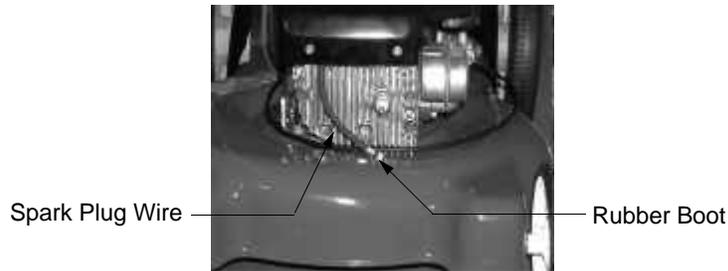


FIGURE 2

Attaching Lower Handle

- Raise the rear of the mower deck and block securely.
- Place the lower handle (pointed side down as shown in Figure 3) over the deck on one side and align the holes on the deck with those on the handle. See Figure 3.
- Holding the lower handle in position with one hand, place the handle bracket next to the lower handle, aligning the holes on the bracket with those on the handle as well as the deck.
- Insert two hex bolts through the handle bracket, and secure with two flange lock nuts on inside of the deck. See Figure 3.
- Insert third hex bolt through the remaining hole at lower end of handle bracket and the middle hole on the deck. See Figure 7 inset for details. Secure with flat washer between bracket and deck, and a bell washer and hex nut from inside the deck. See Figure 3. *Keep this finger-tight now.*
- Secure the upper end of the handle bracket to the lower handle with a self-tapping screw included in the hardware pack. See Figure 3.
- Tighten the self-tapping screw securely. Tighten the bolt at the other end of the handle bracket that was left finger tight earlier.
- Attach the lower handle on the other side of the deck in the same way.

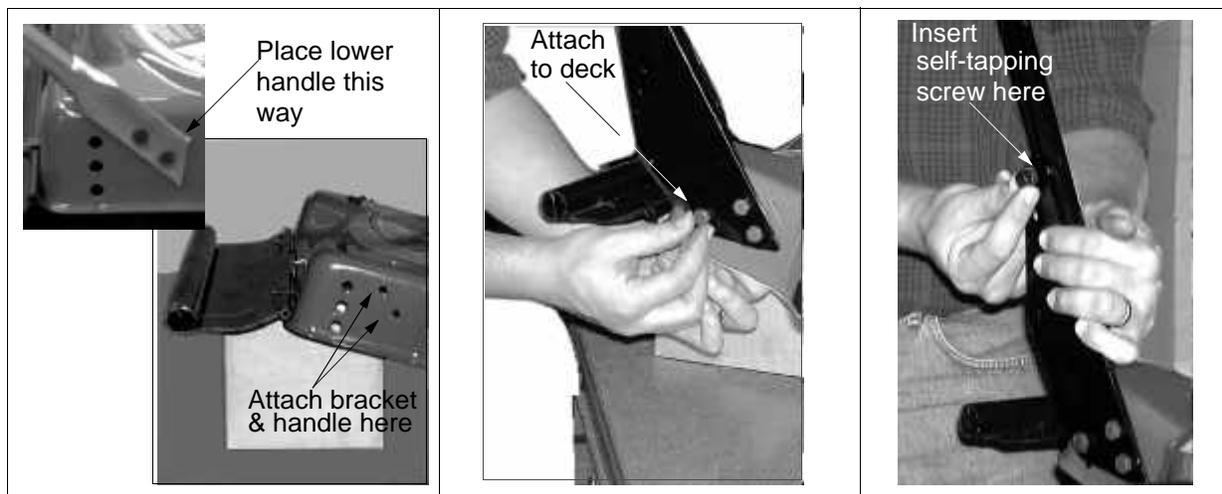


FIGURE 3

Attaching Upper Handle

- Place the upper handle in position over the lower handle aligning the lowest hole on the upper handle with the top hole on the lower handle. Make sure that the blade control handle is at the top.
- Insert carriage bolt through the upper handle as shown in Figure 4 and secure with a hex nut and lock washer.
- Secure the upper handle to the lower handle on the other side with the other set of carriage bolt, cupped washer and hex nut.

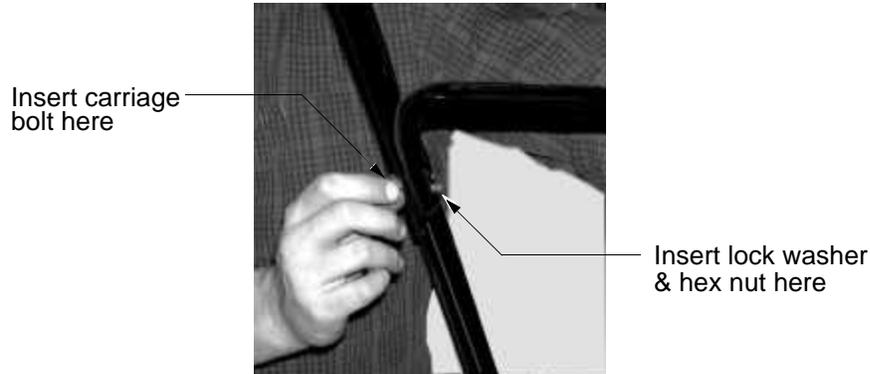


FIGURE 4

Attaching Brake Cable

Attaching snap fitting

The brake cable is attached to the engine at the factory; the free end requires assembly.

- Route the cable under the lower handle and pull the free end up along the upper handle.
- Locate the snap fitting on the cable. The shaft inside this snap fitting fits into the middle hole on the inside of the left upper handle. Position the snap fitting so that the shaft is aligned with the hole. Press the snap fitting in place. See Figure 5.

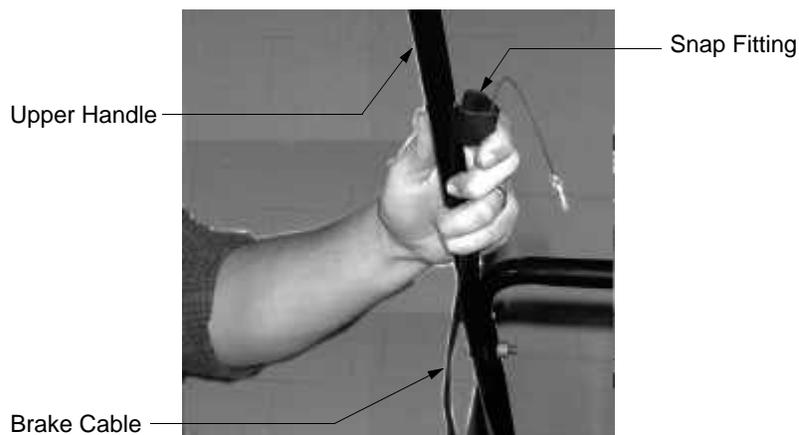


FIGURE 5

Attaching Z Fitting

Make sure that the hole on the control handle is on the left side of the upper handle. If not, reattach the control handle following instructions below. Also check and make sure that the control handle touches the upper handle when squeezed against it. (At this position, the blade is engaged.)

- Pull the Z end of the cable up and insert into the hole on the control handle from the inside. See Figure 6.

NOTE: The cable should have enough slack that when you squeeze the control handle against the upper handle, the two handles touch.

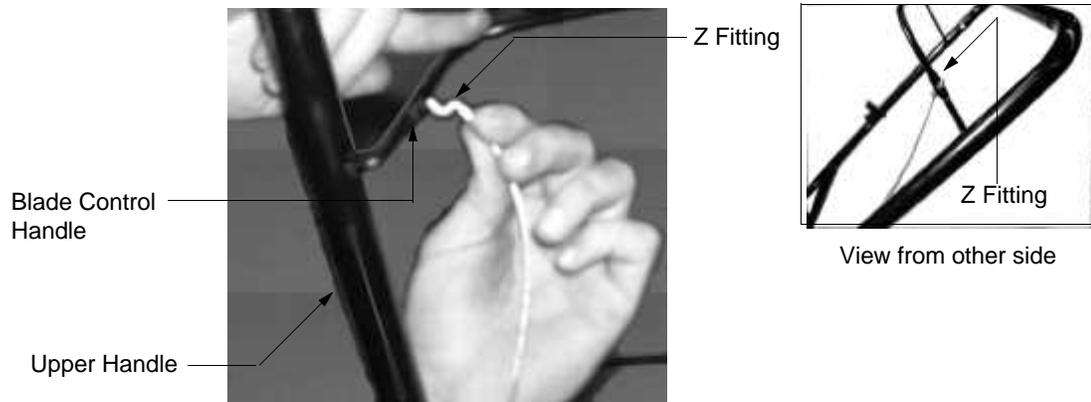


FIGURE 6

- Secure the cable to the lower left handle near the base of the unit with a cable tie. Insert the cable tie through the second hole on the left handle bracket and wrap around the lower handle making sure to keep the cable inside this ring. Pull the cable tie and trim off extra. See Figure 7.

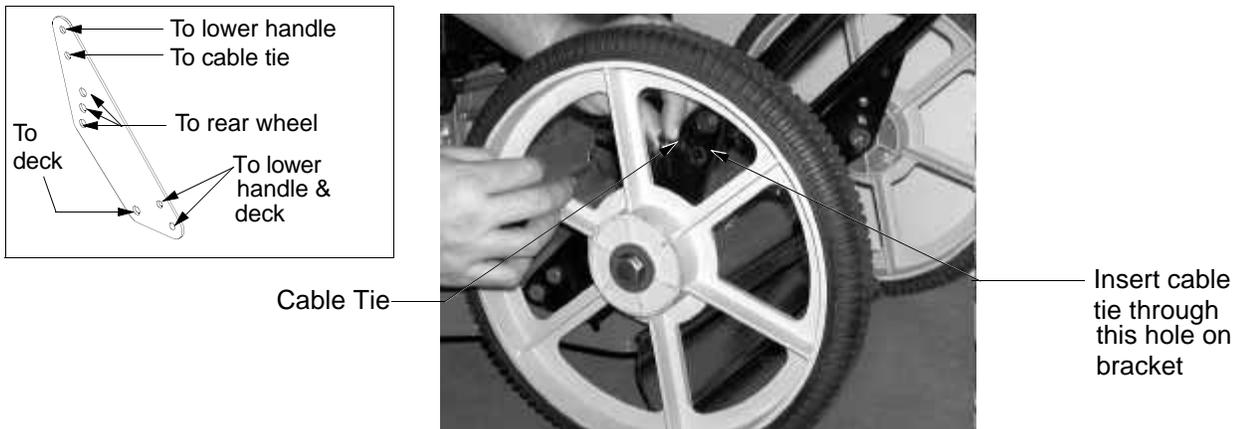


FIGURE 7

Attaching Blade Control Handle

Reattach the blade control handle if, during shipping or unpacking, it got detached from the upper handle.

- Place the blade control handle flat against the upper handle. The ends of the blade control handle will approximate two corresponding holes on the upper handle. Locate these holes.
- Insert the curved end of the blade control handle into the right hole. See Figure 8.
- Squeeze the handle in and insert the straight end of the blade control handle into the left hole of the upper handle. Squeeze the blade control handle against the upper handle to check for proper assembly.

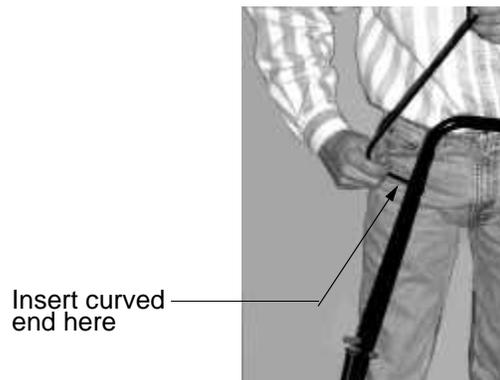


FIGURE 8

Attaching Starter Rope

- The rope guide and associated hardware are included in the hardware pack. Insert the open end of the rope guide into the middle hole in the right upper handle. See Figure 9.
- Loosely attach the rope guide to the upper handle with a lock nut. Do not tighten at this time.
- Locate the starter rope on the recoil starter of the engine.
- With the spark plug wire disconnected and grounded safely, depress the blade control handle and pull the rope out of engine.
- Slip the starter rope inside the rope guide as shown in the figure. Tighten the hex lock nut.

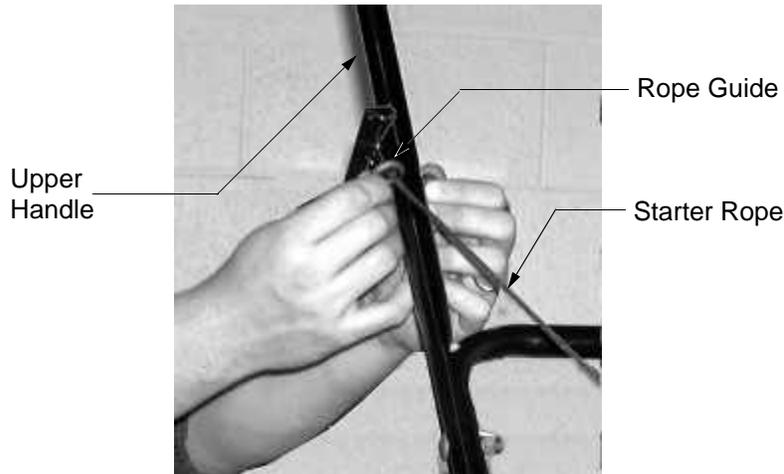


FIGURE 9

Attaching Chute Deflector

The chute deflector is shipped as loose part in the carton. The necessary hardware is in the hardware pack.



WARNING: Do not operate the mower without installing the chute deflector properly.

- Place the chute deflector on the deck aligning the holes on the chute deflector with the holes on the deck.
- Insert two carriage bolts from underside of the deck through the chute deflector.
- Secure each bolt with a washer and lock nut. See Figure 10.

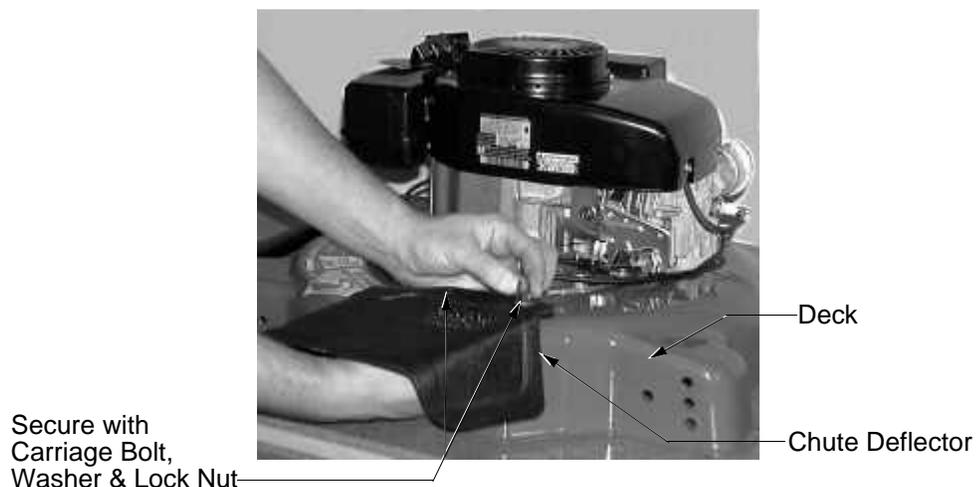


FIGURE 10

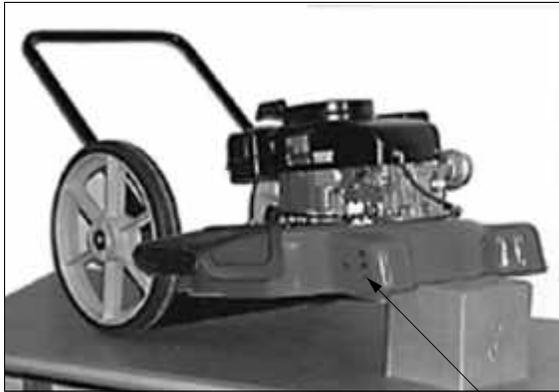
Attaching Wheels

The three holes on each side of the front and rear of the cutting deck provide three adjustable cutting height positions for the mower. Attach all four wheels at the same relative position for an even cut.

Attaching front wheel

You will find the wheels among the loose parts and the necessary hardware in the hardware pack.

- Block the front of the mower securely.
- Place the axle bolt through the front wheel with the hub side of the wheel facing the deck.
- Place the small bell washer on the axle bolt with the crown side towards the wheel. See Figure 11.
- Insert the larger bell washer and the hex nut from inside the deck and tighten the bolt. See Figure 11.
- Attach the other front wheel in the same way.
- Remove the blocks.



Attach wheel here



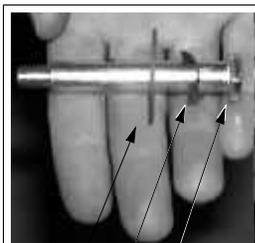
Place small bell washer here

FIGURE 11

Attaching Rear Wheels

You will find the wheels among the loose parts and the necessary hardware in the hardware pack.

- Block rear of the mower securely.
- Place one wave washer and then one large flat washer on the rear axle bolt with the cupped side of the wave washer against the flat washer. See Figure 12.



Flat Washer
Axle Bolt

Wave
Washer



Secure wheel with
axle bolt and hardware
here

FIGURE 12

- Insert axle bolt with washers through wheel assembly. See Figure 12 inset.
- Place the small bell washer on the other end of the axle bolt with the crown side towards the wheel.
- Slide the wheel assembly with all the hardware through one of the three holes on the handle bracket. See Figure 12. Remember to insert the axle bolt and the wheel assembly with hardware through the hole at the same relative position as the front wheels.
- Secure the axle bolt with a bell washer and hex nut as shown in Figure 12. Attach the other rear wheel in the same manner.
- Remove blocks and put the mower firmly on level ground.

SECTION 7: CONTROLS

Read this owner's manual and safety rules before operating your lawn mower. Compare the illustrations in Figure 13 with your lawn mower to familiarize yourself with the location of various controls and adjustments.

Always wear safety glasses while operating the mower, or while performing any adjustments or repairs on it.

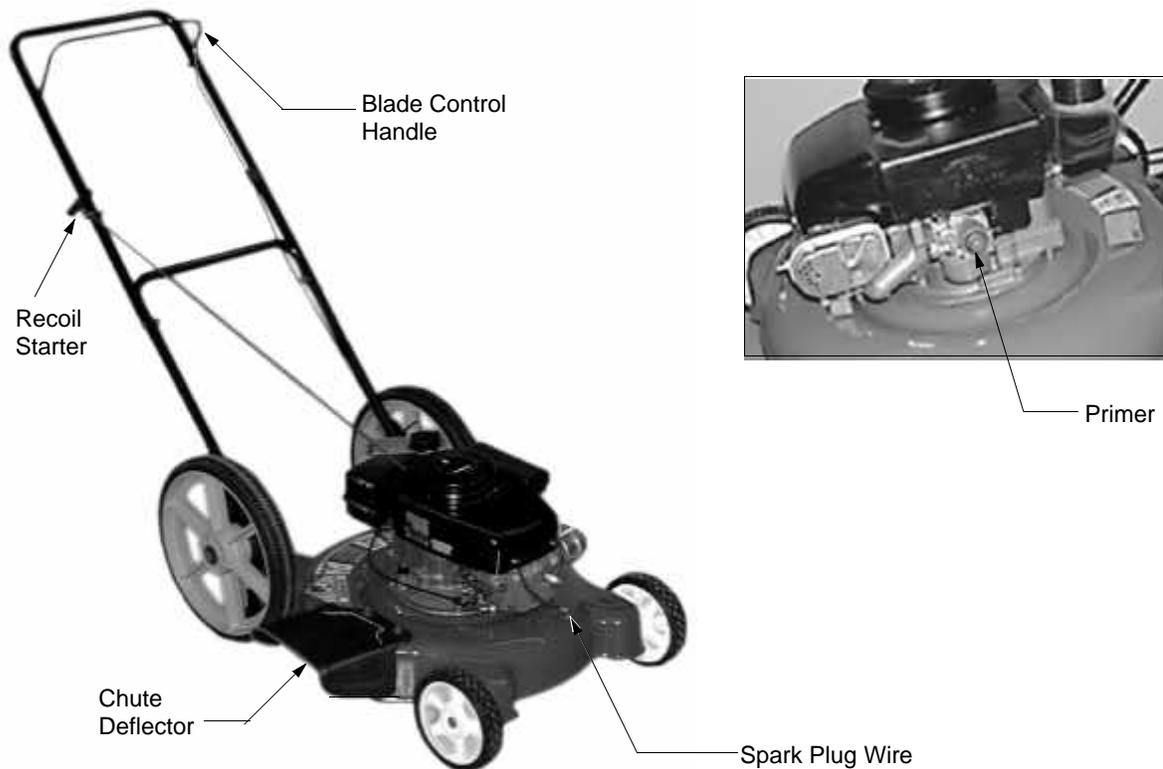


FIGURE 13

Recoil Starter

The recoil starter is attached to the handle. Stand behind the unit and pull the recoil starter to start the unit.

Primer

The primer is used to pump gas into the carburetor. Use it to start a cold engine, but do not use it to restart a warm engine after short shutdown. See Figure 13 inset above for location.

Blade Control Handle



WARNING: This control mechanism is a safety device. Never attempt to bypass its operations.

The blade control handle is located on the upper handle of the mower. The blade control handle must be depressed in order to operate the unit. Release the blade control handle to stop the engine and the blade.

SECTION 8: OPERATION

Gas And Oil Fill-Up

Oil:

- Only use high quality detergent oil rated with API service classification SF, SG or SH. Use SAE30 oil; *do not use* 10W40 oil.
- Position the mower on level ground and clean area around oil fill plug.
- Remove oil fill plug. See Figure 14. Pour recommended oil through the oil fill till full.
- Install oil fill plug and tighten securely.

NOTE: Although multi-viscosity oils (5W30, 10W30, etc.) improve starting in cold weather, these multiviscosity oils will result in increased oil consumption when used above 32°F. Check the oil level more frequently to avoid possible engine damage from running low on oil.



FIGURE 14

Gasoline



WARNING: Never fill fuel tank indoors, or when engine is running or hot. Do not smoke when filling up the fuel tank.

- Clean area around fuel cap. Remove cap. See Figure 14. Use a funnel to prevent spillage.
- Pour approximately 1.5 quarts of fresh, regular grade, unleaded gasoline slowly to the fuel tank.

IMPORTANT: Never mix engine oil with gasoline.

- Fill tank to 1/2" below the bottom of the filler neck. Wipe any fuel spillage. **Do not fill** fuel tank completely. Provide space for fuel expansion.

Starting Engine



WARNING: Be sure no one other than the operator is standing near the lawn mower while starting engine or operating mower.

Never run engine indoors or in enclosed, poorly ventilated areas. Engine exhaust contains carbon monoxide, an odorless and deadly gas. Keep hands, feet, hair and loose clothing away from any moving parts on engine and lawn mower.

- Attach spark plug wire to spark plug. Make certain the metal cap on the end of the spark plug wire is fastened securely over the metal tip on the spark plug.

- To prevent the unit from sliding, place your foot firmly against the tire.
- Move throttle control all the way forward. *This step is not applicable in case of mowers with fixed throttle.*
- Push primer three times. Wait about two seconds between each push. In cold weather around 55° F or below, prime five times. Do not prime to restart a warm engine after a short shutdown.
- Hold the control lever against the upper handle and pull starter rope out slowly until engine reaches the start of compression cycle (rope will pull slightly harder at this point). Let the rope rewind slowly. Pull rope with a rapid, continuous, full arm stroke. Keeping a firm grip on the control lever, let the rope return to the starter slowly.
- After the engine starts, move throttle control to desired engine speed.

Stopping Engine

- Release blade control handle to stop the engine and the blade.
- Disconnect spark plug wire and move away from spark plug to prevent accidental starting.

Using Your Lawn Mower

- **Do not** operate the mower without the discharge chute properly installed and tightly secured.
- Be sure that the lawn is clear of stones, sticks, wire, or other objects which could damage lawn mower or engine. Such objects could be accidentally thrown by the mower in any direction and cause serious personal injury to the operator and others.
- *For best results, do not cut wet grass* because it tends to stick to the underside of the mower, preventing proper discharge of grass clippings, and could cause you to slip and fall. New grass, thick grass or wet grass may require a narrower cut. Blade speed should be adjusted to the condition of the lawn.
- The *best mowing pattern* is one that allows the clippings to discharge towards the uncut part of the lawn. This permits recutting of the clippings to further pulverize them. When cutting high weeds, discharge towards cut portion, then recut at right angles to first direction.
- For a *healthy lawn*, always cut off one-third or less of the total length of the grass. Lawn should be trimmed in fall as long as there is growth.
- This mower is designed to run at full throttle to give you the *best cut* and do the most effective job of bagging the cut grass.



WARNING: If you strike a foreign object, stop the engine. Remove spark plug wire from spark plug, thoroughly inspect the mower for any damage. Repair the damage before restarting and operating the mower. Extensive vibration of the mower during operation is an indication of damage. The unit should be promptly inspected and repaired.

Adjusting Cutting Height

Refer to height adjustments section of this manual on page 17 and 18 for instruction on how to adjust the cutting height and the handle height.

- For best results in mowing, keep the cutting height position high until it is determined which height is best for your lawn.

SECTION 8: MAINTENANCE



WARNING: Always stop the engine and disconnect the spark plug wire before performing any maintenance work or adjustments on your lawn mower.

Cleaning Mower

The underside of the mower deck should be cleaned after each use to prevent any build-up of grass clippings, leaves, dirt, or other debris. If this debris is allowed to accumulate, it will result in rust and corrosion.

- Disconnect spark plug wire.
- Drain the gasoline from the lawn mower, or place a piece of plastic under the gas cap.

- Tip the mower so that it rests on the housing. Keep the side with the air cleaner facing up. Hold the mower firmly.
- Scrape and clean the underside of the deck with a suitable tool.
- Put the mower back on its wheels on the ground. If you had put plastic under the gas cap, make sure to remove it now.



WARNING: Never tip the mower more than 90 degrees and do not leave the mower tipped for any length of time. Oil can drain into the upper part of the engine causing a starting problem.

Lubrication

Wheels

- Lubricate the wheels and bearings, if so equipped, at least once a season with light oil or engine oil. Also, if the wheels are removed for any reason, lubricate the surface of the axle bolt and the inner surface of the wheel with light oil.

Engine

- Follow the engine manual instructions and recommended schedule for lubricating engine components.

Pivot Points

- Lubricate the pivot points on the blade control handle and the brake cable at least once a season with light oil. The blade control handle must operate freely in both directions. The cutting height adjustment lever should be able to move easily.

Engine Maintenance

- A list of key maintenance jobs required for good performance by the mower is given below. Follow the accompanying engine manual for detailed list and instructions.
- Change engine oil after the first two operating hours and every 25 operating hours thereafter. Check the oil level before starting the engine every time.
- Service foam filter in the air cleaner every 25 hours of use and replace the paper filter component every 100 hours. You may have to service the air filter more frequently if you are operating the mower under extremely dusty conditions.
- Clean the engine periodically. Remove dirt and debris with a cloth or brush. We do not recommend using a garden hose to clean mower unless the muffler, air filter and the carburetor are covered to keep water out. Water in engine can shorten engine life.
- Clean the spark plug and reset the gap to .030" at least once a season or every 50 hours of operation. Spark plug replacement is recommended at the start of each season. Refer to the engine manual for correct spark plug type.
- Inspect muffler periodically, and replace if necessary. Damaged mufflers or spark arresters can create a fire hazard. Make sure to avoid muffler and surrounding areas while the mower engine is hot because temperature of these areas of the engine may exceed 150° F.

SECTION 9: SERVICE & ADJUSTMENTS

Blade Care

Periodically inspect the blade adapter for cracks, especially if you strike a foreign object. Replace when necessary.



WARNING: When removing the cutting blade for sharpening or replacement, protect hands by using heavy gloves or a rag to grasp the cutting blade.

- Disconnect spark plug wire from spark plug.
- Turn mower on its side making sure that the air filter and the carburetor are up.

To Remove Blade

- Remove the bolt and blade bell support which hold the blade and adapter to the engine crankshaft. See Figure 15A.
- Remove the blade and adapter from the crankshaft.

To Replace Blade:

- Before reinstalling the blade and the blade adapter to the unit, lubricate the engine crankshaft and the inner surface of the blade adapter with light oil.
- Install the blade adapter on the crankshaft with the “star” away from the engine. See Figure 15A.

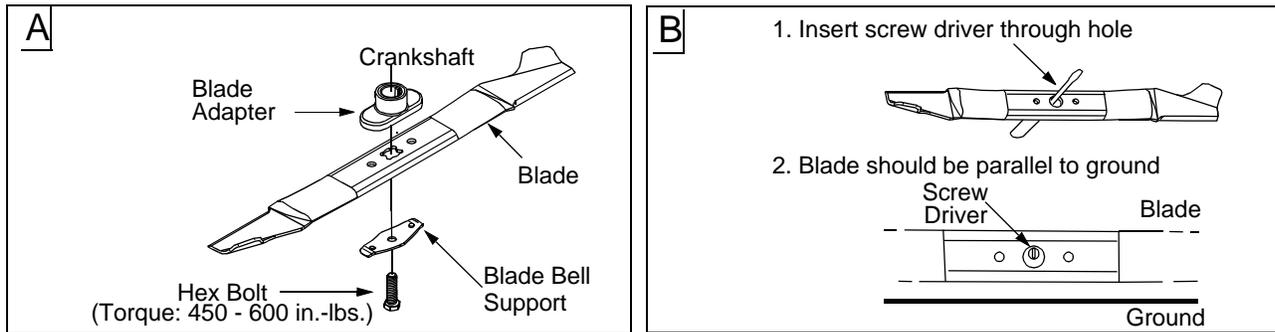


FIGURE 15

- Place the new blade with the side marked bottom (or with part number) facing away from the adapter.
- Place the bell support next. Make sure to align the tabs in the holes of the blade with the hole in the bell support.
- Insert the hex bolt through the blade assembly. See Figure 15A for assembly.
- Use block of wood to hold blade again while you tighten the bolt clockwise. **Follow the recommended torque for the bolt which is 450-600 in.-lbs.**

IMPORTANT: The bolt, used to secure the blade to the engine, is specially heat-treated. **Do not substitute.** To order replacement bolt, refer to the Parts List section of this manual.



WARNING: To ensure safe operation of your unit, all nuts and bolts must be checked periodically for correct tightness.

To Sharpen Blade:

- The blade can be sharpened with a file or on a grinding wheel. Do not attempt to sharpen while operator is on the mower.
- Follow the original angle of grind as a guide. Make sure that each cutting edge receives an equal amount of grinding to prevent an unbalanced blade.

NOTE: An unbalanced blade will cause excessive vibration when rotating at high speeds, may cause damage to the mower and could break, causing personal injury. Test the blade by balancing it on a round shaft screwdriver or a blade balancer. See Figure 15B. If the blade is not balanced, remove metal from the heavy side until it balances evenly.

Replacing Rear Flap

The rear flap is attached to the rear of the mower deck, and is designed to minimize the possibility of objects being thrown from the rear of the mower towards the operator. If the rear flap is damaged in any way, replace as follows:

- To remove the old flap, compress the hinge clips and remove from the slots on the deck. Place new spring clips in the slots on the new flap. Compress the spring clips and reinsert flap in slots on deck.

Adjusting Cutting Height

Your mower is designed to operate at three settings of cutting height. Make sure to disconnect the spark plug wire before starting the adjustment job. To change the cutting height, proceed as follows:

NOTE: Make sure not to lose any hardware while reassembling the wheels.

- Adjust all four wheel positions up or down by removing the wheels from the deck and reattaching to the hole above or below. See Figure 16. Remember to attach all four wheels at the same relative position.

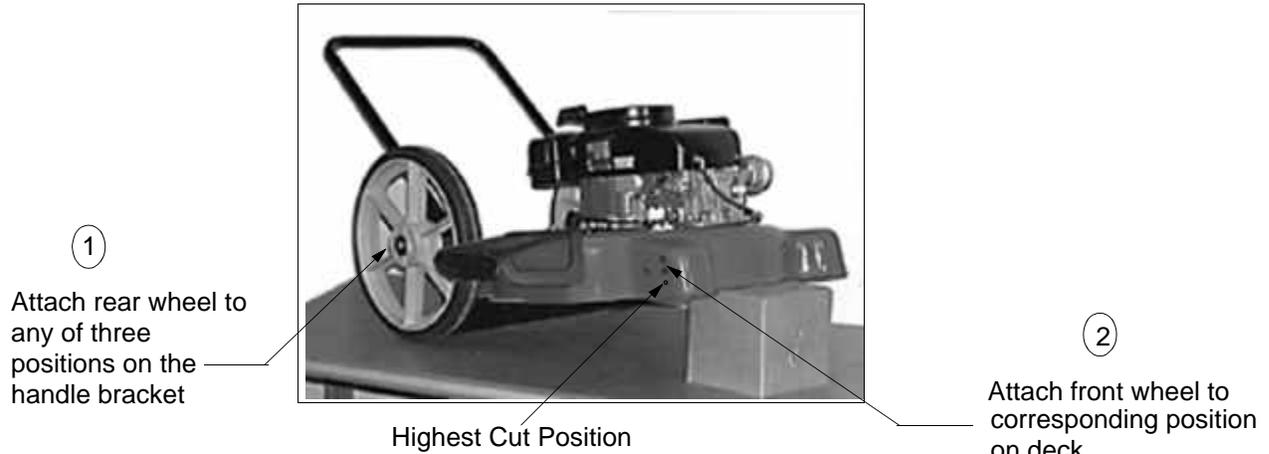


FIGURE 16

Adjusting Carburetor

If the engine is running rough, minor adjustments to the carburetor may be required to compensate for differences in fuel, temperature, altitude and load. **NOTE:** A dirty air cleaner may cause an engine to run rough too. So make sure that the air cleaner is clean and attached to the carburetor *before* deciding to adjust the carburetor. To adjust the carburetor, please follow the recommendations and instructions on carburetor adjustment in the engine manual.



WARNING: If any adjustments are made to the engine (e.g. carburetor) while the engine is running, keep clear of all moving parts. Be careful of heated surfaces like the muffler.

SECTION 10: OFF-SEASON STORAGE

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.** Store the mower in a **clean, dry area.**

Mower

- Clean underside of the mower following instructions in the Maintenance section of this manual.
- Inspect and sharpen or replace blade as required. Refer to the Maintenance section of this manual for blade care instructions.
- Lubricate mower following instructions on page 16.

Engine

- Follow recommendations in the accompanying engine manual for off-season storage of the engine.
- Change oil if it has not been changed in the last three months. For instructions on how to change oil, refer to the engine manual.
- Clean engine and remove any grass clippings, dirt, or chaff from the exterior of the engine.
- Remove any dirt or debris from cooling fins, air intake screen, levers, and linkage.

Other

- Do not store gasoline from one season to another.
- Replace your gasoline can if it starts to rust. Rust and/or dirt in the gasoline will cause problems. Store unit in a clean, dry area. Do not store next to corrosive materials, such as fertilizer. **NOTE:** If storing in an unventilated or metal storage shed, be certain to rustproof the equipment by coating with a light oil or silicone.

SECTION 11: TROUBLE-SHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Engine fails to start	<ol style="list-style-type: none"> 1. Blade control handle disengaged 2. Spark plug wire disconnected 3. Throttle control lever not in starting position 4. Fuel tank empty, or stale fuel 5. Blocked fuel line 6. Faulty spark plug 7. Engine flooded 	<ol style="list-style-type: none"> 1. Engage blade control handle 2. Connect wire to spark plug 3. Move throttle lever to correct position 4. Fill up tank with fresh gasoline 5. Clean fule line 6. Clean, adjust gap, or replace 7. Crank engine with throttle in FAST
Engine runs erratic	<ol style="list-style-type: none"> 1. Spark plug wire loose 2. Blocked fuel line or stale fuel 3. Vent in gas cap plugged 4. Water or dirt in fuel system 5. Dirty air cleaner 	<ol style="list-style-type: none"> 1. Connect and tighten spark plug wire. 2. Clean fuel line, fill tank with clean, fresh gasoline. 3. Clear vent. 4. Drain fuel tank. Refill with fresh fuel. 5. Clean air cleaner. Refer to engine manual.
Engine overheats	<ol style="list-style-type: none"> 1. Engine oil level low 2. Air flow restricted 	<ol style="list-style-type: none"> 1. Fill crankcase with proper oil. 2. Clean lawn mower engine.
Excessive vibration	<ol style="list-style-type: none"> 1. Cutting blade loose or unbalanced 2. Bent cutting blade 3. Bent engine crankshaft 	<ol style="list-style-type: none"> 1. Tighten blade and adapter, balance blade. 2. Replace blade. 3. Contact your nearest service center
Mower will not mulch grass	<ol style="list-style-type: none"> 1. Engine speed too low 2. Wet grass 3. Excessively high grass 4. Dull blade 	<ol style="list-style-type: none"> 1. Move throttle lever to FAST position. 2. Wait until later to cut. 3. Mow once at a high cutting height, then mow again at desired height. 4. Sharpen or replace blade.
Uneven cut	<ol style="list-style-type: none"> 1. Wheels not in same height position 2. Dull blade 	<ol style="list-style-type: none"> 1. Place all four wheels in same relative height position. 2. Sharpen or replace blade.

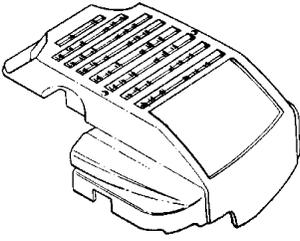
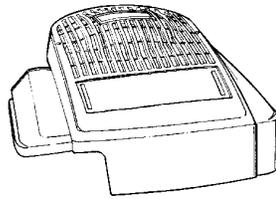
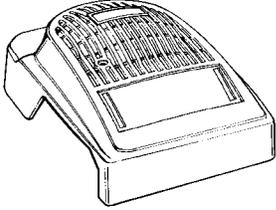
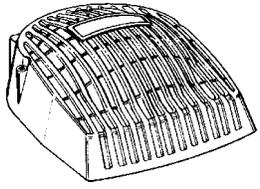
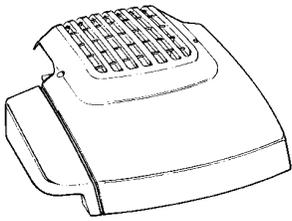
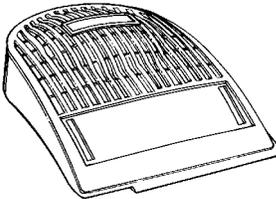
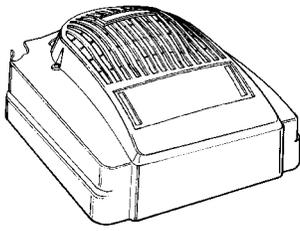
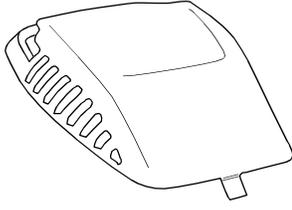
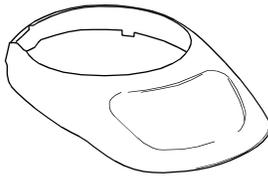


For repairs beyond the minor adjustments listed above, please contact your nearest service center or call 1(800) 800-7310.

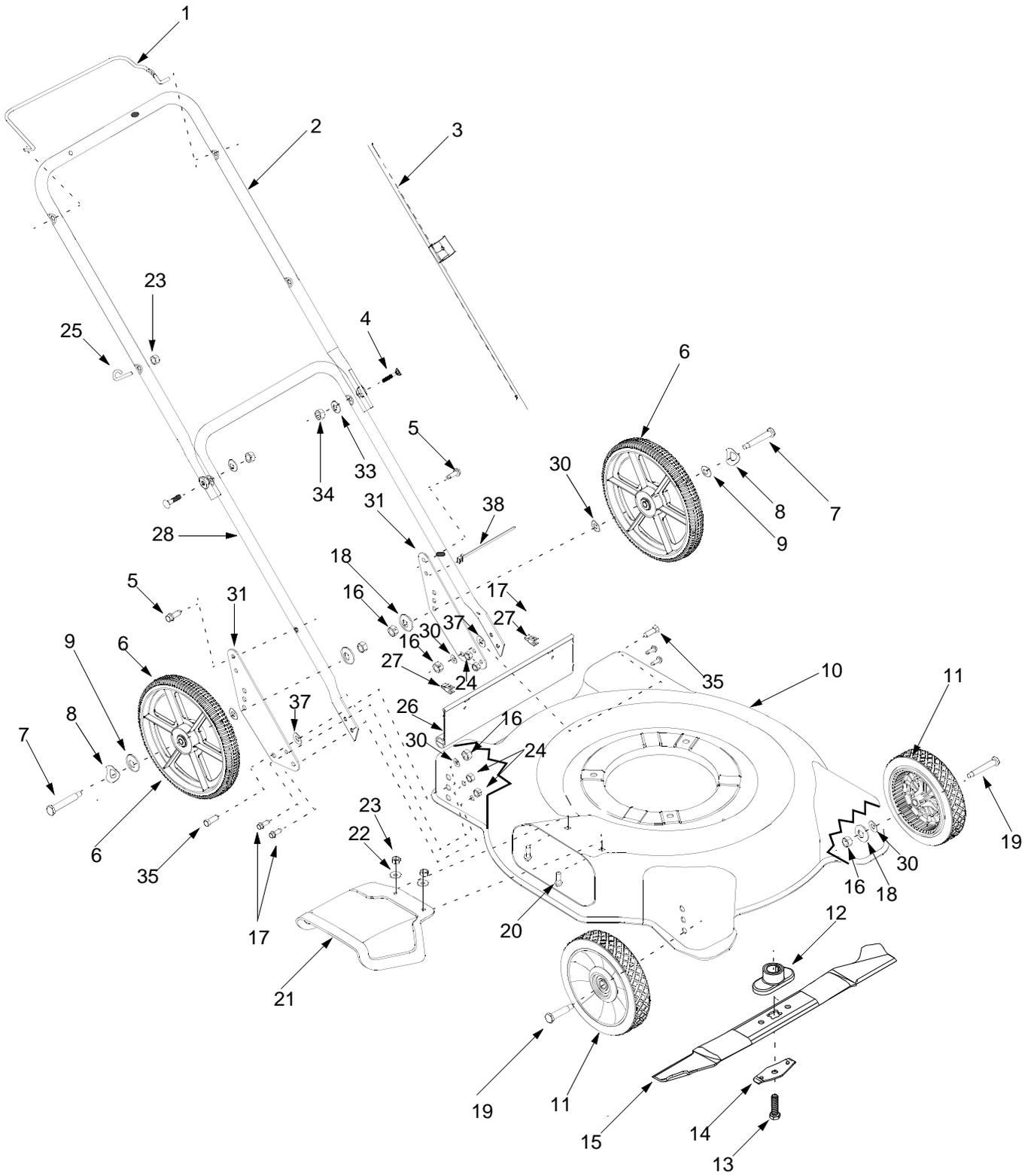
Your Notes

Date	Comment

SECTION 12: SHROUD CHART

							
Part No. 751B281439 751B281440 751B281443	Color Dark Red Black Bright Red	Part No. 731-1395A 731-1396A 731-1397A	Color Red Black Gray	Part No. 731-1587A 731-1603A 731-1610A 731-1620A	Color Black Yellow Pewter Gray	Part No. 731-1561	Color Black
Hardware: 710-1256 (Screw)		Hardware: 710-1256 (Screw)		Hardware: 710-1184 (Screw)		Hardware: 7510042823 (Screw)	
							
Part No. 731-1402A 731-1694 731-1695 731-1934	Color Yellow Black Silver Charcoal	Part No. 7510143208	Color Black	Part No. 731-1585B	Color Black	Part No. 731-1586B 731-1612A	Color Black Red
Hardware: 710-1258 (Screw)		Hardware: 7510042823 (Screw)		Hardware: 710-1274 (Screw)		Hardware: 7510042823 (Screw)	
							
Part No. 751B281451	Color Gray	Part No. 751B281476 751B281777	Color Black Yellow	Part No. 7511681311 7511681911 7511682011	Color Black Red Gray	Part No.	Color
Hardware:710-1256		Hardware:710-1237		Hardware: - -		Hardware:	

SECTION 13: REPAIR PARTS



Ref. No.	Part No.	Code	Description
1	747-0976		Control Handle Assembly
2	749-1076		Upper Handle
3	746-0946		Control Cable: 48.25"
4	710-0262		Carriage Screw 5/16-18 x 1.5"
5	710-0726		Self-Tapping Screw 5/16-12
6	734-1864 734-1976	N	Rear Wheel 14" x 1.8 Bar Rear Wheel 14" x 1.8
7	738-0481		Rear Axle Bolt
8	736-0182		Spring Washer
9	736-0456		Bell Washer
10	782-0048	N	Deck
11	734-1779		Front Wheel 7" x 1.5
12	748-0376B		Blade Adapter
13	710-1044		Hex Bolt 3/8-24 x 1.5 Gr.8
14	736-0524A		Blade Bell Support
15	742-0640		Cutting Blade
16	712-0798		Hex Nut 3/8-16
17	710-3008		Hex Bolt 5/16-18 x 0.75"
18	736-0331		Bell Washer .39 I.D. x 1.13 O.D. x .062
19	738-0533		Front Axle Bolt
20	710-0932		Carr. Screw 1/4-20 x 1.0
21	731-0064	N	Side-Discharge Chute
22	736-0173		Flat Washer .28 I.D. x .74 O.D. x .063
23	712-0324		Hex Lock Nut 1/4-20
24	712-3004A		Hex Flange Lock Nut 5/16-18 Gr.5
25	710-1205		Rope Guide
26	731-0872A	N	Rear Trailing Shield
27	17098	N	Hinge Clip
28	749-1077		Lower Handle
30	736-0105		Bell Washer .401 x .870 x .063
31	782-3060	N	Handle Bracket
33	736-0119		Lock Washer
34	712-0267		Hex Nut 5/16-18
35	710-0216		Hex Screw 3/8-16 x .75" Gr.5
37	736-0258		Flat Washer .385 x 1.0 x .135
38	726-0240		Cable Tie

MANUFACTURER'S LIMITED WARRANTY FOR:



For TWO YEARS from the date of retail purchase within the United States of America, its possessions and territories, MTD PRODUCTS INC will, at its option, repair or replace, for the original purchaser, free of charge, any part or parts found to be defective in material or workmanship. This warranty covers units which have been operated and maintained in accordance with the operating instructions furnished with the unit, and which have not been subject to misuse, abuse, commercial use, neglect, accident, improper maintenance or alteration.

Normal wear parts or components thereof are subject to separate terms as noted below in the "No Fault Ninety Day Consumer Warranty" clause.

All normal wear part failures will be covered on this product for a period of 90 days regardless of cause. After 90 days, but within the two year period, normal wear parts failures will be covered ONLY IF caused by defects in material or workmanship of OTHER component parts. Normal wear parts are defined as batteries*, belts, blades, blade adapters, grass bags, rider deck wheels, seats, snow thrower skid shoes, shave plates and tires.

How to obtain service: Warranty service is available, with proof of purchase, through your local authorized service dealer. To locate the dealer in your area, please check the yellow pages or contact the Customer Service Department of MTD PRODUCTS INC, P. O. Box 368022, Cleveland, Ohio 44136-9722. Phone 1 (800) 800-7310. The return of a complete unit will not be accepted by the factory unless prior written permission has been extended by the Customer Service Department of MTD PRODUCTS INC.

Transportation charges: Transportation charges for the movement of any power equipment unit or attachment are the responsibility of the purchaser.

Units exported out of the United States: MTD PRODUCTS INC does not extend any warranty for

products sold or exported outside of the United States of America, its possessions and territories, except those sold through MTD PRODUCTS INC's authorized channels of export distribution.

Other Warranties:

1. The engine or component parts thereof carry separate warranties from their manufacturers. Please refer to the applicable manufacturer's warranty on these items.
2. *Batteries are covered by a 90-day replacement warranty.
3. Log splitter pumps, valves and cylinders or component parts thereof are covered by a one year warranty.
4. All other warranties, express or implied, including any implied warranty of merchantability or fitness for a particular purpose, are hereby expressly disclaimed in their entirety.
5. The provisions as set forth in this warranty provide the sole and exclusive remedy of MTD PRODUCTS INC's obligations arising from the sales of its products. MTD PRODUCTS INC will not be liable for incidental or consequential loss or damage.

How state law relates to this warranty: This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Certain disclaimers are not allowed in some states and therefore they may not apply to you under all circumstances.

NOTE: This warranty does not cover routine maintenance items such as lubricants, filters, blade sharpening and tune-ups, or adjustments such as brake adjustments, clutch adjustments or deck adjustments. Nor does this warranty cover normal deterioration of the exterior finish due to use or exposure.