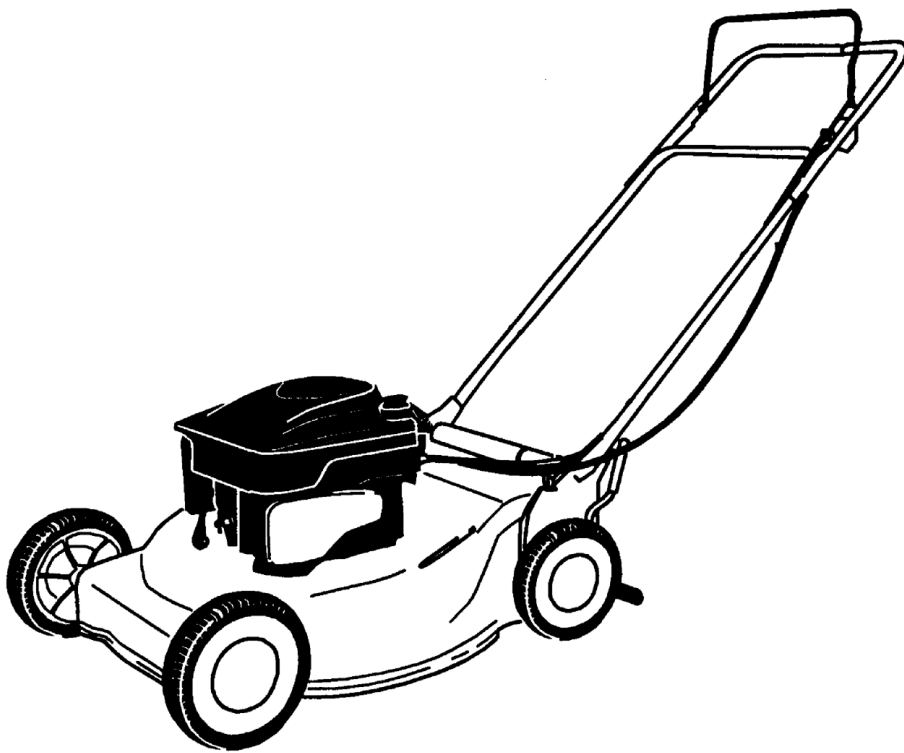




# Operator's Manual



**MODEL**  
**214 IP**  
**216 IP**  
**214 KW**  
**216 KW**

## **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 of MTD Products Inc at P.O. Box 368022, Cleveland, Ohio 44136-9722, (330) 225-7711.

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## SECTION 1: IMPORTANT SAFE OPERATION PRACTICES



**WARNING:** 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.



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



**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. This lawn mower is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.

### 1. GENERAL OPERATION

- Read this operator's manual 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.
- 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, slippery or light weight (e.g. canvas) shoes.
- 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.
- 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 objects injury, keep children, bystanders and helpers at least 75 feet from the mower while it is in operation.
- 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.

- Do not engage the self-propelled mechanism on units so equipped while starting engine.
- 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. If you feel you are losing your footing, **RELEASE THE BLADE CONTROL HANDLE IMMEDIATELY** and the blade will stop rotating within three seconds.
- Mow only in daylight or 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.
- Watch for holes, sprinkler heads, pet chains and other hidden hazards.
- 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 unit on that area or serious injury could result.

### 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 or other objects.
- Never allow children under age 14 to operate the mower. Children 14 years of age and above should read and understand the operation instructions and safety rules in this manual.
- 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. Store the container in a cool, dry area. Be sure it is tightly sealed. Do not store in a building where ignition sources are present.
- 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. Exhaust gases contain carbon monoxide. This odorless gas can be deadly when inhaled.
- When filling the fuel tank, stop when the gasoline reaches one inch from the top. This space must be left for expansion. Do not overfill.
- Wipe up any spilled gasoline.
- 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 or worn). Replace with blade which meets original equipment specifications listed in this manual.

- 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 - 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.

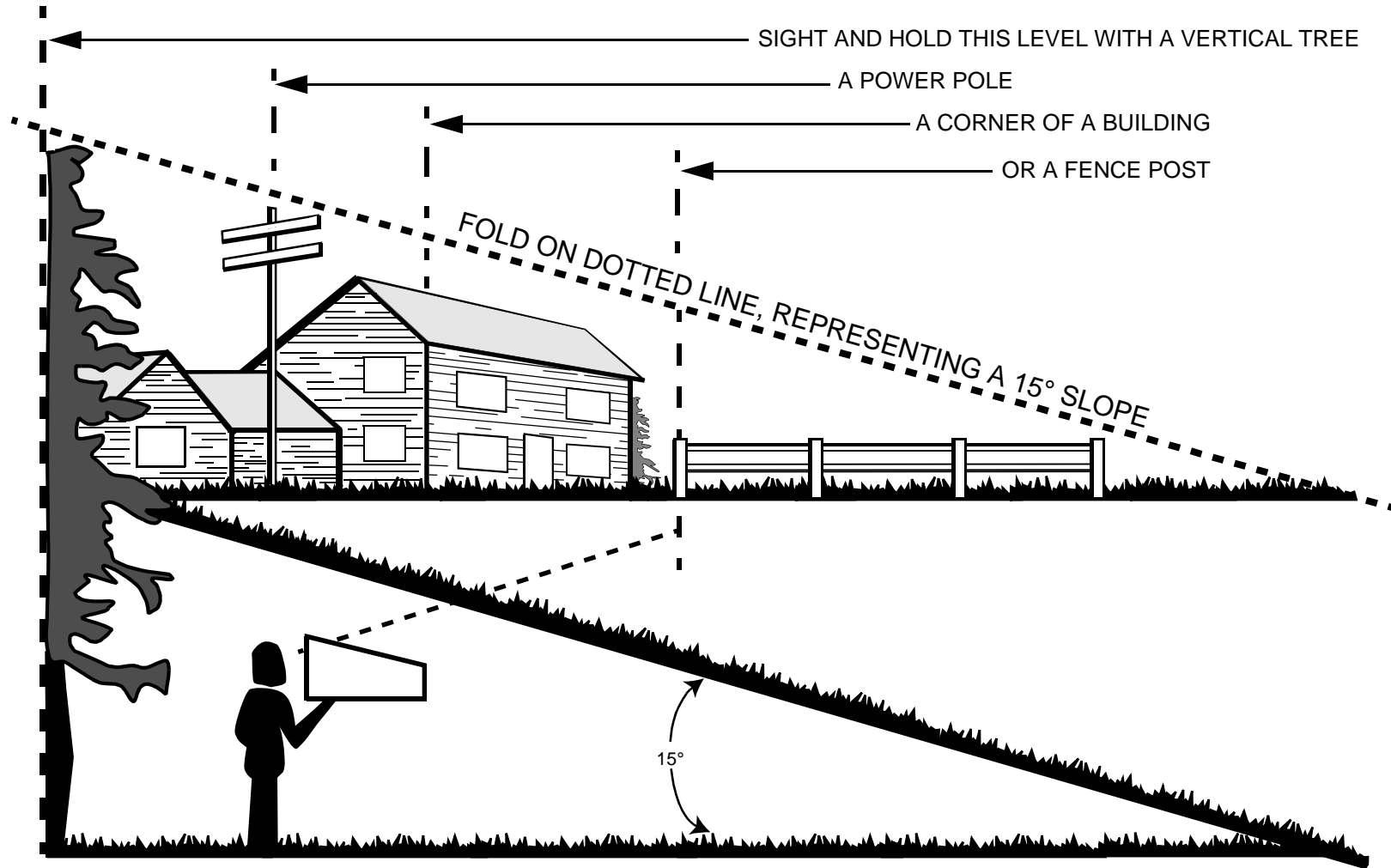


Figure 1 Safety Labels Found On Lawn Mower



USE THIS PAGE AS A GUIDE TO DETERMINE SLOPES WHERE YOU MAY NOT OPERATE SAFELY.

# SLOPE GAUGE



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.

Operate WALK-BEHIND mowers across the face of slopes, never up and down slopes.

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## SECTION 1: FINDING YOUR MODEL NUMBER

This Operator's Manual is an important part of your new walk behind. It will help you assemble, prepare and maintain your walk behind. Please read and understand what it says.

Before you start to prepare your walk behind for its first use, please locate the model plate and copy the information from it in this Operator's Manual. The information on the model plate is very important if you need help from your dealer or customer support department.

- Every walk behind has a model plate. You can locate it by standing behind the unit in the operating position and looking down at the rear of the deck.

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## SECTION 2: UNPACKING INSTRUCTIONS

### REMOVE 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 if included with unit (i.e., owner's manual, etc.).
  - 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.

### DISCONNECT SPARK PLUG WIRE

Before setting up your lawn mower, disconnect the spark plug wire from the spark plug, and ground it against the engine by attaching rubber boot to a bolt

or metal clip to the grounding post on the engine. See Figure 1

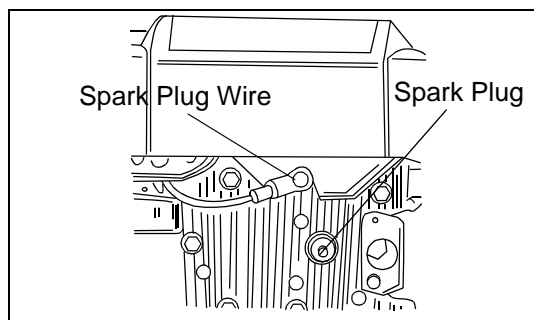


Figure 1

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## SECTION 3: SET-UP INSTRUCTIONS

### ITEMS REQUIRED FOR ASSEMBLY

- 7/16" and 1/2" wrench or socket
- Motor Oil (SAE 10W30)
- Fresh Gasoline

**IMPORTANT:** This unit is shipped WITHOUT GASOLINE or OIL (unless carton is marked as “audit machine”) in the engine. Be certain to service engine with gasoline and oil as instructed in the separate engine manual before operating your mower.

**NOTE:** Reference to right or left hand side of the mower is observed from the operating position.

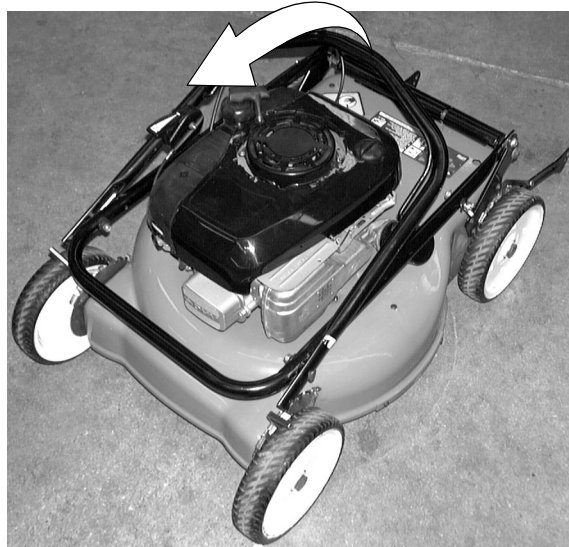
### SET-UP YOUR LAWN MOWER

Follow steps 1 through 10 to set up your lawn mower.

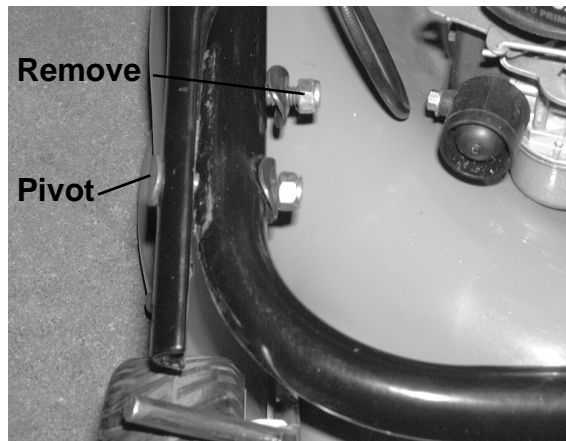
**Step 1.** Remove grass bag from unit and set it out of the way.



**Step 2.** Remove lower handle retaining hardware (Left and Right Lower Handle). See Step 3 for location. Lift upper handle. Align it with lower handle.



**Step 3.** Replace the hardware removed from the lower handle. Tighten all four handle (two on each side of the handle assembly) nuts with 1/2" wrench or socket.



**Step 4.** Raise the complete handle assembly until it lines up with one of the mounting holes in the struts. Put the carriage bolt through the struts and then through the handle. Place the saddle washer on the bolt and then fasten with the wing nut by hand. Complete this step by attaching the other side of the handle to the other strut



**Note:** Use the same height hole in each strut. Height holes in each strut allow for handle height adjustment up and down.

**Step 5. Attach control cables to handle with pull ties found on the handle.**

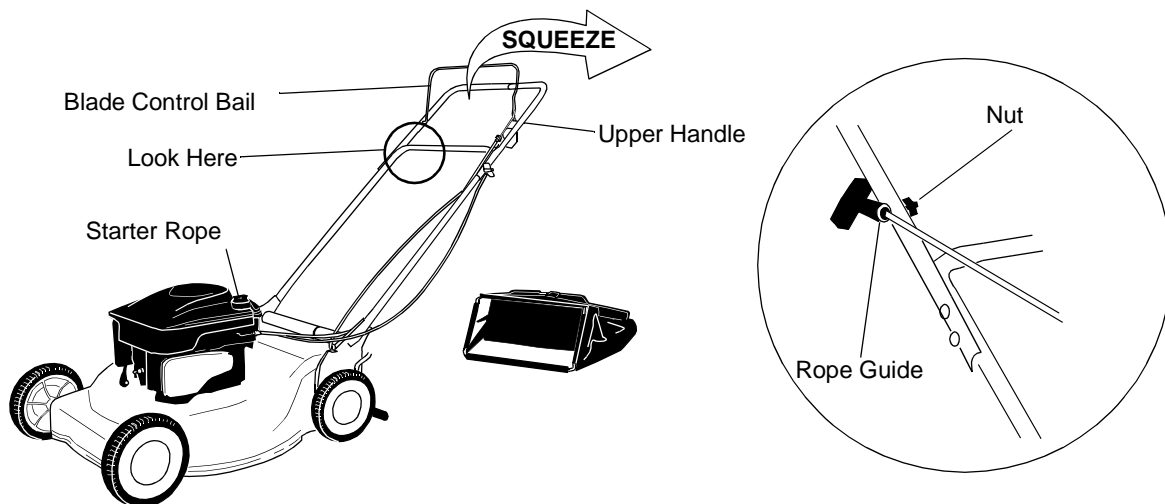


**Step 6. Loosen the nut holding the rope guide to the upper handle with a 7/16" wrench or socket.**

**Step 7. Squeeze the blade control bail against the upper handle and pull out starter rope, slowly! . (Models without BBC)**

**Step 8. Thread starter rope into rope guide.**

**Step 9. Tighten nut.**



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## SECTION 4: CONTROLS

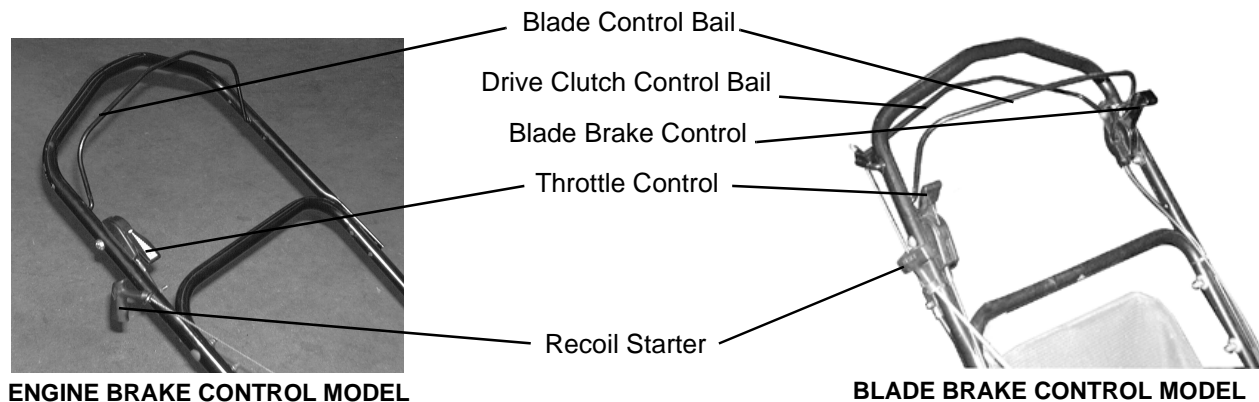


Figure 2

### BLADE CONTROL BAIL

**For units equipped with Engine Brake Control:** The blade control bail is located on the handle of the mower. See Figure 2. The blade control bail must be depressed in order to start and operate the unit. Release the blade control bail to stop the engine and blade.

**For units equipped with Blade Brake Control:** Squeeze the upper bail to the handle, then push the lever forward to engage blade. Figure 2



**WARNING:** The blade control is a safety device. Never attempt to bypass its operations. On engine brake control models the blade will rotate whenever the engine is running.

### DRIVE CLUTCH CONTROL (IF EQUIPPED).

Squeeze the drive clutch control against the upper handle to engage drive. Release the drive clutch control to slow down and stop. Use the clutch to slow down when negotiating an obstacle or making a turn. **DO NOT SLIP OR "FEATHER" THE CLUTCH.** See Figure 2.

### THROTTLE CONTROL

The throttle control is located on the right side of the upper handle. It is used to regulate the engine speed. See Figure 2.

- Push the throttle lever forward for fast.
- Pull the throttle lever back for slow.



**WARNING:** The throttle control cannot be used to stop the engine, for models with engine brake. The throttle control must be used to stop the engine on blade brake control models.

### RECOIL STARTER

The recoil starter handle is attached to the upper handle. See Figure 2. Stand behind the unit in the operating position to start the unit.

### SPEED SHIFT LEVER (IF EQUIPPED)

The three speed shift lever is located on the rear left side of the mower deck. This lever is used to select the operating speed of the mower. Release the drive clutch control when changing speed. Only change one speed at a time.



**WARNING:** Shift lever only with the engine running. Shifting with the Drive Clutch Control engaged can damage the transmission.

## CUTTING HEIGHT ADJUSTMENT LEVERS

The cutting height adjustment levers are located above each wheel. Cutting heights are from 3/4" to 4-1/2" with 3/8" increments. The low range setting is 3/4" to 2-5/8" and the high range setting is from 2-5/8" to 4-1/2". To adjust the cutting height, push the levers away from the mower and then move it forward or back for a new cutting height. Repeat for each wheel. See Figure 3. Make sure each wheel is in the same height position.

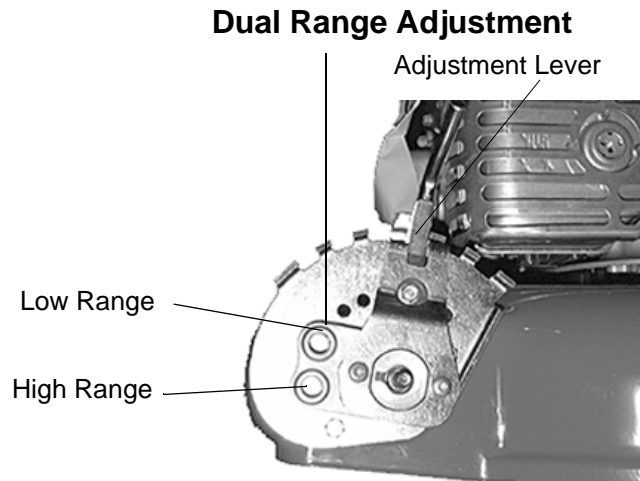


Figure 3

There are two positions on the height adjusters to mount the wheels. One for the low range and one for the high range. The wheels are installed in the holes for the higher cutting range at the factory. See Figure 3.

**NOTE:** For types of grass that require extremely low or high adjustment, move the height adjustment lever to a higher position. This will help to prevent you from scalping.

## ENGINE CONTROLS

See the engine manual for the location and function of the controls located on the engine.

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## SECTION 5: OPERATION



**WARNING:** Keep hands and feet away from the chute area on cutting deck. See Figure 1. The operation of any lawn mower can result in foreign objects being thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields.

**NOTE:** For best results raise the cutting position until it is determined which height is best for your lawn. See CUTTING HEIGHT ADJUSTMENT LEVER in the CONTROLS section.

## GAS AND OIL FILL-UP

Service the engine with gasoline and oil as instructed in the separate engine manual. Read all instructions carefully. Use SAE 10W30, API Service class SE or higher, 19 oz (0.6 qts). See Engine Manual



**WARNING:** Never fill fuel tank indoors, with engine running or until the engine has been allowed to cool for at least two minutes after running.

## EACH TIME BEFORE YOU START YOUR 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 START ENGINE AND ENGAGE BLADE

- Move the throttle control lever all the way forward. (This will activate choke on some models).
- Prime engine as instructed in the separate engine manual. (If required).
- For engine brake models only. Stand behind the unit, squeeze and hold the blade control handle against the upper handle.
- Grasp starter handle and pull rope out slowly until engine reaches 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. Keep a firm grip on starter handle. Return it slowly to the rope guide.
- After engine starts, move throttle control to desired engine speed. (The mower is designed to be operated at full throttle.)

**NOTE:** If any problems are encountered, refer to the TROUBLE SHOOTING Section of this manual.

## TO STOP ENGINE AND BLADE

- For engine brake control, release the blade control handle to stop engine and blade. (See Figure 2).
- For blade brake control, release bail to stop blade. Move throttle control lever all the way to the rear to stop the engine. (See Figure 2).



**WARNING:** The blade continues to rotate for a few seconds after the engine is shut off or the blade brake control is released. (See Figure 3).

## USING YOUR ROTARY MOWER

Be sure that lawn is clear of stones, sticks, wire, or other objects which could damage the lawn mower or engine. Such objects could be accidently thrown by the mower in any direction and cause serious personal injury to the operator and others.

For the 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.

For a healthier lawn, never cut off more than one-third of the total length of the grass. Your lawn should be cut in the fall as long as there is growth.

This mower is designed to be operated at full throttle to give you the best cut and do the most effective job of mowing or mulching.



**WARNING:** If you strike a foreign object, stop the engine. Remove wire from spark plug, thoroughly inspect the mower for any damage, and 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.

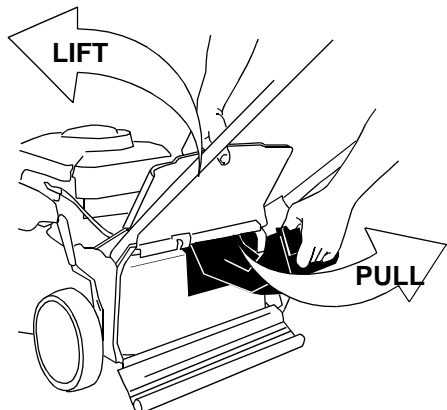
This mower is equipped with standard equipment to mulch, bag, discharge and a multi-level blade that will mulch bag or discharge. No need to change blade. No tools required to change mode. Grassbag, mulch plug and discharge chute are included.



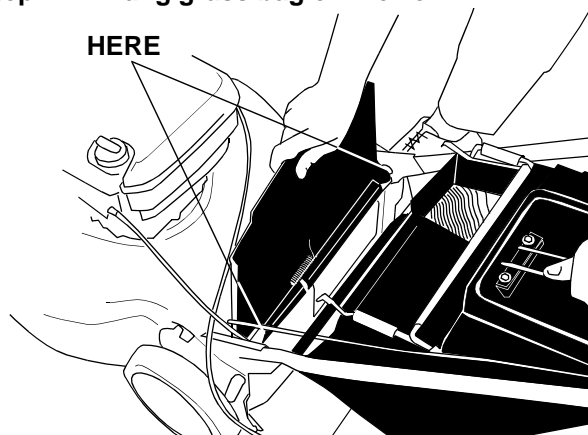
## BAGGING GRASS CLIPPINGS

This mower can bag grass clippings. Follow steps 1 and 2 to ready the mower for bagging.

**Step 1. Remove mulching plug, if installed.**



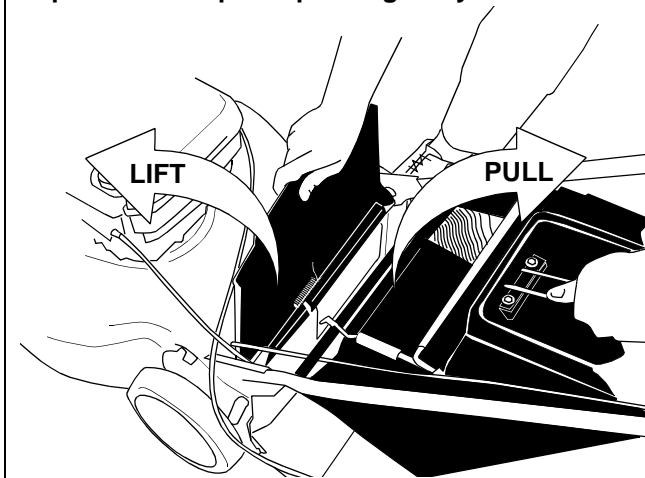
**Step 2. Hang grass bag on mower.**



## EMPTYING A FULL BAG OF GRASS

Once the grass bag is full it will need to be emptied, follow steps 3 and 4 to empty the grass bag.

**Step 3. Lift flap and pull bag away from mower.**



**Step 4. Lift bag up and away from mower. Dump the grass clippings.**



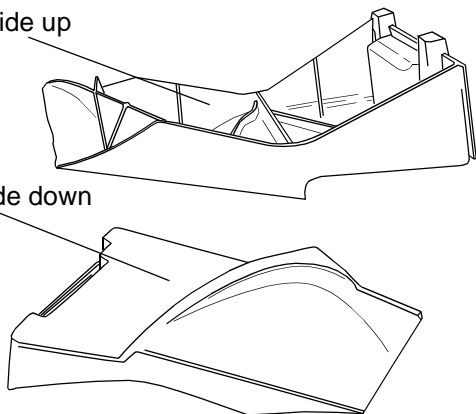
## MULCHING GRASS CLIPPINGS

This mower can also mulch grass clippings. Follow step 1 to ready this mower for mulching.

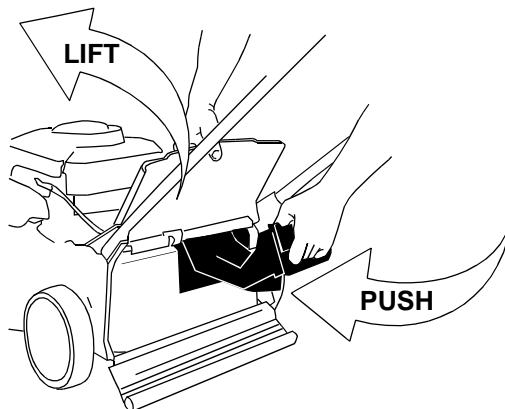
**Mulching plug top and bottom view.**

This side up

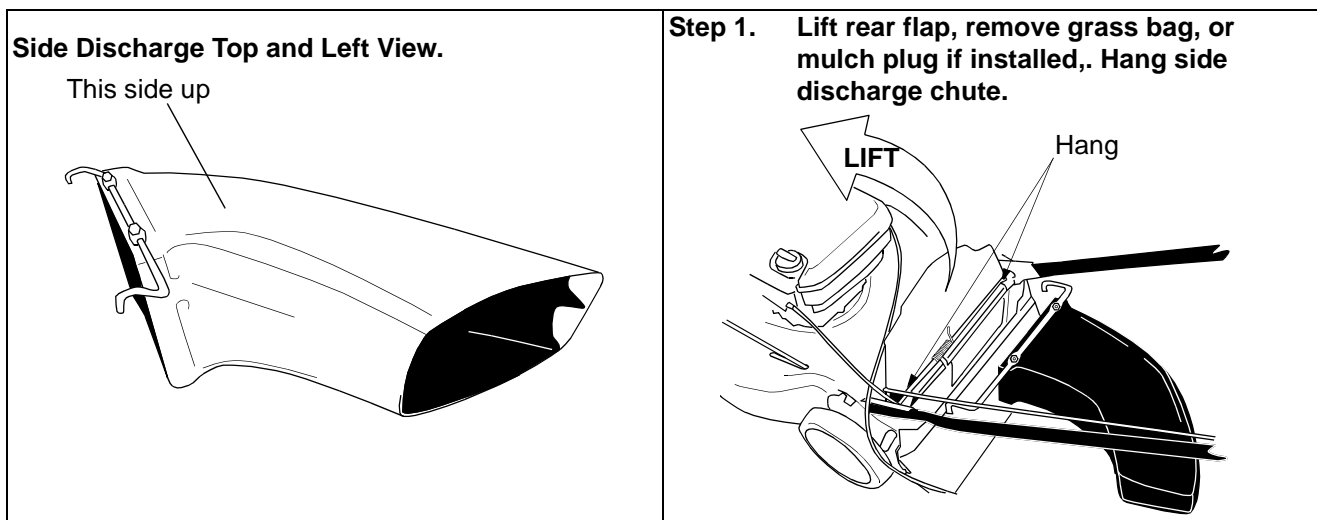
This side down



**Step 1. Lift rear flap, remove grass bag, if installed, and insert mulching plug.**



## SIDE DISCHARGING GRASS CLIPPINGS (Optional)



## SECTION 6: ADJUSTMENTS



**WARNING:** Do not at any time make any adjustment to lawn mower without first stopping engine and disconnecting spark plug wire.

### HANDLE HEIGHT ADJUSTMENT

- See the ASSEMBLY SECTION for handle height adjustment.

### THROTTLE CONTROL ADJUSTMENT

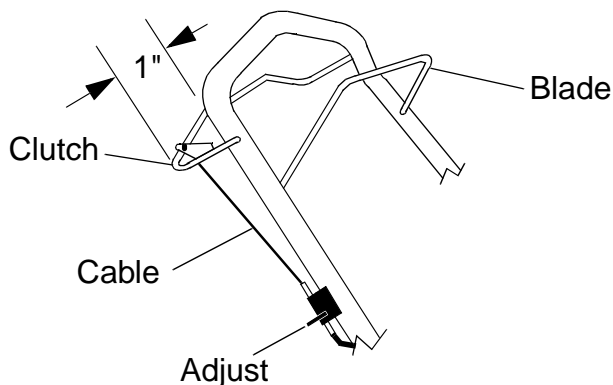
- See the engine manufacturers manual shipped with the mower.

### CUTTING HEIGHT ADJUSTMENT

- Adjust the cutting height by raising or lowering the wheels. See the CONTROLS section for location and operation of height adjusters.

### CLUTCH CABLE ADJUSTMENT

- Adjust Clutch cable at upper handle to maintain a minimum of 1" clearance (when slack from cable is removed) between the bail and the handle. The slack from the cable is removed when the high resistance is detected.



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## SECTION 7: LUBRICATION



**WARNING:** Always stop engine and disconnect spark plug wire before cleaning, lubricating or doing any kind of work on the lawn mower.

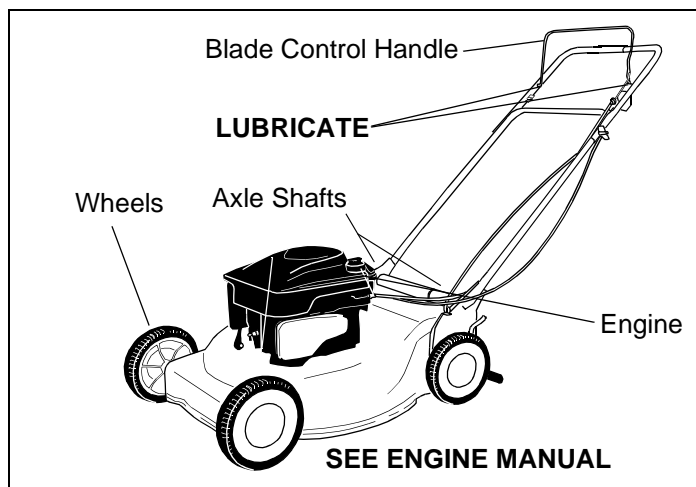


Figure 4

**Blade Control:** Lubricate the pivot points on the blade control handle and the brake cable at least once a season with light oil. See Figure 4. The blade control must operate freely in both directions.

**Wheels:** The wheels are equipped with sealed ball bearings and require no lubrication.

**Engine:** Follow engine manual for lubrication instructions.

**Axle Shaft:** One zerk fitting on each side (inside rear deck) of axle height adjuster for self propelled model only.

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## SECTION 8: MAINTENANCE



**WARNING:** Be sure to disconnect and ground the spark plug wire before performing any repairs or maintenance.

**NOTE:** When tipping the unit, empty the fuel tank and keep engine, spark plug side up. 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.

### ENGINE

Refer to the separate engine manual for all engine maintenance instructions.

- Maintain engine oil as instructed in the separate engine manual packed with your unit. Read and follow instructions carefully.
- Poor engine performance and flooding usually indicates that the air cleaner should be serviced. To service the air cleaner, refer to the separate engine manual packed with your unit.
- The spark plug should be cleaned and the gap reset once a season. Spark plug replacement is recommended at the start of each mowing season; check engine manual for correct plug type and gap specifications.
- Clean the engine regularly with a cloth or brush. Keep the cooling system (blower housing area) clean to permit proper air circulation which is essential to engine performance and life. Be certain to remove all grass, dirt and combustible debris from muffler area.

## DECK

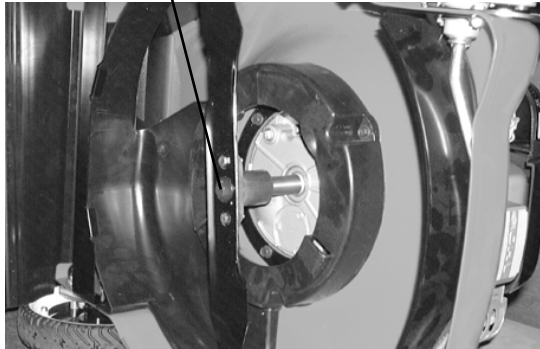
The underside of the mower deck should be cleaned after each use to prevent a buildup of grass clippings, leaves, dirt or other matter. If this debris is allowed to accumulate, it will invite rust and corrosion, and may prevent proper mulching, discharge or bagging.

The deck may be cleaned by tilting the mower and scraping clean with a suitable tool (make certain the spark plug wire is disconnected).

## CUTTING BLADE REMOVAL, REPLACEMENT AND SHARPENIN

### BLADE BOLT

(Engine Brake  
Control Models)



### BLADE BOLT

(Blade Brake  
Control Models)

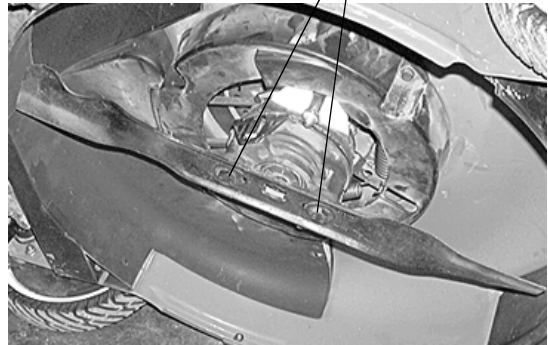


Figure 5

- When removing the cutting blade for sharpening or replacement, protect hands by using heavy gloves or a rag before grabbing the blade.
- Remove the blade bolt and bell washer to allow the blade and adapter to slide off the engine crankshaft.
- Remove the blade and adapter from the crankshaft.



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

When sharpening the blade, follow the original angle of grind as a guide. It is extremely important that each cutting edge receives an equal amount of grinding to prevent an unbalanced blade. An unbalanced blade will cause excessive vibration when rotating at high speeds. It may cause damage to the mower, and it could break causing personal injury.

The blade can be tested by balancing it on a round shaft screwdriver. Remove metal from the heavy side until it balances evenly. It is recommended that the blade always be removed from the adapter when testing for balance.

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.

- Be sure to install the blade with the side of the blade marked "Bottom" (or with part number) facing the ground when the mower is in the operating position.
- Slide blade and blade adapter onto engine crankshaft.
- Replace blade bolt and bell washer.
- Tighten blade bolt to torque: 450 in. lbs. min., 600 in. lbs. max.

**NOTE:** To ensure safe operation of your unit, the blade bolt must be checked periodically for correct torque.

## TROUBLE SHOOTING

Refer to the trouble shooting section of this manual for helpful information.

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## SECTION 9: OFF-SEASON STORAGE

The following steps should be taken to prepare lawn mower for storage.

- Clean and lubricate mower thoroughly as described in the lubrication instructions.
- Refer to engine manual for correct engine storage instructions.
- Coat mower's cutting blade with chassis grease to prevent rusting.
- Store mower in a dry, clean area. Do not store next to corrosive materials, such as fertilizer.

**NOTE:** When storing any type of power equipment in an poorly ventilated or metal storage shed, care should be taken to rust-proof the equipment. Using a light oil or silicone, coat the equipment, especially cables and all moving parts.

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## SECTION 10: TROUBLE SHOOTING GUIDE

Trouble	Possible Cause(s)	Corrective Action
Engine fails to start	Blade control handle disengaged. Spark plug wire disconnected. Throttle control lever not in correct starting position. Fuel tank empty, or stale fuel. Blocked fuel line. Faulty spark plug. Engine flooded.	Engage blade control handle. Connect wire to spark plug. Move throttle lever to FAST or START position. Fill tank with clean, fresh gasoline. Clean fuel line. Clean, adjust gap or replace. Crank engine with throttle in FAST position.
Engine runs erratic	Unit running in START position. Spark plug wire loose. Blocked fuel line, stale fuel, or incorrect fuel.  Vent in gas cap plugged. Water or dirt in fuel system. Dirty air cleaner. Carburetor out of adjustment.	Move throttle lever to FAST position. Connect and tighten spark plug wire. Clean fuel line; fill tank with clean, fresh gasoline, 87 or higher octane (Rom).  Clear vent. Drain fuel tank. Refill with fresh fuel. Clean air cleaner. Adjust carburetor.
Engine overheats	Engine oil level low. Air flow restricted. Carburetor not adjusted properly.	Fill crankcase with proper oil. Remove blower housing and clean. Adjust carburetor.
Occasional skip (hesitates) at high speed	Spark plug gap too close.	Adjust gap to .030".
Idles poorly	Spark plug fouled, faulty or gap too wide. Carburetor improperly adjusted. Dirty air cleaner.	Reset gap to .030" or replace spark plug.  Adjust carburetor. Clean air cleaner or replace.
Excessive vibration	Cutting blade loose or unbalanced. Bent cutting blade.	Tighten blade and adapter. Balance blade. Replace blade.
Mower will not mulch grass	Engine speed too low. Wet grass.  Excessively high grass.  Dull blade.	Set throttle between 3/4 and full throttle. Do not mow when grass is wet; wait until later to cut.  Mow once at a high cutting height, then mow again at desired height or make a narrower cutting swath (1/2 width). Sharpen or replace blade.
Uneven cut	Wheels not positioned correctly.  Dull blade.	Place all four wheels in same height position.  Sharpen or replace blade.

Refer to separate engine manual packed with your mower for more engine related information.

**NOTE:** For repairs beyond the minor adjustments listed above, contact your nearest authorized service dealer.



## EQUIPMENT TWO-YEAR LIMITED WARRANTY

*This warranty is specific to the product manual it is attached to.  
For a complete list of products and warranties contact your MTD Pro dealer.*

**Proper maintenance of your MTD Pro equipment is the owner's responsibility.** Follow the instructions in your owner's manual for correct lubricants and maintenance schedule. Your MTD Pro dealer carries a complete line of quality lubricants and filters for your equipment's engine, transmission, chassis and attachments.

**1. What Is Covered By This Warranty.** This limited warranty covers any defect in materials or workmanship in your MTD Pro equipment for two year from the date of purchase for the first user purchaser. MTD Pro will replace or repair any part or parts without charge through your authorized MTD Pro dealer. Batteries, belts and tires will be covered for a period of ninety (90) days from date of purchase. Engine warranties beyond listed coverage, if available, is handled directly with the engine manufacturer.

**2. What Is Not Covered By This Warranty.** MTD Pro does not warrant (a) routine maintenance items such as lubricants, filters (oil, fuel, air and hydraulic), cleaning, tune-ups, brake or clutch inspection, adjustments made as part of normal maintenance, blade sharpening, setup and normal wear. (b) incidental costs such as transporting equipment to and from the dealer, telephone charges or renting a product temporarily to replace a warranted product. (c) damage caused by use of the equipment for purposes other than those for which it was designed; (d) damage caused by accident or disasters such as fire, flood, wind and lightning; (e) damage caused by unauthorized attachments or modification; or (f) any other abuse or misuse of the equipment.

**3. EXCLUSIVE WARRANTY.** THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OR REMEDIES, WHETHER WRITTEN, ORAL OR IMPLIED. ANY AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, COURSE OF DEALING OR USAGE OF TRADE ARE HEREBY EXPRESSLY DISCLAIMED AND EXCLUDED.

**4. LIMITATION OF REMEDIES.** UNDER NO CIRCUMSTANCES, EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, SHALL MTD Pro BE LIABLE FOR ANY LOSS OR DAMAGE, DIRECT OR INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL ARISING OUT OF THE USE OF OR INABILITY TO USE THIS EQUIPMENT INCLUDING BUT NOT LIMITED TO ANY CLAIM FOR LOSS OF PROFITS, LOSS OF SAVINGS OR REVENUE, LOSS OF USE OF THE EQUIPMENT OR ANY ASSOCIATED EQUIPMENT, FACILITIES OR SERVICE, DOWNTIME, THE CLAIMS OR COSTS OF THIRD PARTIES INCLUDING CUSTOMERS, AND INJURY TO PROPERTY.

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

**5. Future Changes.** MTD Pro reserves the right to reserve, change or modify the construction and design of its Equipment or any component part or parts thereof without incurring the obligations to make such changes or modifications in present equipment.

**6. How to Obtain Service:** Contact the authorized MTD Pro dealer at the point of original retail purchase to obtain service or replacement parts. If you need further assistance in finding an authorized MTD Pro servicing dealer, contact:

MTD Pro  
P.O. Box 361131  
Cleveland, Ohio 44136