



ASSEMBLY OPERATION MAINTENANCE

Thank you for purchasing an American-built product.

IMPORTANT!

Record the exact Model No. and Serial No. which appear on the frame of your unit (under the seat) in the space below. You must have these numbers, along with the date of purchase, in order to receive warranty or service.



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.

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IMPORTANT

SAFE OPERATION PRACTICES



THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH, IF NOT FOLLOWED, COULD ENDANGER THE PERSON-AL SAFETY AND/OR PROPERTY OF YOURSELF AND OTHERS. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO OPERATE YOUR UNIT, WHEN YOU SEE THIS SYMBOL- A HEED ITS WARNING.

> 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 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.

ŧ. **GENERAL OPERATION**

DANGER:

- 1. Read, understand, and follow all instructions in the manual and on the machine before starting. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
- 2. Only allow responsible individuals familiar with the instructions to operate the machine. Know controls and how to stop the machine quickly.
- 3. Do not put hands or feet under cutting deck or near rotating parts.
- Clear the area of objects such as rocks, toys, wire, etc., which could be picked up and thrown by the blade. A small object may have been overlooked and could be accidentally thrown by the mower in any direction and cause injury to you or a bystander. To help avoid a thrown objects 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. Stop the blace(s) when crossing gravel drives, walks or roads.
- Be sure the area is clear of other people before mowing. Stop machine if anyone enters the area.
- Never carry passengers.
- Disengage blade(s) before shifting into reverse and backing up. Always look down and behind before and white backing.
- Be aware of the mower and attachment discharge direction and do not point it at anyone. Do not operate the mower without either the entire grass catcher or the chute guard in place.
- Slow down before turning. Operate the machine smoothly. Avoid erratic operation and excessive speed.
- 10. Never leave a running machine unattended. Always turn off blade(s), place transmission in neutral, set park brake, stop engine and remove key before dismounting.
- Turn off blade(s) when not mowing.
- 12. Stop engine and wait until blade(s) comes to a complete stop before (a) removing grass catcher or unclogging chute, or (b) making any repairs, adjusting or removing any grass or cebris.
- Mow only in daylight or good artificial light.
- 14. Do not operate the machine while under the influence of alcohol or crugs.
- 15. Watch for traffic when operating near or crossing roadways.
- 16. Use extra care when loading or unloading the machine into a trailer or truck. This unit should not be driven up or down a ramp onto a trailer or truck under power, because the unit could tip over, causing serious personal injury. The unit must

the operator may be struck or pulled from the unit, which could result in serious injury.

- 20. Disengage all attachment clutches, thoroughly depress the brake pedal, and shift into neutral before attempting to start engine.
- 21. Your mower is designed to cut normal residential grass of a height no more than 10". Do not attempt to mow through unusually tall, dry grass (e.g., pasture) or piles of dry leaves. Debris may build up on the mower deck or contact the engine exhaust presenting a potential fire hazard.

A 11. SLOPE OPERATION

Slopes are a major factor related to loss of control and tip-over accidents which can result in severe injury or death. All slopes require extra caution. If you cannot back up the slope or if you feel uneasy on it, do not mow it.

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° as shown on the slope gauge, do not operate this unit on that area or serious injury could result.

DO:

Mow up and down slopes, not across.

Remove obstacles such as rocks, limbs, etc.

Watch for holes, ruts or bumps. Uneven terrain could overturn the machine. Tall grass can hide obstacles.

Use slow speed. Choose a low enough gear so that you will not have to stop or shift while on the slope. Always keep machine in gear when going down slopes to take advantage of engine braking action.

Follow the manufacturer's recommendations for wheel weights or counterweights to improve stability.

Use extra care with grass catchers or other attachments. These can change the stability of the machine.

Keep all movement on the slopes slow and gradual. Do not make sudden changes in speed or direction. Rapid engagement or braking could cause the front of the machine to lift and rapidly flip over backwards which could cause serious injury.

Avoid starting or stopping on a slope. If tires lose traction, disengage the blade(s) and proceed slowly straight down the slope.

DO NOT:

Do not turn or slopes unless necessary; then, turn slowly and gradually downhill, if possible.

Do not mow near drop-offs, ditches or embankments. The mower could suddenly turn over it a wheel is over the edge of a cliff or ditch, or if an edge caves in.

- be pushed manually on a ramp to load or unload properly.
- 17. Never make a cutting height adjustment while engine is running if operator must dismount to do so.
- 18. Wear sturdy, rough-soled work shoes and close-fitting slacks and shirts. Do not wear loose fitting clothes or jeweiry. They can be caught in moving parts. Never operate a unit in bare feet, sandals, or sneakers.
- 19. Check overhead clearance carefully before driving under power lines, wires, bridges or low hanging tree branches, before entering or leaving buildings, or in any other situation where

Do not mow on wet grass. Reduced traction could cause sliding. Do not try to stabilize the machine by putting your foot on the around.

Do not use grass catcher on steep slopes.

2

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

(continued on page 5)

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≤ ⊚ Do not mow on inclines with a slope in excess of 15 degrees (a rise of approximately 2-1/2 feet every 10 feet), riding mower could overturn and cause serious injury. If operating a walk-behind mower on such a slope, it i 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.

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



CONTENTS OF HARDWARE PACK

Remove this sheet from your owner's manual and lay the hardware on the illustration for identification purposes. After assembly, keep the Slope Gauge which is on the reverse side of this sheet for future use.

(Hardware pack may contain extra items which are not used on your unit.

Part numbers are shown in parentheses.)



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Cut Alo, his Line

- 1. Keep children out of the mowing area and in watchful care of an adult other than the operator.
- Be alert and turn machine off if children enter the area.
- Before and when backing, look behind and down for small children.
- Never carry children. They may fall off and be seriously injured or interfere with the safe machine operation.
- Never allow children under 14 years old to operate the machine. Children 14 years and over should only operate machine under close parental supervision and proper instruction.
- Use extra care when approaching blind corners, shrubs, trees or other objects that may obscure your vision of a child or other hazard.
- 7. Remove key when machine is unattended to prevent unauthorized operation.

IV. <u>Service</u>

1. Use extreme care in handling gasoline and other fuels. They are extremely flammable and the vapors are explosive.

- a. Use only an approved container.
- b. Never remove fuel cap or add fuel with the engine running. Allow engine to cool at least two minutes before refueling.
- Replace fuel cap securely and wipe off any spilled fuel before starting the engine as it may cause a fire or explosion.
- d. Extinguish all cigarettes, cigars, pipes and other sources of ignition.
- Never refuel the machine indoors because fuel vapors will accumulate in the area.
- f. Never store the fuel container or machine inside where there is an open flame or spark, such as a gas hot water heater, space heater or furnace.
- 2. Never run a machine inside a closed area.
- To reduce fire hazard, keep the machine free of grass, leaves or other debris build-up. Clean up oil or fuel spillage. Allow machine 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., excessive wear, 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. Use all guards as instructed in this manual.
- 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 restarting and operating the mower.
- Grass catcher components are subject to wear, damage and deterioration, which could expose moving parts or allow objects to be thrown. For your 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 blade(s).
- Check brake operation frequently. Adjust and service as required.
- 12. Muffler, engine and belt guards become hot during operation and can cause a burn. Allow to cool down before touching.
- Do not change the engine governor settings or overspeed the engine. Excessive engine speeds are dangerous.
- Observe proper disposal laws and regulations. Improper disposal of fluids and materials can harm the environment and the ecclogy.
 - a. Prior to disposal, determine the proper method to dispose of waste from your local Environmental Protection Agency. Recycling centers are established to properly dispose of materials in an environmentally safe fashion.
 - b. Use proper containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them. Properly dispose of the containers immediately following the draining of fluids.
 - c. DO NOT pour oil or other fluids into the ground, down a drain or into a stream, pond, lake or other body of water. Observe Environmental Protection Agency regulations when disposing of oil, fuel, coolant, brake fluid, filters, batteries, tires and other harmful waste.





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.

UNPACKING

5

TO REMOVE UNIT FROM CRATE

- 1. Remove all screws from the top of the crate using a 1/4" hex head socket or a flat blade screwdriver.
- 2. To remove ends, grasp top board on the end, and pull towards you in a downward motion.
- 6. Loose parts (may include the owner's guide, steering wheel, steering wheel insert, battery fluid, chute deflector, etc.) are on the seat and wrapped in plastic. Carefully cut and remove the plastic wrap. Remove loose parts from the seat.
- 3. Set panel aside to avoid tire punctures.
- 4. Repeat procedure for each side of the crate.
- 5. Remove and discard plastic bag which covers unit.
- 7. Make certain brake is released, and push the unit off the skid.
- 8. Remove page four from this manual and lay out the contents of the hardware pack according to the illustration for identification.

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ASSEMBLY INSTRUCTIONS

BATTERY INFORMATION



- A. Battery acid must be handled with great care as contact with it can burn and blister the skin. It is also advisable to wear protective clothing (goggles, rubber gloves and apron) when working with it.*
- B. Should battery acid accidentally splatter into the eyes or onto the face, rinse the affected area immediately with clean cold water. If there is any further discomfort, seek prompt medical attention.
- C. If acid spills on clothing, first dilute it with clean water, then neutralize with a solution of ammonia/ water or baking soda/water.
- D. Since battery acid is corrosive, do not pour it into any sink or drain. Before discarding empty electrolyte containers, rinse them with a neutralizing solution.
- E. NEVER connect or disconnect charger clips to battery while charger is turned on as it can cause sparks.
- F. Keep all lighted materials (cigarettes, matches, lighters) away from the battery as the hydrogen gas generated during charging can be combustible.
- G. As a further precaution, only charge the battery in a well-ventilated area.

*Always shield eyes, protect skin and clothing when working near batteries.



Battery contains sulfuric acid. Refer to warning above. Antidote: EXTERNAL—Flush with water. INTERNAL—Drink large quantities of water or milk. Follow with milk of magnesia, beaten eggs or vegetable oil. Call physician immediately. EYES: Flush with cool water for at least 15 minutes, then get prompt medical attention. Since batteries produce explosive gases, keep all lighted materials (cigarettes, lighters, matches, etc.) away. Be sure to charge battery only in well-ventilated areas. Make certain venting path of battery (drain tube) is always open. KEEP BATTERIES OUT OF THE REACH OF CHILDREN! IMPORTANT: After assembly, service engine with gasoline, and check oil level as instructed in the separate engine manual packed with your unit.

NOTE: Reference to right or left hand side of the unit is observed from the driver's seat, facing forward.

TOOLS REQUIRED FOR ASSEMBLY

- (1) 1/4" socket wrench or flat blade screwdriver
- (1) 1/2" wrench or socket wrench
- (1) 9/16" wrench or socket wrench
- (2) 7/16" wrenches or socket wrenches
- (1) Pair of pliers

ACTIVATING AND CHARGING THE BATTERY

Do not activate battery (fill with battery acid) until battery is actually placed in service. Be certain to read previous warnings before activating the battery.

- Lift the hood of the tractor. Remove the wing nuts from the holo-down rods which secure the battery cover to the battery. Refer to figure 12 on page 10. Remove the battery cover. Disconnect the positive cable from the positive terminal. Save the hardware.
- 2. Remove the battery from the tractor, paying attention to how the battery is placed in the unit, and how the drain tube (attached to the battery) is routed.
- Activate the battery as instructed in the "Quick Start" brochure included with the battery fluid. Read instructions carefully.

NOTE: You can continue assembling the lawn tractor while battery is standing for 30 minutes (after filling with acid), and later while you are charging the battery.

IMPORTANT: To obtain the maximum life from your battery, it MUST BE CHARGED prior to initial use.

<u>CHARGE THE BATTERY</u> after the 30 minute standing period. Use a 12-volt automotive type battery charger to charge the battery at 6 AMPS for one hour before installation.

NOTE: If you charge the battery at a lower AMP rate, use a hydrometer to make sure the battery is completely charged. The hydrometer should read 1.260 minimum. DO NOT CHARGE AT MORE THAN 6 AMPS.

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STEERING WHEEL INSTALLATION

- 1. The hardware for attaching the steering wheel has been packed inside the steering wheel. Carefully pry off the shipping cap and remove the hardware. Discard the shipping cap.
- Remove the steering bellow from the lift lever on the right hand side of tractor. Place steering bellow over the steering shaft extending through the dash. See figure 1.

NOTE: If the openings on each end of the steering bellow are two different sizes, the smaller end goes down against the dash of the tractor.

- 3. With the wheels of the tractor pointing straight forward, place the steering wheel over the steering shaft, positioning steering wheel as desired.
- Place the washer with the cupped side down over the steering shaft. Secure with hex lock bolt.
- 5. Snap the steering wheel insert over the four spokes of the steering wheel.

-SEAT ACSEMBLY

7

Remove the four screws from the bottom of the seat. Place the seat in position against the seat pivot bracket, lining up the slotted holes in the pivot bracket with the holes in the seat. Select desired position for the seat, and secure with the four screws. See figure 2.

ATTACHING THE DECK LINKS (Hardware A)

The three adjustable deck links have been shipped unassembled. Attach as follows.

- Start 1/2" hex nuts on eyebolts provided. Insert the hex nuts and eyebolts into the adjustable lift
 links as shown in figure 3.
- 2. Thread eyebolts into the lift links and hex nuts. The left rear link should be adjusted so the eye-



bolt is to the **lower** mark as shown. The two front links should be adjusted to the **higher** mark.



FIGURE 4.



FIGURE 5.



Spacers

ATTACHING THE CUTTING DECK (Hardware B)

- 1. Working beneath the tractor, remove the round belt guard from the idler by removing the hairpin
- clip. See figure 4. Remove the two hex bolts which act as belt keepers by the engine pulley.

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- Move the tractor lift handle all the way back to the full raised position. Turn the tractor steering wheel all the way to the left.
- The two deck stabilizers and the diagonal brace which are attached to the front of the deck are folded back over the deck for shipping purposes.
 Unfold them at this time. See figure 5.
- Slide the deck under the tractor from the right side as you lift the stabilizers and diagonal brace over the right front wheel.
- Move tractor lift handle forward to the lowest position.
- 6. Attach the four tractor hanger brackets to the deck as follows. The left front tractor hanger bracket goes through the center of the V-belt.
 See figure 6. Attach the rear hanger brackets first, then the front, using four flat washers and hairpin clips.
- 7. Disassemble the front cross bar from the tractor by removing two hairpin clips. Use the cross bar to attach the deck stabilizers, the diagonal brace and two spacers to the tractor frame, using the rear set of holes. Secure with the two hairpin — clips just removed. See figure 7.
- 8. Place the deck belt around the engine pulley and idler pulley.
- 9. Replace the round belt guard by the idler pulley



8

FIGURE 7.

(hex side down). Replace the hex bolts (belt keepers) by the engine pulley. Refer to figure 4.

10. Check all beit guards for clearance. The belt guards must be between 1/16" and 1/8" away from the belt when the PTO lever or switch is in the engaged or on position (be certain to disengage the PTO lever after checking).

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