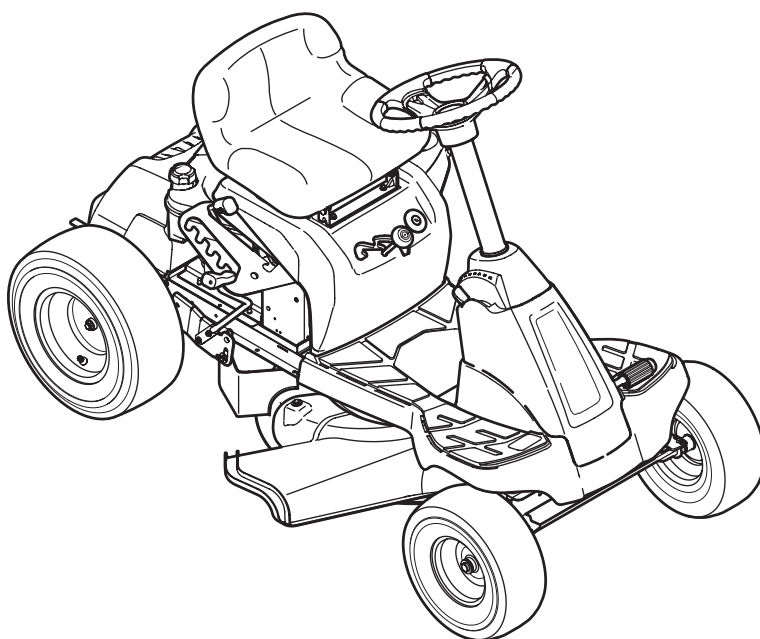




OPERATOR'S MANUAL



Mini-Rider with 24-inch Cutting Deck

WARNING

**READ AND FOLLOW ALL SAFETY RULES AND INSTRUCTIONS IN THIS MANUAL BEFORE
ATTEMPTING TO OPERATE THIS MACHINE.
FAILURE TO COMPLY WITH THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY.**

MASPORT, 1/40 ABBOTS RD, DANDENONG SOUTH, MELBOURNE, VICTORIA 3175

Thank you for purchasing a Masport Mini-Rider. It was carefully engineered to provide excellent performance when properly operated and maintained.

Please read this entire manual prior to operating the equipment. It instructs you how to safely and easily set up, operate and maintain your machine. Please be sure that you, and any other persons who will operate the machine, carefully follow the recommended safety practices at all times. Failure to do so could result in personal injury or property damage.

All information in this manual is relative to the most recent product information available at the time of printing. Review this manual frequently to familiarize yourself with the machine, its features and operation. Please be aware that this Operator's Manual may cover a range of product specifications for various models. Characteristics and features discussed and/or illustrated in this manual may not be applicable to all models. We reserve the right to change product specifications, designs and equipment without notice and without incurring obligation.

If applicable, the power testing information used to establish the power rating of the engine equipped on this machine can be found at www.opei.org or the engine manufacturer's web site.

If you have any problems or questions concerning the machine, phone a authorized Masport service dealer or contact us directly. Masport's Customer Support telephone numbers, website address and mailing address can be found on this page. We want to ensure your complete satisfaction at all times.

Throughout this manual, all references to *right* and *left* side of the machine are observed from the operating position

The engine manufacturer is responsible for all engine-related issues with regards to performance, power-rating, specifications, warranty and service. Please refer to the engine manufacturer's Owner's/Operator's Manual, packed separately with your machine, for more information.

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Record Product Information

Before setting up and operating your new equipment, please locate the model plate on the equipment and record the information in the provided area to the right. You can locate the model plate by looking beneath the seat. This information will be necessary, should you seek technical support via our web site, Customer Support Department, or with a local authorized service dealer.

MODEL NUMBER

--	--	--	--	--	--	--	--	--	--	--

SERIAL NUMBER

--	--	--	--	--	--	--	--	--	--	--

Customer Support

Please do NOT return the machine to the retailer or dealer without first contacting the Customer Support Department.

If you have difficulty assembling this product or have any questions regarding the controls, operation, or maintenance of this machine, you can seek help from the experts. Choose from the options below:

- ◇ Visit us on the web at www.masport.co.nz
- ◇ Call a Customer Support Representative on 0800 627 767 (New Zealand) or 1300 366 225 (Australia)
- ◇ Write to Masport • P.O. Box 14-349 • Panmure, Auckland • 1741 (New Zealand)
- ◇ Write to Masport • 1/40 Abbots Road • Dandenong South • Melbourne, Victoria • 3175 (Australia)

Safe Operation Practices • Set-Up • Operation • Maintenance • Service • Troubleshooting • Warranty

OPERATOR’S MANUAL

Mini-Rider with 24-inch Cutting Deck

WARNING

READ AND FOLLOW ALL SAFETY RULES AND INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO OPERATE THIS MACHINE. FAILURE TO COMPLY WITH THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY.

MASPORT, 1/40 ABBOTS RD, DANDENONG SOUTH, MELBOURNE, VICTORIA 3175

554789.A.0
(July 11, 2016)

Form No. 769-10665



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 this machine. Failure to comply with these instructions may result in personal injury. When you see this symbol. **HEED ITS WARNING!**

CALIFORNIA PROPOSITION 65



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



WARNING! Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. *Wash hands after handling*



DANGER! This machine was built to be operated according to the safe operation practices 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 machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.

General Operation

1. Read, understand, and follow all instructions on the machine and in the manual(s) before attempting to assemble and operate. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
2. Be familiar with all controls and their proper operation. Know how to stop the machine and disengage them quickly.
3. Never allow children under 14 years of age to operate this machine. Children 14 and over should read and understand the instructions and safe operation practices in this manual and on the machine and should be trained and supervised by an adult.
4. Never allow adults to operate this machine without proper instruction.
5. To help avoid blade contact or a thrown object injury, keep bystanders, helpers, children and pets at least 75 feet from the machine while it is in operation. Stop machine if anyone enters the area.
6. 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 blade(s). Thrown objects can cause serious personal injury.
7. Plan your mowing pattern to avoid discharge of material toward roads, sidewalks, bystanders and the like. Also, avoid discharging material against a wall or obstruction which may cause discharged material to ricochet back toward the operator.
8. Always wear safety glasses or safety goggles during operation and while performing an adjustment or repair to protect your eyes. Thrown objects which ricochet can cause serious injury to the eyes.
9. Wear sturdy, rough-soled work shoes and close-fitting slacks and shirts. Loose fitting clothes and jewelry can be caught in movable parts. Never operate this machine in bare feet or sandals.
10. Be aware of the mower and attachment discharge direction and do not point it at anyone. Do not operate the mower without the discharge cover or entire grass catcher in its proper place.
11. Do not put hands or feet near rotating parts or under the cutting deck. Contact with the blade(s) can amputate hands and feet.

12. A missing or damaged discharge cover can cause blade contact or thrown object injuries.
13. Stop the blade(s) when crossing gravel drives, walks, or roads and while not cutting grass.
14. Watch for traffic when operating near or crossing roadways. This machine is not intended for use on any public roadway.
15. Do not operate the machine while under the influence of alcohol or drugs.
16. Mow only in daylight or good artificial light.
17. Never carry passengers.
18. Disengage blade(s) before shifting into reverse. Back up slowly. Always look down and behind before and while backing to avoid a back-over accident.
19. Slow down before turning. Operate the machine smoothly. Avoid erratic operation and excessive speed.
20. Disengage blade(s), set parking brake, stop engine and wait until the blade(s) come to a complete stop before removing grass catcher, emptying grass, unclogging chute, removing any grass or debris, or making any adjustments.
21. Never leave a running machine unattended. Always turn off blade(s), place transmission in neutral, set parking brake, stop engine and remove key before dismounting.
22. Use extra care when loading or unloading the machine into a trailer or truck. This machine should not be driven up or down ramp(s), because the machine could tip over, causing serious personal injury. The machine must be pushed manually on ramp(s) to load or unload properly.
23. Muffler and engine become hot and can cause a burn. Do not touch.
24. Check overhead clearances carefully before driving under low hanging tree branches, wires, door openings etc., where the operator may be struck or pulled from the machine, which could result in serious injury.
25. Disengage all attachment clutches, depress the brake pedal completely and shift into neutral before attempting to start engine.
26. Your machine 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. Dry grass or leaves may contact the engine exhaust and/or build up on the mower deck presenting a potential fire hazard.
27. Use only accessories and attachments approved for this machine by the machine manufacturer. Read, understand and follow all instructions provided with the approved accessory or attachment.
28. Data indicates that operators, age 60 years and above, are involved in a large percentage of riding mower-related injuries. These operators should evaluate their ability to operate the riding mower safely enough to protect themselves and others from serious injury.
29. If situations occur which are not covered in this manual, use care and good judgment. Contact your customer service representative for assistance.

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 machine on a sloped or hilly area. If the slope is greater than 12 degrees as shown on the slope gauge, do not operate this machine on that area or serious injury could result.

Do:

1. Mow up and down slopes, not across. Exercise extreme caution when changing direction on slopes.
2. Watch for holes, ruts, bumps, rocks, or other hidden objects. Uneven terrain could overturn the machine. Tall grass can hide obstacles.
3. Use slow speed. Choose a low enough speed setting so that you will not have to stop or shift while on the slope. Tires may lose traction on slopes even though the brakes are functioning properly. Always keep machine in gear when going down slopes to take advantage of engine braking action.
4. Follow the manufacturer's recommendations for wheel weights or counterweights to improve stability.
5. Use extra care with grass catchers or other attachments. These can change the stability of the machine.
6. 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.
7. Avoid starting or stopping on a slope. If tires lose traction, disengage the blade(s) and proceed slowly straight down the slope.

Do Not:

1. Do not turn on slopes unless necessary; then, turn slowly and gradually downhill, if possible.
2. Do not mow near drop-offs, ditches or embankments. The mower could suddenly turn over if a wheel is over the edge of a cliff, ditch, or if an edge caves in.
3. Do not try to stabilize the machine by putting your foot on the ground.
4. Do not use a grass catcher on steep slopes.
5. Do not mow on wet grass. Reduced traction could cause sliding.
6. Do not shift to neutral and coast downhill. Over-speeding may cause the operator to lose control of the machine resulting in serious injury or death.
7. Do not tow heavy pull behind attachments (e.g. loaded dump cart, lawn roller, etc.) on slopes greater than 5 degrees. When going down hill, the extra weight tends to push the tractor and may cause you to lose control (e.g. tractor may speed up, braking and steering ability are reduced, attachment may jack-knife and cause tractor to overturn).

Children

1. 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. They do not understand the dangers. Never assume that children will remain where you last saw them.
 - a. Keep children out of the mowing area and in watchful care of a responsible adult other than the operator.
 - b. Be alert and turn machine off if a child enters the area.
 - c. Before and while backing, look behind and down for small children.
 - d. Never carry children, even with the blade(s) shut off. They may fall off and be seriously injured or interfere with safe machine operation.
 - e. Use extreme care when approaching blind corners, doorways, shrubs, trees or other objects that may block your vision of a child who may run into the path of the machine.
 - f. **To avoid back-over accidents, always disengage the cutting blade(s) before shifting into Reverse. If equipped, the "Reverse Caution Mode" should not be used when children or others are around.**
 - g. Keep children away from hot or running engines. They can suffer burns from a hot muffler.
 - h. Remove key when machine is unattended to prevent unauthorized operation.
2. Never allow children under 14 years of age to operate this machine. Children 14 and over should read and understand the instructions and safe operation practices in this manual and on the machine and should be trained and supervised by an adult.

Towing

1. Tow only with a machine that has a hitch designed for towing. Do not attach towed equipment except at the hitch point.
2. Follow the manufacturers recommendation for weight limits for towed equipment and towing on slopes.
3. Never allow children or others in or on towed equipment.
4. On slopes, the weight of the towed equipment may cause loss of traction and loss of control.
5. Always use extra caution when towing with a machine capable of making tight turns (e.g. "zero-turn" ride-on mower). Make wide turns to avoid jack-knifing.
6. Travel slowly and allow extra distance to stop.
7. Do not shift to neutral and coast downhill.

Service

Safe Handling of Gasoline:

1. To avoid personal injury or property damage use extreme care in handling gasoline. **Gasoline is extremely flammable and the vapors are explosive.** Serious personal injury can occur when gasoline is spilled on yourself or your clothes which can ignite. Wash your skin and change clothes immediately.
 - a. Use only an approved gasoline container.
 - b. Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground away from your vehicle before filling.
 - c. When practical, remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment on a trailer with a portable container, rather than from a gasoline dispenser nozzle.
 - d. Keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete. Do not use a nozzle lock-open device.
 - e. Extinguish all cigarettes, cigars, pipes and other sources of ignition.
 - f. Never fuel machine indoors.
 - g. Never remove gas cap or add fuel while the engine is hot or running. Allow engine to cool at least two minutes before refueling.
 - h. Never over fill fuel tank. Fill tank to no more than ½ inch below bottom of filler neck to allow space for fuel expansion.
 - i. Replace gasoline cap and tighten securely.
 - j. If gasoline is spilled, wipe it off the engine and equipment. Move machine to another area. Wait 5 minutes before starting the engine.
 - k. To reduce fire hazards, keep machine free of grass, leaves, or other debris build-up. Clean up oil or fuel spillage and remove any fuel soaked debris.
 - l. Never store the machine or fuel container inside where there is an open flame, spark or pilot light as on a water heater, space heater, furnace, clothes dryer or other gas appliances.
 - m. Allow a machine to cool at least five minutes before storing.

General Service

1. Never run an engine indoors or in a poorly ventilated area. Engine exhaust contains carbon monoxide, an odorless, and deadly gas.
2. Before cleaning, repairing, or inspecting, make certain the blade(s) and all moving parts have stopped. Disconnect the spark plug wire and ground against the engine to prevent unintended starting.

3. Periodically check to make sure the blades come to complete stop within approximately (5) five seconds after operating the blade disengagement control. If the blades do not stop within the this time frame, your machine should be serviced professionally by an authorized MTD Service Dealer.
4. Check brake operation frequently as it is subjected to wear during normal operation. Adjust and service as required.
5. Check the blade(s) and engine mounting bolts at frequent intervals for proper tightness. Also, visually inspect blade(s) for damage (e.g., excessive wear, bent, cracked). Replace the blade(s) with the original equipment manufacturer's (O.E.M.) blade(s) only, listed in this manual. "Use of parts which do not meet the original equipment specifications may lead to improper performance and compromise safety!"
6. Mower blades are sharp. Wrap the blade or wear gloves, and use extra caution when servicing them.
7. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
8. Never tamper with the safety interlock system or other safety devices. Check their proper operation regularly.
9. After striking a foreign object, stop the engine, disconnect the spark plug wire(s) and ground against the engine. Thoroughly inspect the machine for any damage. Repair the damage before starting and operating.
10. Never attempt to make adjustments or repairs to the machine while the engine is running.
11. Grass catcher components and the discharge cover are subject to wear and damage which could expose moving parts or allow objects to be thrown. For safety protection, frequently check components and replace immediately with original equipment manufacturer's (O.E.M.) parts only, listed in this manual. "Use of parts which do not meet the original equipment specifications may lead to improper performance and compromise safety!"
12. Do not change the engine governor settings or over-speed the engine. The governor controls the maximum safe operating speed of the engine.
13. Maintain or replace safety and instruction labels, as necessary.
14. Observe proper disposal laws and regulations for gas, oil, etc. to protect the environment.
15. According to the Consumer Products Safety Commission (CPSC) and the U.S. Environmental Protection Agency (EPA), this product has an *Average Useful Life* of seven (7) years, or 270 hours of operation. At the end of the *Average Useful Life* have the machine inspected annually by an authorized service dealer to ensure that all mechanical and safety systems are working properly and not worn excessively. Failure to do so can result in accidents, injuries or death.

Do not modify engine

To avoid serious injury or death, do not modify engine in any way. Tampering with the governor setting can lead to a runaway engine and cause it to operate at unsafe speeds. Never tamper with factory setting of engine governor.

Notice Regarding Emissions

Engines which are certified to comply with California and federal EPA emission regulations for SORE (Small Off Road Equipment) are certified to operate on regular unleaded gasoline, and may include the following emission control systems: Engine Modification (EM), Oxidizing Catalyst (OC), Secondary Air Injection (SAI) and Three Way Catalyst (TWC) if so equipped.

When required, models are equipped with low permeation fuel lines and fuel tanks for evaporative emission control. California models may also include a carbon canister. Please contact Customer Support for information regarding the evaporative emission control configuration for your model.

Spark Arrestor



WARNING! This machine is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brushcovered or grass-covered land unless the engine's exhaust system is equipped with a spark arrestor meeting applicable local or state laws (if any).

If a spark arrestor 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 arrestor for the muffler is available through your nearest engine authorized service dealer or contact the service department, P.O. Box 361131 Cleveland, Ohio 44136-0019.

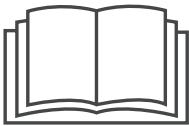





















WARNING! Your Responsibility—Restrict the use of this power machine to persons who read, understand and follow the warnings and instructions in this manual and on the machine.

SAVE THESE INSTRUCTIONS!

Safety Symbols

This page depicts and describes safety symbols that may appear on this product. Read, understand, and follow all instructions on the machine before attempting to assemble and operate.

Symbol	Description
	READ THE OPERATOR'S MANUAL(S) Read, understand, and follow all instructions in the manual(s) before attempting to assemble and operate
	DANGER— ROTATING BLADES Never carry passengers. Never carry children, even with the blades off.
	DANGER— ROTATING BLADES To avoid a back-over accident, keep children away from the machine while it is in operation. Mowing in reverse is not recommended.
	WARNING— ROTATING BLADES Do not put hands or feet near rotating parts or under the cutting deck. Contact with the blade(s) can amputate hands and feet. Be sure blades and engine are stopped before placing hands or feet near blades.
	DANGER— ROTATING BLADES Always look down and behind before and while backing to avoid a back-over accident.
	DANGER— BYSTANDERS Keep bystanders, helpers, children and pets at least 75 feet from the machine while it is in operation.
	WARNING— THROWN OBJECTS This machine may pick up and throw and objects which can cause serious personal injury.
	WARNING—THROWN OBJECTS This machine may pick up and throw and objects which can cause serious personal injury.
	WARNING— SLOPE OPERATION Go up and down slopes, not across.
	WARNING— SLOPE OPERATION Use extra caution on slopes. Do not mow slopes greater than 12°. If machine stops going uphill, stop blades back down slowly.
 	DANGER— SLOPE OPERATION Do not operate this machine where it could tip or slip. Avoid sudden turns. Use low speed.

Symbol	Description
	DANGER— GUARDS, SHEILDS, SWITCHES, ETC. Keep safety devices (Guards, Sheilds, Switches, Etc.) in place and working.
	WARNING— MACHINE IS HOT Allow the engine to cool at least two minutes before refueling or storing.
	WARNING— THIS EQUIPMENT MAY CREATE SPARKS Operation of this equipment may create sparks that can start fires around dry vegetation. Do not drive through piles of dry leaves or tall dry grass (Max. 10"). Keep the machine free of debris.
	WARNING— HOT SURFACE Engine parts, especially the muffler, become extremely hot during operation. Allow engine and muffler to cool before touching.
	DANGER — ROTATING BLADES To reduce the risk of injury, keep hands and feet away. Do not operate unless discharge cover or grass catcher is in its proper place. If damaged, replace immediately.
	WARNING— THIS EQUIPMENT MAY CREATE SPARKS Operation Of This Equipment May Create Sparks That Can Start Fires Around Dry Vegetation. A Spark Arrestor May Be Required. The Operator Should Contact Local Fire Agencies For Laws Or Regulations Relating To Fire Prevention Requirements.
	WARNING— CARBON MONOXIDE Never run an engine indoors or in a poorly ventilated area. Engine exhaust contains carbon monoxide, an odorless and deadly gas.
	DANGER— ROTATING BLADES Do not step on the cutting deck.

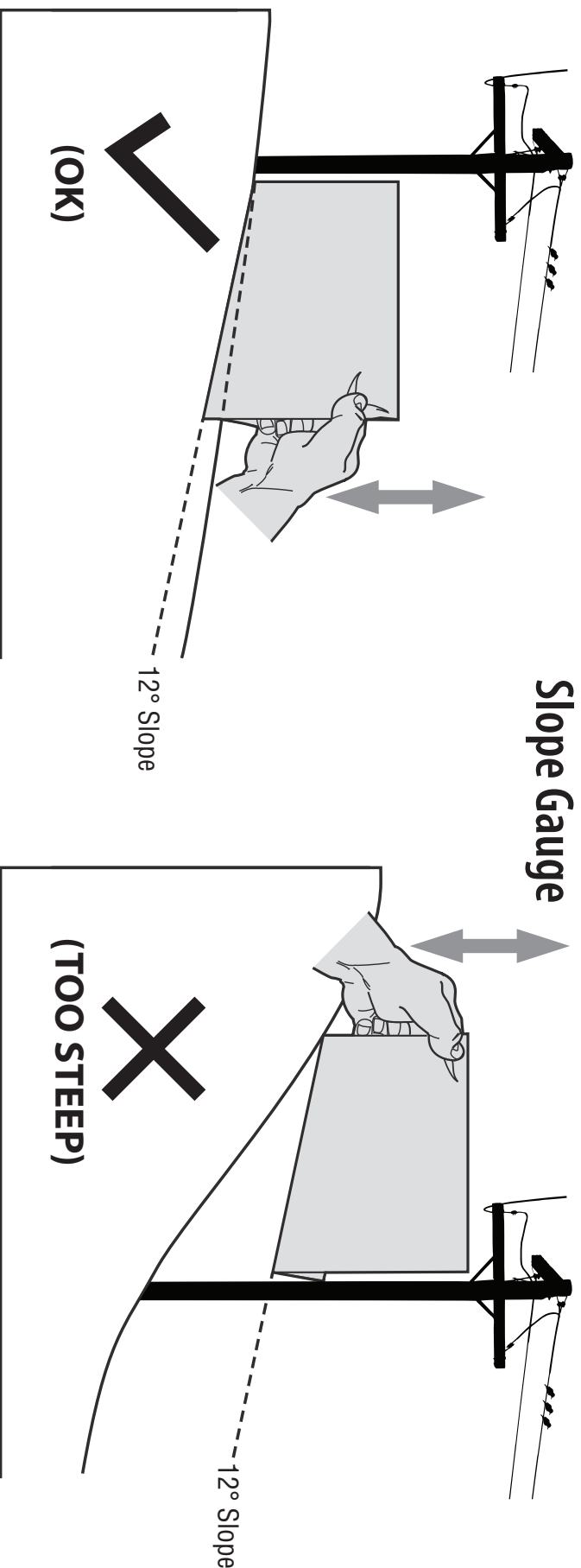


Figure 1

Figure 2

**USE THIS SLOPE GAUGE TO DETERMINE
IF A SLOPE IS TOO STEEP FOR SAFE OPERATION!**

To check the slope, proceed as follows:

1. Remove this page and fold along the dashed line.
2. Locate a vertical object on or behind the slope (e.g. a pole, building, fence, tree, etc.)
3. Align either side of the slope gauge with the object (See Figure 1 and Figure 2).
4. Adjust gauge up or down until the left corner touches the slope (See Figure 1 and Figure 2).
5. If there is a gap below the gauge, the slope is too steep for safe operation (See Figure 2 above).



WARNING! Slopes are a major factor related to tip-over and roll-over accidents which can result in severe injury or death. Do not operate machine on slopes in excess of 12 degrees. All slopes require extra caution. If you cannot back up the slope or if you feel uneasy on it, do not mow it. Always mow up and down slopes, never across the face of slopes.

12° dashed line

Contents of Crate

- One Riding Mower
- One Steering Wheel/Shaft Assembly
- One Operator's Manual
- One 12v Battery Charger
- One Engine Operator's Manual
- One Seat Assembly
- One Steering Pedestal Cap
- One Hardware Pack
- One Product Registration Card
- One Mulch Plug Assembly
- Hitch Plate
- Oil Siphon Kit

Installing The Steering Wheel Assembly

If the steering wheel assembly for your tractor did not come already installed, follow the steps below:

1. Slide the pedestal cap onto the steering shaft so that when the steering shaft is installed on the tractor, the pedestal cap will be upright as shown in Figure 3-1.

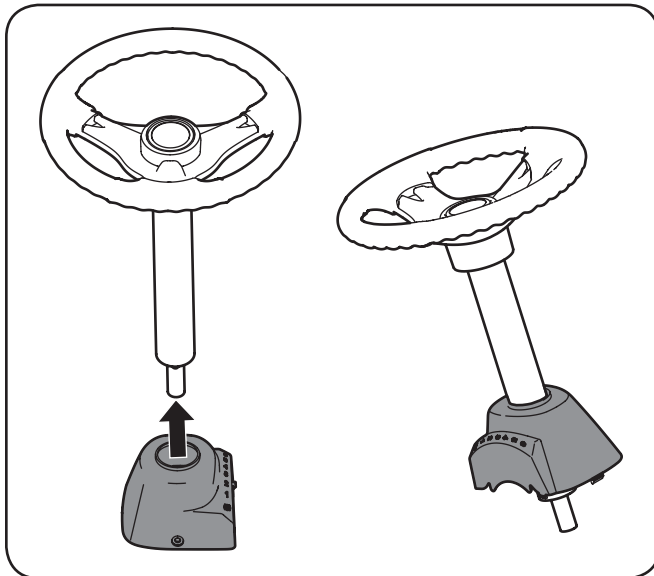


Figure 3-1

2. Remove the shoulder bolt and lock nut from the steering shaft and retain for later steps.
3. With the steering wheel assembly upright and positioned over the lower steering shaft on the tractor, align the steering wheel so that with the tractor wheels straight, the large opening on the steering wheel is facing forward.

4. Lower the steering wheel assembly onto the lower steering shaft and secure with the shoulder bolt and lock nut previously removed. See Figure 3-2.

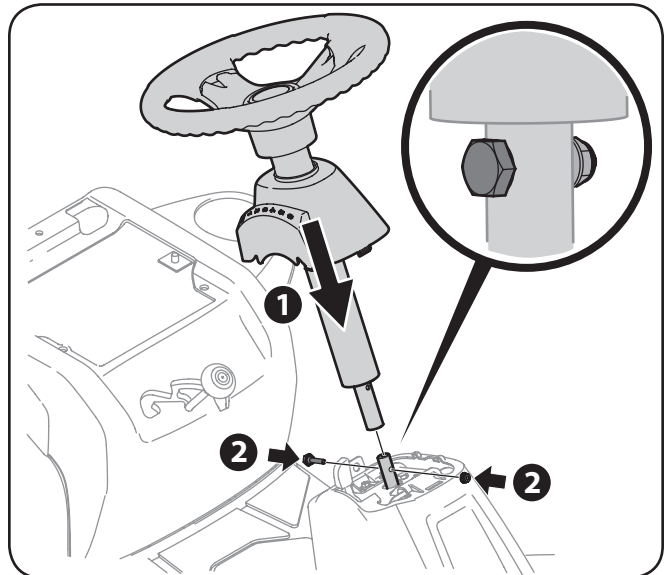


Figure 3-2

5. Tighten the shoulder bolt and lock nut using a 9/16" wrench and 7/16" wrench or socket.
6. Remove the pedestal cap mount pan head screw factory installed and located on the tractor's steering console. Retain the screw for later instructions.

- Slide the Pedestal cap down onto the tractor (1) and slightly rotate to the right to clip into place. Secure the pedestal with the pan head screw (2) previously removed. See Figure 3-3.

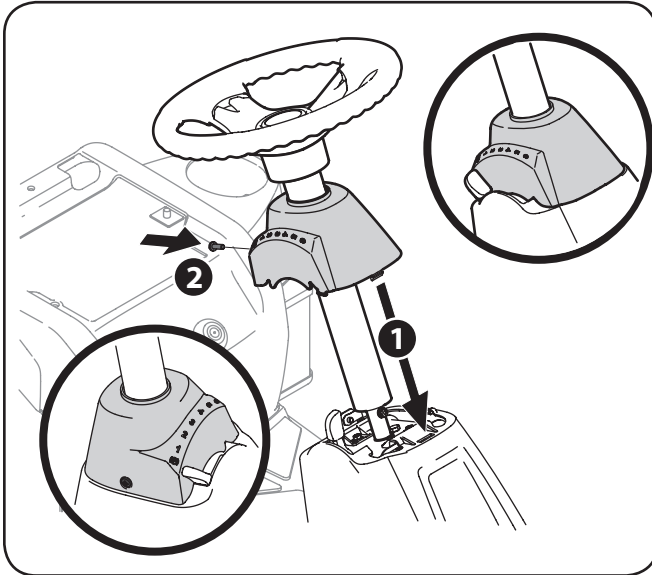


Figure 3-3

Attaching The Seat

If the seat for your tractor was not attached at the factory, follow the applicable instructions below to attach it.

- Using a 1/4-inch drive ratchet with a 3/8" socket, remove the two self-tapping bolts factory installed on the tractor. See Figure 3-4.

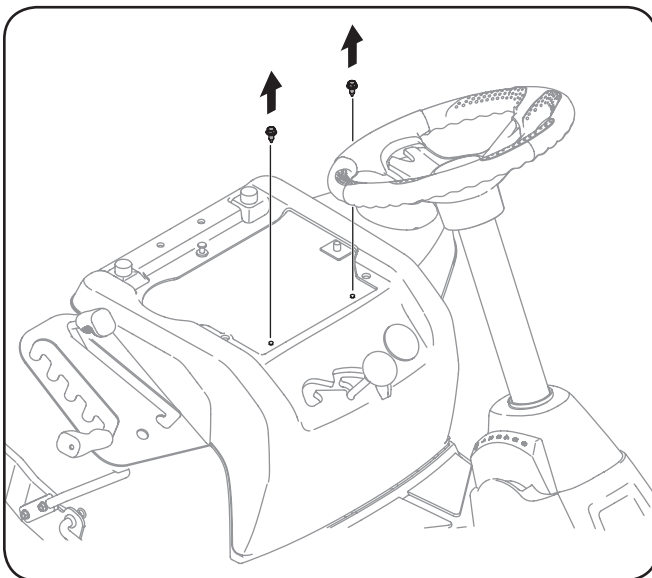


Figure 3-4

- Position the seat assembly in place over the holes, as shown in Figure 3-5.

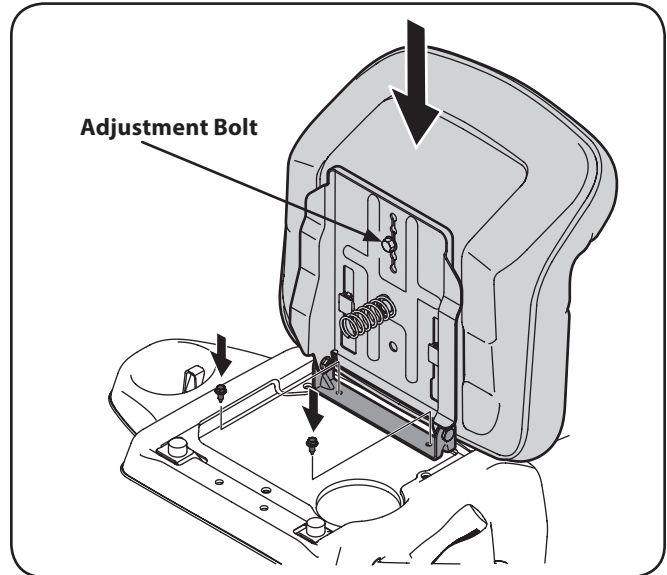


Figure 3-5

- Secure the seat assembly with the self-tapping bolts previously removed.



CAUTION: Do *not* use any type of power tool (e.g. impact gun or electric drill with nut driver attached) when tightening the self-tapping bolts to attach the seat bracket.

- To adjust the position of the seat, remove the adjustment bolt on the bottom of the seat. Slide the seat forward or backward as desired. Reinstall the adjustment bolt. Refer to Figure 3-5.

Installing the Hitch Plate

- Remove the factory installed hitch plate mounting hardware located on the rear of the tractor.
- Position the hitch plate, packed with the loose parts, with the flat side up as shown in Figure 3-6. Secure using the two bolts and hex nuts previously removed.

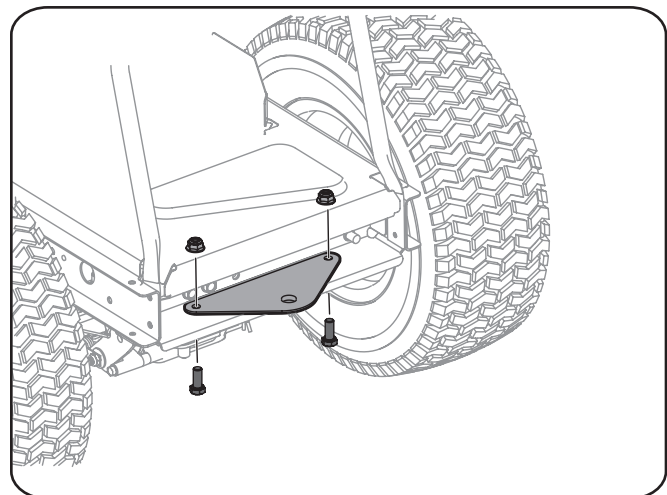


Figure 3-6

Connecting the Battery Cables



CALIFORNIA PROPOSITION 65 WARNING:

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



CAUTION: When attaching battery cables, always connect the POSITIVE (Red) wire to its terminal first, followed by the NEGATIVE (Black) wire.

For shipping reasons, both battery cables on your equipment may have been left disconnected from the terminals at the factory. To connect the battery cables, proceed as follows:

NOTE: The positive battery terminal is marked Pos. (+). The negative battery terminal is marked Neg. (-).

1. Attach the battery leads to the battery by simply plugging the red lead into the positive terminal on the battery first.
2. Plug the black lead onto the Negative terminal on the battery. See Figure 3-7.

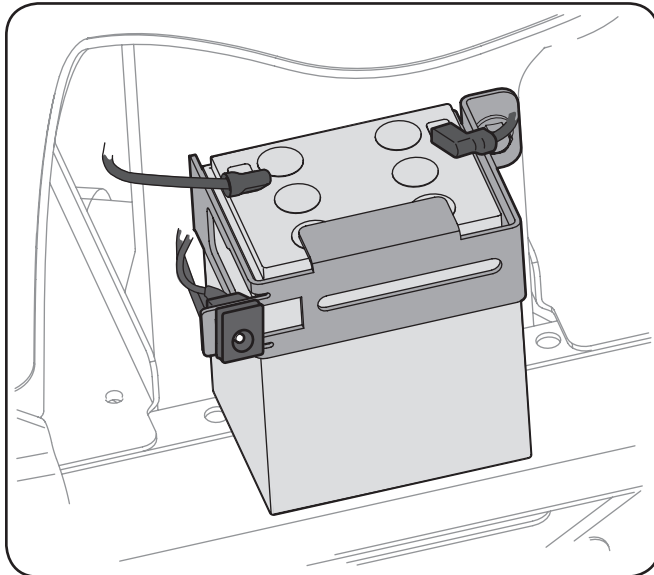


Figure 3-7

NOTE: If the battery is put into service over one (1) year after the date shown on top/side of battery, charge the battery as instructed in the Service section of this operator's manual prior to operating the tractor.

Tire Pressure



WARNING! Equal tire pressure should be maintained at all times. Never exceed the maximum inflation pressure shown on the sidewall of the tire.

The recommended operating tire pressure is:

- Approximately 10 psi for the rear tires
- Approximately 14 psi for the front tires

IMPORTANT: Refer to the tire sidewall for exact tire manufacturer's recommended or maximum psi. Do not overinflate. Uneven tire pressure could cause the cutting deck to mow unevenly.

Gas and Oil Fill-up

The gasoline tank is located on the engine. Do not overfill.

IMPORTANT: It is important to NOT top off your fuel tank when filling with fuel. Leave an expansion area available inside the fuel tank to allow for the fuel to expand and for proper ventilation. Otherwise the unit may not run properly.



WARNING! Use extreme care when handling gasoline. Gasoline is extremely flammable and the vapors are explosive. Never fuel machine indoors or while the engine is hot or running. Extinguish cigarettes, cigars, pipes, and other sources of ignition.

IMPORTANT: Your tractor is shipped with motor oil in the engine. However, you **MUST** check the oil level before operating. Be careful not to overfill.

Service and check the engine oil as instructed in the separate Engine Owner's Manual packed with your tractor. Read the instructions carefully.

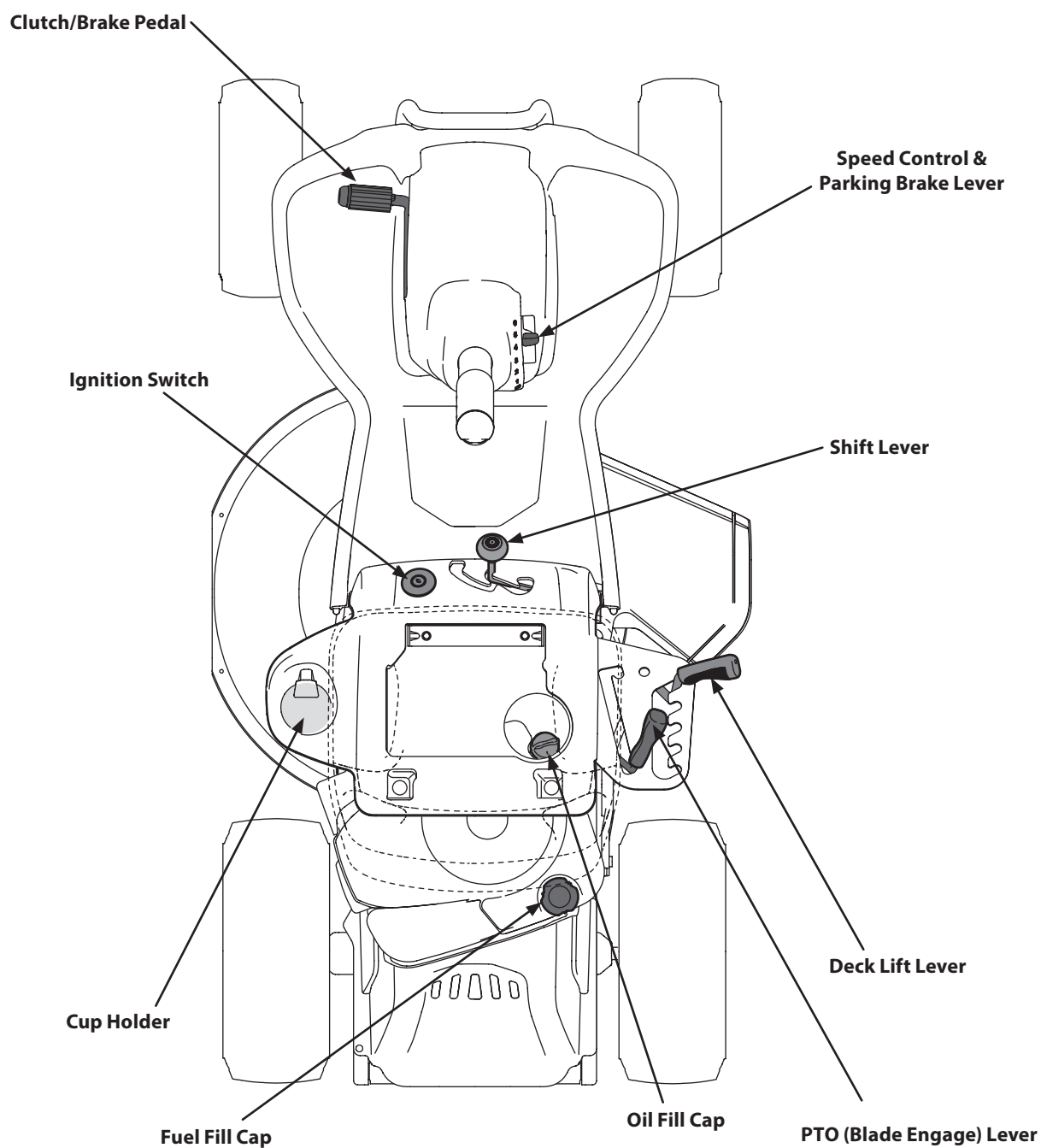


Figure 4-1

Lawn Tractor controls and features are illustrated in Figure 4-1 and described on the following pages.



WARNING! Read and follow all safety rules and instructions in this manual, including the entire Operation section, before attempting to operate this machine. Failure to comply with all safety rules and instructions may result in personal injury.

Ignition Switch

The ignition switch is located below the operator's seat on the lefthand side of the tractor as seen from the operator's position. Activate the Ignition Switch to start the engine by inserting the key into the ignition switch and turn clockwise to the START position. Release the key into the ON position once engine has fired. See Figure 4-2.



WARNING! Never leave a running machine unattended. Always disengage PTO, move shift lever into neutral position, set parking brake, stop engine and remove key to prevent unintended starting.

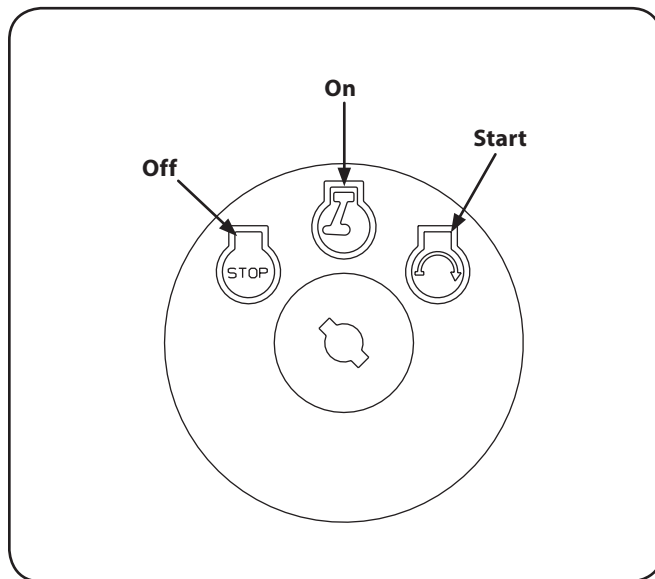


Figure 4-2

Clutch-Brake Pedal

The clutch-brake pedal is located on the left side of the lawn tractor. Depress the clutch-brake pedal part way down when slowing the tractor by changing speeds (*Refer to Speed Control Lever*). Depress the pedal all the way down to engage the disc brake and bring the tractor to a complete stop.

NOTE: The clutch-brake pedal must be completely depressed to start the engine. Refer to Safety Interlock Switches in the Operation section of this manual.

Shift Lever

The shift lever is located on the control panel just below the seat, in the center of the tractor. It has three positions, FORWARD, NEUTRAL and REVERSE. **The brake pedal must be completely depressed** and the tractor **must not be in motion** when moving the shift lever. See Figure 4-3.

IMPORTANT: Never force the shift lever. Doing so may result in serious damage to the tractor's transmission.

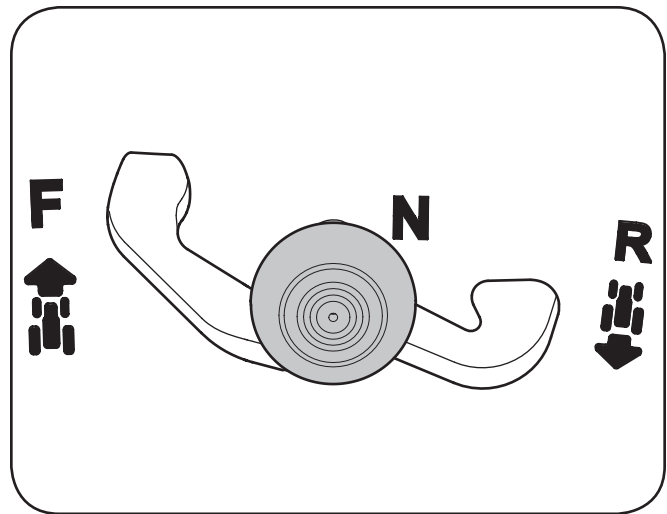


Figure 4-3

Speed Control Lever

The speed control lever, located on the right side of the tractor's steering console, allows you to regulate the ground speed of the lawn tractor.

To use, depress the clutch-brake pedal and move the lever out of the parking brake notch and forward to increase the tractor's ground speed. When a desired speed has been reached, release the lever into an appropriate notch to maintain that speed.

To slow the tractor's ground speed, depress the clutch-brake pedal and move the speed control lever rearward and release it into a notch.

Parking Brake

To set the parking brake, fully depress the clutch-brake pedal. Move the speed control lever all the way down and into the parking brake position. Release the clutch-brake pedal to allow the parking brake to engage.

To release the parking brake, depress the clutch-brake pedal and move the speed control lever out of the parking brake position into the desired position. Release the clutch-brake pedal.

NOTE: The parking brake must be set if the operator leaves the seat with the engine running or the engine will automatically shut off.

Deck Lift Lever

Found on your tractor's right fender, the deck lift lever is used to change the height of the cutting deck. To use, move the lever to the left, then place in the notch best suited for your application.

PTO (Blade Engage) Lever

Found on the tractor's right fender, the PTO (*blade engage*) lever is used to engage power to the cutting deck. To operate, move the lever all the way forward. Moving the lever all the way rearward into the PTO OFF position disengages power to the cutting deck.

NOTE: The PTO (*blade engage*) lever must be in the disengaged (PTO OFF) position when starting the engine.

Fuel Fill Cap

The Fuel Fill Cap is located on the top, rear portion of the engine. Refer to the Set-up section in this manual for instructions on fueling this tractor. Refer to Figure 4-1

Oil Fill Cap

The Oil Fill Cap is located below the seat. Refer to the Set-up section in this manual for instructions on checking and adding oil to this tractor. Refer to Figure 4-1



WARNING

TO AVOID SERIOUS INJURY OR DEATH

- **KNOW LOCATION AND FUNCTION OF ALL CONTROLS.**
- **REMOVE OBJECTS WHICH COULD BE THROWN BY THE BLADES.**
- **GO UP AND DOWN SLOPES, NOT ACROSS.**
- **USE EXTRA CAUTION ON SLOPES. DO NOT MOW SLOPES GREATER THAN 12°.**
- **AVOID SUDDEN TURNS. USE LOW SPEED.**
- **DO NOT OPERATE MACHINE WHERE IT COULD TIP OR SLIP.**
- **IF MACHINE STOPS GOING UPHILL, STOP BLADES AND BACK DOWN SLOWLY.**
- **BEFORE LEAVING OPERATOR'S POSITION, DISENGAGE BLADES, ENGAGE PARKING BRAKE, SHUT OFF AND REMOVE KEY.**
- **BE SURE BLADES AND ENGINE ARE STOPPED BEFORE PLACING HANDS OR FEET NEAR BLADES.**
- **KEEP SAFETY DEVICES (GUARDS, SHIELDS, SWITCHES, ETC.) IN PLACE AND WORKING.**
- **KEEP BYSTANDERS AWAY.**
- **ALLOW MACHINE TO COOL BEFORE FUELING OR STORING.**
- **KEEP MACHINE FREE OF DEBRIS.**

READ THE OPERATOR'S MANUAL

Safety Interlock Switches

This tractor is equipped with a safety interlock system for the protection of the operator. If the interlock system should ever malfunction, do not operate the tractor. Contact an authorized Masport service dealer.

- The safety interlock system prevents the engine from cranking or starting unless the parking brake is engaged, and the PTO (*Blade Engage*) lever is in the disengaged (OFF) position.
- The engine will automatically shut off if the operator leaves the seat before engaging the parking brake.
- The engine will automatically shut off if the operator leaves the tractor's seat with the PTO (*Blade Engage*) lever in the engaged (ON) position, regardless of whether the parking brake is engaged.
- The engine will automatically shut off if the PTO (*Blade Engage*) lever is moved into the engaged (ON) position with the shift lever in Reverse.



WARNING! Do not operate the tractor if the interlock system is malfunctioning. This system was designed for your safety and protection.

Engaging the Parking Brake

To engage the parking brake:

1. Fully depress the brake pedal and hold it down with your foot.
2. Move the parking brake lever down into the parking brake position.
3. Release the brake pedal to allow the parking brake to engage.

To release the parking brake:

1. Depress the brake pedal and move the speed control lever out of the parking brake position.

Setting the Cutting Height

1. Select the height position of the cutting deck by placing the deck lift lever in any of the different cutting height notches on the right side of the fender.



WARNING! Keep hands and feet away from the discharge opening of the cutting deck.

Refer to Leveling the Deck in the Maintenance & Adjustments section of this manual for more detailed instructions regarding deck pitch adjustment.

Starting the Engine



WARNING! Do not operate the tractor if the interlock system is malfunctioning. This system was designed for your safety and protection.

NOTE: Refer to the Assembly & Set-Up section of this manual for gasoline and oil fill-up instructions.

1. Insert the tractor key into the ignition switch.
2. Place the PTO (*Blade Engage*) lever in the disengaged (OFF) position.
3. Engage the tractor's parking brake.
4. Turn the ignition key clockwise to the START position. After the engine starts, release the key. It will return to the ON position.

IMPORTANT: Do NOT hold the key in the START position for longer than ten seconds at a time. Doing so may cause damage to your engine's electric starter.

Stopping the Engine



WARNING! If you strike a foreign object, stop the engine, disconnect the spark plug wire(s) and ground against the engine. Thoroughly inspect the machine for any damage. Repair the damage before restarting and operating.

1. If the blade is engaged, place the PTO (*Blade Engage*) lever in the disengaged (OFF) position.
2. Turn the ignition key counterclockwise to the STOP position.
3. Remove the key from the ignition switch to prevent unintended starting.

Driving The Tractor



WARNING! Avoid sudden starts, excessive speed and sudden stops.

WARNING! Do not leave the seat of the tractor without first placing the PTO (*Blade Engage*) lever in the disengaged (OFF) position, depressing the brake pedal and engaging the parking brake. If leaving the tractor unattended, also turn the ignition key off and remove the key.

WARNING! Always look down and behind before and while backing up to avoid a back-over accident.

1. Place the shift lever in either the FORWARD or REVERSE position.

IMPORTANT: Do NOT use the shift lever to change the direction of travel when the tractor is in motion. Always use the brake pedal to bring the tractor to a complete stop before shifting.

2. Release the parking brake by depressing the clutch-brake pedal and positioning the speed control lever into the desired position.

IMPORTANT: First-time operators should use speed positions 1 or 2. Become completely familiar with the tractor's operation and controls before operating the tractor in higher speed positions.

3. Release clutch-brake pedal slowly to put unit into motion.
4. The lawn tractor is brought to a stop by depressing the clutch-brake pedal.

NOTE: When operating the unit initially, there will be little difference between the highest two speeds until after the belts have seated themselves into the pulleys during the break-in period.



WARNING! Before leaving the operator's position for any reason, disengage the blade, place the shift lever in neutral, engage the parking brake, shut engine off and remove the key.

IMPORTANT: When stopping the tractor for any reason while on a grass surface, always:

1. Place the shift lever into neutral.
2. Engage the parking brake,
3. Shut the engine off and remove the key. Doing so will minimize the possibility of having your lawn "browned" by hot exhaust from your tractor's running engine.

If unit stalls with speed control in high speed, or if unit will not operate with speed control lever in a low speed position, proceed as follows:

1. Place shift lever in NEUTRAL.
2. Restart engine.
3. Place speed control lever in highest speed position.

4. Release clutch-brake pedal fully.
5. Depress clutch-brake pedal.
6. Place speed control lever in desired position.
7. Place shift lever in either FORWARD or REVERSE, and follow normal operating procedures.

Driving On Slopes

Refer to the SLOPE GAUGE in the Important Safe Operation Practices section in the front of this manual to help determine slopes where you may operate the tractor safely.



WARNING! Do not mow on inclines with a slope in excess of 12 degrees (*a rise of approximately 2 feet for every 10 feet*). The tractor could overturn and cause serious injury.

- Mow up and down slopes, NEVER across.
- Exercise extreme caution when changing direction on slopes.
- Watch for holes, ruts, bumps, rocks, or other hidden objects. Uneven terrain could overturn the machine. Tall grass can hide obstacles.
- Avoid turns when driving on a slope. If a turn must be made, turn down the slope. Turning up a slope greatly increases the chance of a roll over.
- Avoid stopping when driving up a slope. If it is necessary to stop while driving up a slope, start up smoothly and carefully to reduce the possibility of flipping the tractor over backward.

Engaging the Blade

Engaging the PTO (*Blade Engage*) transfers power to the cutting deck. To engage the blade, proceed as follows:

1. Grasp the PTO (*Blade Engage*) lever and pivot it all the way forward into the engaged (ON) position.

IMPORTANT: The PTO (*Blade Engage*) lever must be in the disengaged (OFF) position when starting the engine, when traveling in reverse, and if the operator leaves the seat. Refer to Safety Interlock Switches in the Operation section of this manual.

Using the Deck Lift Lever

To raise the cutting deck, move the deck lift lever to the left, then place it in the notch best suited for your application. Refer to Setting The Cutting Height earlier in this section.

Mowing



WARNING! To help avoid blade contact or a thrown object injury, keep bystanders, helpers, children and pets at least 75 feet from the machine while it is in operation. Stop machine if anyone enters the area.

The following information will be helpful when using the cutting deck with your tractor:



WARNING! Plan your mowing pattern to avoid discharge of materials toward roads, sidewalks, bystanders and the like. Also, avoid discharging

material against a wall or obstruction which may cause discharged material to ricochet back toward the operator.

- Do not mow at high ground speed, especially if a mulch kit or grass collector is installed.
- For best results it is recommended that the first two laps be cut with the discharge thrown towards the center. After the first two laps, reverse the direction to throw the discharge to the outside for the balance of cutting. This will give a better appearance to the lawn.
- Do not cut the grass too short. Short grass invites weed growth and yellows quickly in dry weather.
- Mowing should always be done with the engine at full throttle.
- Under heavier conditions it may be necessary to go back over the cut area a second time to get a clean cut.
- Do NOT attempt to mow heavy brush and weeds and extremely tall grass. Your tractor is designed to mow lawns, NOT clear brush.
- Keep the blade sharp and replace the blade when worn. Refer to Cutting Blade in the Service section of this manual for proper blade sharpening instructions.

Mulching

Mulching is a process of recirculating grass clippings repeatedly beneath the cutting deck. The ultra-fine clippings are then forced back into the lawn where they act as a natural fertilizer.

Observe the following points for the best results when mulching:

- Never attempt to mulch if the lawn is damp. Wet grass tends to stick to the underside of the cutting deck preventing proper mulching of the clippings.
- Do NOT attempt to mulch more than 1/3 the total height of the grass or approximately 1-1/2 inches. Doing so will cause the clippings to clump up beneath the deck and not be mulched effectively.
- Maintain a slow ground speed to allow the grass clippings more time to effectively be mulched.
- Always position the throttle control lever in the FAST (rabbit) position and allow it to remain there while mowing. Failing to keep the engine at full throttle places strain on the tractor's engine and does not allow the blades to properly mulch grass.

NOTE: It is necessary to remove the discharge chute and install the mulch plug to operate the mower in the mulching mode.



WARNING! Never operate the mower without the discharge chute or mulch plug properly in place.

Removing the Discharge Chute

1. Unthread the hex screws that secure the discharge chute in place. See Figure 5-1.

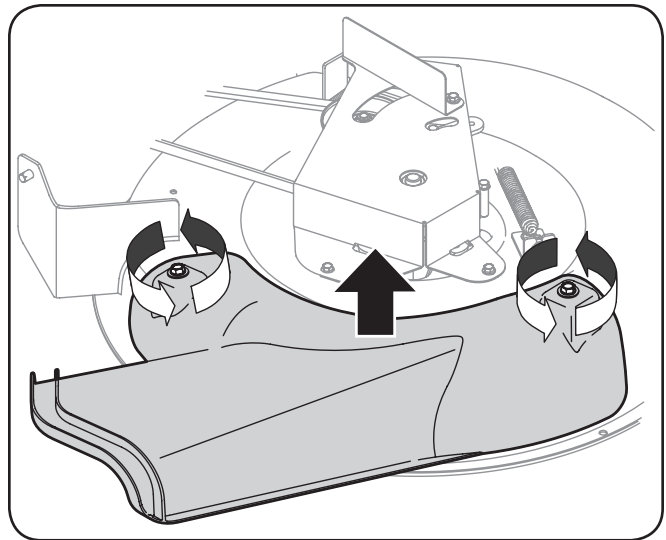


Figure 5-1

2. Remove the discharge chute from the deck discharge opening by lifting it off the deck.



WARNING: NEVER ATTEMPT TO OPERATE THE MOWER WITHOUT THE DISCHARGE CHUTE OR THE MULCH PLUG PROPERLY IN PLACE.

Installing the Mulch Plug (If so equipped)

1. Position the mulch plug into the deck discharge opening on the deck and secure it in place by tightening the hex screws. See Figure 5-2.

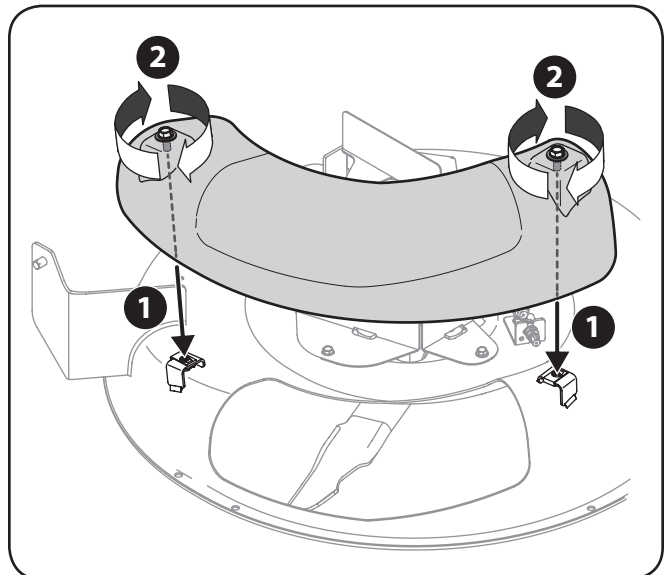


Figure 5-2

To operate the cutting deck without mulching, simply remove the mulch plug and reinstall the deck chute. This will allow the clippings to discharge out the side.

NOTE: For information regarding purchasing a mulch plug, or other accessories for your model of tractor, see the Attachments & Accessories section of this manual.

Maintenance



WARNING: Before performing any maintenance or repairs, disengage PTO, move shift lever into neutral position, set parking brake, stop engine and remove key to prevent unintended starting.

Engine

Refer to the Engine Owner's Manual for engine maintenance instructions.

Check engine oil level before each use as instructed in the Engine Owner's Manual packed with your unit. Follow the instructions carefully.

Note: An oil siphon is needed to drain the oil from the crankcase. See the Attachments & Accessories section for information on purchasing an oil siphon kit (part no. 490-850-0008). Refer to the Engine Owner's Manual included with this unit for complete engine maintenance instructions.

Air Cleaner

Service the air cleaner element as instructed in the Engine Owner's Manual packed with your unit.

Spark Plug

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. Refer to the Engine Owner's Manual packed with your unit for correct plug type and gap specifications.

Lubrication



WARNING: Before lubricating, repairing, or inspecting, always disengage PTO, move shift lever into neutral position, set parking brake, stop engine and remove key to prevent unintended starting.

Engine

Lubricate the engine with motor oil as instructed in the Engine Owner Manual packed with your unit.

Pivot Points & Linkage

Lubricate all the pivot points on the drive system, parking brake and lift linkage at least once a season with light oil.

Rear Wheels

The rear wheels should be removed from the axles once a season. Lubricate the axles and the rims well with an all-purpose grease before re-installing them.

Front Axles

The front wheels should be removed from the axles once a season. Lubricate the axles and the rims well with an all-purpose grease before re-installing them.

Steering Rack & Pinion

Once per season, or every 25 hours of operation, it will be necessary to lubricate the steering rack and pinion gear located under the front of the unit. Using standard automotive grease, apply grease to the front side and rear side of the steering rack, as indicated in Figure 6-1.

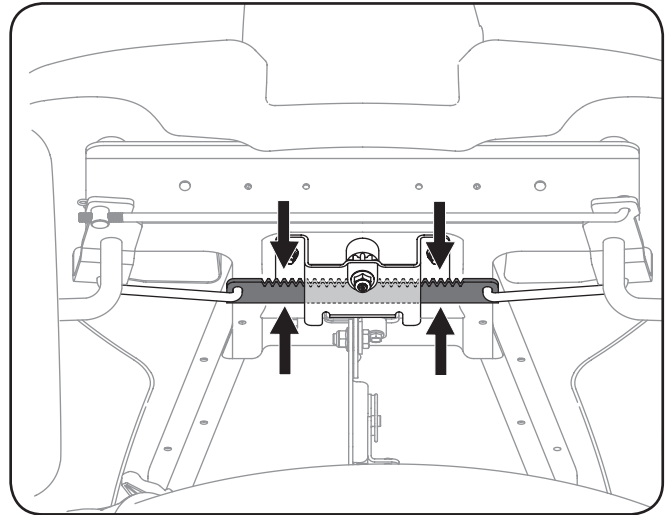


Figure 6-1

Cleaning the Engine And Deck

If the engine has been running, allow it to cool for at least half an hour before cleaning. Periodically remove dirt build-up from engine. Clean cooling fins every 25 hours. Clean with a brush or compressed air.

IMPORTANT: Do not spray engine with water to clean because water could contaminate fuel. Using a garden hose or pressure washing equipment can also force water into the air cleaner or muffler opening. Water in the air cleaner will soak the paper element, and water that passes through the element or muffler can enter the cylinder, causing damage.

Any fuel or oil spilled on the machine should be wiped off promptly. Do NOT allow debris to accumulate around the cooling fins of the engine or on any other part of the machine.

IMPORTANT: The use of a pressure washer to clean your tractor is NOT recommended. It may cause damage to electrical components, spindles, pulleys, bearings or the engine.



WARNING! Accumulation of debris around muffler could cause a fire. Inspect and clean before every use.

Muffler



WARNING! Temperature of muffler and nearby engine areas may exceed 150° F (65°C). Avoid contact with these areas.

Inspect muffler periodically, and replace if necessary. Replacement parts for the muffler must be the same and installed in the same position as the original parts.

Battery

The battery is sealed and is maintenance-free. Acid levels cannot be checked.

- Always keep the battery cables and terminals clean and free of corrosive build-up.
- After cleaning the battery and terminals, apply a light coat of petroleum jelly or grease to both terminals.

IMPORTANT: If removing the battery for any reason, disconnect the NEGATIVE (Black) wire from its terminal first, followed by the POSITIVE (Red) wire. When re-installing the battery, always connect the POSITIVE (Red) wire to its terminal first, followed by the NEGATIVE (Black) wire. Be certain that the wires are connected to the correct terminals; reversing them could change the polarity and result in damage to your engine's alternating system.

Cleaning Battery

Clean the battery by removing it from the tractor and washing with a baking soda and water solution. If necessary, scrape the battery terminals with a wire brush to remove deposits. Coat terminals and exposed wiring with grease or petroleum jelly to prevent corrosion.

Adjustments



WARNING: Never attempt to make any adjustments while the engine is running, except where specified in the operator's manual.

Seat Adjustment

Refer to the Set-Up and Assembly section of this manual for seat adjustment instructions.

Parking Brake Adjustment



WARNING: Never attempt to adjust the brakes while the engine is running. Always disengage PTO, move shift lever into neutral position, stop engine and remove key to prevent unintended starting.

If the tractor does not come to a complete stop when the brake pedal is completely depressed, or if the tractor's rear wheels can roll with the parking brake applied, the brake is in need of adjustment. See an authorized Service Dealer to have your brakes properly adjusted.

Leveling the Deck

NOTE: Check the tractor's tire pressure before performing any deck leveling adjustments. Refer to Tires, later in this section of this manual for more information regarding tire pressure.

Front To Rear

It is possible to adjust the pitch of the cutting deck. The front of the deck should be between 0" (level) and 1/4" lower than the rear of the deck. Adjust if necessary as follows:

1. With the tractor parked on a firm, level surface, place the lever for lifting the platform in the middle position and rotate the blade so that it is aligned with the front and rear of the tractor.
2. Measure the distance from the front of the blade tip to the ground and the rear of the blade tip to the ground. The first measurement taken should be between 0" (level) and 1/4" less than the second measurement. Determine the approximate distance necessary for proper adjustment and proceed, if necessary, to the next step.
3. Locate the flange lock nut on the front end of the PTO Lift Rod. See Figure 6-2.
 - Tighten the flange lock nut to raise the front of the deck;
 - Loosen the flange lock nut to lower the front of the deck.

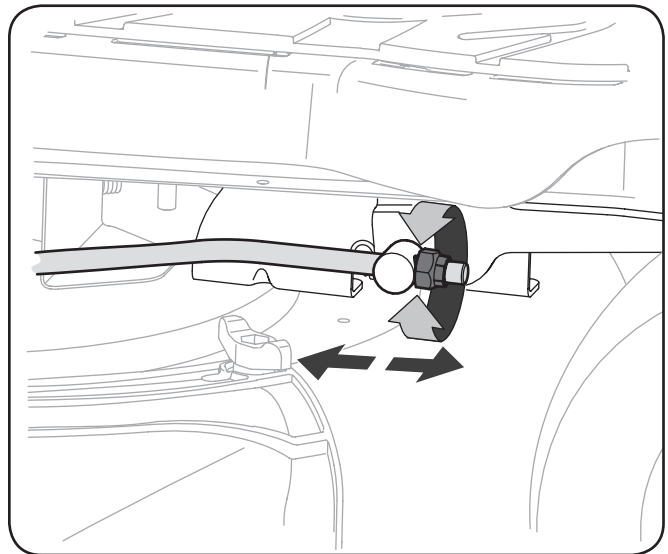


Figure 6-2

Tires



WARNING! Never exceed the maximum inflation pressure shown on the sidewall of the tire.

The recommended operating tire pressure is:

- Approximately 10 psi for the rear tires
- Approximately 14 psi for the front tires

IMPORTANT: Refer to the tire sidewall for exact tire manufacturer's recommended or maximum psi. Do not overinflate. Uneven tire pressure could cause the cutting deck to mow unevenly.

Off Season Storage

Before storing the machine for an extended period:

- Refer to the Maintenance Schedule later in this section and perform all items in the **Prior to Storing** column.
- Clean the exterior surfaces of the tractor.
- Service the engine as instructed in the separate engine manual.
- Engines stored between 30 and 90 days need to be treated with a gasoline stabilizer such as **STA-BIL®** and engines stored over 90 days need to be drained of fuel to prevent deterioration and gum from forming in fuel system or on essential carburetor parts. If the gasoline in your engine deteriorates during storage, you may need to have the carburetor, and other fuel system components, serviced or replaced.



WARNING: Drain fuel only into an approved container outdoors, away from an open flame. Allow engine to cool. Extinguish cigarettes, cigars, pipes, and other sources of ignition prior to draining fuel.

- Store the tractor in a clean, dry place.



WARNING: Never store the machine or fuel container indoors where there is an open flame, spark or pilot light such as on water heater, furnace, clothes dryer or other gas appliance.



WARNING! Never store lawn tractor with fuel in tank indoors or in poorly ventilated areas where fuel fumes may reach an open flame, spark, or pilot light as on a furnace, water heater, clothes dryer, or gas appliance.

Preparing the Engine

IMPORTANT: Fuel left in the fuel tank during warm weather deteriorates and will cause serious starting problems.

To prevent gum deposits from forming inside the engine's carburetor and causing possible malfunction of the engine, the fuel system must be either completely emptied, or the gasoline must be treated with a stabilizer to prevent deterioration.

1. To empty the fuel system:
 - Simply run the engine until it stops from lack of fuel.
2. If using a fuel stabilizer:
 - Read the product manufacturer's instructions and recommendations.
 - Add to clean, fresh gasoline the correct amount of stabilizer for the capacity of the fuel system.
 - Fill the fuel tank with treated fuel and run the engine for 2-3 minutes to get stabilized fuel into the carburetor.



WARNING! Gasoline is extremely flammable and can be explosive under certain conditions. Drain gasoline before storing the equipment for extended periods. Drain fuel only into an approved container outdoors, away from an open flame. Allow engine to cool. Extinguish cigarettes, cigars, pipes, and other sources of ignition prior to draining fuel. Store gasoline in an approved container in safe location.



WARNING! Gasoline is a toxic substance. Dispose of gasoline properly. Contact your local authorities for approved disposal methods.

- Remove the spark plug and pour one (1) ounce of engine oil through the spark plug hole into the cylinder. Crank the engine several times to distribute the oil. Replace the spark plug.

Preparing the Lawn Tractor

1. Clean and lubricate tractor thoroughly as described in the lubrication instructions.
2. Do not use a pressure washer or garden hose to clean your unit.
3. Store mower in a dry, clean area. Do not store next to corrosive materials, such as fertilizer.

Maintenance Schedule

	Before Each use	Every 10 Hours	Every 25 Hours	Every 50 Hours	Every 100 Hours	Prior to Storing
Check Engine Oil Level	✓	✓				
Check Air Filter for Dirty, Loose or Damaged Parts	✓					
Clean and Re-oil Air Filter's Foam Pre-cleaner (if Equipped)			✓			
Replace Air Filter Element					✓	
Change Engine Oil				✓		
Clean Battery Terminals		✓				✓
Lube Axles and Rims			✓			✓
Clean Engine Cooling Fins			✓			✓
Check Spark Plug Condition & Gap					✓	✓

IMPORTANT: It is important to consult the specific engine operator's manual included with this machine for detailed engine maintenance procedures and intervals.

Cutting Deck Removal

To remove the cutting deck, proceed as follows:

1. Place the PTO (Blade Engage) lever in the disengaged (OFF) position and engage the parking brake.
2. Lower the deck by moving the deck lift lever into the bottom notch on the right fender.
3. Remove the bow-tie cotter pin and flat washer from the deck lift assembly, and retain for reinstallation later. See Figure 7-1.

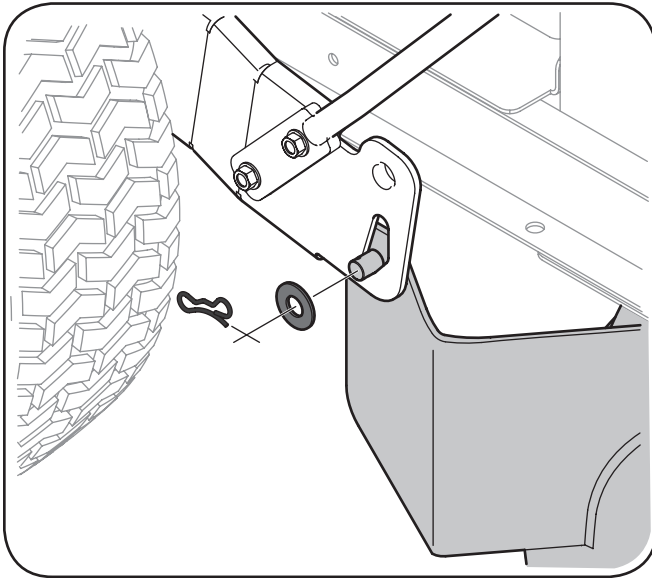


Figure 7-1

4. Remove the belt from around the tractor's PTO pulley. See Figure 7-2.

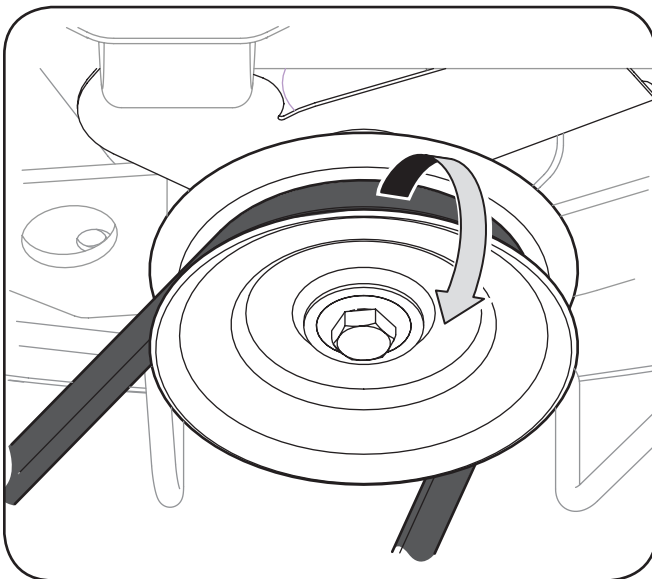


Figure 7-2

5. Remove the remaining bow-tie cotter pins securing the deck to the unit, as shown in Figure 7-3.

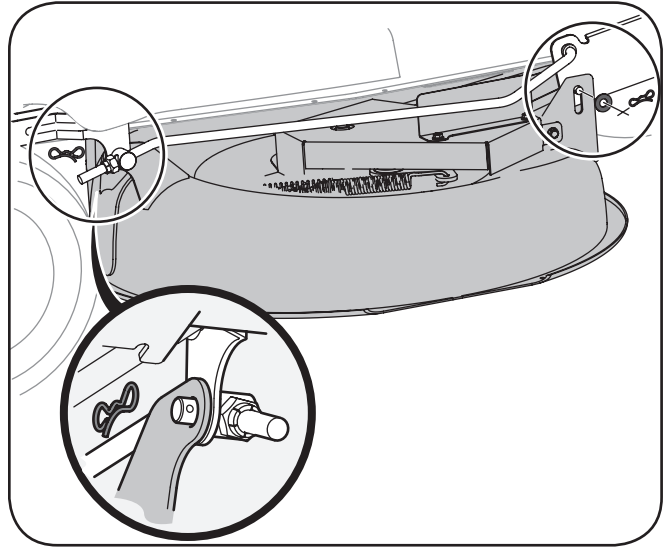


Figure 7-3

NOTE: When reassembling, install the bow-tie clips from the top down.

6. Move the deck lift lever into the top notch on the right fender to raise the deck lift arms up and out of the way.
7. Carefully remove the PTO cable from the rear of the cutting deck by compressing the PTO return spring and moving the cable up and out of the mounting bracket on the cutting deck. See Figure 7-4.

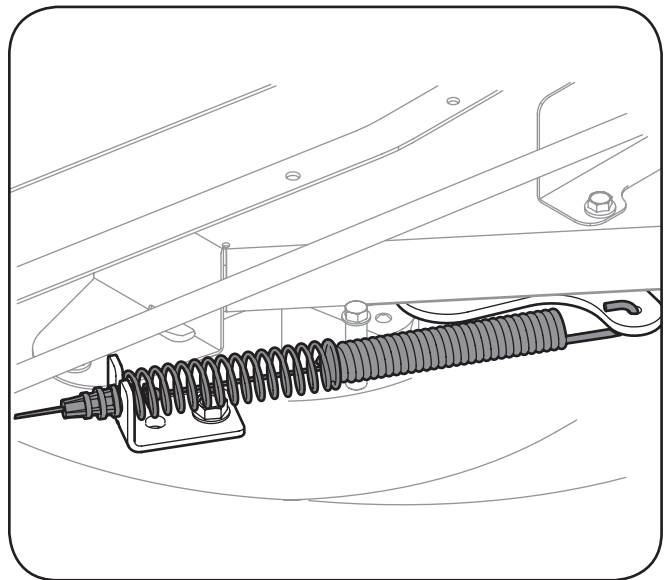


Figure 7-4

8. Gently slide the cutting deck (from the left side) out from underneath the tractor.

Changing the Deck Belt

NOTE: It is possible to change the deck belt with the cutting deck still installed on the tractor, however it is much easier to remove the deck first, change the deck belt, then reinstall the cutting deck.

To change the cutting deck belt, proceed as follows:

1. It is easiest to change the deck belt by first removing the cutting deck as instructed earlier in this section first. Skip this step if deciding to change the deck belt with the mowing deck still installed on the unit. Otherwise, remove the cutting deck now.
2. If changing the deck belt with the cutting deck still installed on the unit, lower the deck to the lowest mowing position.
3. Remove the deck belt from around the unit's PTO drive pulley as shown in Figure 7-2. Simply roll one side of the belt off of the pulley and then work it off the pulley by continuing around the pulley until the belt is off of the pulley.
4. Remove the deck belt cover by removing the three hex bolts that secure it. See Figure 7-5.

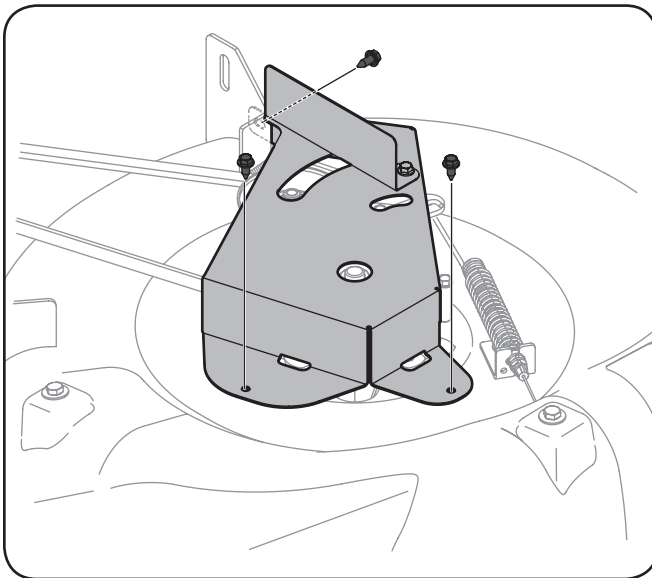


Figure 7-5

5. Loosen the idler pulley by loosening the flange lock nut that secures it, enough to allow clearance for the belt to move past it and off. Remove the belt by working it off of the deck drive pulley and idler pulley. See Figure 7-6.
6. Change the belt then reinstall the all the components removed in the reverse order beginning with the idler pulley, and then belt cover.
7. Feed the deck belt around and onto the PTO drive pulley. Refer to Figure 7-2.

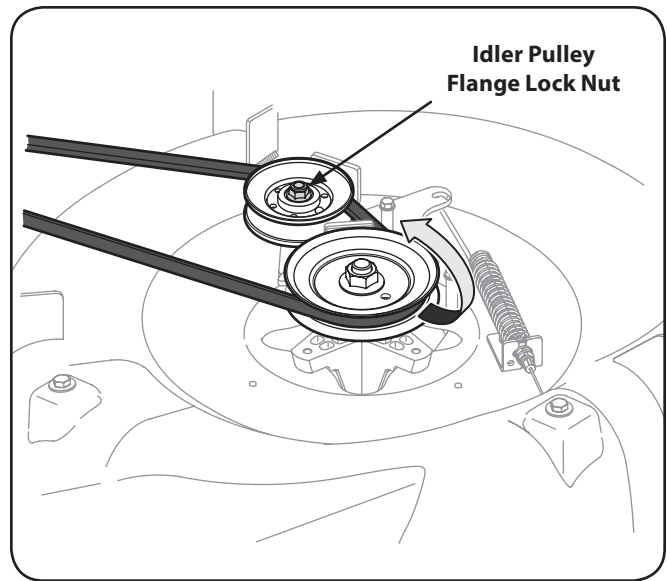


Figure 7-6

Battery



CALIFORNIA PROPOSITION 65 WARNING!

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



CAUTION: If removing the battery, disconnect the NEGATIVE (Black) wire from its terminal first, followed by the POSITIVE (Red) wire. When re-installing the battery, always connect the POSITIVE (Red) wire its terminal first, followed by the NEGATIVE (Black) wire.

Battery Failures

Some common causes for battery failure are:

- Incorrect initial activation
- Overcharging
- Freezing
- Undercharging
- Corroded connections

These failures are NOT covered by your tractor's warranty.

Jump Starting



WARNING: DO NOT attempt to jump start this tractor. Use the separately available battery charger to recharge the battery, then start the tractor according to the starting instructions earlier in this manual.

To order the battery charger, see the Accessories & Attachments section later in this manual.

Charging



WARNING! Batteries give off an explosive gas while charging. Charge the battery in a well ventilated area and keep away from an open flame or pilot light as on a water heater, space heater, furnace, clothes dryer or other gas appliances.



CAUTION: When charging your tractor's battery, use only a charger designed for 12V lead-acid batteries. Read your battery charger's Owner's Manual prior to charging your tractor's battery. Always follow its instructions and heed its warnings.

A separately available charging unit is available for this tractor. Instructions for using this feature will accompany the battery charging accessory. The charging unit will plug in right next to the battery as shown in Figure 7-7. To order the battery charger, see the Accessories & Attachments section later in this manual.

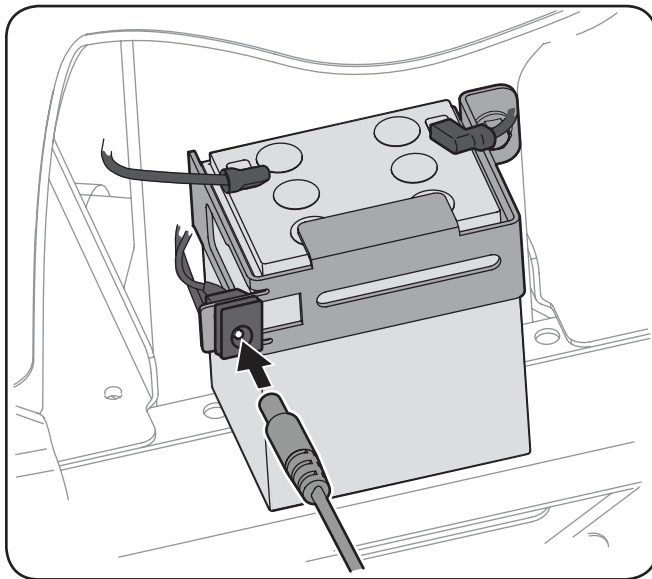


Figure 7-7

Circuit Breaker

There is a circuit breaker installed on the tractor's wiring harness to protect the tractor's electrical system from damage caused by excessive amperage.

If the electrical system does not function, or your tractor's engine will not crank, the circuit breaker may have tripped. Simply wait one minute (60 seconds) for the circuit breaker to automatically reset itself.

Note: A click sound may be heard when the circuit breaker trips, as well as approximately one minute later when the breaker resets.

Cutting Blade



WARNING! Shut the engine off and remove ignition key before removing the cutting blade for sharpening or replacement. Protect your hands by using heavy gloves when grasping the blade.

WARNING! Periodically inspect the blade spindle for cracks or damage, especially if you strike a foreign object. Replace immediately if damaged.

The blade may be removed as follows.

NOTE: It may be easier to change the blade by first removing the deck from beneath the tractor, (refer to Cutting Deck Removal earlier in this section) then gently flip the deck over to expose its underside. It is possible to change the blade, however, with the deck still attached to the tractor. If attempting to change the blade with the deck still installed on the tractor, first move the deck lift lever to its highest cutting position.

1. Remove the deck chute or mulch plug installed on the tractor mowing deck to expose the deck chute opening.
2. Using a block of wood or 2 x 4, insert it into the deck opening and rotate the blade around until it wedges the wood between the deck opening and the cutting blade, as shown in Figure 7-8.

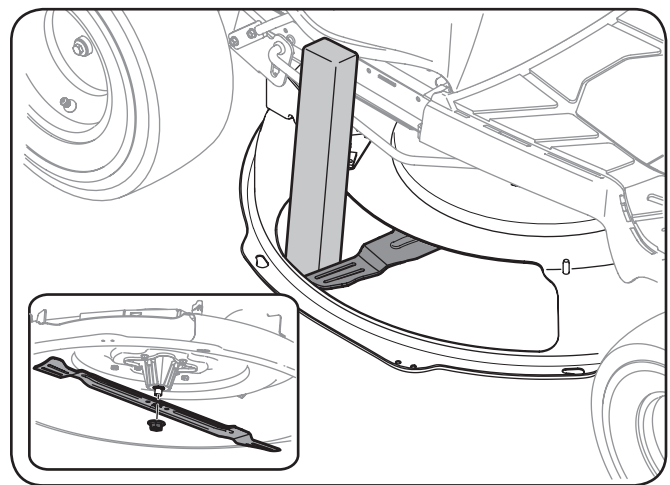


Figure 7-8

3. Remove the hex flange nut that secures the blade to the spindle assembly. See the Inset of Figure 7-8.

NOTE: The deck spindle has a normal thread. To loosen, rotate the flange lock nut counter clockwise.

4. To properly sharpen the cutting blades, remove equal amounts of metal from both ends of the blades along the cutting edges, parallel to the trailing edge, at a 25°- to 30° angle. Always grind each cutting blade edge equally to maintain proper blade balance. See Figure 7-9.



WARNING! If the cutting edge of the blade has previously been sharpened, or if any metal separation is present, replace the blades with new ones.



WARNING! A poorly balanced blade will cause excessive vibration, may cause damage to the tractor and/or result in personal injury.

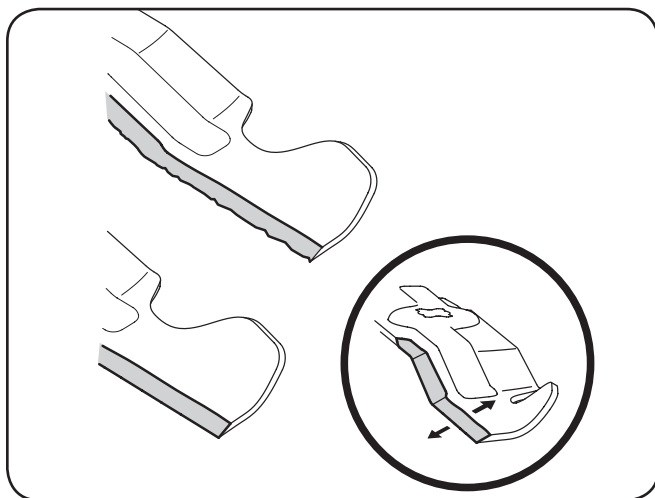


Figure 7-9

5. Test the blade's balance using a blade balancer. Grind metal from the heavy side until it balances evenly.

NOTE: When replacing the blade, be sure to install the blade with the side of the blade marked "Bottom" (or with a part number stamped in it) facing the ground when the mower is in the operating position.

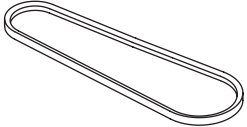

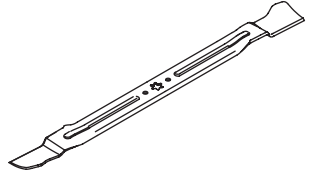
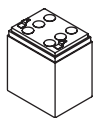



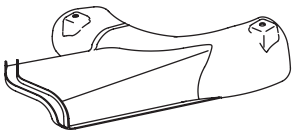
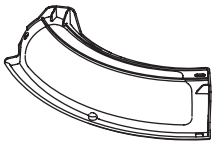


CAUTION! Use a torque wrench to tighten the blade spindle hex flange nut to between 70 lbs-ft and 90 lbs-ft.

Changing the Transmission Drive Belt

NOTE: Several components must be removed and special tools (i.e. air/impact wrench) in order to change the tractor's drive belt. See an authorized Service Dealer to have your drive belt replaced or phone Customer Support as instructed on page 2 for information on ordering a Service Manual.

Problem	Cause	Remedy
Engine fails to start	<ol style="list-style-type: none"> 1. PTO/Blade engaged 2. Spark plug wire disconnected 3. Fuel tank empty, or stale fuel 4. Choke not activated 5. Faulty spark plug 6. Circuit breaker tripped 7. Engine flooded 8. Parking brake not engaged 9. Deck chute, mulch plug or chute tube not properly installed. 	<ol style="list-style-type: none"> 1. Place blade engage lever in disengaged (OFF) position. 2. Connect wire to spark plug. 3. Fill tank with clean, fresh (less than 30 days old) gas. 4. Place the throttle control in CHOKE position. 5. Clean, adjust gap or replace plug. 6. Wait one minute for the circuit breaker to automatically reset. 7. Crank engine with throttle in FAST position. 8. Engage parking brake. 9. Check the installation of the deck chute, mulch plug or chute tube.
Engine runs erratic	<ol style="list-style-type: none"> 1. Unit running with CHOKE activated. 2. Spark plug wires loose. 3. Blocked fuel line or stale fuel. 4. Vent in gas cap plugged. 5. Water or dirt in fuel system. 6. Dirty air cleaner. 	<ol style="list-style-type: none"> 1. Move the throttle control out of the CHOKE position. 2. Connect and tighten spark plug wire. 3. Clean fuel line; fill tank with clean, fresh gasoline and replace fuel filter 4. Clear vent or replace cap if damaged. 5. Drain fuel tank. Refill with clean, fresh gasoline. 6. Replace air cleaner paper element or clean foam pre-cleaner.
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 amount and weight of oil. 2. Clean grass clippings and debris from around the engine's cooling fins and blower housing.
Engine hesitates at high RPM	<ol style="list-style-type: none"> 1. Spark plug gap too close. 	<ol style="list-style-type: none"> 1. Remove spark plug and reset the gap.
Engine Idles rough	<ol style="list-style-type: none"> 1. Spark plug fouled, faulty or gap too wide. 2. Dirty air cleaner. 	<ol style="list-style-type: none"> 1. Replace spark plug. Set plug gap. 2. Replace air cleaner element and/or clean pre-cleaner.
Excessive vibration	<ol style="list-style-type: none"> 1. Cutting blade loose or unbalanced. 2. Damaged or bent cutting blade. 	<ol style="list-style-type: none"> 1. Tighten blade and spindle. Balance blade. 2. Replace blade.
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. Place throttle in FAST (rabbit) position. 2. Do not mulch when grass is wet. 3. Mow once at a high cutting height, then mow again at desired height or make a narrower cutting swath. 4. Sharpen or replace blade.
Uneven cut	<ol style="list-style-type: none"> 1. Deck not leveled properly. 2. Dull blade. 3. Uneven tire pressure. 	<ol style="list-style-type: none"> 1. Perform side-to-side deck adjustment. 2. Sharpen or replace blade. 3. Check tire pressure in all four tires.

Component	Part Number and Description	
	954-05001	Drive Belt (Mowing Deck)
	918-06032	Deck Spindle
	942-0760	Cutting Blade (24")
	725-04903	Battery
	625-05002	Key
	734-0298	Tire (Front), 13.0 x 5.0-6.00
	734-04641	Tire (Rear), 16.0 x 6.50-8.00
	731-2477	Discharge Chute Assembly
	19A30015000	Mulch Plug Assembly

The following attachments and accessories are compatible for Mini-Rider Lawn Tractors. See the retailer from which you purchased your tractor for information regarding price and availability.



CAUTION: The Mini-Rider Lawn Tractors are NOT designed for use with any type of ground-engaging attachments (e.g. tiller or plow). Use of this type of equipment WILL void the tractor's warranty.

Model Number	Description
490-290-0013	Tractor Cover
490-850-0005	Blade Removal Tool
SPW-136	Spark Plug Wrench
490-325-0022	16 Oz Tire &Tube Sealant By Tire Science
490-325-0020	32 Oz Tire & Tube Sealant By Tire Science
490-850-0014	Deluxe Tire Plug Kit By Tire Science
725-04329	Battery Charger
22216	32 Oz Sta-Bil

THE Masport EXPRESS WARRANTY

RIDE-ONS

1. Warranty provider

- 1.1. The Express Warranty set out below is provided by Masport, a division of Masport Limited, a New Zealand company located at 1-37 Mt Wellington Highway, Panmure, Auckland, New Zealand. For any questions regarding this Express Warranty or to make a warranty claim call 0800 627 767 (New Zealand) or 1300 366 225 (Australia), or contact your local Masport Specialist retailer.

2. General warranty coverage

- 2.1. The New Zealand Consumer Guarantees Act 1993 ("New Zealand Consumer Act") and the Australian Competition and Consumer Act 2010 (including the Australian Consumer Law 2011) ("Australian Consumer Law"), as well as other laws in each of those jurisdictions, guarantee or imply certain conditions, warranties and undertakings, and give you other legal rights, in relation to the quality and fitness for purpose of our products sold in New Zealand and Australia respectively.
- 2.2. For products sold in New Zealand, these conditions, warranties and undertakings cannot be modified or excluded by any contract, except in those circumstances contemplated by section 43(2) of the New Zealand Consumer Act.
- 2.3. For products sold in Australia, our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. What constitutes a major failure is set out in the Australian Consumer Law.

3. Express Warranty Personal Use

- 3.1. Where the Product is for Personal Use, Masport will repair or replace (at Morrison's sole option) each Product Component in the table below, that suffers from a material defect in workmanship or materials from the date the Product is originally purchased until the end of the warranty period set out in the table below for each Covered Product Component.

Covered Product Components	Warranty Period
Battery	90 days
All other parts (except engine transmission*) (see exclusion in clause 4.1 below)	2 years

- 3.2. Masport warrants that repair facilities and spare parts will be made available for each Covered Product Component only from the date the Product is originally purchased until the end of the applicable warranty period as set out in the table above, but for no longer period.

Commercial Use

- 3.3. Where the Product is for Commercial Use, if the Product suffers from a material defect in workmanship or materials from the date the Product is originally purchased until:

- (a) the date falling 36 months later; or
- (b) the Product has been used for 650 hours,
(whichever occurs first), Masport will provide the applicable Level of Warranty Cover set out in the table below. The number of hours of use will be determined by reading the on-board counter installed on the Product.

- 3.4. You can determine the applicable Level of Warranty Cover from the table below as follows:

- (a) from Column A of the Usage Period column:
- (i) identify the number of months between the date the Product was originally purchased and the date the defect occurred; and
- (ii) identify the Level of Warranty Cover associated with that number from the left hand column; and
- (b) from Column B of the Usage Period column:
- (i) identify the number of hours the Product has been used; and
- (ii) identify the Level of Warranty Cover associated with that number from the left hand column; and
- (c) compare the two Levels of Warranty Cover.

- 3.5. Masport will provide the lowest Level of Warranty Cover for that defect based on the comparison made above.

Covering	Warranty Period (Lesser of Column A or Column B)	
	Column A (number of months from date of purchase)	Column B (number of hours of use)
Full Parts and Labour	0 - 12 months	0 - 400 hours
Full Parts Only	12 - 24 months	400 - 550 hours
50% Full Parts	24 - 36 months	550 - 650 hours

- 3.6. For the "Full Parts and Labour" Level of Warranty Cover, Masport will repair or replace (at Morrison's sole option) any Product that suffers from a material defect in workmanship or materials. You will not be charged for any parts, materials or labour costs involved in the repair or replacement.

- 3.7. For the "Full Parts Only" Level of Warranty Cover, Masport will repair or replace (at Morrison's sole option) any Product that suffers from a material defect in workmanship or materials. You will be charged for all labour costs involved in the repair or replacement, but will be advised of these costs before any repair or replacement is begun. You will not be charged for any parts or materials.
- 3.8. For the "50% Parts Only" Level of Warranty Cover, Masport will repair or replace (at Morrison's sole option) any Product that suffers from a material defect in workmanship or materials. However, you will be charged for 50% of the costs of any parts or materials, and 100% of all labour costs, involved in the repair or replacement. You will be advised of these costs before any repair or replacement is begun.

Personal Use and Commercial Use

- 3.9. For both the Express Warranty for Personal Use and Commercial Use:
- (a) the Express Warranty is subject to Masport firstly verifying the existence of the material defect and determining that the warranty claim is valid. Any repaired or replaced product will be covered by the Express Warranty for the remainder of the original warranty or usage period only; and
 - (b) the repair or replacement by Masport may be performed by a Masport agent or Specialist Retailer, and you must bear the cost of transporting or delivering the Product to and from the location of the Masport agent or Specialist Retailer where the warranty claim is made.

4. Exclusions from Express Warranty

- 4.1 The Express Warranty does not apply where any defect, malfunction or failure is caused or contributed to by any of the following:
- (a) engines or transmissions as these are protected by their manufacturers' warranties - refer to the Engine Manufacturer's Warranty in the Engine/Owner's Manual supplied with your Ride-on lawnmower;
 - (b) failure to follow the fuel selection instructions, engine and product operating and maintenance instructions;
 - (c) modification, repairs or alteration of the Product carried out by persons other than authorised Masport service agents;
 - (d) acts or omissions by anyone other than Masport after the Product has left Morrison's control;
 - (e) normal wear and tear;
 - (f) accidental damage, neglect, misuse;
 - (g) any event outside of Morrison's reasonable control, including without limitation, adverse weather conditions;
 - (h) sharpening or setting of blades; or
 - (i) pre-delivery assembly of the Product by anyone except for Masport authorised service agents or any other person authorised by Masport.

5. Express Warranty in addition to consumer protection laws

- 5.1. Despite anything else in this warranty card, nothing in this warranty card will exclude, limit or modify any Consumer Protection Warranty or any liability of Masport imposed by applicable law if to do so would be unlawful or make any part of this warranty card void or voidable.
- 5.2. The Express Warranty is in addition to any Consumer Protection Warranty that may apply, for example, under the New Zealand Consumer Act or the Australian Consumer Law, or under the laws of the place where the Product was purchased. To the extent permitted by applicable law, Morrison's liability for breach of any warranty, term, condition, guarantee or similar that cannot be excluded under the New Zealand Consumer Act or Australian Consumer Law (other than those under sections 51 – 53 of the Australian Consumer Law, to the extent applicable) is limited (at Morrison's sole option) to Masport repairing or replacing the relevant Product or Product Component or paying for such repair or replacement.

6 No other warranties or liability

- 6.1. Except as otherwise provided in the Express Warranty, all express or implied warranties, guarantees, conditions or terms in relation to the Product and Product Components (other than those which cannot be excluded or limited under the New Zealand Consumer Act, the Australian Consumer Law or the laws of the place where the Product is purchased) are expressly excluded to the extent legally permitted.
- 6.2. All statements, technical information and recommendations about the Product and Product Components are believed to be reliable, but do not constitute a guarantee or warranty. No statements, representations or recommendations other than those contained in the official technical information published by Masport, will bind Masport, unless made in writing signed by an authorised representative of Masport.
- 6.3. Subject to Clause 5, in no event will Masport be liable (whether in contract, tort, negligence or in any other way) for;
- (a) loss of profits or savings, loss of goodwill or opportunity, loss of production or wasted time; or
 - (b) loss, damage, cost or expense of any kind whatsoever which is indirect, consequential, or of a special nature, arising directly or indirectly from the Product, even if Masport had been advised of the possibility of such damages.
- 6.4. Subject to Clause 5, in no event will Morrison's total liability under any claim of whatever nature arising directly or indirectly from the Product exceed the price you paid for the Product.
- 6.5. This warranty card embodies the entire agreement between you and Masport in relation to the subject matter of this warranty card and supersedes all prior understandings, communications and representations between you and Masport, whether oral or written. No amendment to this warranty card will be effective unless in writing and signed by an authorised representative of Masport. You may not assign or transfer the Express Warranty without the prior written consent of Masport. This warranty card will be governed by the law of New Zealand for Products purchased in New Zealand and the laws of Australia for Products purchased in Australia. You and Masport will be subject to the non-exclusive jurisdiction of the New Zealand and Australian courts.

7. How to obtain service for a faulty Product

- 7.1. You must return the Product to the place of purchase or any Masport specialist retailer, along with reasonable evidence of the date the Product was purchased, for example, an original receipt.
- 7.2. Masport or its agent will assess the claim and if accepted, will repair or replace the Product or Product Component in accordance with the normal practices of the relevant Masport service agent.
- 7.3. All claims under any Express Warranty must be made within the relevant warranty period or usage period.

8. Definitions

In this warranty card:

- 8.1. **"Commercial Use"** means any use of the Product for business, commercial, industrial, institutional, rental or other income-producing purposes;
- 8.2. **"Consumer Protection Warranty"** means any warranty, guarantee, term, condition, right or remedy implied or imposed by applicable law;
- 8.3. **"Express Warranty"** means the Express Warranty for Personal Use set out in Clauses 3.1 to 3.2 and the Express Warranty for Commercial Use set out in Clauses 3.3 to 3.8;
- 8.4. **"Masport"** means Masport, a division of Masport Limited, a New Zealand company located at 1-37 Mt Wellington Highway, Panmure, Auckland, New Zealand with an Australian office located at 1/40 Abbotts Road, Dandenong South, Victoria 3175, Australia;
- 8.5. **"Personal Use"** means any use that is not Commercial Use;
- 8.6. **"Product"** means the Masport product accompanying this warranty card;
- 8.7. **"Product Component"** means each component of the Product set out in the table under clause 3.1, excluding engines and transmissions; and
- 8.8. **"You"** means the original purchaser of the Product.