



T42

Operator's Manual

MODELS
SNTR1900-42



- EN English
- ES Español
- FR Français

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WELCOME

Snapper is back, and we are so glad you are here with us! All Snapper products are specially designed and specified to meet the Snapper Pillars of **Quality, Durability** and **Serviceability** and we are confident you will feel and appreciate the attention to detail that goes into each unit.

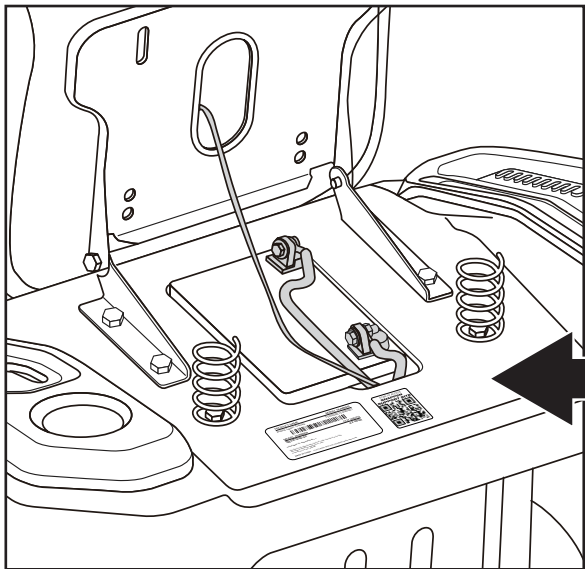
Need Help? Have Questions?

Please visit www.Snapper.com/na/en_us/support.html to access our Snapper Support Site
Or Use this QR code, which is also found on each unit.



Register Your Product

Registering your product at the time of purchase will immediately activate your warranty and add your information to our database for important, relevant communication regarding your Snapper product. To easily register, please locate the model and serial number found on your unit.




PRODUCT NAME

Petrol Lawn Tractor

SERIAL NUMBER

T1G202511000001



MODEL NUMBER

SNTR1900-42

CUT WIDTH

42 INCH

CONFORM TO ANSI/OPEI B71.1

PRODUCTS DISTRIBUTED IN THE UNITED STATES
BY DAYE NORTH AMERICA, INC.
CHARLOTTE NC 28208

MADE IN CHINA

CUSTOMER SERVICE NUMBER: (855) 693-2749

WELCOME

Manual

Before operating the unit, carefully read the manual provided. It is important to completely understand the information and the instructions about the controls and operation of the unit before use. Also included with the unit are separate manuals for both the engine and the transmission. Please refer to those for service recommendations.

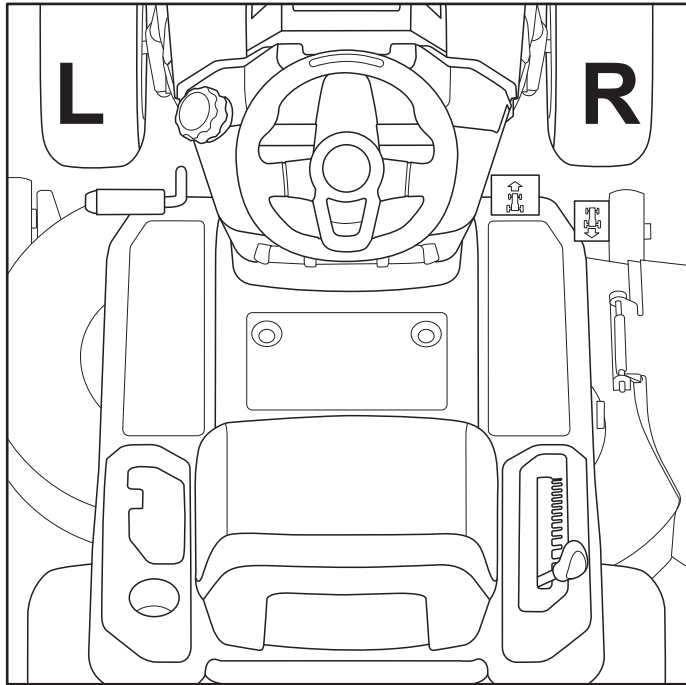
It is the operator’s responsibility to read and understand all safety precautions and instructions in the manual. If you do not understand or have difficulty following the instructions, kindly refer to the Snapper Service Portal (www.snapper.com/na/en_us/support.html) or contact your Snapper retailer for assistance.

Disclaimer

Snapper reserves the right to change, amend, improve, or discontinue its products at any time without public notice or obligation. All claims, descriptions and specifications outlined in this manual were in effect at printing. The equipment described in this manual may be optional and some illustrations may not be applicable to your unit.

GENERAL INFORMATION

LEFT and RIGHT are referenced from the operator's position.



The use of Important and Note in the text shows clarifications, exceptions, or alternatives to the procedures. All language translations of this document derive from the initial English source file. Recycle all packaging, used oil, and batteries according to applicable government regulations.

OPERATOR SAFETY

Save These Instructions


Save these instructions for future reference. This manual contains safety information to make you aware of the hazards and risks associated with the product and how to avoid them. It also contains important instructions that must be obeyed during the initial set-up, operation, and maintenance of the product. This product is designed and intended for cutting well maintained grass and is not intended for other purposes. It is important that you read and understand these instructions before you attempt to start or operate this equipment. Make sure that you are fully familiar with the controls and the correct use of the product. Know how to stop the unit and disengage controls quickly.

Practices & Laws

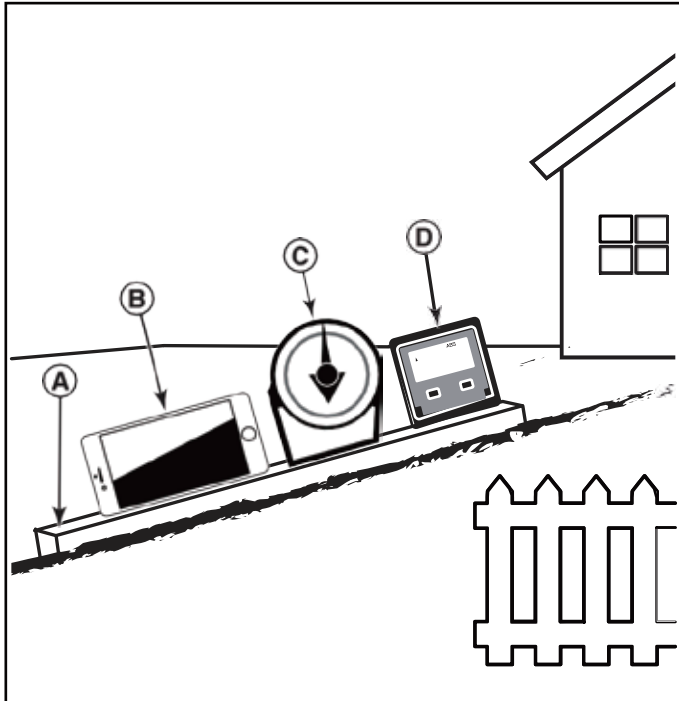
Practice usual and customary safe working precautions. Learn applicable rules and laws in your area. Always follow the practices set forth in this manual.

OPERATOR SAFETY

Required Operator Training

 Read and understand the Operator's Manual and decals on the unit. This information is for your safety and the proper use of your equipment. Failure to follow these instructions and warning may cause death or serious injury. Familiarize yourself and any other operators with all controls and the safe use of the features of this unit. If you loan or sell this machine, kindly provide all manuals as well. If you have any questions, please call our customer support line at 855.693.2749 or contact us at www.Snapper.com/na/en_us/support.html. If after reading the Operator's Manual and all on-board decals, you have any questions about the safe use of this product please do not use the equipment until all questions have been answered.

Slope Identification Guide



How to measure the slope of a lawn surface with a smart phone or an angle finder tool:

 **WARNING:**

- Do not operate on slopes greater than 10 degrees.
1. Use a straight edge at least two (2) feet long (A, Fig. 1). A 2x4 or a straight piece of metal works well.
 2. Angle finder tools.
 - a. Use your smart phone: Many smart phones (B, Fig. 1) have an in-clinometer (angle finder) located under the compass application (app). Or, search an app store for an in-clinometer app.
 - b. Use angle finder tools: Angle finder tools (C and D, Fig. 1) are available at local hardware stores or online (also

OPERATOR SAFETY


- called in-clinometer, protractor, angle meter, or angle gauge). Dial type (C) or digital type (D) work, others may not. Read and obey the user instructions supplied with the angle finder tool.
- Put the two (2) feet long straight edge along the steepest part of the lawn slope. Put the board up and down the slope.
 - Lay the smart phone or angle finder tool on the straight edge and read the angle in degrees. This is the slope of your lawn.

Safety Alert and Signal Words

The safety alert symbol in this manual identifies safety information about hazards that can result in personal injury.

A signal word (DANGER, WARNING, or CAUTION) is used with the alert symbol to indicate the likelihood and the potential severity of injury. In addition, a hazard symbol may be used to represent the type of hazard.

1.DANGER



DANGER: indicates a hazard which, if not avoided, will result in death or serious injury.

2.WARNING




WARNING: indicates a hazard which, if not avoided, could result in death or serious injury.

3.CAUTION



CAUTION: indicates a hazard which, if not avoided, may result in minor or moderate injury.

4.NOTICE



NOTICE: indicates information considered important but not hazard-related.

OPERATOR SAFETY

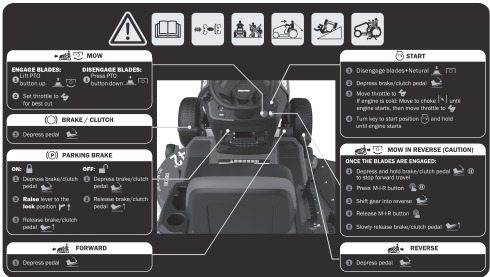
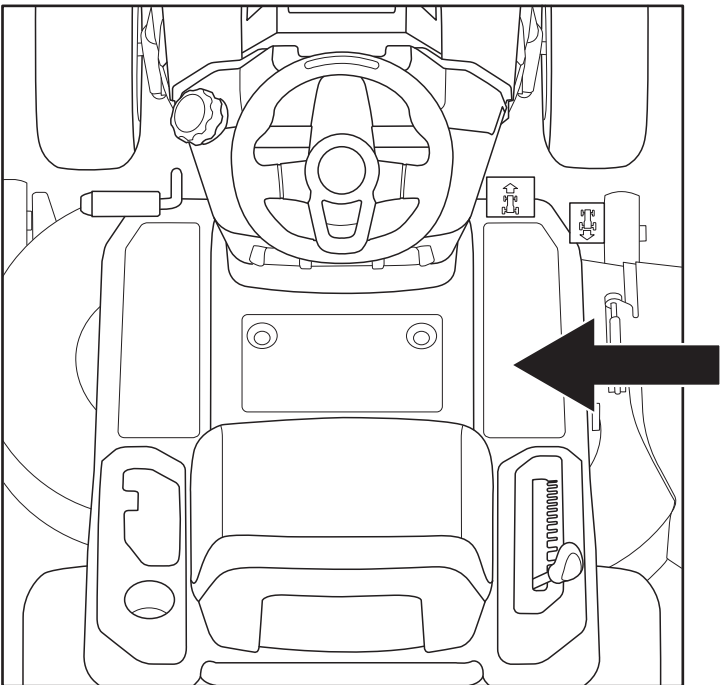
Safety Decals

The safety decals on your machine are visual reminders of the important safety information in this manual. All messages on your unit must be fully understood and carefully followed. Safety decals on the machine are explained below.


ALWAYS replace missing or damaged safety decals. Replacement decal part numbers are found in the parts manual for your machine and may be ordered from the Snapper Support Site.

(www.Snapper.com/na/en_us/support.html)


Safety Decal Locations



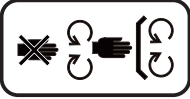
OPERATOR SAFETY




Safety alert symbol




Read operator's manual




Maintain safety devices




Avoid amputation injury




Keep bystanders away




Do not operate the mower without the discharge chute in its proper place.




Look behind while backing




Never carry children



Avoid steep slopes



Keep hands and feet away



Avoid thrown objects

Safety Instructions



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 severe personal injury or death.

IMPORTANT: 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 Information

- Read, understand, and follow instructions and warnings in this manual and on the machine, engine and attachments.
- Only allow operators who are responsible, trained, familiar with the instructions, and physically capable to operate the machine.
- Do not carry passengers and keep bystanders away.
- Do not operate the machine while under the influence of alcohol or drugs.

Preparation before Operating

- Clear the operating area of any objects which could be thrown by or interfere with operation of the machine.
- Keep the area of operation clear of all bystanders, particularly small children. Stop the machine and attachment(s) if anyone enters the area.
- Do not operate the machine without the entire grass catcher, discharge chute, or other safety devices in place and functioning properly. Check frequently for signs of wear or deterioration and replace as needed.

OPERATOR SAFETY

- Wear appropriate personal protective equipment such as safety glasses, hearing protection, and footwear.

Operating

- Only operate the engine in well ventilated areas. Exhaust gases contain carbon monoxide, a deadly poison.
- Only operate the machine in daylight or good artificial light.
- Avoid holes, ruts, bumps, rocks, or other hidden hazards. Uneven terrain could overturn the machine, or cause operator to lose their balance or footing.
- Do not put hands or feet near rotating parts or under the machine. Keep clear of the discharge opening at all times.
- Do not direct discharge material toward anyone. Avoid discharging material against a wall or obstruction. Material may ricochet back toward the operator. Stop the blade(s) when crossing gravel surfaces.
- Do not leave a running machine unattended. Always park on level ground, disengage the blades, set parking brake, and stop engine.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.

Children Specific

- 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.
- Keep children out of the operating area and under the watchful care of a responsible adult other than the operator.
- Do not carry children, even with the blade(s) shut off. Children could fall off and be seriously injured or interfere with safe machine operation. Children who have been given rides in the past could suddenly appear in the mowing area for another ride and be run over or backed over by the machine.

Slope Specific



WARNING:

Slopes are a major factor related to accidents. Operation on slopes requires extra caution.

- Travel in the manufacturer recommended direction on slopes. Use caution while operating near drop-offs.
- Avoid mowing wet grass.
- Do not operate machine under any condition where traction, steering, or stability is in question. Tires could slide even if the wheels are stopped.
- Always keep the machine in gear when going down slopes. Do not coast downhill.
- Avoid starting and stopping on slopes. Avoid making sudden changes in speed or direction. Make turns slowly and gradually.
- Use extra care while operating machine with a grass catcher or other attachment(s). They can affect the stability of the machine.

Fire and Fuel Specific

- Extinguish all cigarettes, cigars, pipes and other sources of ignition.
- Use only an approved fuel container.
- Do not remove fuel cap or add fuel with the engine running or while hot.

OPERATOR SAFETY

- Do not refuel indoors or in enclosed spaces.
- Do not store the machine or fuel container, or refuel, where there is an open flame, spark, or pilot light such as on a water heater or other appliance.
- If fuel is spilled, do not attempt to start the engine and avoid creating any source of ignition until fuel vapors have dissipated.
- To help prevent fires: keep machine free of grass, leaves, or other debris build up; clean up oil or fuel spillage and remove any fuel soaked debris; allow machine to cool before storing.
- Use extra care in handling gasoline and other fuels. They are flammable and vapors are explosive.

Hauling

- Use full width ramps for loading and unloading a machine for transport.

Towing

- Follow the manufacturer's recommendation for weight limits for towed equipment and towing on slopes.

Service

- Keep machine in good working order. Replace worn or damaged parts.
- Use caution when servicing blades. Wrap the blade(s) or wear gloves. Replace damaged blades. Do not repair or alter blade(s).
- Disconnect spark plug wire(s) and the negative battery cable before making any repairs.

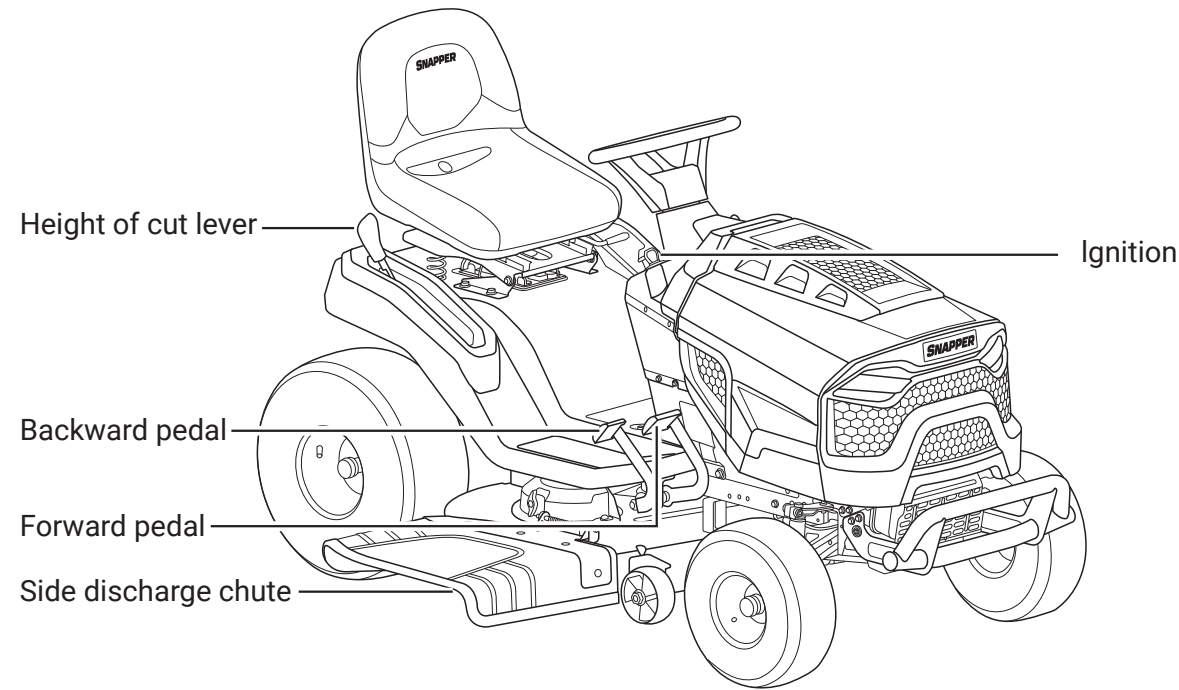
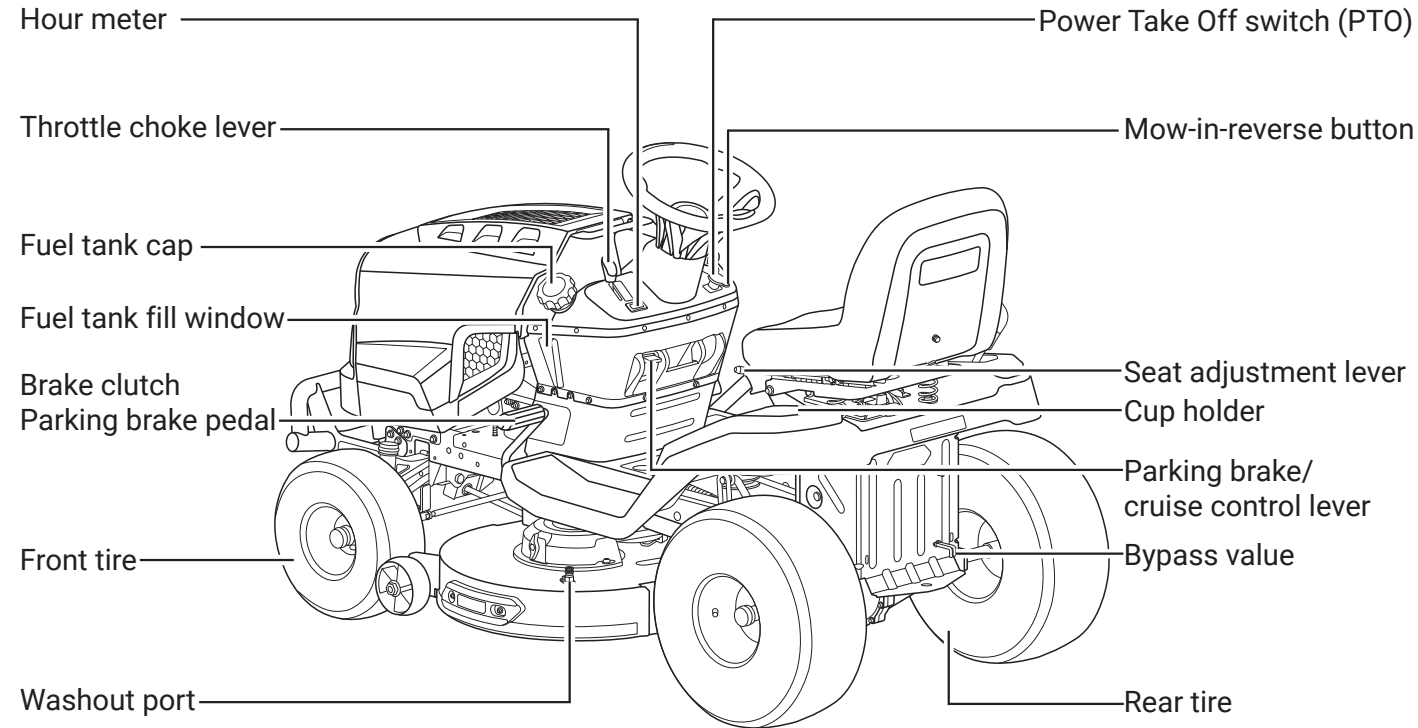


WARNING:

Running engine gives off carbon monoxide, an odorless, colorless, poisonous gas. Breathing carbon monoxide can cause headaches, fatigue, dizziness, vomiting, confusion, seizures, nausea, fainting or death.

- Operate equipment **ONLY** outdoors.
- Keep exhaust gas from entering a confined area through windows, doors, ventilation intakes, or other openings.


CONTROLS AND FEATURES





CONTROLS AND FEATURES


Ignition

Controls power to the engine. The key cannot be removed when in the run position

 START ignition position


 OFF ignition position

 HEADLIGHTS ignition position

 RUN ignition position

Throttle Control Lever

Controls engine speed and airflow to the engine.


 FAST throttle position

 SLOW throttle position

 Choke Control (↑ON) (↓OFF)

Power Take-Off Switch (PTO)


Controls Blades.


 PTO ON (blades engaged)

 PTO OFF (blades disengaged)

Height of Cut lever

Controls height of cut.


 SHORT grass height

 LONG grass height

CONTROLS AND FEATURES





Mow-in-reverse Button

Override button to allow mowing in reverse

 Override button to allow mowing in reverse

Parking Brake/Cruise Control Lever

Park brake and maintain the same forward drive speed

-  To set the parking brake
- 
 - 1) Depress the brake pedal all the way down and hold it
 - 2) Flip the parking brake lever up and release the brake pedalTo release the parking brake simply release the lever, ensuring the pedal continues to be in the brake position
-  To engage the cruise control feature
- 
 - 1)Find a comfortable speed by depressing the forward drive pedal
 - 2)Engage the cruise control lever while releasing the drive pedalTo disengage cruise control gently push the drive pedal

ASSEMBLY INSTRUCTIONS

 **NOTICE:**

This lawn tractor is shipped without gas in the engine.

 **WARNING:**

If any parts are damaged or missing, do not operate this product until the parts are replaced. Use of this product with damaged or missing parts could result in serious personal injury.

 **WARNING:**

Do not attempt to modify this product or create accessories not recommended for use with this product. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious personal injury.

 **WARNING:**

To prevent accidental starting that could cause serious personal injury, always disconnect the engine spark plug boot from the spark plug when assembling parts.

 **WARNING:**

Never operate the tractor without the proper safety devices, guards, and chute in place and working. Never operate the tractor with damaged safety devices. Operating the tractor with missing or damaged parts can result in serious personal injury.

ASSEMBLY INSTRUCTIONS

Packing list	Number
Tractor	1
Seat Assembly	1
Steering Wheel Assembly	1
Dashboard Cover	1
Oil Drain Sleeve	1
Air Duct Ring	1
Operation Manual	2
Wrench	2
Key	2
Bolt for steering wheel assembly	1
Bumper bar with four securing bolts	1

1. Some parts of your new lawn tractor have not been completely installed for shipping purposes. To ensure safe and proper operation, all parts and hardware must be assembled as instructed using appropriate tools to ensure proper tightness.
2. Carefully remove the product and any accessories from the package. Make sure that all items listed in the Packing List are included.
3. Inspect the product carefully to make sure no damage occurred during shipping.
4. If any parts are damaged or missing, please call service center for assistance.

ASSEMBLY INSTRUCTIONS

Assemble the Engine Shroud Cover

Install the cover on the engine shroud and secure it with three screws. (Fig. 2A&Fig. 2B)

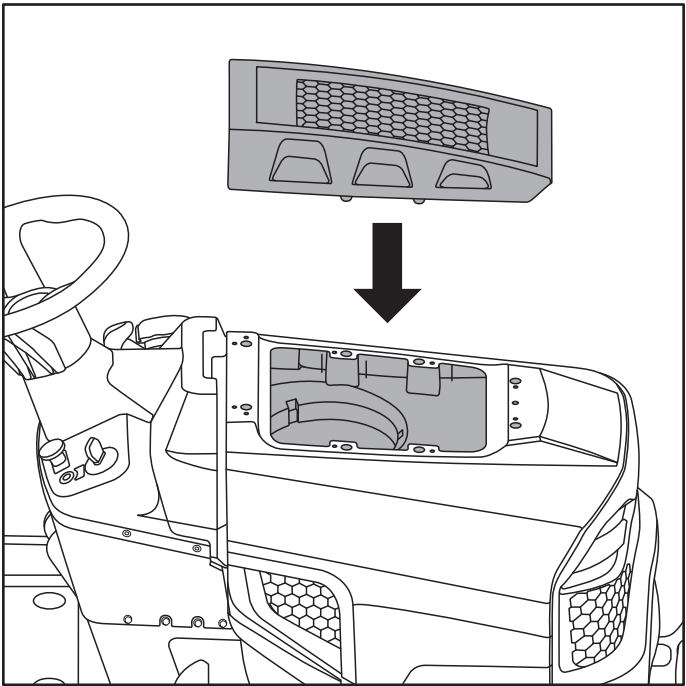


Fig. 2A

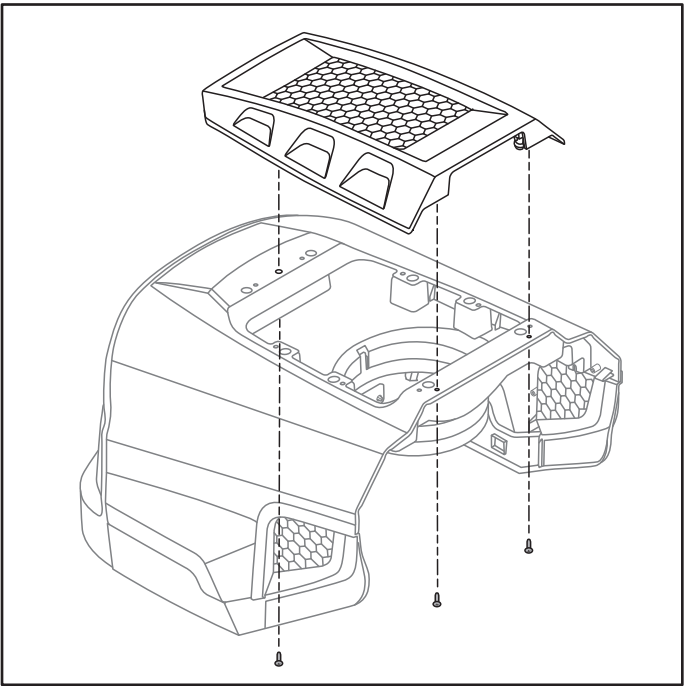


Fig. 2B

Assemble the Steering Welded Extension Rod

Insert the the steering welded extension rod (a) into the center of the fixing sleeve (b). Secure firmly with two hexagonal flange bolts (c, M8*25&d, M8*25).(Fig. 3)

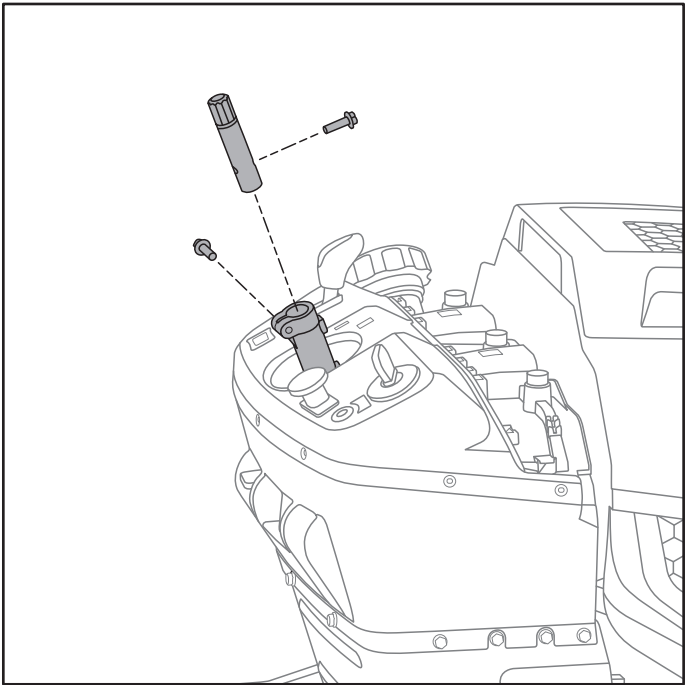


Fig. 3

ASSEMBLY INSTRUCTIONS

Assemble the Dashboard Cover

Open the engine shroud and install the dashboard cover into place.(Fig. 4)

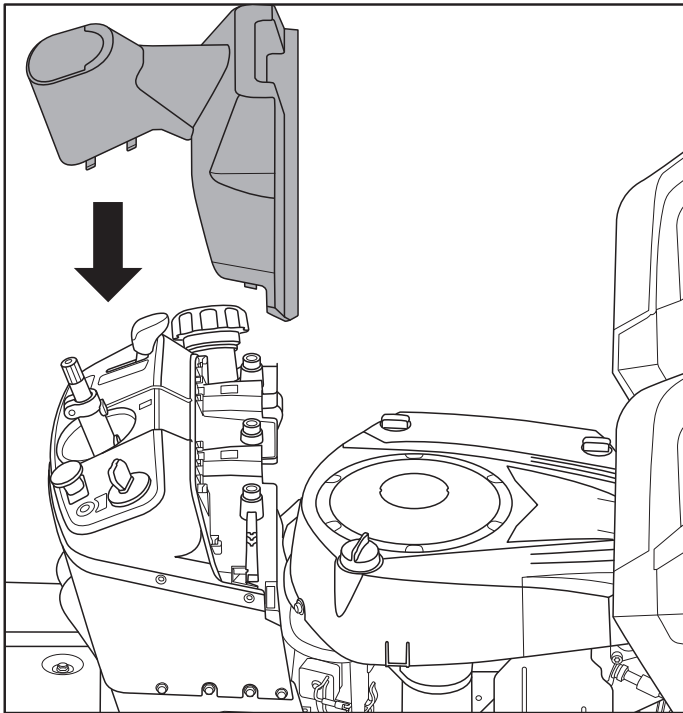


Fig. 4

Assemble the Air Duct Ring

Open the engine shroud and install the air duct ring into the inside of the engine shroud.(Fig. 5)

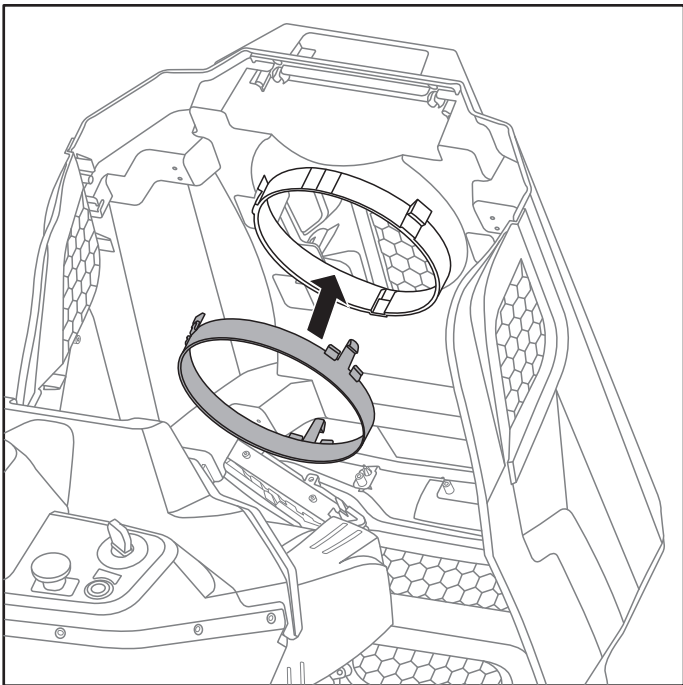


Fig. 5

ASSEMBLY INSTRUCTIONS

Assemble the Steering Wheel

1. Align the steering wheel with the steering shaft, slide the steering wheel down the shaft until into position, and secure the steering wheel with the bolt provided.(Fig. 6)
2. Place the steering wheel cap over the center of the steering wheel and push downward until it snaps into place.

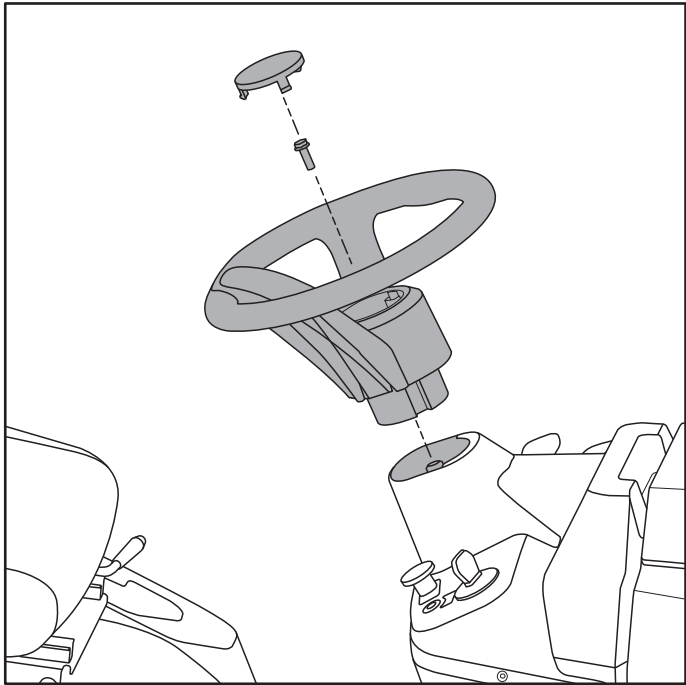


Fig. 6

Assemble the Bumper Bar

1. Position the bumper bar in the front of the tractor.(Fig. 7)
2. Install the bumper bar with the four bolts provided (two on each side).(Fig. 7)

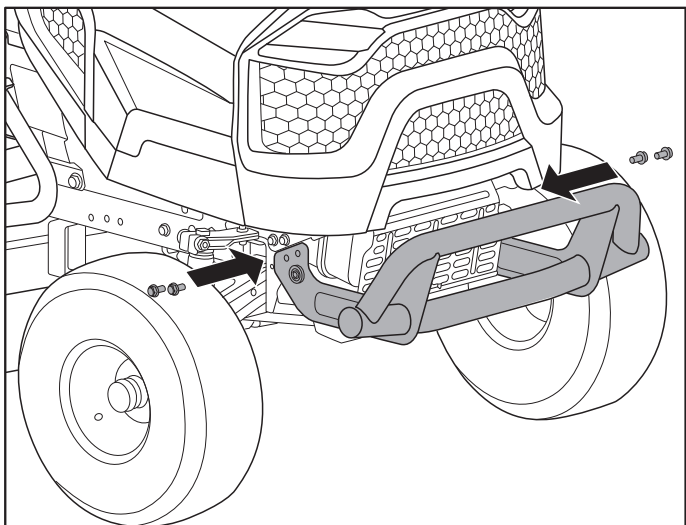


Fig. 7

ASSEMBLY INSTRUCTIONS

Assemble the Seat

Connect the seat to the mower base with bolts and nuts.(Fig. 8)
Adjust the seat position to ensure you are able to fully depress the brake pedal before operating the mower.
Connect the seat switch.
To move the seat:
Pull back on the seat adjustment lever at the left of the seat.
While holding the lever, slide the seat forward or backward to the desired position.
Release the lever and make sure the seat is locked in position.



Be sure the seat is locked into place before operating the mower. A seat that is not secure can cause the operator to shift and lose control of the mower and result in possible death or serious personal injury.

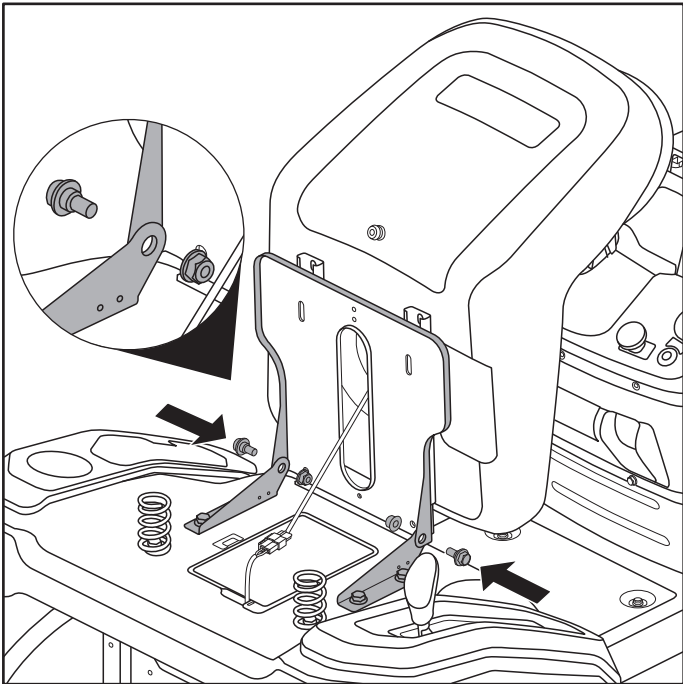


Fig. 8

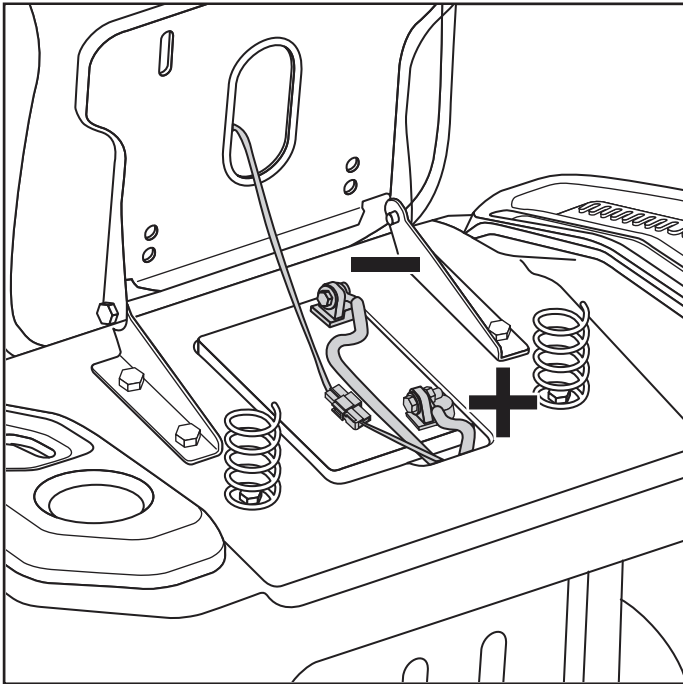


Fig. 9

Connect the Battery

The battery is under the operator's seat. For shipping reasons the factory leave both battery cables disconnected from the terminals. To connect the battery cables, proceed as follows:
Attach the positive cable (red) to the positive battery terminal using the bolt and nut.
Attach the negative cable (black) to the negative battery terminal using the bolt and nut.(Fig. 9)

ASSEMBLY INSTRUCTIONS



When attaching battery cables, always connect the positive cable to its terminal FIRST, and then connect the negative cable.



Incorrect connection will cause serious damage.

Check/Adjust the Tire Pressure



To ensure that the grass is cut level, the right and left front tires must be set to the same pressure. The same is true for the right and left rear tires.
Recommended tire pressure:
Set the front tires to 22 psi
Set the rear tires to 18 psi

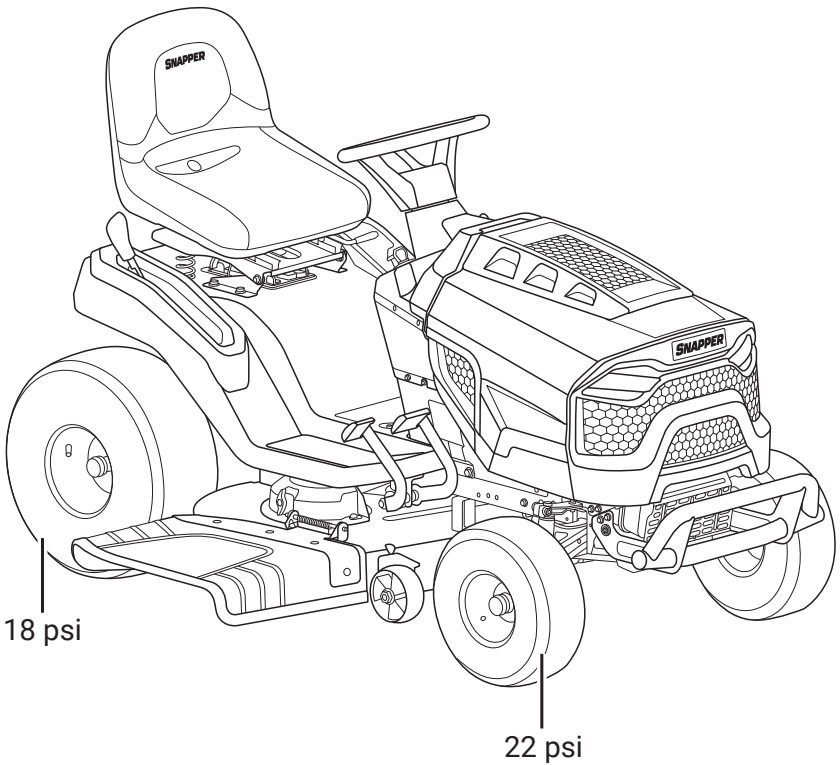


Fig. 10

OPERATING INSTRUCTIONS

Read the Operator Safety section before you operate this machine. Make sure that you know the controls and how to stop the unit.

Operating Area

Know the area where you plan to operate the mower.
Make sure that the area is free of unwanted material that could be picked up by the blades and thrown.



This machine is capable of throwing objects that could injure bystanders or cause damage to buildings. Do not operate the machine without the entire grass catcher, discharge chute, or other safety devices in place and functioning properly. Check frequently for signs of wear or deterioration and replace as needed. Clear the operating area of any objects which could be thrown by or interfere with the operation of the machine.

Move the machine outside, before you start the engine.



Engines give off carbon monoxide, an odorless, colorless, poison gas. Breathing carbon monoxide can cause nausea, fainting, or death.
Note all slopes and drop-offs.



Operating on slopes, or near water, or drop-offs can result in loss of control and roll-over.
Mow up and down slopes not across.
Reduce speed and be careful on slopes. Do not operate on slopes over 10 degrees.
Give yourself a minimum of two mower widths of clearance around water, retaining walls, or drop-offs.
Avoid mowing wet grass.
Do not operate machine under any condition where traction, steering, or stability is in question. Tires could slide even if the wheels are stopped.
Avoid starting and stopping on slopes.
Avoid making sudden changes in speed or direction.
Make turns slowly and gradually.
Be careful while operating machine with a grass catcher or other attachment(s). They can affect the stability of the machine.
Follow the manufacturer's recommendation for weight limits for towed equipment and towing on slopes.
See towing with the tractor section
Make sure that the operating area is clear of bystanders, especially children.

OPERATING INSTRUCTIONS



This rider mower is capable of amputating hands and feet.
Stop the mower when children or others are near.
Keep children out of the operating area and under the watchful care of a responsible adult.
Do not carry passengers, especially children, even with the blade(s) shut off. Children can fall off and be seriously injured or interfere with the safe machine operation. Children who have been given rides in the past can suddenly appear in the mowing area for another ride and be run over or backed over by the machine.
Use care when approaching blind corners, shrubs, trees, or other objects that obscure vision

Safety Interlock System Tests

This machine is equipped with a Safety Interlock System. Do not attempt to bypass or tamper with the switches and devices.



Mowing in reverse can be hazardous to bystanders. Tragic accidents can occur if the operator is not alert to the presence of children. DO NOT activate the Mow In Reverse (MIR) Option if children are present. Children are often attracted to the machine and the mowing activity.



If the machine does not pass the safety test, do not operate the machine. See an Authorized service center.

- Test 1 – Engine will NOT crank if:
- Power Take Off switch (PTO) is ENGAGED, OR
 - Brake pedal is NOT fully pushed down (parking brake OFF)
- Test 2 – Engine will crank and start if:
- Power Take Off switch is DISENGAGED, AND
 - Brake pedal is fully pushed down (parking brake ON).
- Test 3 – Engine will SHUT OFF if:
- Operator rises off seat with Power Take Off switch ENGAGED, OR
 - Operator rises off seat with brake pedal NOT fully pushed down (parking brake OFF).
- Test 4 – Mower Blade Stopping Time Check
- The mower blades and mower drive belt will come to a complete stop in five seconds after the Power Take Off switch is DISENGAGED. If the mower drive belt does not stop in five seconds, see an Authorized Service Dealer.
- Test 5 – Mow In Reverse (MIR) Option Check
- The engine will SHUT OFF when reverse travel is attempted with the Power Take Off switch ENGAGED and MIR button NOT depressed while reversing. See Mow In Reverse (MIR) Option.

OPERATING INSTRUCTIONS

Engine



Refer to engine manual for more detailed information.

Check and Add Engine Oil

1. Put the unit on a level surface. Stop the engine and remove the key. Make sure that the oil fill area is clean.
2. Remove the dipstick (Fig. 11). Remove the remaining oil from the dipstick.
3. Install and tighten the dipstick.
4. Remove the dipstick again, and check the oil level.
5. Make sure that the oil level is at the top of the FULL mark on the dipstick.
6. If the oil level is FULL, install and tighten the dipstick.
7. If the oil level is LOW, add oil into the oil fill tube.(Fig. 12)
8. Wait one minute, and check the oil level again.
9. Install and tighten the dipstick.

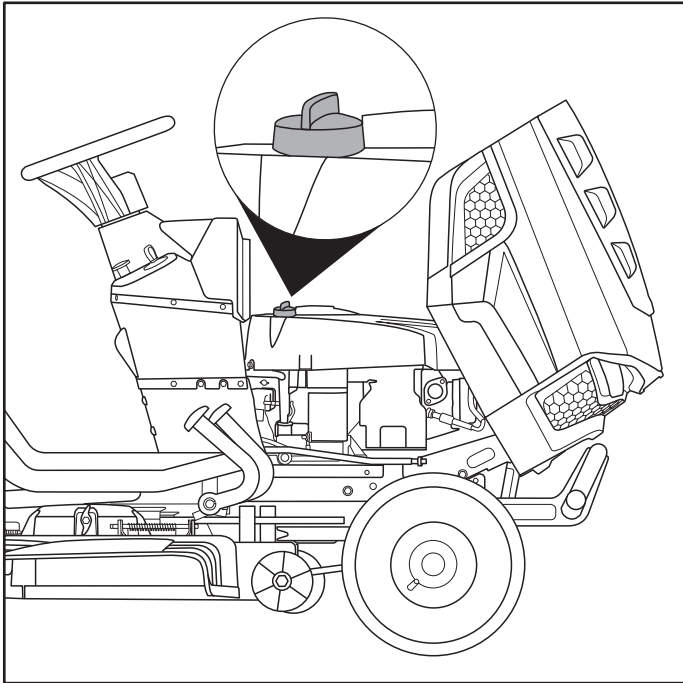


Fig. 11

Fuel Recommendations

Fuel must meet these requirements:

- Clean, fresh, unleaded gasoline.
- A minimum of 87 octane.
- Gasoline with up to 10% ethanol (gasohol) is acceptable.



NOTICE:

Do not use unapproved gasoline, such as E15 and E85. Do not mix oil in gasoline or modify the engine to run on alternate fuels. Use of unapproved fuels will damage the engine components, which will not be covered under warranty.

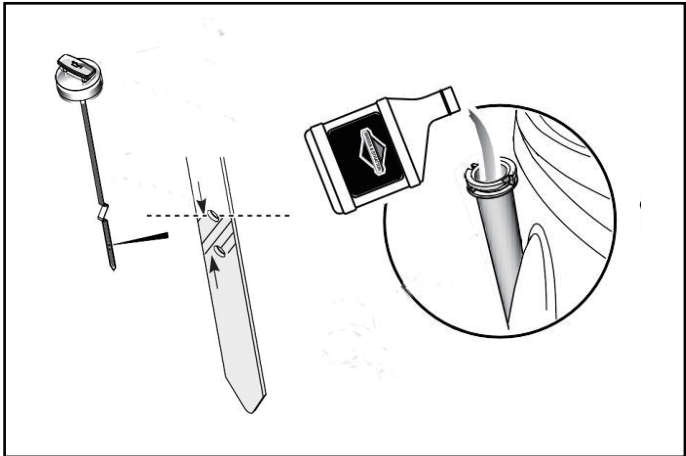


Fig. 12

OPERATING INSTRUCTIONS

Add Fuel



WARNING:

Fuel and its vapors are extremely flammable and explosive. Always handle fuel with extreme care. Failure to observe these safety instructions can cause fire or explosion which could result in severe burns or death.

When Adding Fuel

- Stop the engine and let the engine cool at least 3 minutes before you remove the fuel cap.
 - Extinguish all cigarettes, cigars, pipes, and other sources of ignition.
 - Fill fuel tank outdoors or in well-ventilated area.
 - Do not overfill fuel tank. To allow for expansion of the fuel, do not fill above the bottom of the fuel tank neck.
 - Keep fuel away from sparks, open flames, pilot lights, heat, and other ignition sources.
 - Check fuel lines, tank, cap, and fittings frequently for cracks or leaks. Replace if necessary.
 - If fuel spills, wait until it evaporates before you start the engine to avoid creating any source of ignition.
 - Use only an approved fuel container.
1. Remove any debris from the fuel cap area.
 2. Remove the fuel cap.(Fig. 13)
 3. Fill the fuel tank with fuel. Monitor the level of the fuel by looking at the transparent window on the left of the tractor. DO NOT fill above the bottom of the fuel tank neck.
 4. Install the fuel cap.

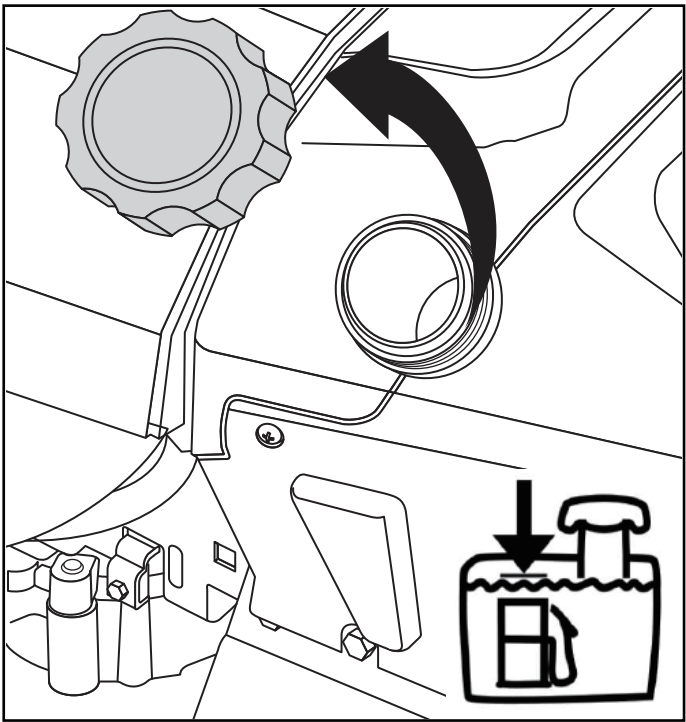


Fig. 13

OPERATING INSTRUCTIONS

Operating the Tractor

Start the Engine



Fuel and its vapors are extremely flammable and explosive. Fire or explosion can cause severe burns or death. When you start the engine:

- Make sure that spark plug, muffler, fuel cap, and air cleaner (if equipped) are installed correctly.
- Do not crank the engine with spark plug removed.
- If the engine floods, move the throttle to the FAST position and crank until engine starts.



Engines give off carbon monoxide, an odorless, colorless, poison gas. Breathing carbon monoxide can cause nausea, fainting, or death. Fire or explosion can cause severe burns or death.


- Start and operate the engine outdoors.
- Do not start or operate the engine in an enclosed area, even if doors or windows are open.

1. Check the oil level. See Check and Add Engine Oil.
2. Insert the key into the ignition switch.
3. If the blades are engaged, disengage the blades.
4. Fully depress the brake pedal.
5. Move the throttle to the FAST position.
6. Turn the key to the START position and hold until the engine starts. After the engine starts, release the key. It will return to the run position.



In the event of an emergency, turn the ignition switch to the OFF position. This will STOP the engine. See Stop the Engine.

Using the Throttle/Choke Lever

The throttle choke lever is located on the left side of the mower's dash panel. When starting an engine that is cold, push the throttle choke lever fully forward into the "CHOKE"  position.(Fig. 14)

The purpose of the choke is to restrict the flow of air so that the fuel-air mixture is made richer (more fuel, less air) which aids in starting the engine. After starting the engine, move the throttle choke lever downwards to the FAST position.



When operating the mower with the cutting blade engaged, move the throttle to the FAST position.

OPERATING INSTRUCTIONS

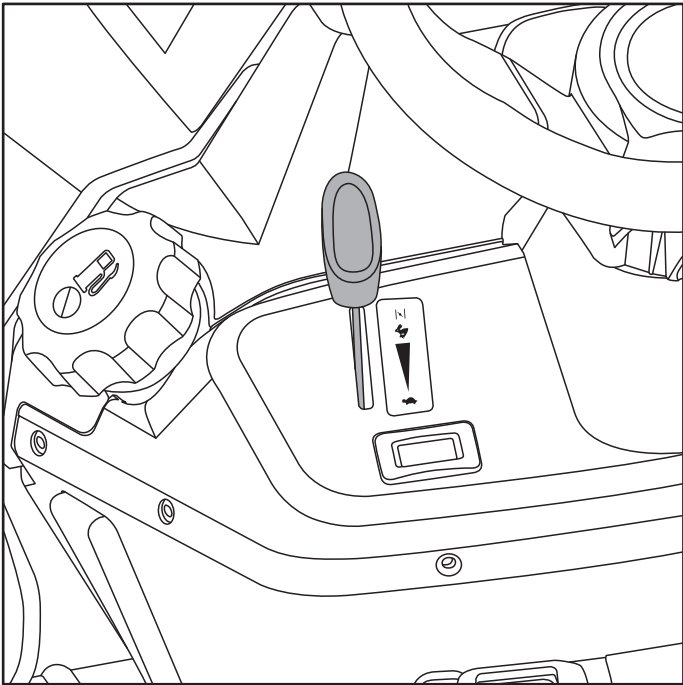


Fig. 14

Hour Meter

LCD service minder&hour meter

The LCD service minder will remind the operator of the cumulative duration of operation and low battery warnings. When the key is rotated out of the STOP position, the LCD service minder & hour meter will briefly display the battery voltage, followed by the tractor's accumulated hours.

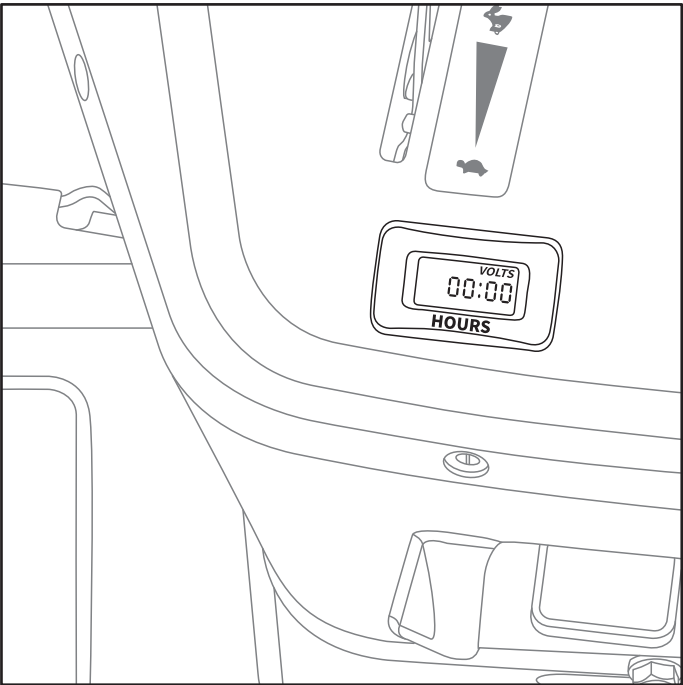


Fig. 15A

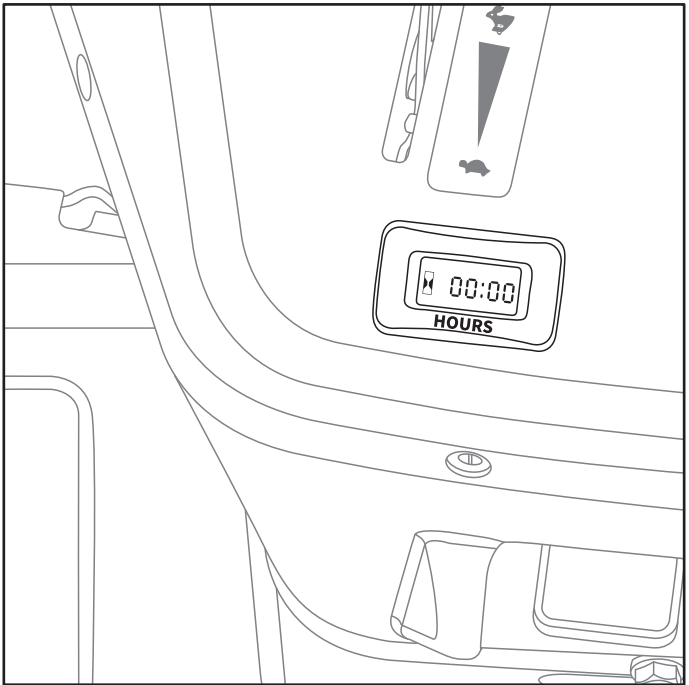



Fig. 15B

OPERATING INSTRUCTIONS

 When the ignition key is out of the stop position the hourglass symbol is illuminated/blinks to indicated it is recording the hours of tractor operation, regardless of whether the engine has been started.

Stop the Engine

 **WARNING:**

Fuel and its vapors are extremely flammable and explosive. Fire or explosion can cause severe burns or death. Do not choke the carburetor to stop the engine.

1. If the blades are engaged, disengage the blades.
2. Release the brake pedal to stop the tractor.
3. Move the throttle to the SLOW position.
4. Turn the ignition key switch to the OFF position. Remove the key.
5. Engage the parking brake.

 **NOTICE:**

In the event of an emergency, turn the ignition switch to the OFF position. This will STOP the engine.

Using the Headlights

 **NOTICE:**

The headlights will quickly drain the battery if the headlights are left on and the engine is off.

Engine on:

1. To turn on the headlights, turn the key from the RUN position to the HEADLIGHT position.(Fig. 16)
2. To turn off the headlights, turn the key from the HEADLIGHT position to the RUN position.

Engine off:

1. To turn on the headlights, turn the key to the HEADLIGHT position.
2. To turn off the headlights, turn the key to the STOP position.

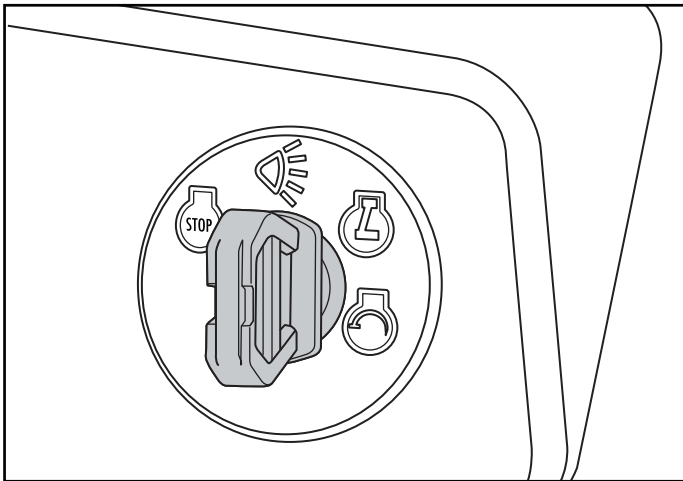


Fig. 16

OPERATING INSTRUCTIONS

Driving the Tractor

 **NOTICE:**

This mower is equipped with a drive pedal, which engages in wheels and controls the machine's travel speed and direction

 **WARNING:**

Sharp turns can affect control of the mower. ALWAYS slow the mower before making sharp turns.

 **NOTICE:**

First-time operators should become completely familiar with the mower's operation and controls before operating the mower in higher speed position.

 **WARNING:**

When starting the mower, neither front pedal nor rear pedal should be depressed.The pedal automatically goes into neutral position when released.

 **WARNING:**

If the pedal is used, whether forward or for reverse, when the parking brake is engaged, the engine stops.

To move forward or backward:

1. Depress the brake pedal and release the parking brake.
2. Release the brake pedal.
3. Gradually begin to apply pressure to the forward pedal or backward pedal. The further down the pedal is pushed, the faster the tractor will travel in the desired direction.

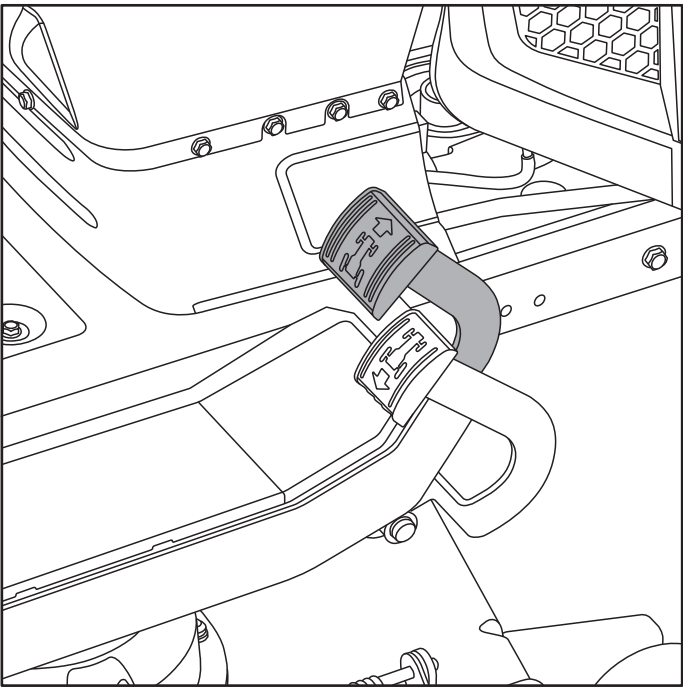


Fig. 17A

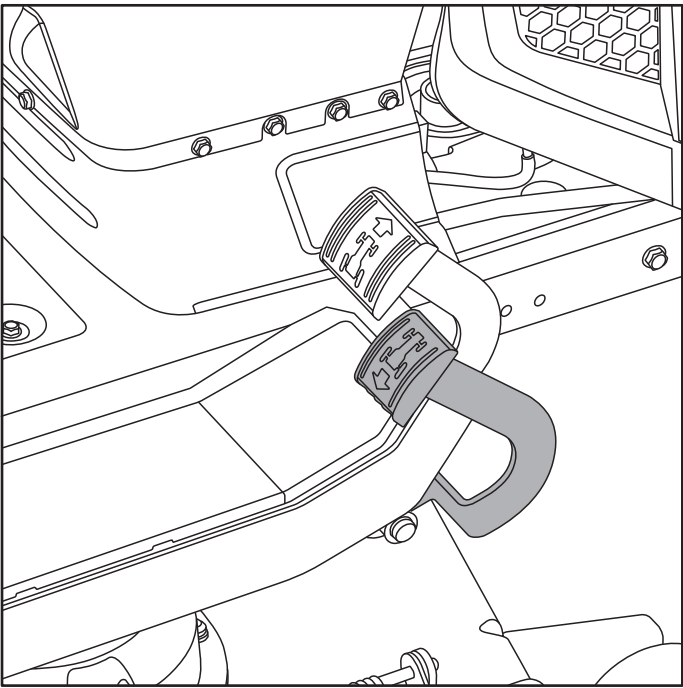


Fig. 17B

OPERATING INSTRUCTIONS

Setting the Cruise Control



Do not attempt engage the cruise control lever while traveling in reverse. The cruise control will not engage while traveling in reverse.

To set the cruise control:

1. Depress the forward pedal with your right foot until the desired speed is achieved.
2. Pull up the park brake/cruise control lever and hold it in that position.
3. Remove your foot from the park brake/cruise control lever.

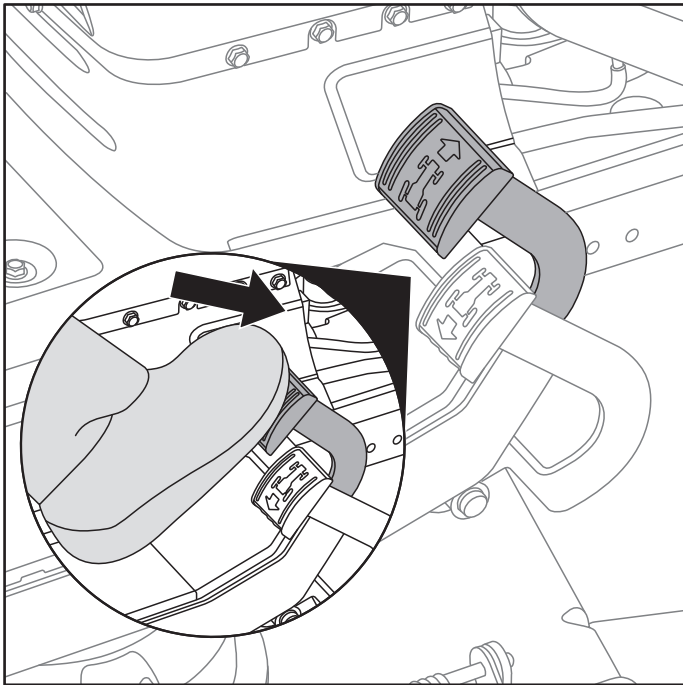


Fig. 18



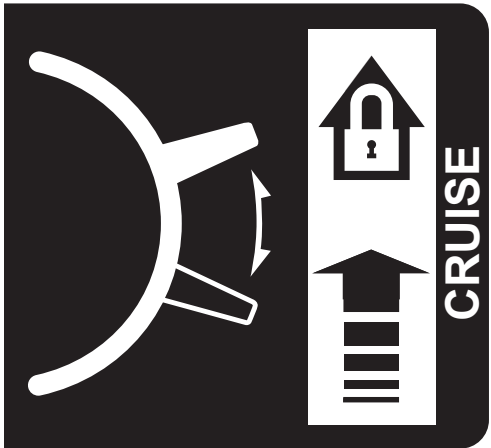
The forward pedal should remain in the down position and the tractor will maintain the same forward drive speed. If it doesn't, the cruise control is not engaged. Repeat steps 1-4 again to engage the cruise control.

To disengage the cruise control, lightly depress the parking brake pedal.

Using the Brake



Always use the brake pedal to bring the mower to a complete stop before shifting.



OPERATING INSTRUCTIONS



Do not use the brake pedal to control the travel speed of the mower. Doing so will result in premature wear of drive belt.

Depress the brake pedal to slow the mower and bring it to a stop.(Fig. 19)

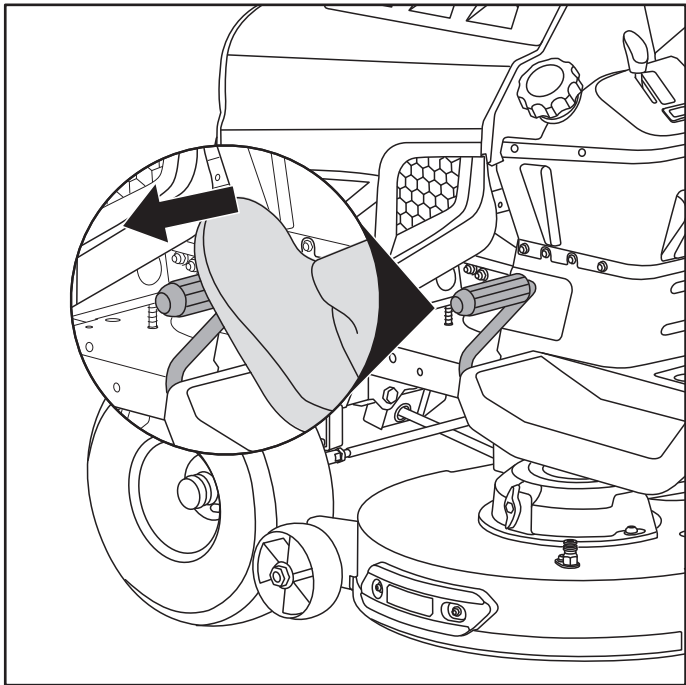


Fig. 19

Using the Parking Brake



The parking brake pedal must be depressed to start the engine.



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

Setting the parking brake:

1. Fully depress the parking brake pedal.
2. Raise the parking brake lever all the way up into the lock position.(Fig. 20)
3. Release the parking brake pedal to allow the parking brake to engage.

Releasing the parking brake:

1. Fully depress the parking brake pedal.
2. Release the parking brake pedal to allow the parking brake to disengage.

OPERATING INSTRUCTIONS

Adjusting the Mower Cutting Height

The height of cut lever is located on the mower's right fender. It is used to change the height of the cutting deck. The height (the blade to the ground) can be adjusted from 1.5" to 4.5" (13 height positions).

To change the height of cut, move the lever out of the notch, then up or down to the position that is best suited for your application.(Fig. 21)

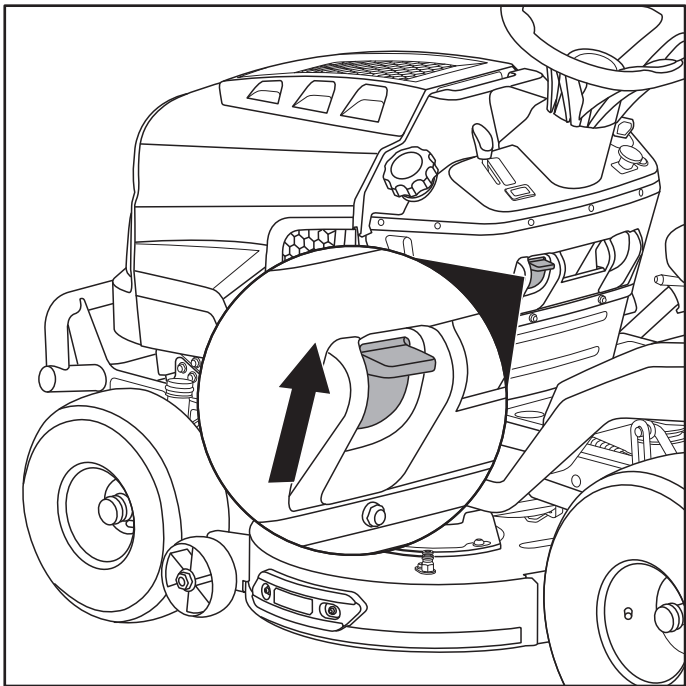


Fig. 20

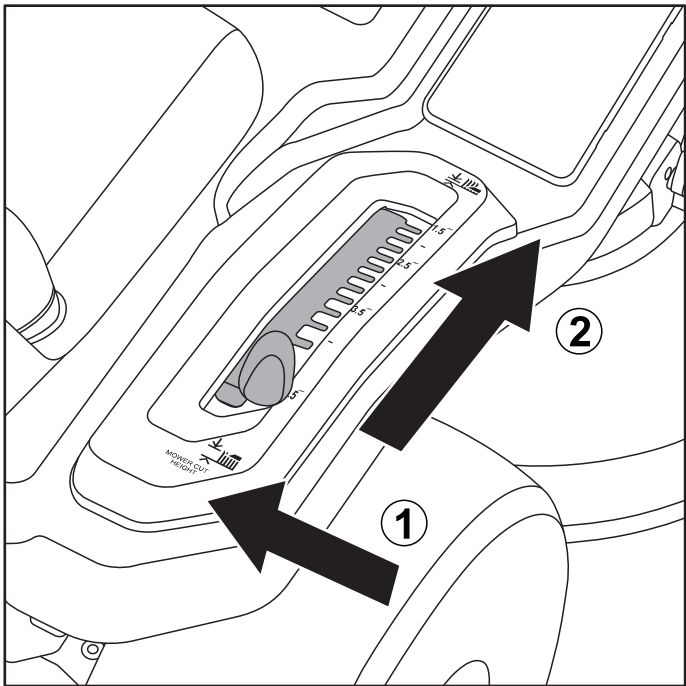


Fig. 21

Adjusting the Deck Anti-Scalp Wheels



The bottom of the deck anti-scalp wheels should be positioned approximately 1/8 in. - 1/2 in. off the ground when the mower is at the desired cutting height. This will minimize the chance of scalping the lawn in most situations.



The left and right wheels should be set at the same positions.

To adjust the wheels:

1. Park the mower on a level surface and engage the parking brake.
2. Stop the engine and remove the key. Allow blades to come to a complete stop.
3. Set the deck to the desired height setting.
4. Remove bolt and nut and holding wheel in place.
5. Move the wheel to a position that's approximately 1/8 in. - 1/2 in. off the ground.

OPERATING INSTRUCTIONS

6. Replace bolt and nut; tighten securely.
7. Repeat with the other side deck support wheel, making sure both side wheels are installed in the same position.

Mowing



This machine is capable of amputating hands and feet, and throwing objects. Failure to obey the safety instructions could result in serious injury or death.

- Only operate the machine in daylight hours or good artificial light.
- Avoid holes, ruts, bumps, rocks, or other hidden hazards. Uneven terrain can overturn the machine or cause operator to lose their balance or footing.
- Do not direct discharge material toward anyone. Avoid discharging material against a wall or obstruction as material may ricochet back toward the operator.
- Stop the blade(s) when crossing gravel surface.
- Do not leave a running machine unattended. Always park on level ground, disengage the attachment, set parking brake, stop engine and remove starter insert or key.

The Power Take Off switch is located on the mower's right fender. Engaging the Power Take Off switch transfers power to the cutting blades.

To engage the blades:

1. Pull the switch knob to engage the Power Take Off switch (PTO).

To disengage the blades:

2. Press the switch knob to disengage the Power Take Off switch.



The engine will STOP when reverse travel is attempted with the Power Take Off switch (PTO) ENGAGED and MIR button NOT depressed while reversing. See Mow In Reverse (MIR) Option.



The Power Take Off switch (PTO) must be DISENGAGED when starting the engine.

OPERATING INSTRUCTIONS

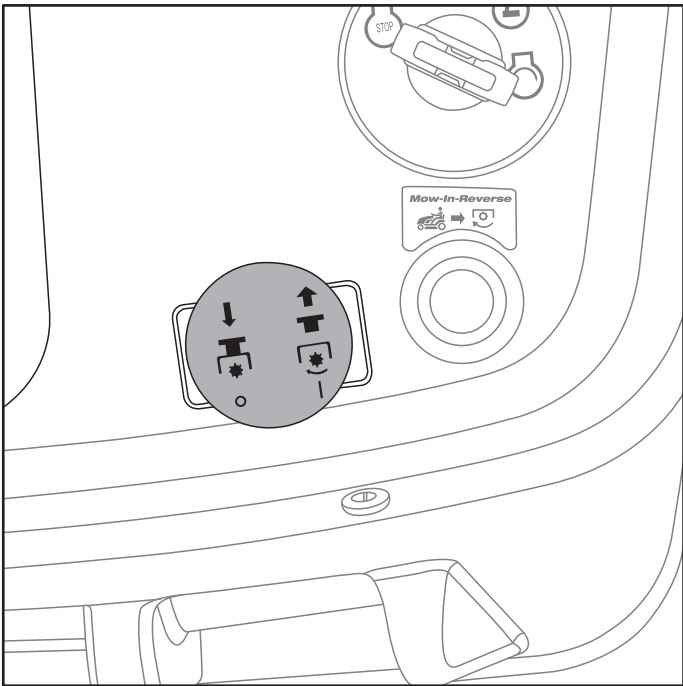


Fig. 22

Mow In Reverse (MIR) Option



Mowing in reverse can be hazardous to bystanders. 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.

- Keep children out of the operating area and under the watchful care of a responsible adult.
- Do not carry passengers, especially children, even with the blade(s) shut off. Children can fall off and be seriously injured or interfere with the safe machine operation. Children who have been given rides in the past can suddenly appear in the mowing area for another ride and be run over or backed over by the machine.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- If the machine mows in reverse without Reverse Mowing Option activated, see an authorized dealer immediately.

Once The Blades Are Engaged:

1. Press M-I-R button.(Fig. 23)
2. Slowly press the backward pedal.



Remove the key to restrict access to the MIR Option.

OPERATING INSTRUCTIONS

Mowing Tips

- Mowing should always be done with the throttle in the FAST position for optimal cutting results.
- Keep the blades sharp. Jagged cuts increase the likelihood of the tip of the grass blade browning or developing a disease.
- After completing a pass in your lawn, overlap the previous pass by approximately 2 – 3”.
- Change the direction you mow each time you mow to prevent ruts from developing in your lawn.
- Set the mower cut height at the recommended setting for the type of grass in your lawn. Cutting your lawn too short will prevent it from deepening its root system as the grass will use its energy to regrow the grass blades, rather than the root system. A deep root system will allow the grass to find nutrients and water in the soil, especially in periods of drought.
- Raise the mower cut height during the summer or periods of drought.
- Do not cut during the hottest part of the day. Doing so stresses the grass.
- Follow the “1/3 Rule”. Take off no more than 1/3 of the grass blade length at a time.
- When cutting long, thick grass, it may be necessary to shift into a lower gear. It may also be necessary to go back over the cut area a second time.
- Do not cut wet grass. The grass will be less likely to clump together and more likely to be standing upright, which will result in a clean, even cut.

MAINTENANCE

Good maintenance is essential for safe, economical and trouble-free operation. Follow the inspection and maintenance recommendations and schedules in this manual.

 **WARNING:**

Improper maintenance, or failure to correct a problem before operation or use non-conforming replacement components, can cause malfunction and could result in serious personal injury.

 **NOTICE:**

Before performing any type of maintenance/service, disengage the blades, shut off the engine. And wait until all moving parts have come to a complete stop. Disconnect spark plug wire and keep it away from the spark plug. Always wear safety glasses while performing any adjustments or repairs

 **NOTICE:**

Refer to engine operator’s manual for detailed engine maintenance

 **NOTICE:**

If you are unsure how to perform any of the maintenance items listed below, please contact customer service or a qualified service center for assistance.

 **NOTICE:**

Refer to engine operation manual for more information about engine maintenance.

Before adjustments and repairs:

- Use ONLY the correct tools.
 - DO NOT tamper with the governor spring, links, or other parts to increase engine speed.
 - Replacement parts must be of the same design and installed in the same position as the original parts.
- Other parts may not perform as well, may damage the unit, and may result in injury.

Maintenance Schedule

MAINTENANCE

		BEFORE EACH USE	EVERY 8 HOURS	EVERY 25 HOURS	EVERY 50 HOURS	EVERY 100 HOURS	EVERY SEASON	BEFORE STORAGE
T R A C T O R	Check brake operation	✓	✓					
	Check tire pressure	✓	✓					
	Check operator presence and interlock systems	✓						
	Check for loose fasteners	✓			✓			✓
	Sharpen/replace mower blades			✓ ₄				
	Lubrication chart			✓				✓
	Check battery level			✓				
	Clean battery and terminals			✓				✓
	Check battery connection	✓		✓				✓ ₆
	Adjust blade belt(s) tension					✓ ₅		
E N G I N E	Check engine oil level	✓	✓					
	Change engine oil			✓ _{1,2,3}				✓
	Clean air filter			✓ ₂				
	Clean air screen			✓ ₂				
	Inspect muffler/spark arrester				✓			
	Replace oil filter (if equipped)					✓ _{1,2}		
	Clean engine cooling fins					✓ ₂		
	Replace spark plug					✓	✓	
	Replace air filter paper cartridge					✓ ₂		
	Replace fuel filter						✓	

1. Change more often when operating under a heavy load or in high ambient temperature.
2. Service more often when operating in dirty or dusty conditions.
3. If equipped with oil filter, change oil every 50 hours.
4. Replace blade more often when mowing in sandy soil.
5. If equipped with adjustable system.
6. Disconnect the negative cable.

MAINTENANCE

Cleaning the Tractor

 **WARNING:**

Let the tractor to cool for at least five minutes before cleaning. Exercise caution to avoid burns.

 **CAUTION:**

Do not use pressure washer or garden hose to clean your tractor other than to clean the underside of the deck. It may cause damage to electrical components, spindles, pulleys, bearings, or the engine.

 **NOTICE:**

Debris can accumulate anywhere on the tractor, especially on horizontal surfaces. Additional cleaning may be necessary when mowing in dry conditions or when mulching.

 **NOTICE:**

Fuel leaks/spills, oil leaks/spills, and excess lubrication can also become collection sites for debris. Immediate repair and cleaning up oil or fuel spills can help reduce fire hazards.

 **NOTICE:**

Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use clean cloths to remove dirt, dust, oil, grease, etc.

1. Clean under the hood and around the engine, including the engine intake screen, exhaust manifold, exhaustmanifold, muffler, and muffler shield.
2. Clean the top of the deck and around belts and pulleys.
3. Clean around and near the transmission.

Cleaning the Mower Deck

 **NOTICE:**

The mower ONLY comes with a washout port. A garden hose quick disconnect is NOT included and must be purchased separately.

1. Put the tractor on a smooth level surface.
2. Attach the quick disconnect to the garden hose and then connect to the washout port on the mower deck.
3. Turn the water ON.
4. Start the engine.
5. Set the Height-of-Cut to the lowest position.
6. Pull the Power Take Off switch (PTO) to engage the mower blades. The rotation of the blades and the water will clean the bottom of the mower deck.(Fig. 24)
7. Disengage the PTO.

MAINTENANCE

8. Stop the engine.
9. Turn the water OFF.
10. Remove the garden hose and quick disconnect from the washout port.

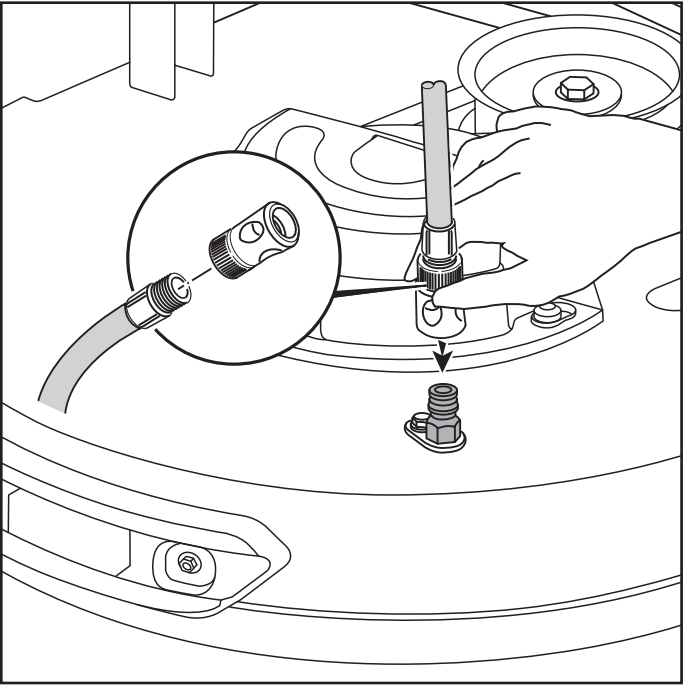


Fig. 24

Leveling the Cutting Deck


If your lawn appears unevenly cut after using the tractor, the cutting deck may need adjusting. Before deciding that leveling the cutting deck is necessary, make sure the tires are properly inflated to the recommended PSI when mowing.

Before beginning:

1. Stop the engine, engage the parking brake, and remove the key.
2. Raise the height of the cutting deck to its highest position.

To make side-to-side adjustment:

1. Position the blades so that the ends point toward the sides of the mower.
2. Measure the distance from the bottom, outside tip (cutting tip) of the blade to the ground. Measure the left blade's cutting tip to the ground and the right blade's cutting tip to the ground. If the measurements are more than 3/16" off, proceed to the next step.
3. Turn the adjustment nuts up to raise or down to lower the left side of the cutting deck.(a, Fig. 25)

 **NOTICE:**

If raising the side, you will need to turn the top adjustment nut first. If lowering, turn the bottom nut first.

4. Measure again. The deck is properly balanced when both blade tip measurements taken earlier are equal.

MAINTENANCE



WARNING:

Tractor blades are sharp. Wrap the blade or wear gloves, and use extra caution when servicing them.

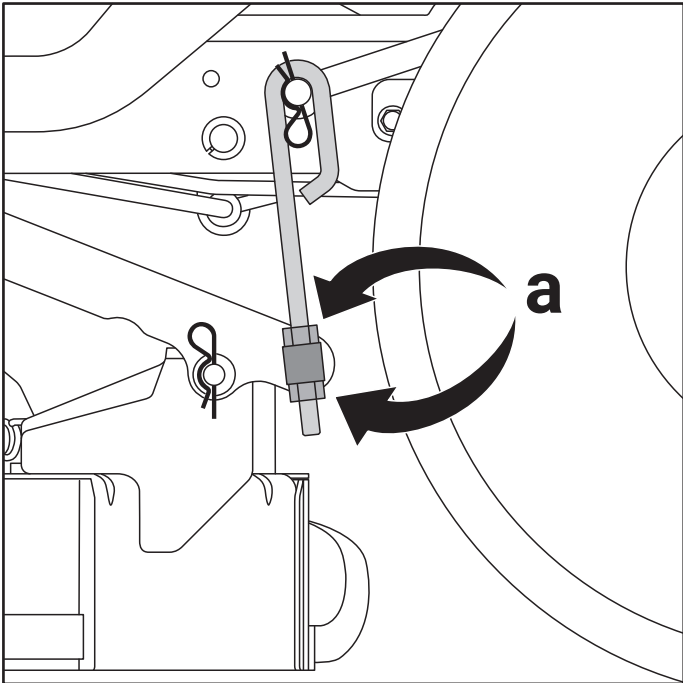


Fig. 25

To make front-to-back adjustment:

1. Position the right blade so that the ends now point toward the front and back of the tractor.
2. Measure the distance from the tip of the blade to the ground. For optimal cutting results, the front tip of the blade should be from 1/4 in. to 3/8 in. lower than the rear tip.
3. If front-to-back adjustment is needed, after loosening the outer jam nut, turn the inner adjustment nut clockwise to raise or counterclockwise to lower the front of the cutting deck.(Fig. 26)
4. Measure again to verify the front tip is now 1/4 in. to 3/8 in. lower than the rear tip. If not, continue to adjust and measure until they are.
5. Without moving the inner adjustment nut, re-tighten the outer jam nut to secure the inner adjustment nut in place.(Fig. 26)

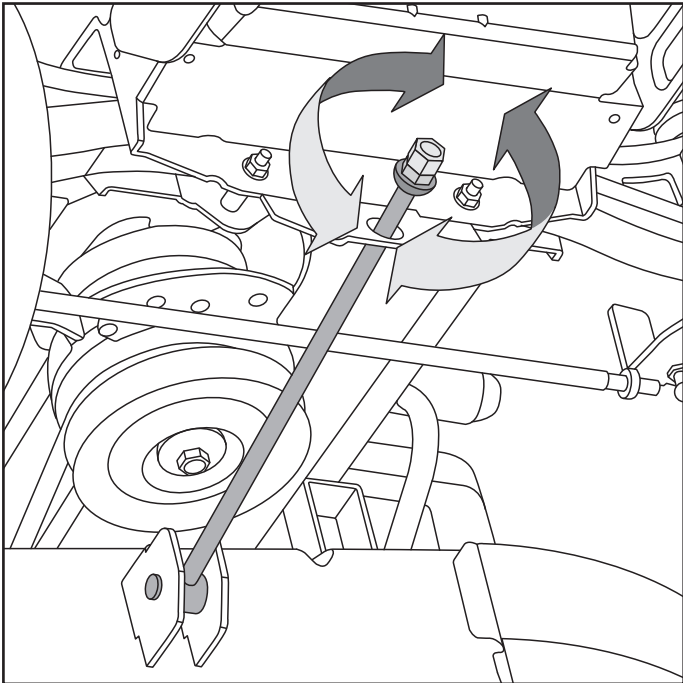


Fig.26

MAINTENANCE

Removing the Cutting Deck



DANGER:

Tractor blades are sharp. Wrap the blade or wear gloves, and use extra caution when servicing them.

Removing the deck will make it easier to replace belts, pulleys, and blades.

1. Stop the engine, engage the parking brake, and remove the key.
2. Lower the deck to its lowest position.
3. Disconnect the cable spring (a, Fig. 27A) that connects the deck to the tractor.
4. Remove the 5 hitch pins, 2 on the left (b and c, Fig. 27A), 2 on the right (the same position as shown on left), and 1 on the front (d, Fig. 27B) that secure the deck in place.
5. Slip the deck belt off the drive pulley assembly.
6. Slide the deck out from under the tractor.
7. Reverse the process to reattach the deck to the tractor.

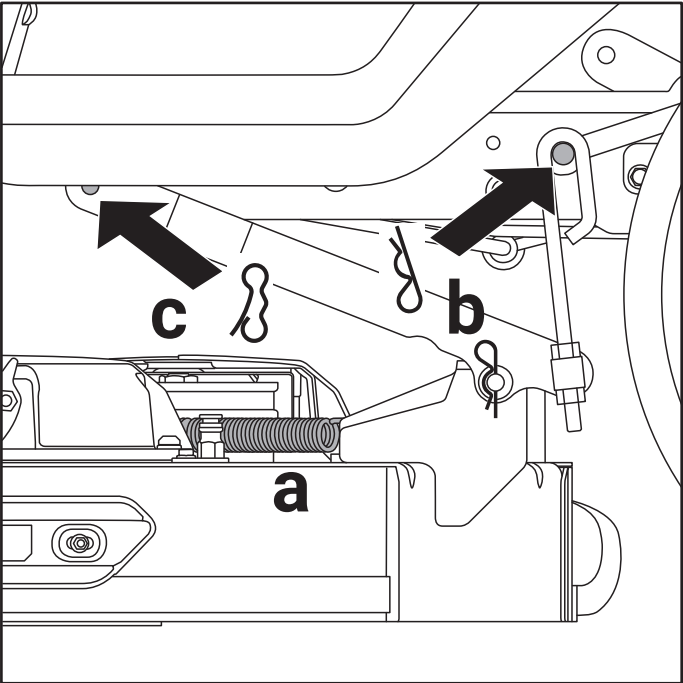


Fig. 27A

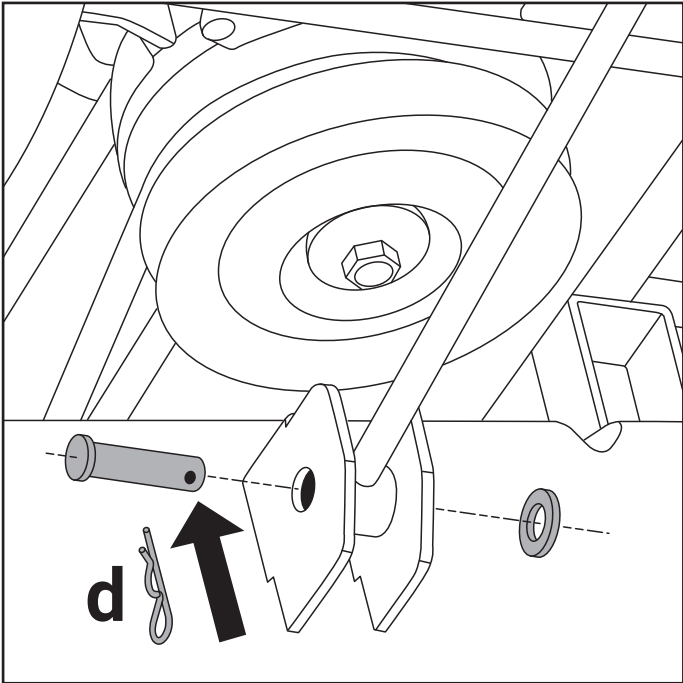


Fig. 27B

MAINTENANCE

Adjusting the Left Deck Anti-scalp Wheel

 **NOTICE:**

The bottom of the deck anti-scalp wheels should be positioned approximately 1/8 in. - 1/2 in. off the ground when the mower is at the desired cutting height. This will minimize the chance of scalping the lawn in most situations.

 **NOTICE:**

The left and right wheels should be set at the same positions.

 **NOTICE:**

The anti-scalp wheel have already been assembled in the factory.

- 1. Park machine safely.
- 2. Inflate to the correct pressure.
- 3. Lower mower deck to the desired mowing position.
- 4. Check each wheel position. Remove nut and bolt, and move wheels to proper hole.
- 5. Install bolts and nuts to lock wheels in position. Tighten nuts to specifications.

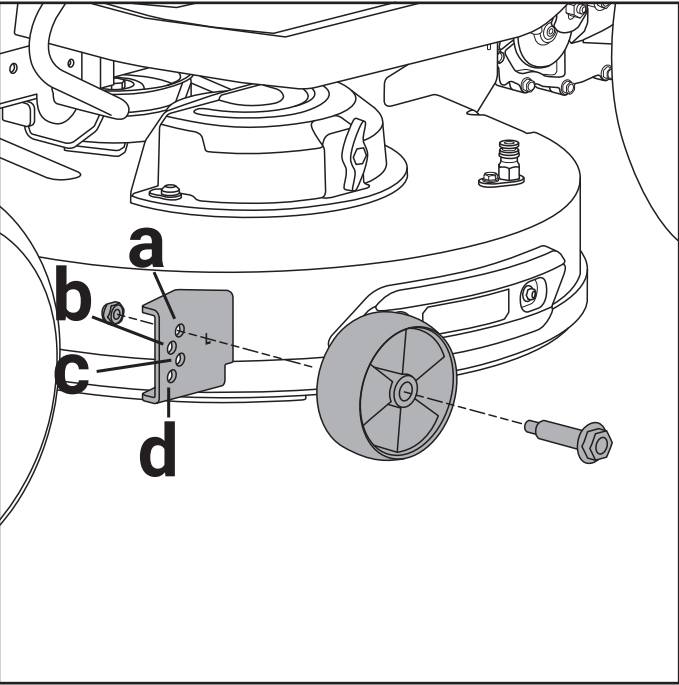


Fig. 28

- a—38 mm (1.5-in.) or less
- b—51 mm (2-in.)
- c—64 mm (2.5-in.)
- d—76 mm (3-in.) and above

MAINTENANCE

Adjusting the Tension in the Deck Belt

If you notice a deterioration in cutting performance, it may be necessary to adjust the tension in the deck cable.

 **WARNING:**

Stop the engine, engage the parking brake, and remove the key.

- 1. The deck cable is set at the factory with no exposed threads showing behind the jam nut (b).(Fig. 29)
- 2. To increase the cable tension, unthread the extension nut (a) 1/8 in.
- 3. Re-tighten the jam nut up against the extension nut. Now 1/8 in. of exposed threads should be showing behind the jam nut.
- 4. If this was not adequate, repeat the process above until there is adequate tension in the deck belt.
- 5. Make sure the cable is not tensioned too tight.

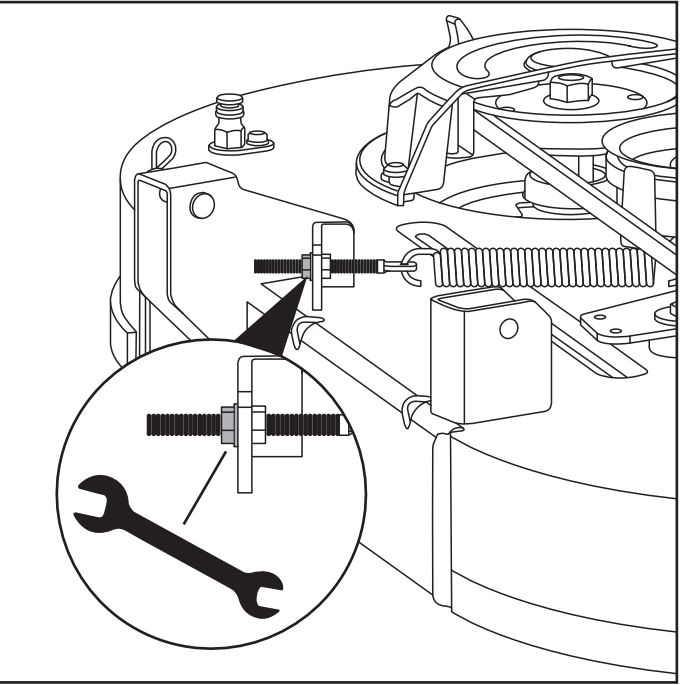


Fig. 29

MAINTENANCE

Changing the Deck Belt



Stop the engine, engage the parking brake, and remove the key.



Belts on your tractor are subject to wear and should be replaced if any signs of wear are present.

1. Remove the deck. Refer to the “Removing the Cutting Deck” section.
2. Unscrew the rotary knobs.
3. Remove the two belt protective covers (a, Fig. 30) by pulling the cover from fastener.
4. Remove the fixed pulley (b, Fig. 30) and tension pulley (c, Fig. 30).
5. Carefully remove the deck belt from around the pulleys.
6. Reverse the process to reattach a new deck belt to the deck.

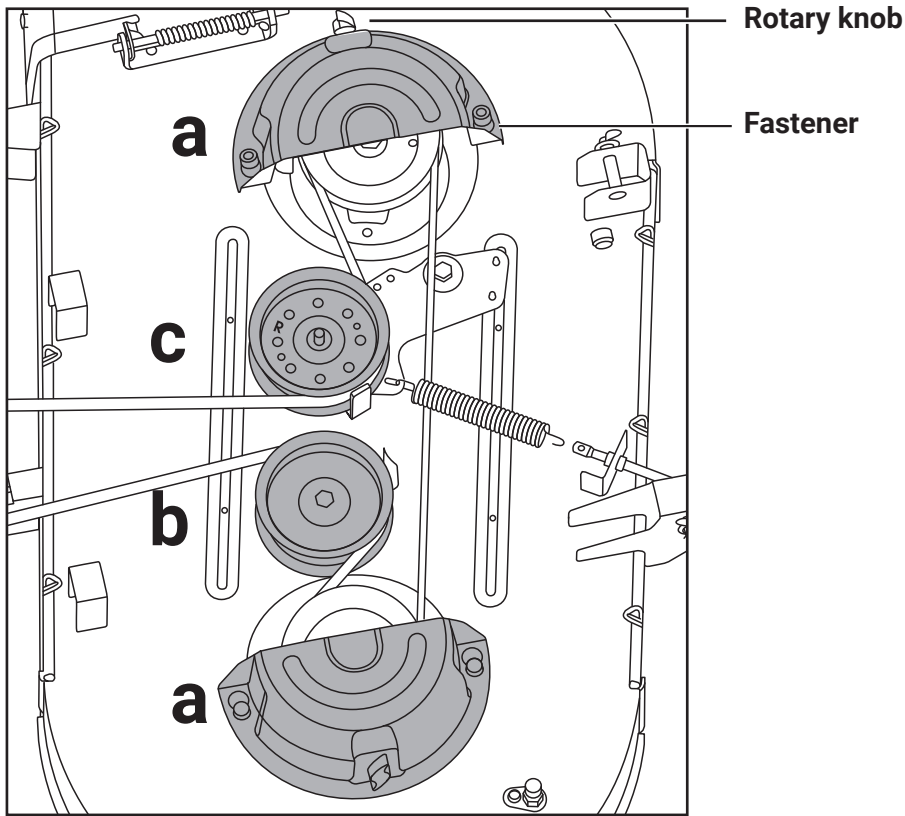


Fig. 30

MAINTENANCE

Changing the Drive Belt



Stop the engine, engage the parking brake, and remove the key.



If necessary, raise the tractor by placing on a lift or using a jack and jack stands. Make sure the tractor is properly secured and the parking brake is set before proceeding. Failure to properly secure the tractor could cause it to fall, resulting in potentially serious personal injury or death.

1. Remove the deck. Refer to the “Removing the Cutting Deck” section.
2. Remove the plate by removing two bolts that fastens them to the mounting bracket. (Fig. 31A)
3. Remove the drive pulley assembly (a, Fig. 31B) by removing the bolt that fastens it to the engine output shaft.
4. Remove the two pulleys (b and c, Fig. 31B) by removing the nuts that fastens them to the mounting bracket.
5. Remove the pulley (e, Fig. 31B) by removing the bolt and nut that fastens it to the mounting bracket.
6. Slip the belt off the transmission pulley. (d, Fig. 31B)
7. Reverse the process to reattach a new drive belt to the tractor.

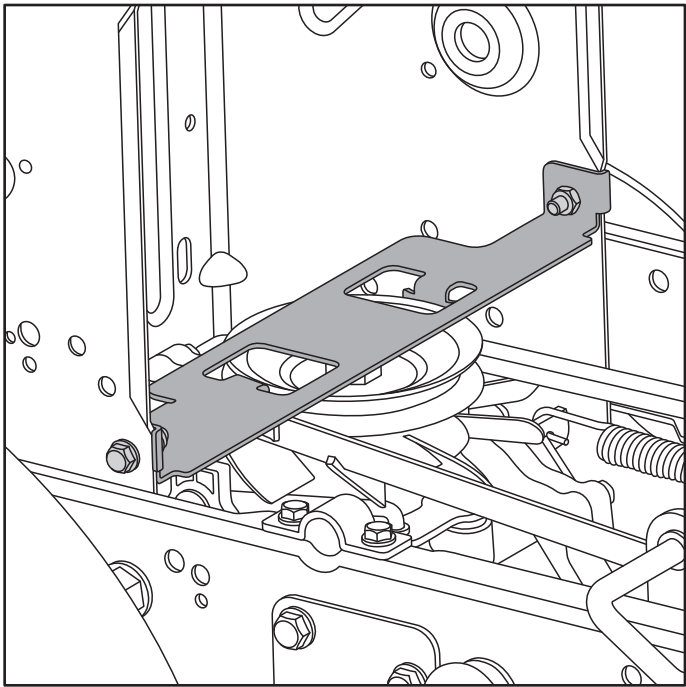


Fig. 31A

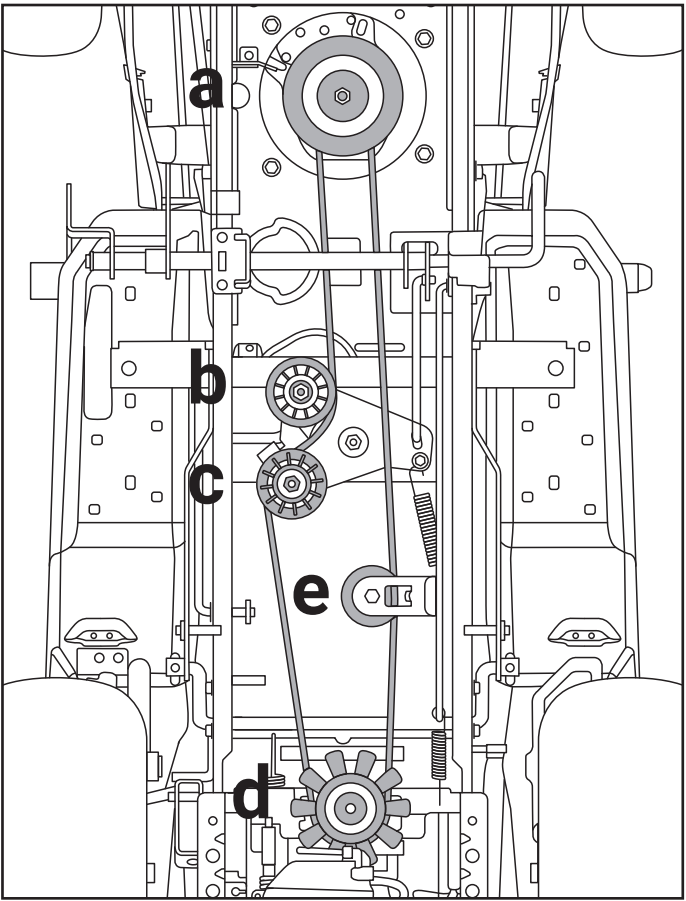


Fig. 31B

MAINTENANCE

Replacing the Cutting Blades

 **CAUTION:**

Only use replacement blades authorized by the manufacturer of your tractor. Use of blades not authorized is hazardous and may damage your riding mower

 **WARNING:**

Tractor blades are sharp. Wrap the blade or wear gloves, and use extra caution when servicing them. For best results, please use the correct replacement kit for this tractor, PN H2135200030A.

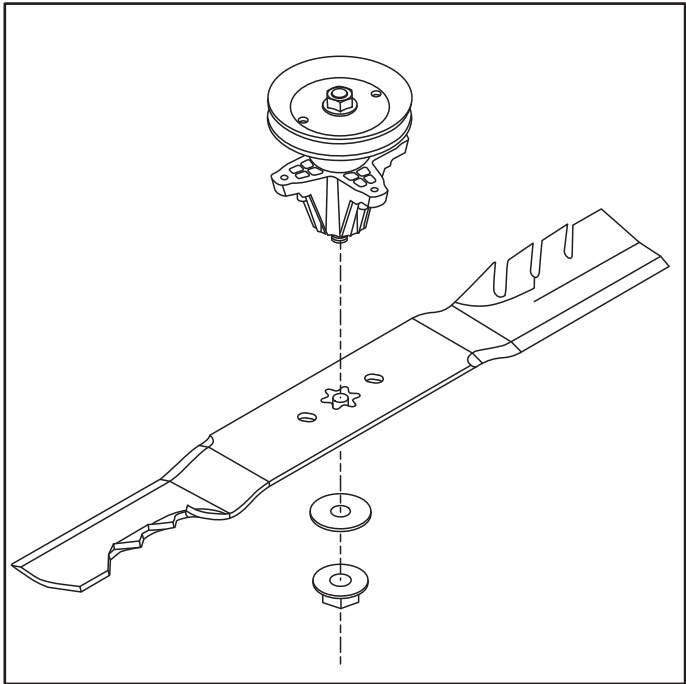


Fig. 32

1. Shut off the engine, remove the key, and engage the parking brake.
2. Raise the height of the cutting deck to its highest position to allow access to blades.

 **CAUTION:**

If necessary, raise the mower by placing on a lift or using a jack and jack stands.

 **WARNING:**

If raising the mower to access the blades, make sure the mower is properly secured and the parking brake is set before proceeding. Failure to properly secure the mower could cause it to fall, resulting in death or possible serious personal injury.

3. Use a blade removal tool (not provided) to prevent the blade from turning.
4. Loosen the blade nut by turning it counterclockwise (as viewed from bottom of mower) using a 24 mm wrench

MAINTENANCE

or socket (not provided).

5. Remove the blade nut, washer and blades.(Fig.32)
6. When replacing or re-installing the blade, be sure to install the blade with the side with a part number stamped in it facing the ground
7. Thread the blade nut on the shaft and finger tighten.
8. Torque the blade nut down clockwise using a torque wrench (not provided) to ensure the bolt is properly tightened. The recommended torque for the blade nut is 70-85 ft lbs.
9. Repeat with second blade.

 **WARNING:**

Ensure blade is properly seated and the blade nut is tightened to the torque specifications above. Failure to properly attach the blade could cause it to come loose and result in possible serious personal injury.

Sharpening the Blades

1. To properly sharpen the cutting blades, remove equal amounts of metal from both ends of the blades along the cutting edges. Always grind each cutting blade edge equally to maintain proper blade balance.
2. Test the blade's balance using a blade balancer(not provided). Grind metal from the heavy side until it balances evenly.

 **WARNING:**

A poorly balanced blade will cause excessive vibration, may damage the tractor, and result in personal injury.

Lubrication

 **WARNING:**

Before lubricating, repairing, or inspecting, always disengage PTO, set park brake, stop engine, and remove key to prevent unintended starting.

Using a quality lubricating oil, lubricate all lubrication points. Refer to Maintenance Schedule chart located in this manual for proper service intervals.

LUBRICATING FRONT WHEELS

The front wheel axles and rims are equipped with grease fittings. Lubricate with a NO. 2 multi-purpose grease applied with a grease gun. See an authorized service dealer without the grease gun.

 **NOTE:**

It is not necessary to grease the steering pinion/sector gear interface. Doing so will allow dirt to accumulate and can affect steering performance.

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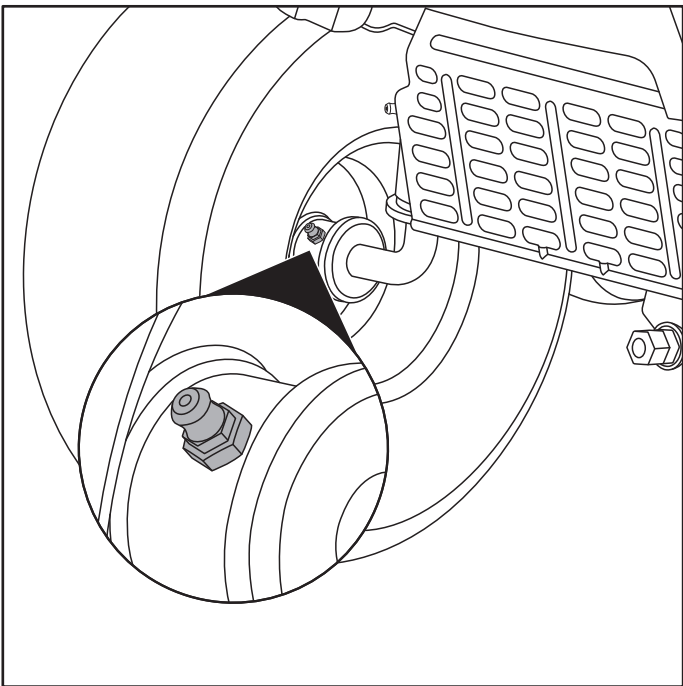


Fig. 33A

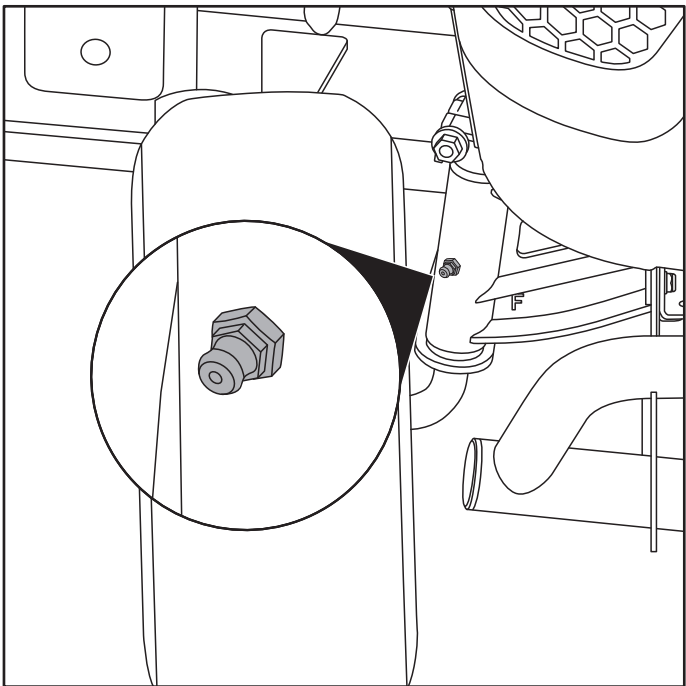


Fig. 33B

Checking the Tire Pressure

For the correct traction and the best mowing performance, make sure that the front tires are inflated to 22 psi and the rear tires inflated to 18 psi. Also, see “Tire Pressure” in the Specifications section.

 NOTICE:

There can be a difference in tire inflation pressure from the "Maximum Inflation" shown on the side of the tires.

Battery Maintenance

Replacing the Battery and Cleaning the Battery and Battery Cables

 WARNING:

When you remove or install battery cables, always disconnect the NEGATIVE (black) cable FIRST and reconnect it LAST. If not done in this order, the positive terminal can be shorted to the frame by a tool.

 NOTICE:

DO NOT remove or connect the battery cable while the engine is ON.

1. STOP the engine. Remove the key.
2. Disconnect the NEGATIVE (-) cables from the battery first.(Fig. 34)
3. Disconnect the POSITIVE (+) cables from the battery last.

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4. Clean the battery surface with baking soda and water.
5. Use a wire brush and terminal cleaner to clean the battery terminals and cable ends.
6. Lubricate the battery terminals with petroleum jelly or non-conducting grease.
7. Install the battery.
8. Connect the POSITIVE (+) cables to the battery first.
9. Connect the NEGATIVE (-) cables to the battery last.

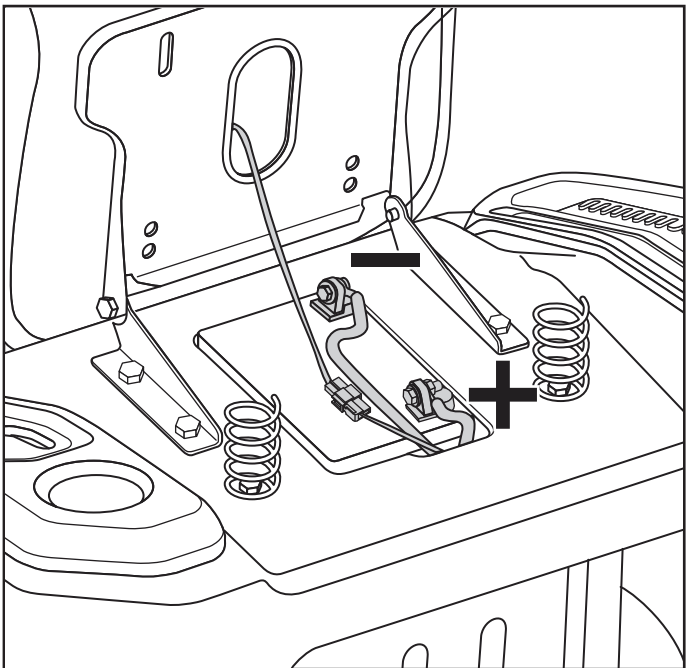


Fig. 34

Charging the Battery

 WARNING:

Keep open flames and sparks away from the battery. Gasses from the battery are very explosive.

A dead battery or one too weak to start the engine can be the result of a defect in the charging system or other electrical components. If there are doubts about the cause of the problem, see an Authorized Service center.

Adjusting the Transaxle Brake

The transaxle is equipped with a brake rotor and brake pads. Over time the brake pads will wear, and it will be necessary to adjust the brake to ensure the brake/parking brake works properly. If you notice that the unit doesn't stop as quickly as it once did or the tractor does not stay in place when the parking brake is engaged, the transaxle brake may need adjusting.

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Stop the engine, park the tractor on level ground, disengage the parking brake, and remove the key. Make sure the brake rotor is cool before adjusting.

1. Remove the right rear tire to allow easy access to the brake.
2. Straighten the end of the pin with pliers and remove the pin from the nut (b).(Fig.35A)
3. While rocking the brake rotor (a) back and forth slowly tighten nut (b) until it's not possible to move the brake rotor.(Fig.35B)
4. Loosen nut (b) 2/3 turn and leave as the final setting.
5. Reinstall the pin to the nut.

As an alternative to a 2/3 turn, use a 0.5mm feeler gauge to set the brake pad 0.5mm off the brake rotor.

1. First loosen the nut (b).
2. Straighten the end of the pin with pliers and remove the pin from the nut (b).(Fig.35A)
3. Insert a 0.5mm feeler gauge (c), from the side, into the gap between the brake rotor (a) and brake pad.(Fig.35B)
4. Tighten the nut until the 0.5mm feeler gauge is snug between the brake rotor and brake pad but can still be removed.
5. Reinstall the pin to the nut.

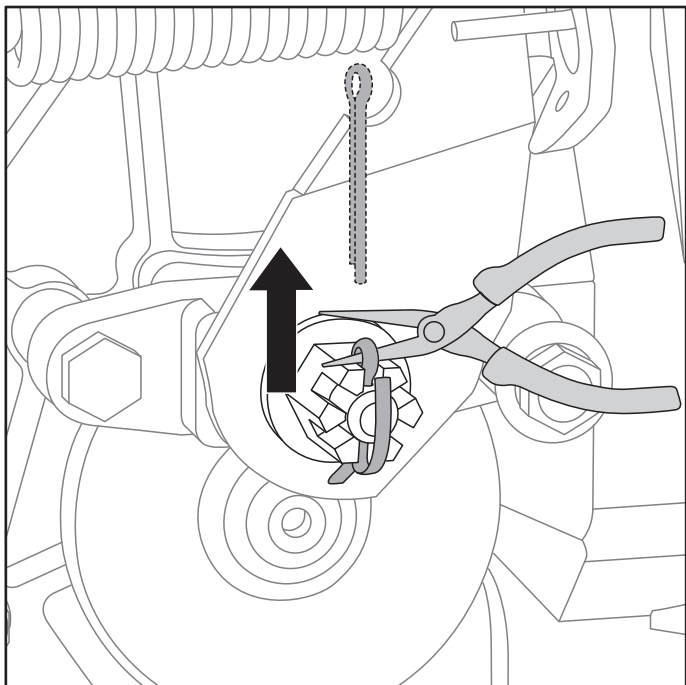


Fig. 35A

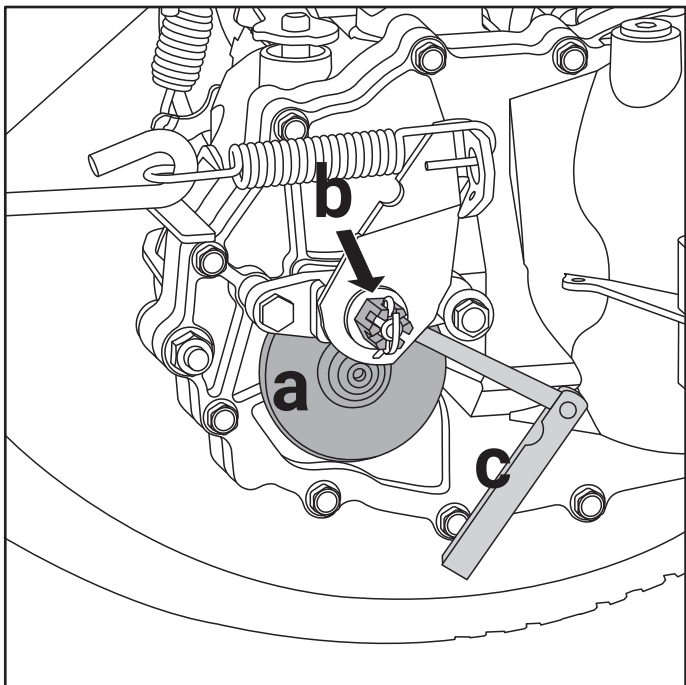


Fig. 35B

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Checking the Mower Blade Stop Time



If the mower blade does not STOP with in 5 seconds, the clutch must be adjusted. DO NOT operate the machine until the adjustment has been corrected by an authorized service center.

Changing the Engine Oil

1. Put the unit on a level surface.(Fig. 36A)
2. Stop the engine and remove the key.
3. Place the oil drain sleeve (included with tractor) under the drain plug.(Fig. 36A)
4. Place a collection container below the oil drain sleeve.(Fig. 36B)
5. Remove the drain plug.
6. After the oil has drained, re-install the oil drain plug tightly.
7. Refill the engine with new oil.

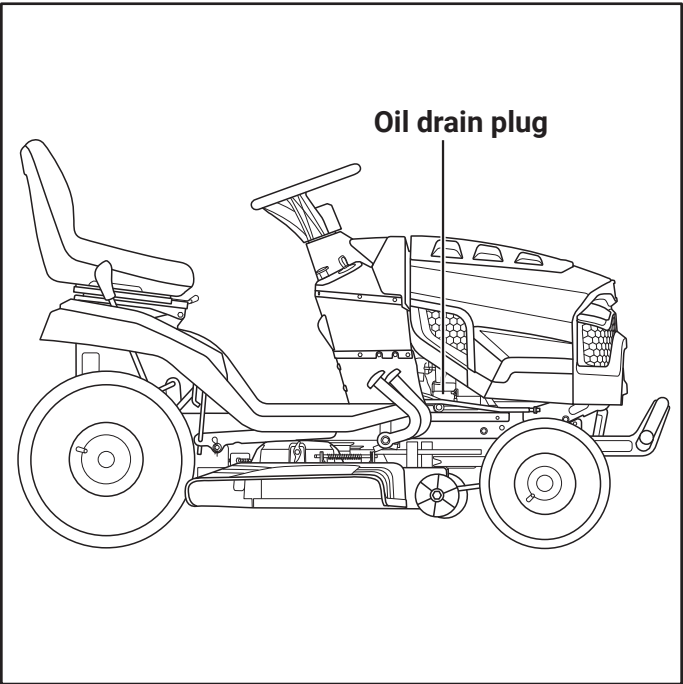


Fig. 36A

Checking the engine oil level:

1. Remove the dipstick. Wipe off the remaining oil from the dipstick.
2. Install and tighten the dipstick.
3. Remove the dipstick again, and check the oil level.
4. Make sure that the oil level is at the top of the FULL mark on the dipstick.
5. If the oil level is FULL, install and tighten the dipstick.
6. If the oil level is LOW, add oil into the oil fill tube.

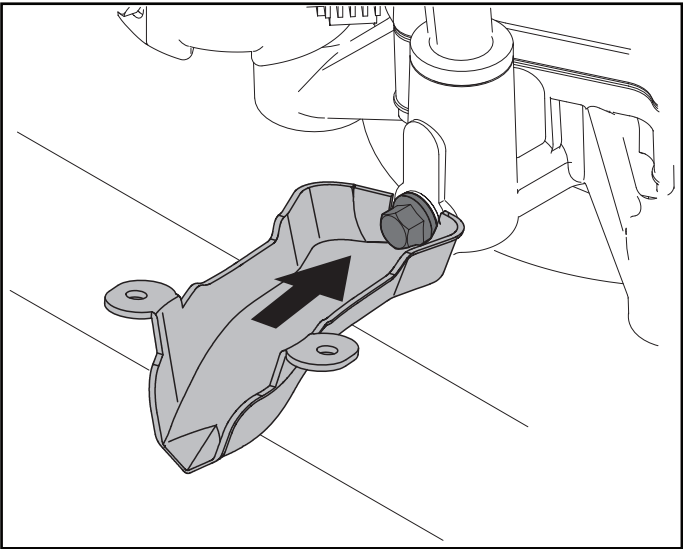


Fig. 36B

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- 7. Wait one minute, and check the oil level again.
- 8. Install and tighten the dipstick.

Pushing the Tractor By Hand

Pushing the tractor may be necessary for moving the tractor into and out of a garage or shed. It may also be necessary for loading into and out of a trailer.

- 1. Disengage the Power-Take-Off (PTO).
- 2. STOP the engine. See Stop the Engine.
- 3. Shift the transmission into neutral.
- 4. Disengage the transmission bypass rod by pushing the rod back in after moving the tractor.
- 5. The rider can be pushed by hand.

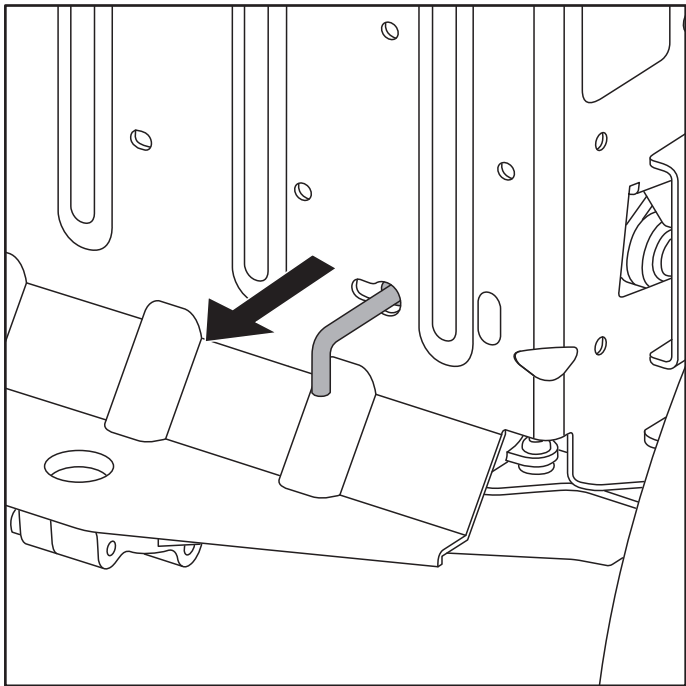


Fig. 37A

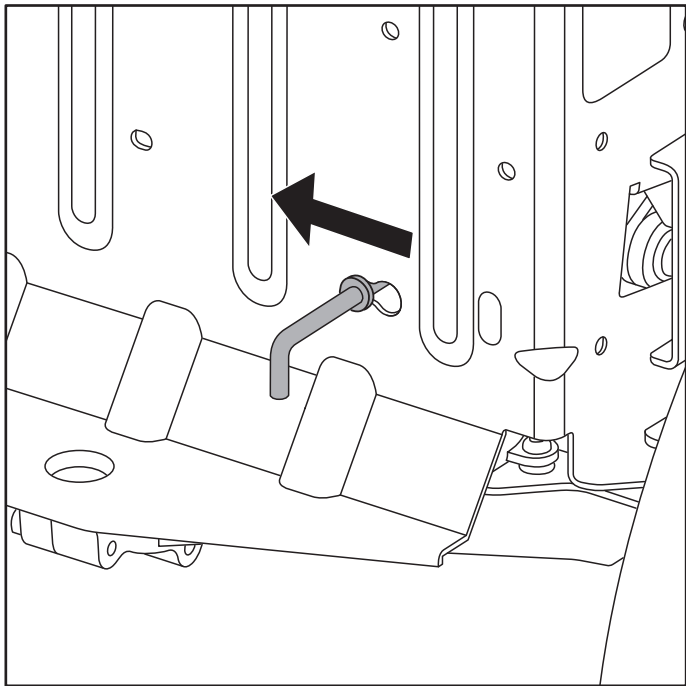


Fig. 37B

Towing with the Tractor

- Attach equipment ONLY at the hitch point.
- The total towed weight (trailer and load) must not exceed 400 lbs (180kg). and a must not exceed a tongue weight (up or down) of 50 lbs (22kg).
- When towing, do not operate on slopes greater than 5 degrees. The weight of the towed equipment on slopes can cause loss of traction and loss of control.
- DO NOT let children or others in or on towed equipment.
- DO NOT shift to neutral and coast down hill

TRANSPORT

Empty the fuel tank with a suction pump before transporting the machine. Start the engine and let it run until it has used up all remaining gasoline.

- Close the fuel cap firmly.
- Let the engine to cool down before transporting.
- Use full width ramps for loading and unloading a machine for transport.
- 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.

STORAGE



WARNING:

Never store the unit with fuel in an enclosed, non-ventilated structure. Fuel vapors can travel to an ignition source (such as a furnace, water heater, etc.) and cause an explosion.

Store away from furnaces, stoves, water heaters, or other appliances that have pilot lights or other ignition sources because they can ignite fuel vapors.

Tractor

Disengage the Power Take-Off (PTO), set the parking brake, remove the key, and let the machine cool.

If you remove the battery, the battery life will increase. Make sure that the battery is in a cool, and dry location, and keep it fully charged. If the battery is left in the unit, disconnect the negative cable.

Before starting the machine after it has been stored:

- Check all fluid levels. Check all maintenance items.
- Do all recommended checks and procedures found in this manual.
- Fully charge the battery.
- Drive the tractor without a load to make certain all the tractor systems are functioning properly.

TROUBLESHOOTING



Before performing any type of maintenance, disengage all controls and stop the engine. Wait until all moving parts have come to a complete stop. Disconnect spark plug wire and ground it against the engine to prevent unintended starting. Always wear safety glasses during operation or while performing any adjustments or repairs.



If you can't solve the problems of the machine, take the tractor to an authorized service center for assistance.

PROBLEM	LOOK FOR	REMEDY
The engine will not start.	The brake pedal is not pushed down	Fully push down on the brake pedal.
	The fuel tank is empty.	If engine is hot, let it cool, and then fill the fuel tank again.
	The Power Take Off switch (PTO) is in ON position.	Move the Power Take Off switch (PTO) to the OFF position.
	The engine is flooded.	Disengage the choke.
	The battery terminals are dirty.	Refer to Replacing the Battery and Cleaning the Battery and Battery Cables section.
	The battery is discharged or dead.	Charge or replace the battery.
	Loose or broken wiring.	Visually check wiring. If wires are frayed or broken, see an Authorized Service Dealer.
The engine starts hard or runs poorly.	The fuel mixture is too rich.	Clean the air filter.
The engine knocks.	Low oil level.	Check and add oil as required.
	Incorrect grade of oil.	Refer to the Changing Engine Oil section.
Excessive oil consumption.	The engine is too hot.	Check the engine fins, blower screen, and air filter.
	Incorrect grade of oil.	Refer to the Changing Engine Oil section.

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	Too much oil in crankcase.	Drain excess oil.
The engine exhaust is black.	The air filter is dirty.	Clean the Air Filter.
	The choke is closed.	pen the choke.
The engine runs, but the rider will not drive.	The parking brake is engaged.	Disengage the parking brake.
The rider steers hard or handles poorly.	Incorrect tire inflation.	Refer to the Check Tire Pressure section.
The mower cut is uneven.	The tires are not correctly inflated.	Refer to the Tire Pressure Check section.
The mower cut looks rough.	The engine speed is too slow.	Set to FAST throttle.
	The ground speed is too fast.	Slow down.
The engine stalls easily with the mower engaged.	The engine speed is too slow.	Set to FAST throttle.
	The ground speed is too fast.	Slow down.
	Dirty or clogged air cleaner.	Refer to engine manual.
	Height-of-Cut is set too low.	Cut tall grass at maximum Height-of-Cut during first pass.
	The engine is not at the operating temperature.	START the engine, and let it warm for several minutes.
The engine starts, and the rider drives, but the mower will not cut.	The Power-Take Off (PTO) is disengaged.	Engage the PTO.



For all other problems, contact an Authorized Service Dealer.

DISPOSAL

- Gasoline and oil are hazardous waste. Dispose of these materials properly.
- Do not pour gas or oil into the ground or into household garbage. Contact your local recycling authority.
- Some recycling centers will accept gas and oil and will recondition it or recycle it safely. Your city’s government official should be able to direct you to the right recycling place. Then, call the recycling location in advance to see if they have any instructions that you’ll need to follow.
- If disposing of entire tractor, contact your local metal scrap yard.

TECHNICAL DATA

TRACTOR MODEL	SNTR1900-42
Rated Speed	3100/min
Forward speed	0-5.5mph
Backward speed	0-3mph
Engine Model	Briggs & Stratton® EX1900
Displacement	540 cc
Horsepower	19.0 hp
Oil capacity	1.4L
Cutting Width	42 in(107cm)
Cutting Height	1.5 in - 4.5 in (approximately), 15 positions
# of Blades / Lift	2 / standard lift
Front Tire Size	15 in x 6.00 in - 6 in
Rear Tire Size	20 in x 8.00 in - 8 in
Front Tire Pressure	22 psi
Rear Tire Pressure	18 psi
Turning Radius	16 in
Voltage	12V
Battery capacity	19Ah
Weight	204kg

WARRANTY

Under this limited warranty, the Manufacturer will repair or replace, at its option, any covered part which is found to be defective in material or workman ship 2 years warranty time. Warranty service must be performed by a service center authorized by the Manufacturer to service the type of Equipment involved, which will use only new or remanufactured parts or components furnished by the Manufacturer. Warranty service will be performed without charge to the purchaser for parts or labor. The purchaser will be responsible, however, for any transportation of the Equipment to and from the service center’s place of business, for any premium charged for overtime labor requested by the purchaser of the Equipment, and for any service and/or maintenance not directly related to any defect covered under the warranties below. If the Equipment is sold to someone else during the warranty term, the limited warranty is transferable to the new owner. After registering, print or save a copy of the warranty number and other relevant information for your records. The warranty number and other relevant information must be transferred to the new owner.

WHAT IS WARRANTED: All parts of the Equipment except tires and batteries are warranted for the number of years specified below. Warranty statements required by law covering engine emission-related parts and components, which shall not be less than the engine warranty, are found in the Operator’s Manual delivered with the Equipment.

WHAT IS NOT WARRANTED – THE MANUFACTURER IS NOT RESPONSIBLE FOR THE FOLLOWING: (1) Any Equipment that has been altered or modified in ways not approved by the Manufacturer; (2) Depreciation or damage caused by normal wear, lack of reasonable and proper maintenance, failure to follow operating instructions, misuse, neglect, negligence, lack of proper protection during storage, or accident; (3) Normal maintenance parts and service; (4) If used for racing or any other competitive activity.

SECURING WARRANTY SERVICE: To secure warranty service, the purchaser must request repair within the applicable warranty term, (2) Present evidence of the warranty start date, and (3) Make the Equipment available to an authorized service center within a reasonable period of time.