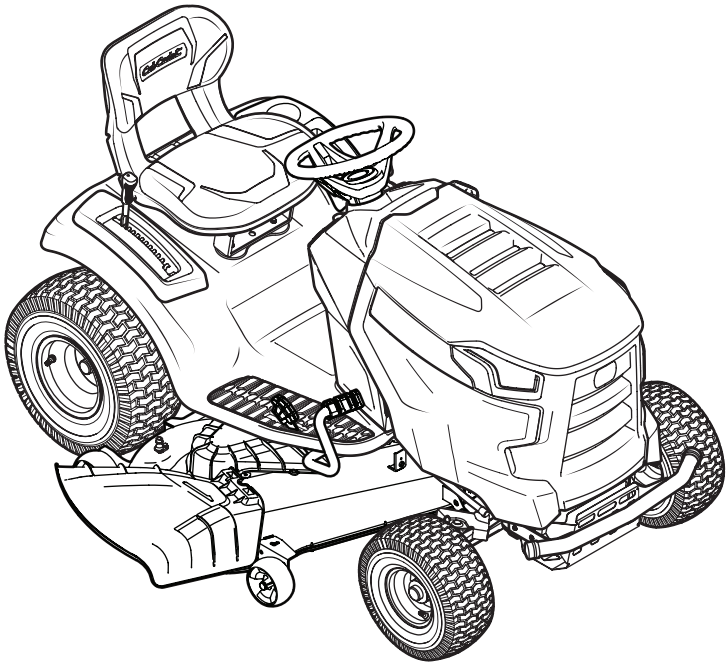
Safe Operation Practices • Set-Up • Operation • Maintenance • Service • Troubleshooting • Warranty

Cub Cadet®

OPERATOR'S MANUAL



XT1 & XT2 Enduro Series™ Tractor

⚠ 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.

CUB CADET LLC, P.O. BOX 361131 CLEVELAND, OHIO 44136-0019

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To The Owner

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Thank You

Thank you for purchasing a Cub Cadet Enduro Series™ Tractor. 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 your local Cub Cadet dealer or contact us directly. Cub Cadet'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

Product Registration and Customer Support

Please register your product on our website, www.cubcadet.com.

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.cubcadet.com

See How-to Maintenance and Parts Installation Videos at **www.cubcadet.com/tutorials**

◊ Call a Customer Support Representative at (800) 965-4CUB

◊ Locate your nearest Cub Cadet Dealer at (877) 282-8684

◊ Write to Cub Cadet LLC • P.O. Box 361131 • Cleveland, OH • 44136-0019

Important Safe Operation Practices

2

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 15 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 loose 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 manufacturer's 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 the 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 Cub Cadet 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 390 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 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.
	DANGER — ROTATING BLADES Look down and behind before and while backing to avoid a back-over accident.
	WARNING — THROWN OBJECTS This machine may pick up and throw and objects which can cause serious personal injury.
	DANGER — SAFETY DEVICES Keep safety devices (guards, shields, switches, etc.) in place and working.
	WARNING — BYSTANDERS Keep bystanders, helpers, children and pets at least 75 feet from the machine while it is in operation.
	WARNING — SLOPE OPERATION Do not operate this machine on a slope greater than 15 degrees. Do not mow across slopes. Mow up and down slopes no greater than 15 degrees. Avoid sudden turns. Use low speed. If machine stops going uphill, stop blades and back down slowly.
	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 — FIRE HAZARD Allow machine to cool before fueling or storing.
	WARNING — FIRE HAZARD Do not drive through piles of dry leaves or tall grass.
	WARNING — FIRE HAZARD Do not allow debris to accumulate. The build up of debris can lead to a fire.

Slope Gauge

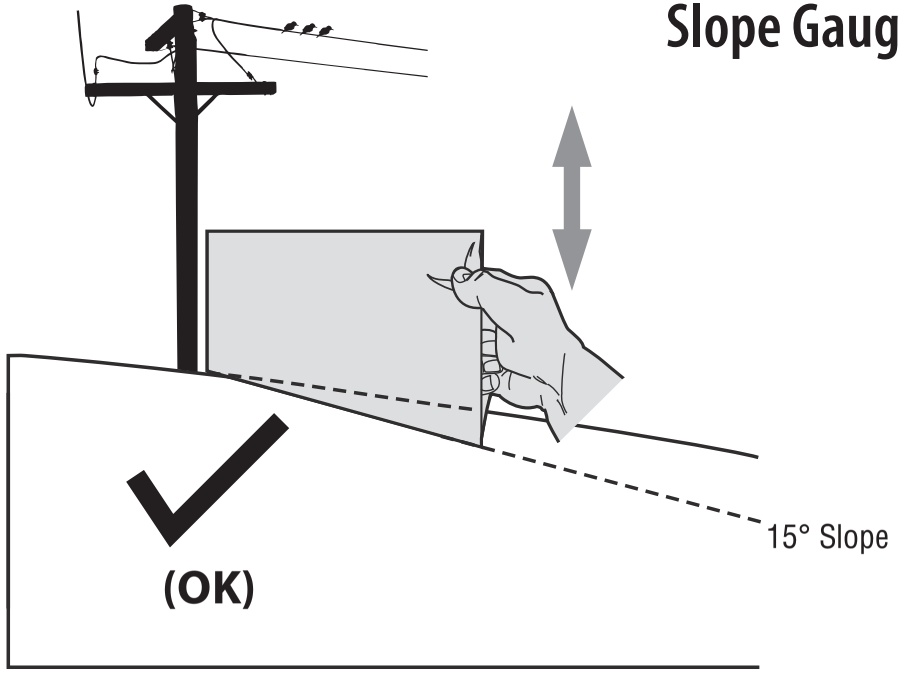


Figure 1

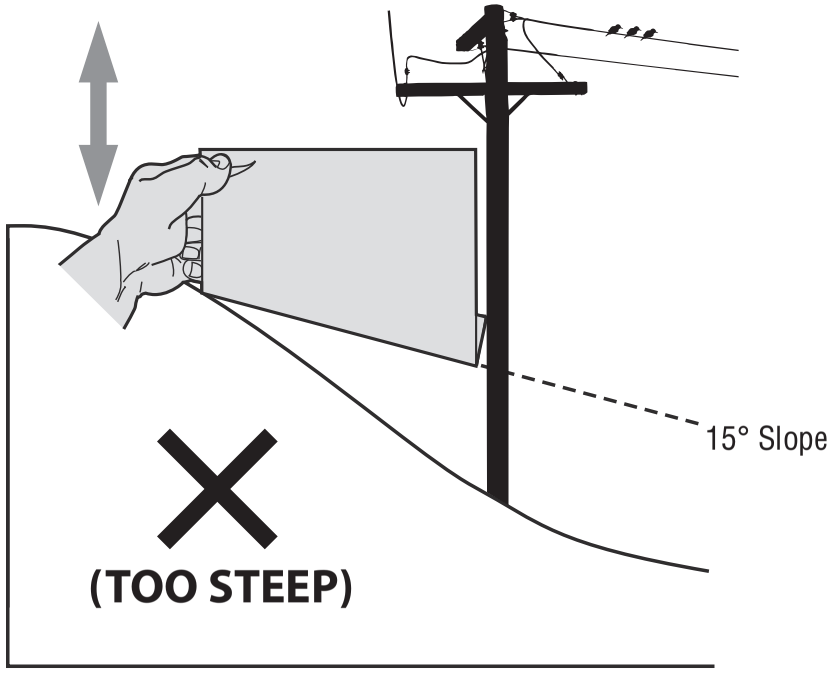


Figure 2

15° dashed line

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 15 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.

Assembly & Set-Up

3

Contents of Crate

- One Tractor
- One Operator's Manual
- One Engine Operator's Manual

NOTE: This Operator's Manual covers several models. Tractor features may vary by model. Not all features in this manual are applicable to all tractor models and the tractor depicted may differ from yours.

NOTE: All references in this manual to the left or right side and front or back of the tractor are from the operating position only. Exceptions, if any, will be specified.

Tractor Preparation

Manually Moving the Tractor

1. Engage the transmission bypass rod to move the tractor manually without starting it. The transmission bypass rod is located on the rear of the tractor, on the frame. Engage the bypass rod by pulling out. See Figure 3-1.

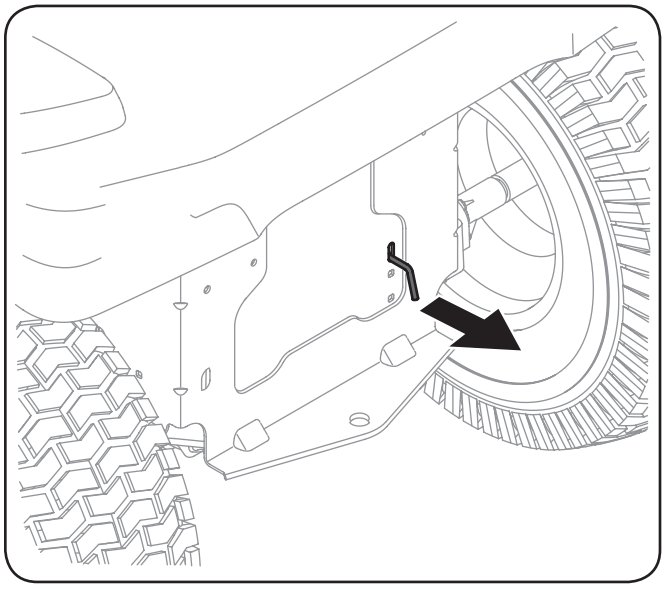


Figure 3-1

NOTE: If the tractor will not move or does not move freely when pushing check if the bypass lever is fully open.

NOTE: The transmission will NOT engage when the hydrostatic bypass rod is pulled out. Return the rod to its normal position prior to operating the tractor. If the tractor will not move when pushing on the forward/reverse pedals, or moves slowly, check to see of the bypass valve is on.

CAUTION: Never tow your tractor. Towing the tractor with the rear wheels on the ground may cause severe damage to the transmissions.

2. Disengage the bypass rod by pushing the rod back in after moving the tractor. See Figure 3-1.

Install Operator's Seat (If necessary)

To install the seat proceed as follows:

NOTE: The seat is shipped with the seat switch and seat pan attached.

1. Cut any straps securing the seat assembly and the drive control levers to the tractor. Remove any packing material.

   NOTE: Be careful not to cut the wiring harness connecting the seat and the seat switch.

2. Remove the two shoulder screws and flange lock nuts in the seat pan as shown in Figure 3-2.

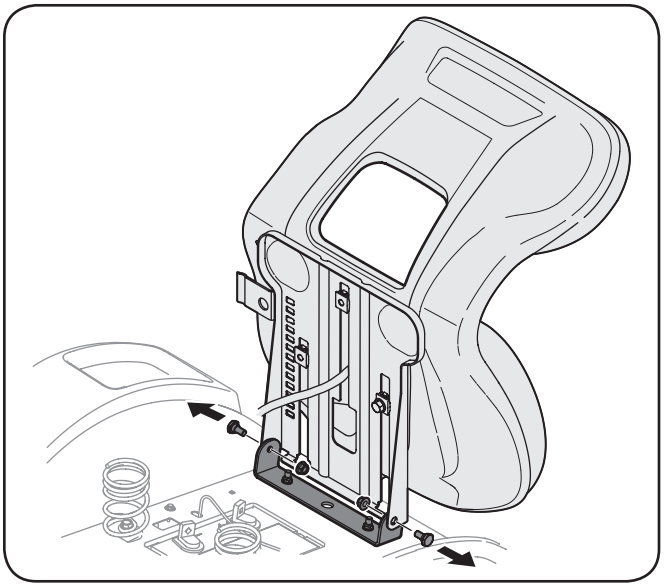


Figure 3-2

NOTE: Be sure that the nylon flange bearings remain in place on the seat bracket mounting holes. If they come out during the removal of the shoulders screws and flange lock nuts make sure to replace them before installing the seat.

3. Rotate the seat into position and secure the seat into place with the previously removed shoulder screws and flange lock nuts. Be careful not to crimp or damage the wire harness while installing the seat. See Figure 3-3.

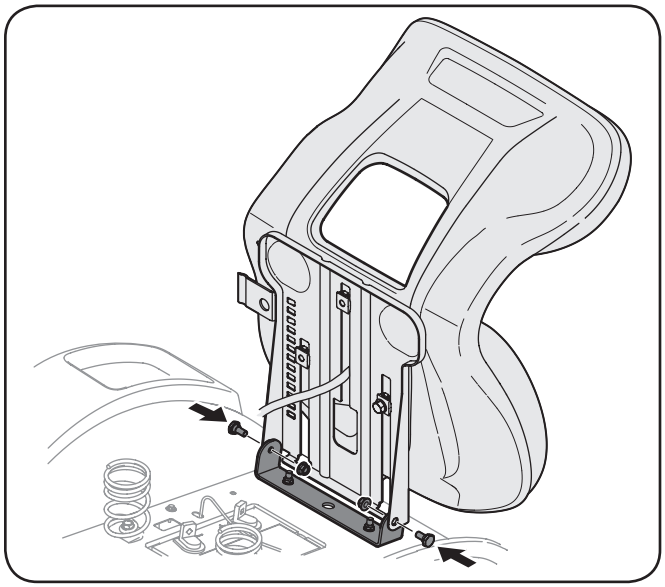


Figure 3-3

4. Using the harness clip attached to the harness, secure the excess wire to the fender by snapping the harness clip in place as shown in Figure 3-4.

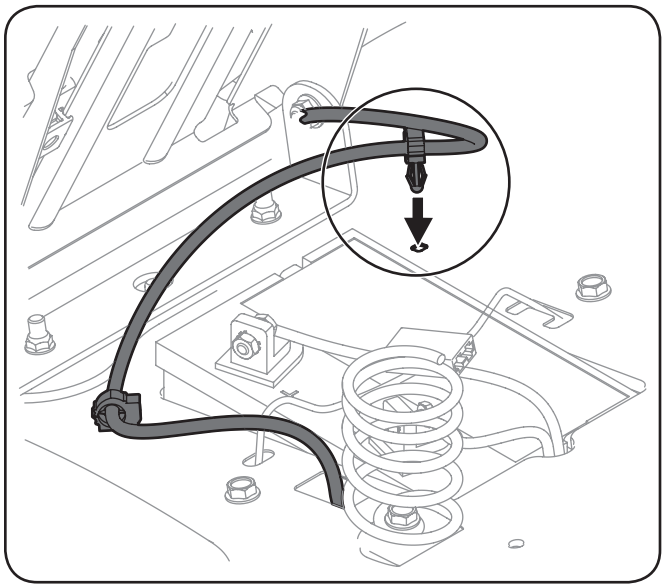


Figure 3-4

Lower Deck Discharge Chute Deflector

WARNING! Never operate the mower deck without the chute deflector installed and in the down position.

Check the mower deck for shipping braces (with tags) that may be holding the chute deflector upward for shipment Some decks have two braces (50" & 54") and some have one (42" & 46"). If a brace(s) are present, they must be removed before operating the tractor. Holding the chute deflector fully upward, remove the shipping brace(s) by grasping it and rotating it clockwise. Lower the chute deflector. See Figure 3-5.

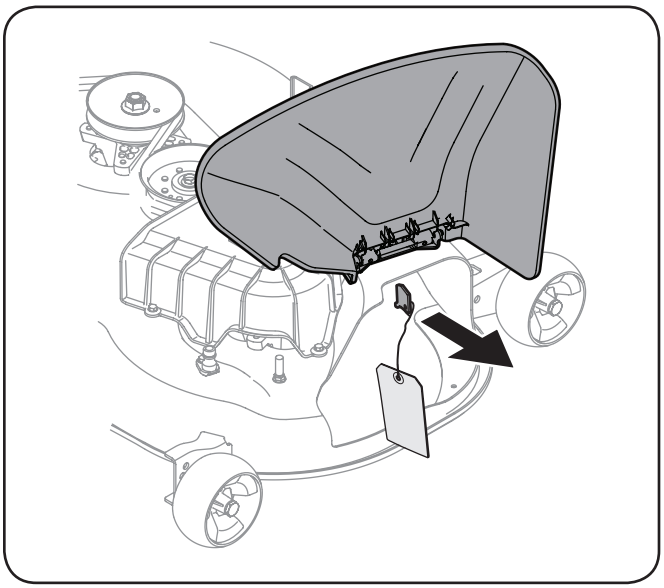


Figure 3-5

Installing the Hood Topper (If necessary)

To install the hood topper (1), line up the holes on the hood topper (1) up with the tabs (2) in the hood frame as shown in Figure 3-6. Insert the tabs (2) into the hood topper and pull back to lock into place.

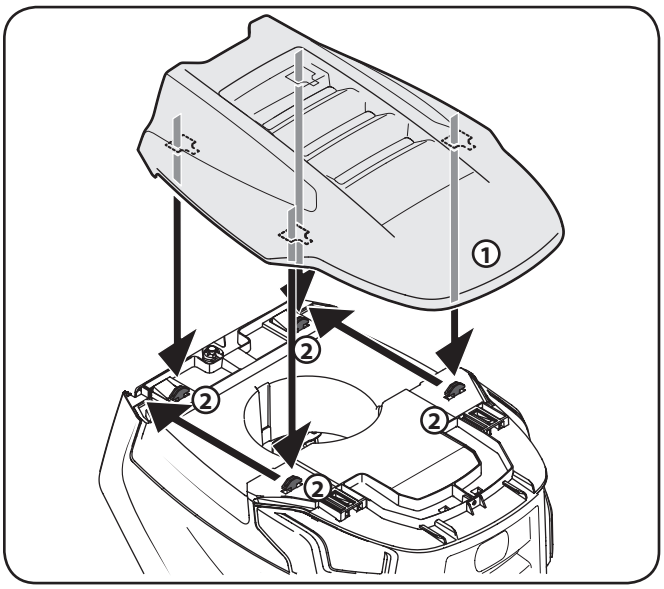


Figure 3-6

Installing the Dash Cap (If necessary)

To install the dash cap (1), line up the tabs (2) on the dash cap (1) with the holes in the upper dash as shown in Figure 3-7. Slide the tabs (2) into the holes in the upper dash and push forward on the dash cap (1) to lock into place.

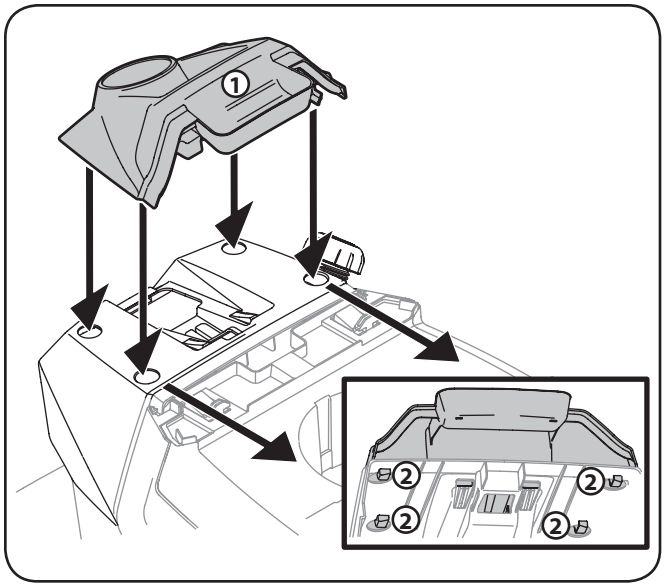


Figure 3-7

NOTE: Be sure press on the lower part of the dash cap facing the operator postion to ensure the lower tabs on the dash cap are in place.

Installing the Steering Wheel (If necessary)

The hardware for attaching the steering wheel has been packed within the steering wheel, beneath the steering wheel cap. Carefully pry off the steering wheel cap and remove the hardware.

1. With the wheels of the tractor pointing straight forward, align the steering wheel by using the center-line on the front of the steering wheel pointing straight ahead and the flat section of the steering wheel facing toward the seat, place the steering wheel over the steering shaft. See Figure 3-8.

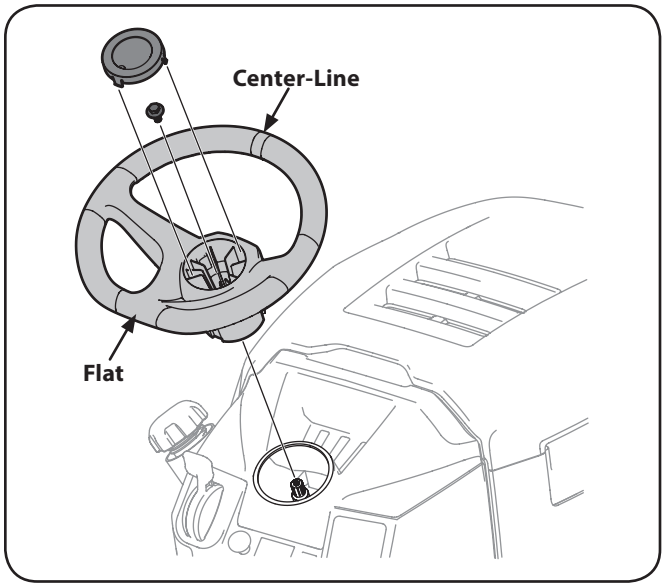


Figure 3-8

2. Secure the steering wheel with the hex bolt from under the cap and torque to 18-22 ft./lbs.
3. Place the steering wheel cap over the center of the steering wheel and push downward until it "clicks" into place.

   NOTE: If the bolt securing the steering wheel is removed, it is recommended that the bolt be replaced.

Installing the Front Bumper (If necessary)

The hardware for attaching the front bumper is shipped installed into the bumper.

1. Remove the four hex screws from the bumper.
2. Position the bumper brackets to the *inside* of the tractor's frame and secure it in place with the four hex flange screws. See Figure 3-9.

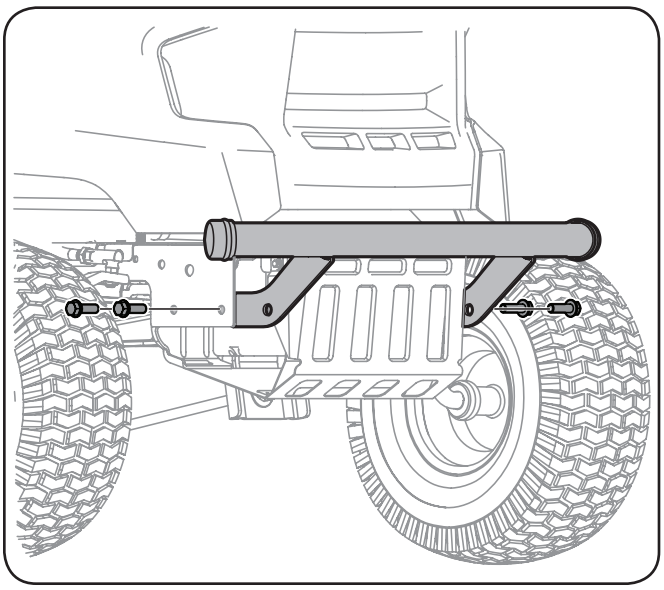


Figure 3-9

Adjusting the Seat

To adjust the position of the seat, lift the seat adjustment lever up. Slide the seat forward or rearward to the desired position; then release the adjustment lever. Make sure seat is locked into position before operating the tractor. See Figure 3-10.

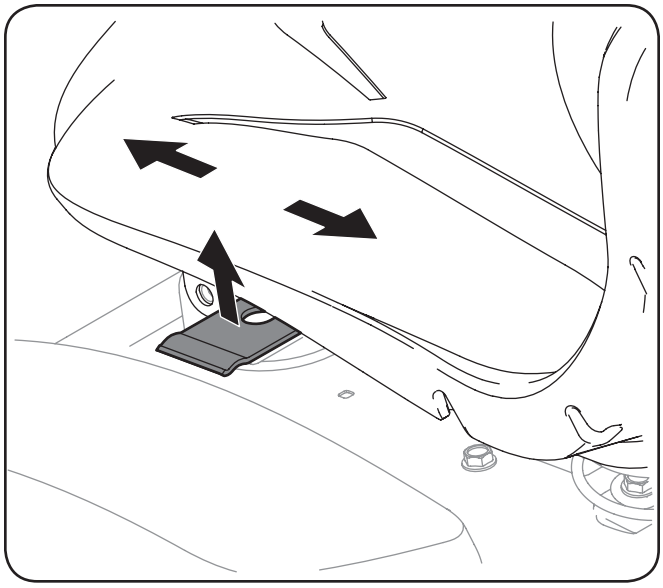


Figure 3-10

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. (–).

NOTE: If the positive battery cable is already attached, skip ahead to step 2.

1. Remove the plastic cover, if present, from the positive battery terminal and attach the red cable to the positive battery terminal (+) with the bolt and hex nut. See Figure 3-11.

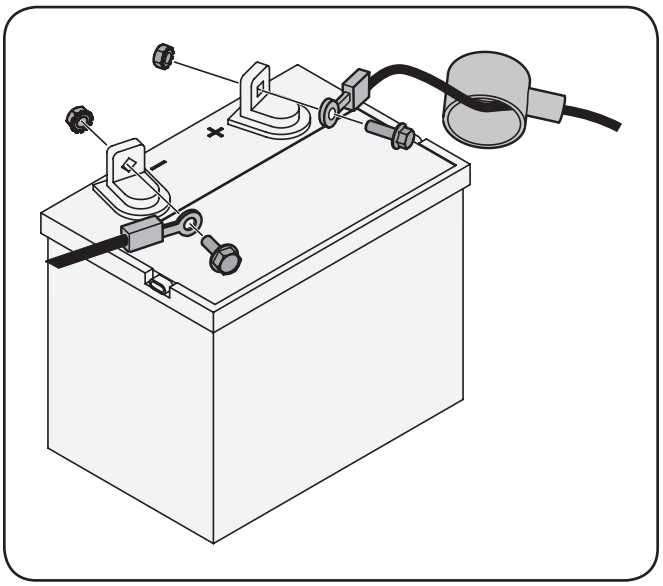


Figure 3-11

2. Remove the plastic cover, if present, from the negative battery terminal and attach the black cable to the negative battery terminal (–) with the bolt and hex nut. See Figure 3-11.
3. Position the red rubber boot over the positive battery terminal to help protect it from corrosion.

   NOTE: If the battery is put into service after the date shown on top/side of battery, charge the battery as instructed in the Service section your Operator's Manual prior to operating the tractor.

Checking Tire Pressure

WARNING! Maximum tire pressure under any circumstances is 14 psi on rear tires and 14 psi on front tires. Equal tire pressure should be maintained at all times.

The tires on your tractor may be over-inflated for shipping purposes. Reduce the tire pressure before operating the tractor. Recommended operating tire pressure is 14 psi on rear tires and 14 psi on front tires. Check the sidewall of tire for maximum p.s.i.

Setting the Deck Wheels

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

NOTE: The deck wheels are an anti-scalp feature of the deck and are not designed to support the weight of the cutting deck.

Move the tractor on a firm and level surface, preferably pavement, and proceed as follows:

1. Check the tire pressure, make sure the pressure is correct and equal on all tires.
2. Make sure the deck is level, both front-to-back and side-to-side. See the Maintenance & Adjustments section for deck leveling information and instructions.
3. Select the height position of the cutting deck by placing the deck lift lever in the normally desired mowing height setting.
4. Check the wheels for contact or excessive clearance with the surface below. The deck wheels should have between ¼" and ½" clearance above the ground. Proceed as follows to adjust the wheels:
    a. Raise the deck lift handle to its highest setting.
    b. Remove the front and deck wheels by removing the flange lock nuts and shoulder bolts that secure them to the deck. See Figure 3-12.

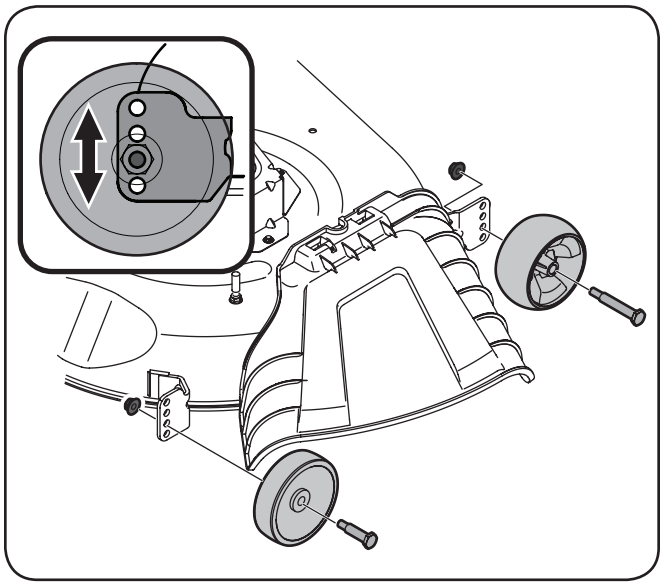


Figure 3-12

    c. Place the deck lift lever in the desired mowing height setting.
    d. Reinsert the shoulder bolt (with each deck wheel) into the index hole that leaves approximately ½-inch between the bottom of the wheel and the pavement. Tighten the flange lock nut and shoulder bolt to between 25-30 ft-lbs using a torque wrench.

NOTE: Refer to Adjusting the Deck in the Maintenance & Adjustments section of this manual for more detailed instructions regarding various deck adjustments.

Gas & Oil

The fuel tank is located at the outer/left of the dash and holds 3 gallons of gas. Remove the fuel cap by turning it counter-clockwise. Use only clean, fresh (no more than 30 days old), unleaded gasoline. Fill the tank no higher the bottom of the fill neck to allow space for fuel expansion.

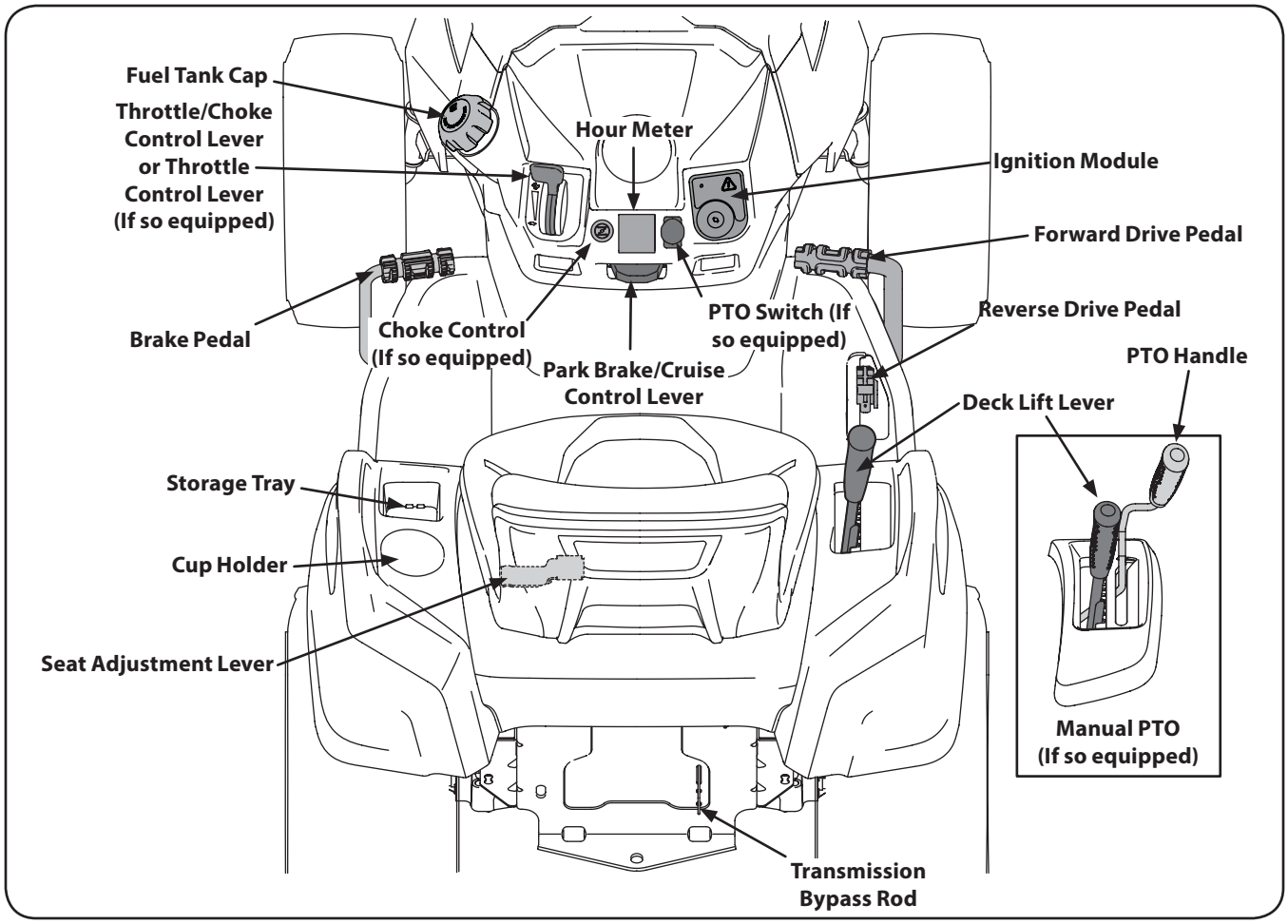
WARNING! Use extreme care when handling gasoline. Gasoline is extremely flammable and the vapors are explosive. Never fuel the machine indoors or while the engine is hot or running. Extinguish cigarettes, cigars, pipes and other sources of ignition.

NOTE: Your tractor is shipped with oil in the engine. However, you MUST check the oil level before operating. See the Service section for instructions on checking, adding and changing oil.

CAUTION: Always check the engine oil level before each use as instructed in the engine operator's manual. Add oil as necessary. Failure to do so may result in serious damage to your engine

Controls & Features

4



NOTE: This Operator's Manual covers several models. Tractor features may vary by model. Not all features in this manual are applicable to all tractor models and the tractor depicted may differ from yours.

NOTE: References to LEFT, RIGHT, FRONT, and REAR indicate that position on the tractor when facing forward while seated in the operator's seat.

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.

Forward Drive Pedal

The forward drive pedal is located on the right side of the machine, along the running board. Press the forward drive pedal forward to cause the tractor to travel forward. Ground speed is also controlled with the forward drive pedal. The further forward the pedal is pivoted, the faster the tractor will travel. The pedal will return to its original/neutral position when it's not pressed.

Reverse Drive Pedal

The reverse drive pedal is located on the right side of the tractor along the running board. Ground speed is also controlled with the reverse drive pedal. The further downward the pedal is pivoted, the faster the tractor will travel. The pedal will return to its original/neutral position when it's not pressed.

Brake Pedal

The brake pedal is located on the left side of the tractor, along the running board. The brake pedal can be used for sudden stops or setting the parking brake.

NOTE: The brake pedal must be fully depressed to activate the safety interlock switch when starting the tractor.

Seat Adjustment Lever

The seat adjustment lever is located below the left of the seat. The lever allows for adjustment forward or backward of the operator's seat. Refer to the Assembly & Set-Up section for instructions on adjusting the seat position.

Throttle/Choke Control Lever (If so equipped)

The throttle/choke control lever is located on the left side of the tractor's dash panel. This lever controls the speed of the engine and, when pushed all the way forward, closes the choke for cold starting. When set in a given position, the throttle will maintain a uniform engine speed.

NOTE: When operating the tractor with the cutting deck engaged, be certain that the throttle/choke control is always in the FAST position.

Throttle Control (If so equipped)

The throttle control is located on the left side of the tractor's dash panel. When set in a given position, a uniform engine speed will be maintained.

Push the throttle control handle forward to increase the engine speed. The tractor is designed to operate with the throttle control in the fast position (full throttle) when the tractor is being driven and the mower deck is engaged.

Pull the throttle control handle rearward to decrease the engine speed.

Choke Control (If so equipped)

The choke control is located on the dash panel to the right of the throttle/choke or throttle control and controls the position of the engine choke. Pull the knob out/up to choke the engine; push the knob in/down to open the choke.

Deck Lift Lever

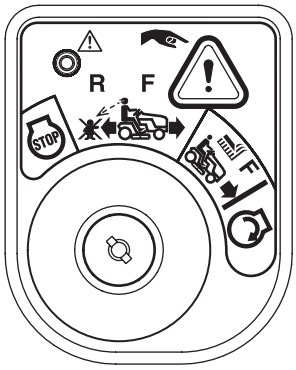
Electric PTO tractors

Manual PTO tractors

The lift lever is located in the right fender and is used to raise and lower the deck. Pull the handle to the left out of the index notch and push downward to lower the deck, or pull upward to raise the deck. When the desired height is attained, move the lift handle to the right until fully in the index notch.

Ignition Module

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

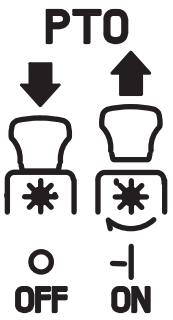


To start the engine, insert the key into the ignition switch and turn clockwise to the START position. Release the key into the NORMAL MOWING MODE F position once the engine has fired.

To stop the engine, turn the ignition key counterclockwise to the STOP position.

CAUTION: Prior to operating the tractor, refer to both Safety Interlock Switches and Starting The Engine in the Operation section of this manual for detailed instructions regarding the Ignition Switch Module and operating the tractor in REVERSE CAUTION MODE R F.

Power Take-Off (PTO) Switch (Electric PTO tractors)



The PTO switch is located on the dash panel to the right of the LCD Service Minder & Hour Meter.

Activating the PTO engages power to the cutting deck or other (separately available) attachments. See the Operation section for information and isntructions on using the PTO.

PTO/Blade Engage Handle (Manual PTO tractors)

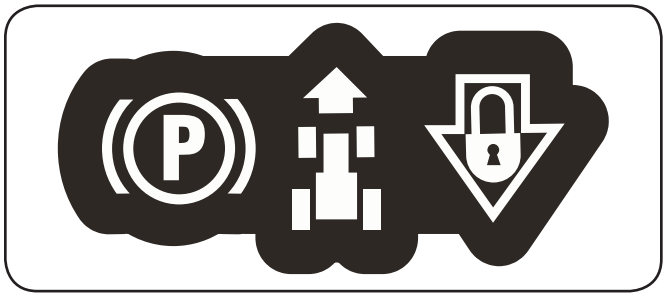
The PTO/blade engage handle is located on the right fender. Activating the PTO engages power to the cutting deck or other (separately available) attachments. See the Operation section for information and isntructions on using the PTO.

Transmission Bypass Rod

The transmission bypass rod is located at the rear of the tractor on the lower right section of the frame.

When engaged, the rod opens a bypass within the hydrostatic transmissions, which allows the tractor to be pushed short distances by hand. Refer to the Assembly & Set-Up section for instructions on using the bypass feature.

Park Brake/Cruise Control Lever



Located in the center of the tractor's dash panel below the steering wheel, the park brake/cruise control lever is used to engage the parking brake and the cruise control Refer to the Operation section of this manual for detailed instructions regarding the parking brake.

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

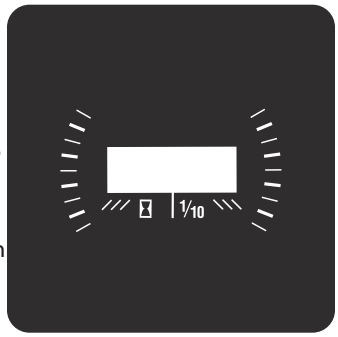
NOTE: Cruise control can NOT be engaged at the tractor's fastest ground speed. If the operator should attempt to do so, the tractor will automatically decelerate to the fastest optimal mowing ground speed.

Warning! Never leave a running machine unattended. Always disengage the PTO, set the parking brake, stop the engine and remove the key to prevent unintended starting.

Hour Meter

LCD Service Minder & Hour Meter (If so equipped)

When the ignition key is rotated out of the STOP position but not into the START position, the LCD Service Minder and Hour Meter will briefly display the battery voltage, followed by the tractor's accumulated hours.



NOTE: Hours of tractor operation are recorded any time the ignition key is rotated out of the STOP position, regardless of whether the engine is started.

The LCD Service Minder will remind the operator of maintenance intervals for changing the engine oil, air filter service, low engine and low battery warnings.

Change Oil

The LCD will display the letters "CHG", followed by the letters "OIL", followed by the letters "SOON", then finally followed by the meter's accumulated time. "CHG/OIL/SOON/TIME" will alternate on the display for 7 minutes after the meter reaches 50 hours. This oil service minder interval will occur every 50 hours. Before the interval expires, change the engine oil as instructed in the Maintenance section of the Engine Operator's Manual

Low Oil

The letters "LO" followed by the letters "OIL", then followed by the meter's accumulated time will indicate the tractor is low on oil. When an engine is not running and immediately after the engine is started the oil pressure may be low. This can trigger the "LO" "OIL" text. This is normal. If the low oil indication persists stop the tractor immediately and check the engine oil level as instructed in the Engine Operator's Manual.

NOTE: The "LOW OIL" function only works if the engine is equipped with an oil pressure switch.

Low Battery

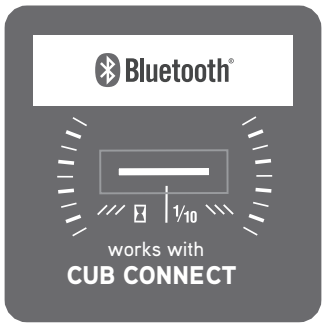
At startup, the battery voltage is briefly displayed then changes to accumulated hours. The letters "LO" will display followed by the letters "BATT" and then followed by the meter's accumulated time. "LO/BATT/TIME" is displayed on the LCD when the voltage drops below 11.5 volts. When this occurs, the battery is in need of a charge or the engine's charging system is not generating sufficient amperage. Charge the battery as instructed in the Service section of this manual or have the charging system checked by your local service dealer.

Air Filter Service

The letters "CLN" will display, followed by the letters "AIR", followed by "FILT", then followed by the meter's accumulated time. "CLN/AIR/FILT/TIME" will alternate on the display for 7 minutes after the meter reaches 25 hours. This air filter service minder time interval will be every 25 hours. On intervals that are common with oil service, the oil message will be displayed first followed by the air filter message.

LCD Service Minder & Hour Meter w/ Bluetooth® (If so equipped)

Connect your Bluetooth® enabled LCD service minder & hour meter to your smartphone by downloading the Cub Connect™ App for your Bluetooth® capable Android or iOS device.



Cub Connect™ is the innovative new way to interact with your Cub Cadet outdoor power equipment directly through your mobile device.

The app's automated maintenance dashboard and log will help you keep your machine running at peak performance and protect your investment by tracking total hours across the lifetime of your equipment.

Receive alert notifications when it's time to perform essential maintenance tasks. Your dashboard provides real time monitoring and indicates when it's time for you to check or change the oil, air filter, blades or battery. Cub Connect™ also enables you to locate and contact Cub Cadet Service Centers, access step-by-step instructions to perform routine maintenance and purchase replacement parts directly from your mobile device.

Simply download the app and follow the quick step-by-step instructions on how to sync your mobile device with your equipment.

WARNING! Avoid serious injury or death. Go up and down slopes, not across. Avoid sudden turns. Do not operate the tractor where it could slip or tip. If machine stops going uphill, stop the PTO and back down the hill safely. Keep safety devices (guards, shields and switches) in place and working. Remove objects that could be thrown by the blades. Know the location and function of all controls. Be sure the blades and the engine are stopped before placing hands or feet near blades. Before leaving the operator's position, disengage the PTO, engage parking brake, shut off the engine and remove the key.

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 tractor. Contact your Cub Cadet dealer.

- The safety interlock system prevents the engine from cranking or starting unless the parking brake is engaged, and the PTO is in the DISENGAGED (OFF) position.
- The engine will automatically shut off if the operator leaves the seat before engaging the parking brake.
- The PTO clutch will automatically shut off if the operator leaves the tractor's seat with the PTO in the ENGAGED (ON) position, regardless of whether the parking brake is engaged.
- With the ignition key in the NORMAL MOWING F position, the PTO clutch will automatically shut off if the PTO is moved into the ENGAGED (ON) position with the drive pedal in position for reverse travel.

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

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 module.
2. Place the PTO in the disengaged (OFF) position (See page 19 for electric PTO & page 20 for manual PTO tractors).
3. Engage the tractor's parking brake (See page 19).
4. Pull the choke control (if so equipped) up/out into the CHOKE position or move the throttle/choke control (if so equipped) into the CHOKE position.

   NOTE: If the engine is warmed up, it may not be necessary to choke the engine.

5. Turn the ignition key clockwise to the START position. After the engine starts, release the key. It will return to the NORMAL MOWING F position.

CAUTION: 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.

6. After the engine starts, move the throttle/choke control (if so equipped) down into the FAST position or push the choke control (if so equipped) down/in the OFF position.

   NOTE: Do NOT leave the choke control on while operating the tractor. Doing so will result in a "rich" fuel mixture and cause the engine to run poorly and can damage the engine.

   NOTE: When operating the tractor be certain that the throttle lever is always in the FAST position. Operating with the throttle at less than full throttle may lead to shortened battery life.

Stopping the Engine

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

1. If the blades are ENGAGED (ON), place the PTO in the DISENGAGED (OFF) position.
2. Place the throttle near the SLOW position
3. Turn the ignition key counterclockwise to the STOP position.
4. Remove the key from the ignition switch to prevent unintended starting.

Reverse Caution Mode

The REVERSE CAUTION MODE R F position of the ignition module allows the tractor to be operated in reverse with the blades (PTO) engaged.

NOTE: Mowing in reverse is not recommended.

WARNING! Use extreme caution while operating the tractor in the REVERSE CAUTION MODE R F. Always look down and behind before and while backing. Do not operate the tractor when children or others are around. Stop the tractor immediately if someone enters the area.

To use the REVERSE CAUTION MODE R F:

NOTE: The operator MUST be seated in the tractor seat.

1. Start the engine as previously instructed on the previous page.
2. Turn the key from the NORMAL MOWING F (Green) position to the REVERSE CAUTION MODE R F (Yellow) position of the ignition module. See Figure 5-1.

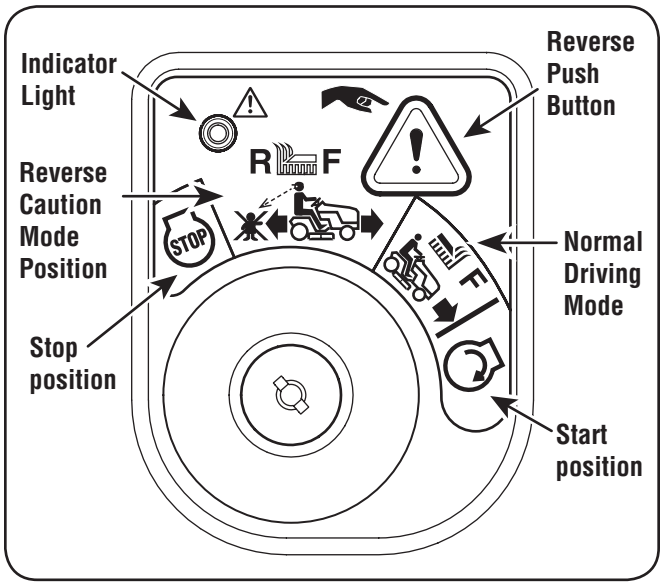


Figure 5-1

3. Press the REVERSE PUSH BUTTON ⚠ at the top, right corner of the ignition module. The red indicator light at the top, left corner of the ignition module will be ON while activated. See Figure 5-1.
4. Once activated (indicator light ON), the tractor can be driven in reverse with the cutting blades (PTO) engaged.
5. Always look down and behind before and while backing to make sure no children are around. After resuming forward motion, return key to the NORMAL MOWING F position.

The REVERSE CAUTION MODE R F will remain activated until:

a. The key is placed in either the NORMAL MOWING F position or STOP position or
b. The operator leaves the seat.

Driving The Tractor

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

1. Lightly press the brake pedal to release the parking brake. Move the throttle into the FAST position.
2. To travel FORWARD, slowly press the forward drive pedal forward until the desired speed is achieved. See Figure 5-2.

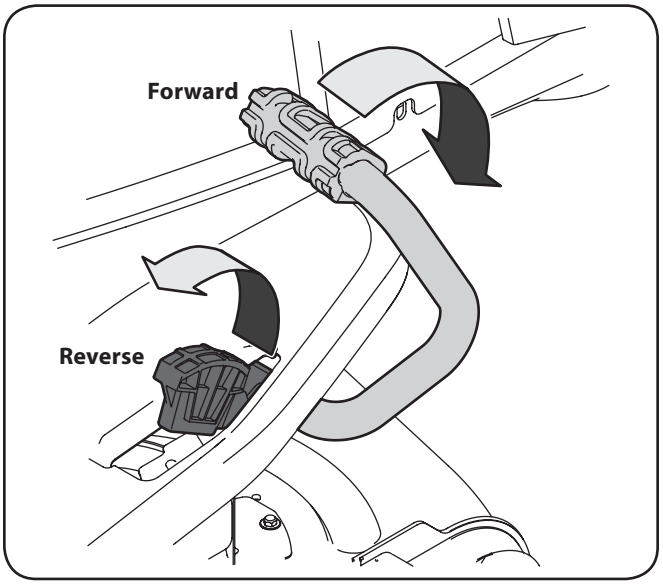


Figure 5-2

3. To travel in REVERSE, check that the area behind is clear then slowly depress the reverse drive pedal until the desired speed is achieved. See Figure 5-2.

CAUTION: Do NOT attempt to change the direction of travel when the tractor is in motion. Always bring the tractor to a complete stop before changing from forward to reverse or vice versa.

WARNING! Do not leave the seat of the tractor without first placing the PTO in the DISENGAGED (OFF) position and engaging the parking brake. If leaving the tractor unattended, also turn the engine off and remove the ignition key.

Driving On Slopes

Refer to the SLOPE GAUGE on page 8 to help determine slopes where you may operate the tractor safely.

WARNING! Do not mow on inclines with a slope in excess of 15 degrees (a rise of approximately 2-½ feet 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 Parking Brake

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

To set the parking brake:

1. Press the brake pedal completely down with your left foot and hold it in that position.
2. Press down on the parking brake/cruise control lever and hold it in that position.
3. Remove your foot from the brake pedal.
4. Release pressure from the parking brake/cruise control lever.

After completing step 3, the brake pedal should remain in the down position. If it doesn't, the parking brake is *not* engaged. Repeat steps 1-4 to engage.

To disengage the parking brake, lightly press the brake pedal.

WARNING! Never leave a running machine unattended. Always disengage the PTO, set the parking brake, stop the engine and remove the key to prevent unintended starting

Setting The Cruise Control

WARNING! Never engage the cruise control lever while traveling in reverse.

To set the cruise control:

1. Slowly press the forward drive pedal with your right foot until the desired speed is achieved.
2. Lift the parking brake/cruise control lever upward and hold it in that position.
3. Remove your foot from the forward drive pedal.
4. Release pressure from the parking brake/cruise control lever .

After completing step 3, the forward drive pedal should remain in the down position and the tractor will maintain the same forward speed. If it doesn't, the cruise control is *not* engaged. Repeat steps 1-4 to engage the cruise control.

To disengage the cruise control, lightly press the forward drive pedal or the brake pedal.

NOTE: Cruise control can not be set at the tractor's fastest ground speed. If the operator should attempt to do so, the tractor will automatically decelerate to the fastest optimal mowing ground speed.

To change the direction of travel from forward to reverse when cruise control is engaged, press the brake pedal to disengage and bring the tractor to a complete stop. Then slowly press the reverse drive pedal with the ball of your foot to travel in reverse.

Using the Deck Lift Lever

To raise or lower the cutting deck, move the lift lever to the left, then place it in the notch best suited for your application.

Operating the Headlights

The lamps are ON whenever the ignition key is rotated out of the STOP position. The lamps turn OFF when the ignition key is moved to the STOP position.

Engaging the PTO (Electric PTO tractors)

Engaging the PTO transfers power to the cutting deck or other (separately available) attachments. To engage the PTO:

1. Move the throttle to the FAST position.
2. Pull the PTO switch up/out into the engaged (ON) position. See Figure 5-3.

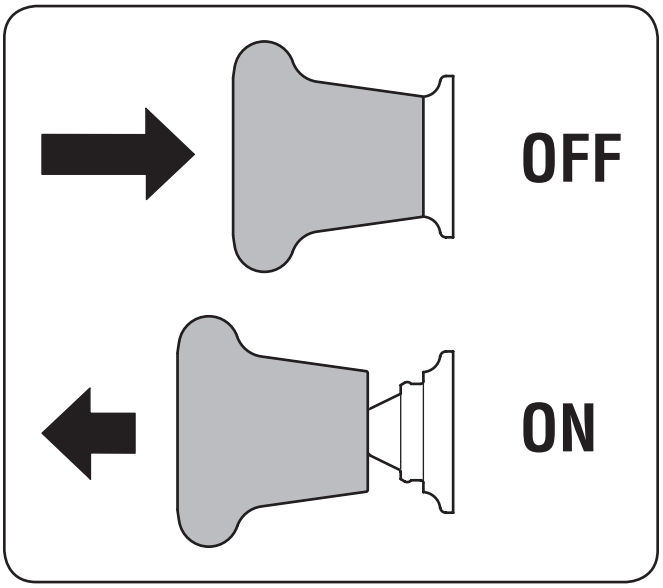


Figure 5-3

NOTE: When operating the tractor be certain that the throttle is always in the FAST position. Operating with the throttle at less than full throttle may lead to premature battery wear and a poor quality cut.

3. To disengage the PTO, push the PTO switch down/in to the disengaged (OFF) position.

Engaging the PTO (Manual PTO tractors)

Engaging the PTO transfers power to the cutting deck or other (separately available) attachments. To engage the PTO:

1. Move the throttle to the FAST position.
2. Push the PTO handle forward into the engaged (ON) position. See Figure 5-4.

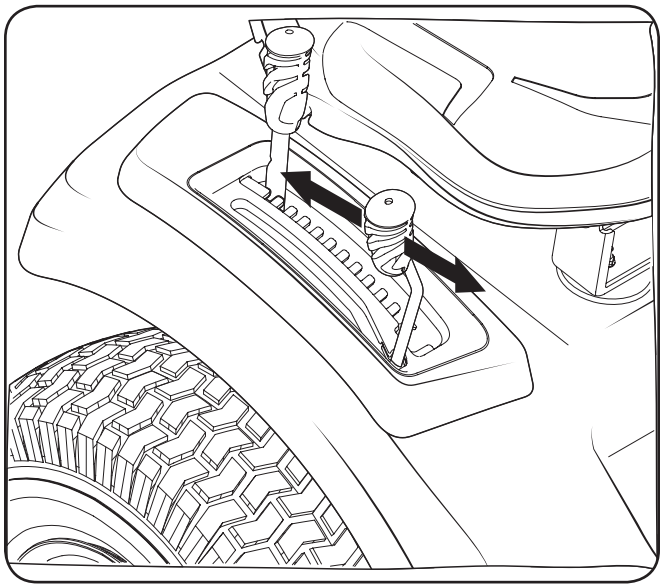


Figure 5-4

NOTE: When operating the tractor be certain that the throttle is always in the FAST position. Operating with the throttle at less than full throttle may lead to premature battery wear and a poor quality cut.

3. To disengage the PTO, pull the PTO handle rearward into the disengaged (OFF) position.

Mowing

WARNING! Make certain the area to be mowed is free of debris, sticks, stones, wire or other objects that can be thrown by the rotating blades.

NOTE: Do not engage the mower deck when lowered in grass. Premature wear and possible failure of the belt and PTO clutch will result. Fully raise the deck or move to a non-grassy area before engaging the mower deck.

1. Mow up and down slopes, not across.
2. 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.
3. Avoid stopping when driving up a slope. If it is necessary to stop while driving up a slope, start up the slope smoothly and carefully to reduce the possibility of flipping the tractor over backward
4. Place the throttle into the FAST position and engage the PTO.
5. Lower the mower deck to the desired height setting using the deck lift handle.
6. Slowly press the forward drive pedal with your right foot until the desired speed is achieved.

   NOTE: The speed of the tractor will affect the quality of the mower cut. Mowing at full speed will adversely affect the cut quality. Control the ground speed with forward drive pedal.
7. When approaching the other end of the strip, slow down or stop before turning.
8. Align the mower with an edge of the mowed strip and overlap approximately 3".
9. Direct the tractor on each subsequent strip to align with a previously cut strip.
10. To prevent rutting or grooving of the turf, if possible, change the direction that the strips are mowed by approximately 45° for the next and each subsequent mowing.

WARNING! Be careful when crossing gravel paths or driveways. Disengage the PTO and raise the deck to the highest position before crossing.

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

- Make sure the drive pedals are in neutral.
- Engage the parking brake.
- 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.

Maintenance & Adjustments

6

Maintenance Schedule

	Before Each use	After First 5 Hours	Every 10 Hours	Every 25 Hours	Every 50 Hours	Every 100 Hours	Prior to Storing	See Engine Manual
Check & Clean Engine Cooling Fans for Debris	✓						✓	
Check Engine Oil Level	✓							
Check Air Filter for Dirty, Loose or Damaged Parts	✓							
Clean Battery Terminals			✓				✓	
Grease All Lubrication Points			✓				✓	
Clean Hood/Dash Panel Louvers			✓				✓	
Check Intake Screen/Clean as Needed			✓				✓	
Check Blades/Sharpen or Replace as Needed			✓				✓	
Check Tire Pressure			✓				✓	
Check/Clean Underside of Deck			✓					
Inspect & Lube Deck Wheels				✓			✓	
Check Deck Level/Pitch				✓			✓	
Check Belts & Pulleys for Damage/Wear					✓			
Check That All Hardware is in Place & Secure						✓		
Check Spark Plug Condition & Gap						✓	✓	✓
Engine Break-In Oil Change		✓						✓
Change Engine Oil					✓		✓	✓
Replace Oil Filter					✓		✓	✓
Clean or Change Air Filter					✓			✓
Replace Fuel Filter					✓			✓
Have Valve Lash Checked & Adjusted *								✓

* -- Have this item performed by an authorized service dealer

NOTE: This Operator's Manual covers several models. Tractor features may vary by model. Not all features in this manual are applicable to all tractor models and the tractor depicted may differ from yours.

WARNING! Before performing any maintenance or repairs, disengage the PTO, set the parking brake, stop the engine and remove the key to prevent unintended starting.

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.

The battery is sealed and is maintenance-free. Acid levels cannot be checked and fluid can not be added.

- 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.

CAUTION: If removing the battery for cleaning, disconnect the NEGATIVE (Black) wire from it's 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. Be certain that the wires are connected to the correct terminals; reversing them could result in serious damage to your engine's alternating system.

Engine

Refer to the Engine Operator's Manual for all engine maintenance procedures and instructions.

NOTE: If the "LOW OIL" text appears immediately after the engine is started the oil pressure may be low. This is normal. If the low oil indication persists stop the tractor immediately and check the engine oil level as instructed in the Engine Operator's Manual.

NOTE: The "Low Oil" function only works if the engine is equipped with an oil pressure switch.

Changing the Engine Oil

WARNING ! If the engine has been recently run, the engine, muffler and surrounding metal surfaces will be hot and can cause burns to the skin. Exercise caution to avoid burns.

To complete an oil change, proceed as follows:

1. Run the engine for a short time to warm the engine oil. The oil will flow more freely and carry away more impurities. Use care to avoid burns from hot oil.
2. Locate the oil drain hose on the left side of the engine.
3. Place an appropriate oil collection container with at least a 2.5 quart capacity below the opening of the oil drain tube, to collect the used oil. Remove the oil fill cap/dipstick from the oil fill tube.
4. Remove the oil drain hose from the clip on the left side of the frame. See Figure 6-1.

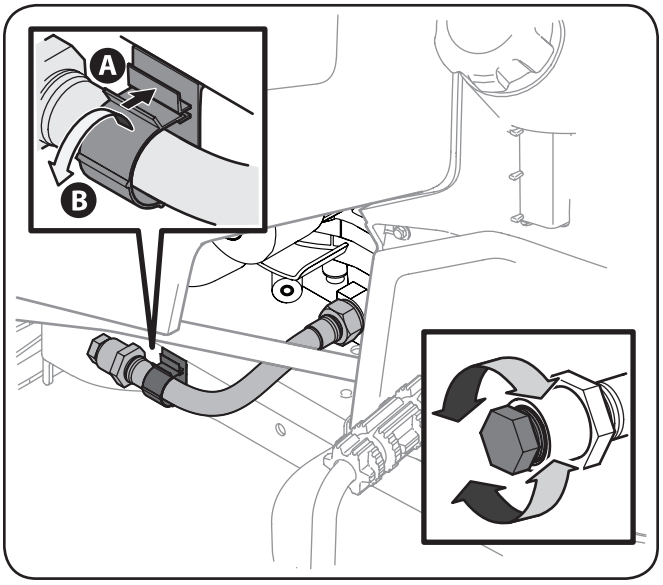


Figure 6-1

5. Remove the oil drain hose plug from the end of the hose. See Figure 6-1. Drain the engine oil into the collection container.
6. After draining the oil, wipe any residual oil from the oil drain hose. Replace the plug on the drain hose and fully tighten. Replace the oil drain hose into the clip and snap the clip to secure.
7. Replace the oil filter, and refill the engine with new oil as instructed in the engine operator's manual.
8. To refill the oil, re-install the plug at the end of the tube and refer to the engine operator's manual for refilling instructions, oil type and amount.

NOTE : Maintenance, repair, or replacement of the emission control devices and systems which are being done at owner's expense may be performed by any engine repair establishment or individual. **Warranty repairs must be performed by a Cub Cadet Dealer**.

Hydrostatic Transmission

The hydrostatic transmission is sealed at the factory and is maintenance-free. The fluid level cannot be checked and the fluid cannot be changed.

Hydrostatic Neutral Adjustment

If the tractor creeps forward or rearward when neither the forward nor reverse pedal is depressed, contact your local Cub Cadet dealer to have the hydrostatic control rods properly adjusted.

Cleaning the Tractor

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, the transmission's cooling fan or on any other part of the machine.

Smart Jet

Your tractor's deck is equipped with a water port on its surface as part of its deck wash system.

Use the Smart Jet to rinse grass clippings from the deck's underside and prevent the buildup of corrosive chemicals. Complete the following steps AFTER EACH MOWING:

1. Drive the tractor to a level, clear spot on your lawn, near enough for your garden hose to reach.

CAUTION: Make certain the tractor's discharge chute is directed AWAY from your house, garage, parked cars, etc.

1. Disengage the PTO, set the parking brake and stop the engine.
2. Thread the hose coupler (packaged with your tractor's Operator's Manual) onto the end of your garden hose.
3. Attach the hose coupler to the water port on your decks surface. See Figure 6-2.

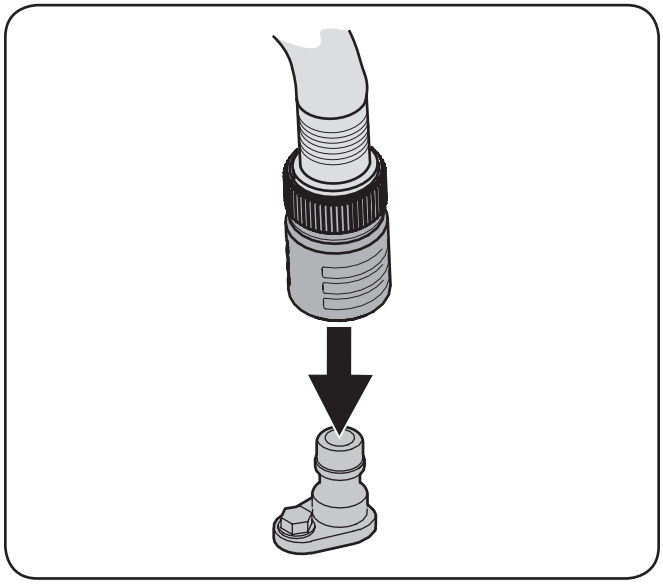


Figure 6-2

4. Turn the water on.
5. While sitting in the operator's position on the tractor, start the engine and place the throttle lever in the FAST position.
6. Move the tractor's PTO into the engaged (ON) position.
7. Remain in the operator's position with the cutting deck engaged for a minimum of two minutes, allowing the underside of the cutting deck to thoroughly rinse.
8. Move the tractor's PTO into the disengaged (OFF) position.
9. Turn the ignition key to the STOP position to turn the tractor's engine off.
10. Turn the water off and detach the hose coupler from the water port on your deck's surface.

    NOTE: On 50" and 54" decks there are two water ports; one on each side of the deck.
11. After cleaning your deck with the Smart Jet system, return to the operator's position and engage the PTO. Keep the cutting deck running for a minimum of two minutes, allowing the underside of the cutting deck to thoroughly dry.

Lubrication

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

Front Wheels

Each of the front wheel axles and rims is equipped with a grease fitting. See Figure 6-3 for the location of the grease fitting on the axles and Figure 6-4 for the location of the grease fitting on the rims. Lubricate with a No. 2 multi-purpose grease applied with a grease gun after every 25 hours of tractor operation.

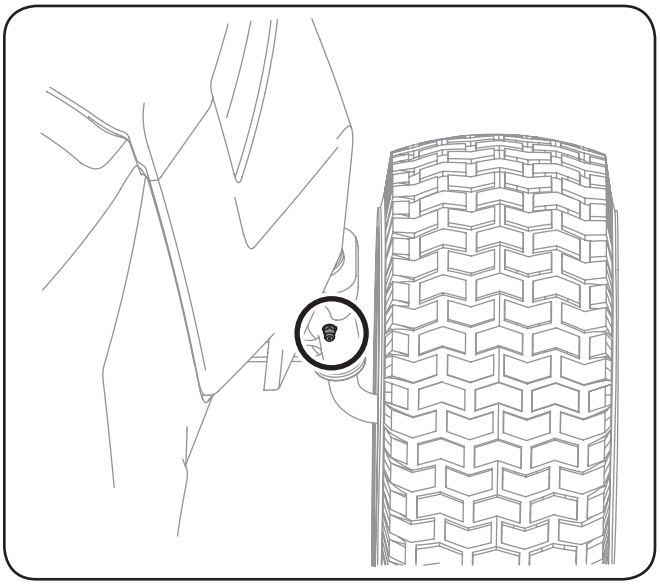


Figure 6-3

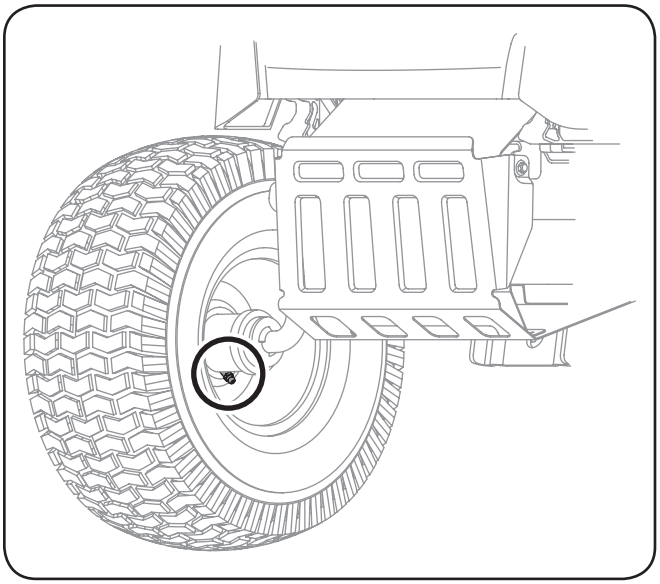


Figure 6-4

Deck Wheels

The wheels on the front of the deck are equipped with a grease fitting. Lubricate with a No. 2 multi-purpose grease applied with a grease gun after every 25 hours of tractor operation.

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.

Adjustments

WARNING! Shut the engine off, remove the ignition key and engage the parking brake before making adjustments. Protect your hands by using heavy gloves when handling the blades.

NOTE : Check the tractor's tire pressure before performing any deck leveling adjustments. Refer to Tires on page 11 for information regarding tire pressure.

Adjusting the Deck

Leveling the Deck (Front-To-Rear)

The front of the cutting deck is supported by a stabilizer bar that can be adjusted to level the deck from front to rear. The front of the deck should be between ¼" and ⅜" lower than the rear of the deck. Adjust if necessary as follows:

1. Park the tractor on a firm, level surface and place the deck lift lever in the middle position and rotate the blade nearest the discharge chute so that it is parallel with 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 ¼" and ⅜" less than the second measurement.

Determine the approximate distance necessary for proper adjustment and proceed, if necessary.

1. To *raise* the front of the deck, loosen the outer nut then tighten (thread inward) the nut against the front hanger bracket. See Figure 6-5. When proper adjustment is achieved, re-tighten the outer nut.

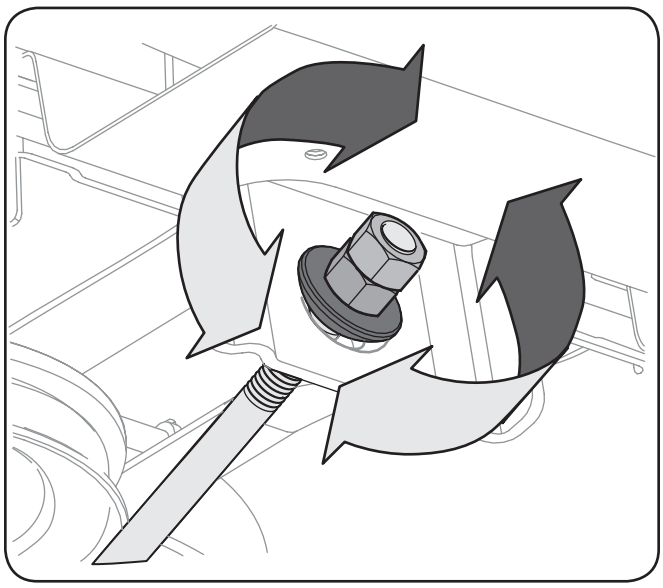


Figure 6-5

2. To *lower* the front of the deck, loosen the outer nut then loosen (thread outward) the nut, away from the front hanger bracket. See Figure 6-5. When proper adjustment is achieved, re-tighten the outer nut.

Leveling the Deck (Side-to-Side)

If the cutting deck appears to be mowing unevenly, a side to side adjustment can be performed. Adjust if necessary as follows:

1. With the tractor parked on a firm, level surface, place the deck lift lever in the middle position and rotate both blades so that they are perpendicular with the tractor.
2. Measure the distance from the outside of the left blade tip to the ground and the distance from the outside of the right blade tip to the ground. Both measurements taken should be equal. If they're not, proceed to the next step.
3. Under the rear fenders inside the wheels there is a lift adjustment rod for each side of the deck. See Figure 6-6.

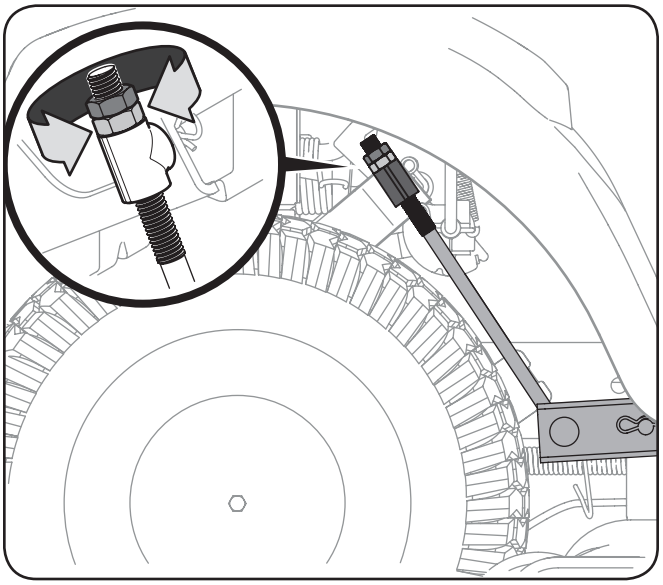


Figure 6-6

4. Minor side-to-side adjustments should be made using primarily the left adjustment rod.
5. To raise the left side of the deck, loosen the upper nut on the end of the lift rod, then turn the lower nut clockwise. When the proper adjustment is achieved, tighten the upper nut to secure in place. To lower the left side of the deck, loosen the upper nut on the end of the lift rod, then turn the lower nut counterclockwise. When the proper adjustment is achieved, tighten the upper nut to secure in place.
6. The deck is properly leveled when both blade tip measurements taken earlier are equal.

Adjusting the Deck Height

The height of the deck can be adjusted to ensure that the setting on your deck height lever is accurate. To adjust the deck height proceed as follows:

1. Park the tractor on a firm, level surface and place the deck lift lever in the highest position(4") and rotate the blade nearest the discharge chute so that it is perpendicular with the tractor.

2. Measure the distance from the outside of the left blade tip to the ground and the distance from the outside of the right blade tip to the ground. Both measurements taken should be 4". If they're not, proceed to the next step.
3. Using the right and left lift rods, raise or lower the necessary side of the deck until both sides are measured at 4" from the pavement.

Adjusting the Deck Wheels

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

NOTE: The deck wheels are an anti-scalp feature of the deck and are not designed to support the weight of the cutting deck.

The deck wheels should be approximately ¼-½" above the ground when the deck is set in the desired height setting. To adjust the deck wheels see the Assembly & Set-Up section for instructions.

Seat Adjustment

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

WARNING! Before operating the tractor, make sure the seat is engaged in the seat-stop. Engage the parking brake. Stand behind the machine and pull back on seat until it clicks into place.

Parking Brake Adjustment

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 (and the hydrostatic relief valve open), the brake is in need of adjustment. See your Cub Cadet dealer to have the brake adjusted.

Wheel Alignment

If your tractor pulls to one side or is out of alignment, a wheel alignment might be necessary. Take your tractor to an authorized service dealer to have the wheels properly aligned.

Off-Season Storage

Riding Mower Storage

If your riding mower is not going to be operated for an extended period of time (thirty days to approximately six months), the riding mower should be prepared for storage. Store the riding mower in a dry and protected location. If stored outside, cover the riding mower (including the tires) to protect it from the elements. The procedures outlined below should be performed whenever the riding mower is placed in storage.

1. Change the engine oil and filter following the instructions provided in the Engine Manual.

WARNING! Never store the riding mower with fuel in the tank indoors or in poorly ventilated enclosures, where fuel fumes may reach an open flame, spark or pilot light as on a furnace, water heater, clothes dryer, etc.

2. Service the engine as instructed in the separate engine manual.
3. 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.

3. Remove the spark plugs and pour approximately one ounce of oil into each cylinder. Crank the engine one or two turns to spread the oil evenly on the cylinder walls. Replace the spark plugs.
4. Clean the engine and the entire riding mower thoroughly.

   NOTE: Use of a pressure washer or garden hose is not recommended to clean your riding mower. They may cause damage to electrical components, spindles, pulleys, bearings or the engine. The use of water will result in shortened life and reduce serviceability.
5. Sharpen the blades so that the mower will be ready to use when needed.
6. Protect the metal surfaces. Repair scratches with the appropriate touch-up spray paint. Brush a rust preventive oil on any unpainted surfaces including the pulleys and blades. (Be careful not to get any oil on the drive belts.)
7. Clean and fully charge the battery, then disconnect the negative cable at the battery to prevent possible discharge. Recharge the battery periodically when in storage.

   NOTE: Remove the battery if exposed to prolonged periods of sub-freezing temperatures. Store in a cool, dry location where temperatures are above freezing.
8. Lubricate all lubrication points.
9. Jack the mower up and store it on blocks to take the weight off of the tires.

Removing the Riding Mower from Storage

1. Check the engine oil.
2. Fully charge the battery, lower riding mower off blocks, and inflate the tires to the recommended pressure.
3. Remove the spark plugs and wipe them off. Using the starter, crank the engine to pump the excess oil out of the spark plug holes. Replace the spark plugs and the ignition leads.
4. If drained before storing, fill the fuel tank with clean, fresh gasoline.
5. Check the level of the engine oil in the crankcase and the hydraulic reservoir tank.
6. Start the engine and allow to idle for a few minutes to ensure engine is operating properly.
7. Drive the riding mower without a load to make certain all the riding mower systems are functioning properly.

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 it's terminal first, followed by the POSITIVE (Red) wire. When reinstalling the battery, always connect the POSITIVE (Red) wire its terminal first, followed by the NEGATIVE (Black) wire.

Jump Starting

WARNING! Never jump start a damaged or frozen battery. Be certain the vehicles do not touch, and ignitions are off. Do not allow cable clamps to touch.

1. Connect positive (+) cable to positive (+)post of your tractor's discharged battery.
2. Connect the other end of the cable to the positive (+) post of the jumper battery.
3. Connect the second cable negative (–) to the other post of the jumper battery.
4. Make the final connection on the engine block of the tractor, away from the battery. Attach to an unpainted part to assure a good connection.

CAUTION: If the jumper battery is installed on a vehicle (i.e. car, truck), do NOT start the vehicle's engine when jump starting your tractor.

5. Start the tractor (as instructed in the Operation section of this manual).
6. Set the tractor's parking brake before removing the jumper cables, in reverse order of connection.

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.

If your tractor has not been put into use for an extended period of time, charge the battery as follows:

1. Set your battery charger to deliver a max of 10 amperes.
2. If your battery charger is automatic, charge the battery until the charger indicates that charging is complete. If the charger is not automatic, charge for no fewer than eight hours.

Fuse

WARNING! Before servicing, repairing, or inspecting, always disengage PTO, set parking brake, stop engine and remove key to prevent unintended starting.

A 20 AMP fuse is installed in your 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, check to be certain that the fuse has not blown. It is located under the seat, attached to the POSITIVE (Red) wire leading to the battery.

CAUTION: Always use a replacement fuse with the same amperage capacity as the blown fuse.

Relays and Switches

There are several safety switches in the electrical system. If a function of the safety interlock system described earlier is not functioning properly, have the electrical system checked by your Cub Cadet Service Dealer.

Cutting Deck Removal

To remove the cutting deck, proceed as follows:

1. Place the PTO 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. For tractors with manual PTO's continue with step 4, for electric PTO models skip ahead to step 7.
4. Loosen, but do not remove the flange lock nut on the right idler pulley and the hex screw on the left idler pulley.
5. Remove the hex screw securing the engine pulley keeper rod to the frame. See Figure 7-1.

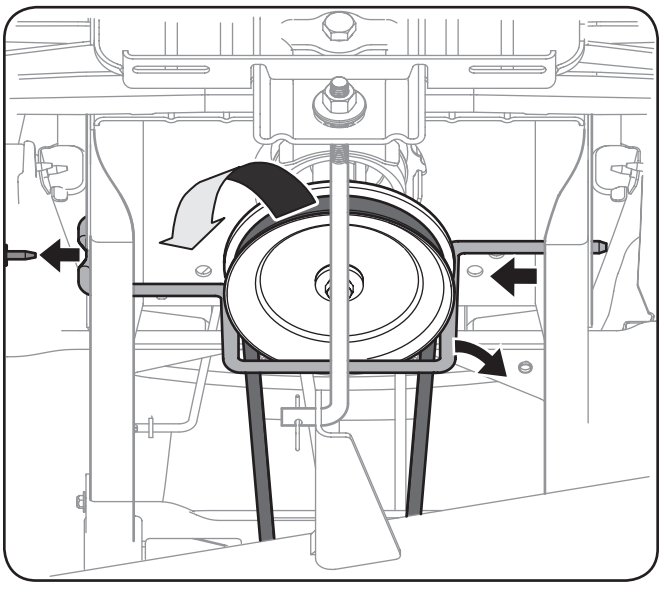


Figure 7-1

6. Slide the rod to the right to remove it.

7. Working on the right side of the tractor, insert a ½-inch drive ratchet wrench, set to *tighten*, into square hole found on the idler bracket. See Figure 7-2.

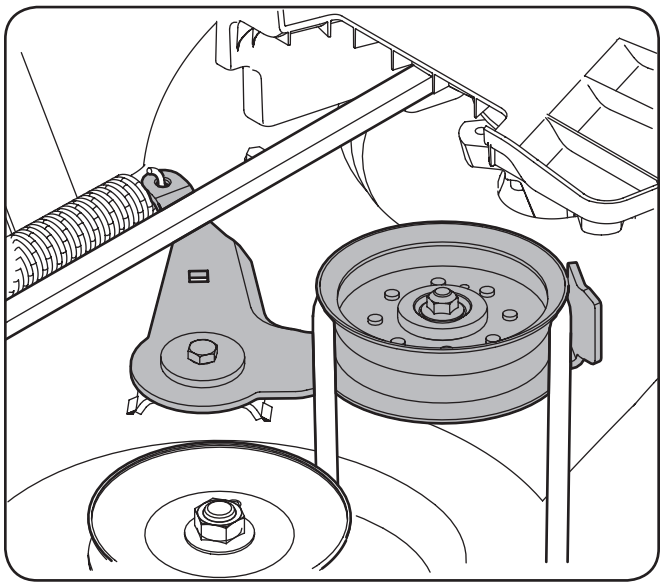


Figure 7-2

8. Pivot the wrench forward to move the deck drive pulley forward. See Figure 7-2.

WARNING! Avoid pinching injuries. Never place your fingers on the idler spring or between the belt and a pulley while installing the belt.

9. Carefully remove the belt from around the PTO pulley.
10. Looking at the cutting deck from the left side of the tractor, locate the bow pin on the rear left side of the deck. See Figure 7-3.

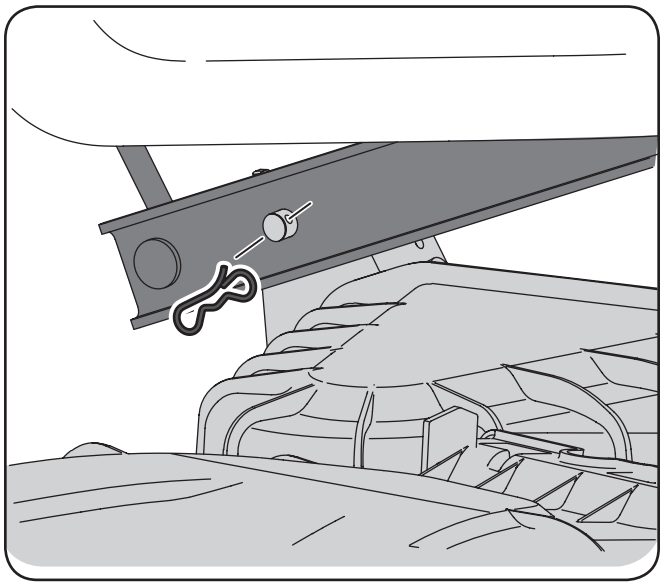


Figure 7-3

11. Remove the pin and slide the deck pin out of the deck lift arm. See Figure 7-3.
12. Repeat the above steps on the tractor's right side.
13. Pull the cotter pin out of the front deck lift rod securing it to the deck. See Figure 7-4. Slide the deck lift rod out of the front hanger bracket.

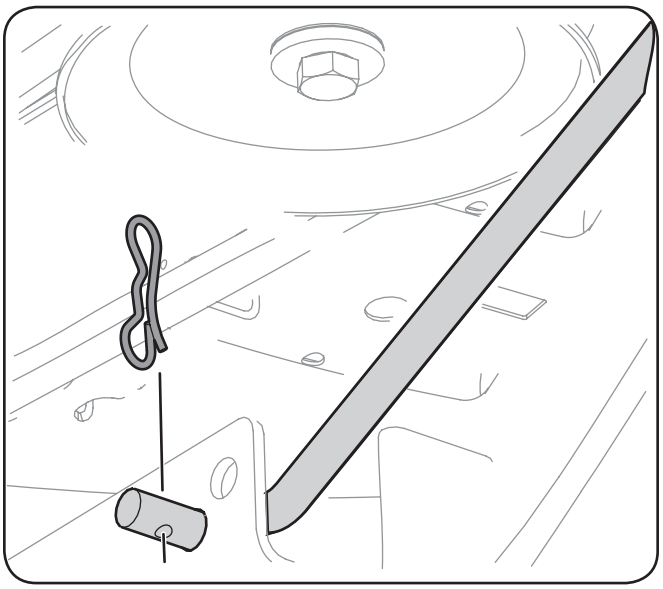


Figure 7-4

14. Move the deck lift lever into the top notch to raise the deck lift up and out of the way.
15. Gently slide the cutting deck out from underneath the tractor.

Cutting Blades

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

WARNING! Periodically inspect the blade and/or spindle for cracks or damage, especially after you've struck a foreign object. Do not operate the machine until damaged components are replaced.

To remove the blades, proceed as follows.

1. Remove 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.

2. Place a block of wood between the center deck housing baffle and the cutting blade to act as a stabilizer. See Figure 7-5.

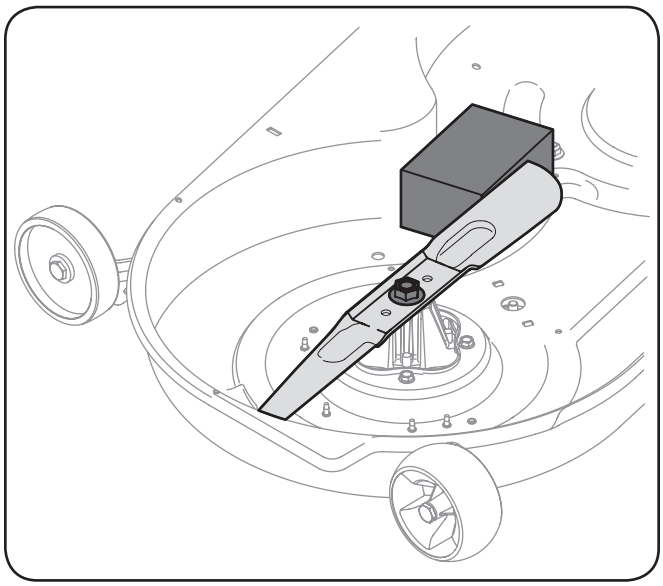


Figure 7-5

3. Remove the hex flange nut that secures the blade to the spindle assembly. See Figure 7-5.
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 7-6.

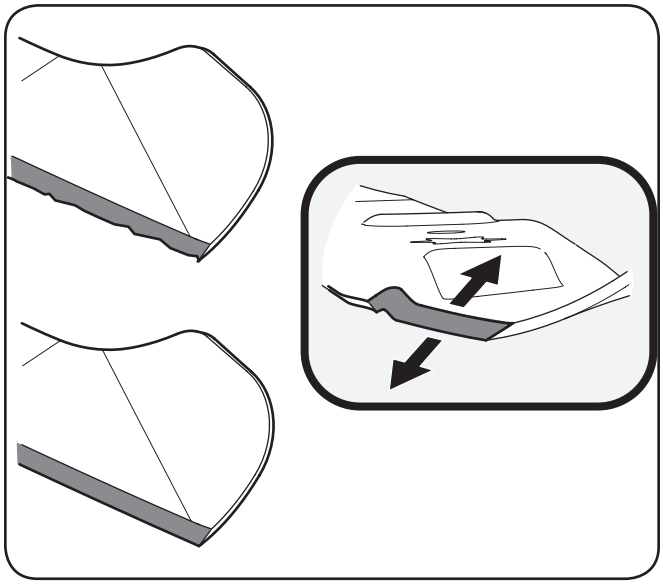


Figure 7-6

CAUTION: 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 damage to the tractor and/or result in personal injury.

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 Deck Belt

WARNING! The V-belts found on your tractor are specially designed to engage and disengage safely. A substitute (non-OEM) V-belt can be dangerous by not disengaging completely. For a proper working machine, use factory approved belts.

All belts on your tractor are subject to wear and should be replaced if any signs of wear are present . To change or replace the deck belt on your tractor, proceed as follows:

1. Remove the deck as instructed earlier in this section under Cutting Deck Removal.
2. Loosen, but do not remove the hardware on the right and left idler pulley.

   NOTE: On Some decks it may be necessary to remove the spindle covers to remove and/or install the new belt. To remove the spindle covers, remove the screws securing them to the deck.
3. Carefully remove the belt from around the idler pulleys and the spindle pulleys.

WARNING! Avoid pinching injuries. Never place your fingers on the idler spring or between the belt and a pulley while removing the belt.

4. Route the new belt as shown in the applicable figure on the following pages. See Figure 7-7 for 42" decks, Figure 7-8 for 46" decks and Figure 7-9 for 50" & 54" decks.

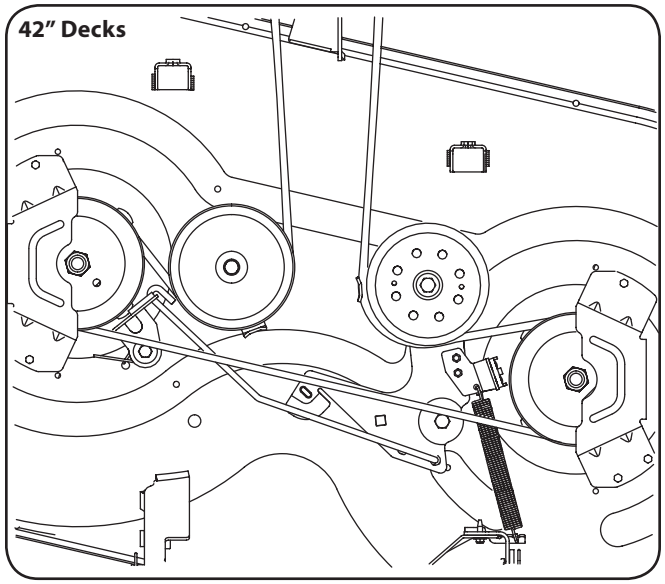


Figure 7-7

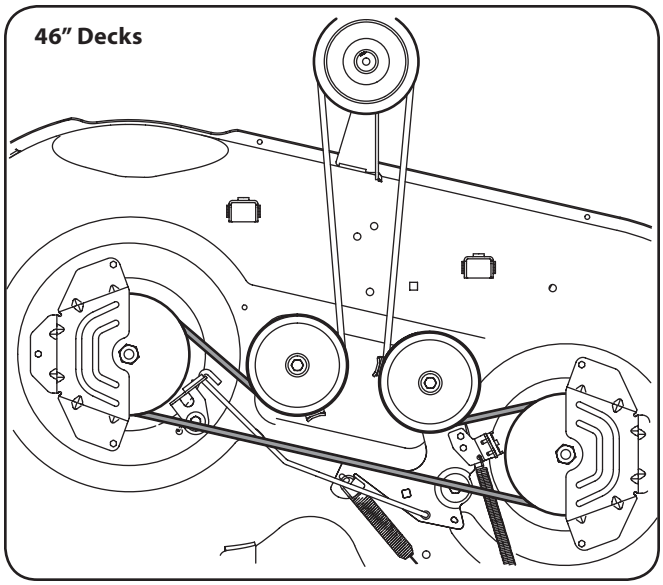


Figure 7-8

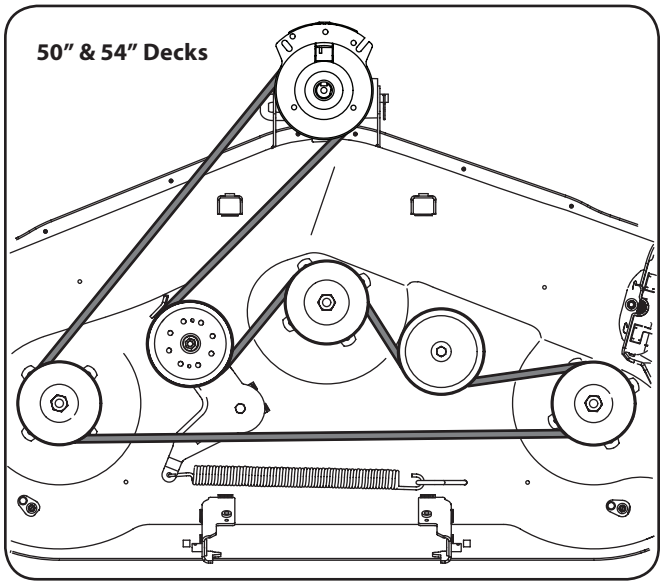


Figure 7-9

NOTE: Use a ½-inch drive ratchet wrench as instructed in earlier steps when routing the new belt.

5. Retighten idler pulleys, if loosened earlier.
6. Remount the spindle covers if removed earlier.
7. Re-install the deck making sure the belt remains routed around the pulleys as instructed.
8. On manual PTO units, re-install the engine pulley keeper rod.
9. Pull the right side of the belt and place the narrow V side of the belt into the PTO pulley. See Figure 7-10.

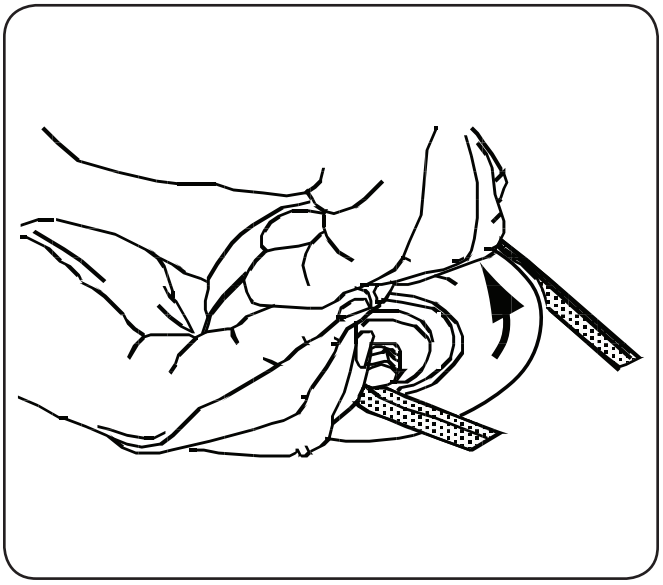


Figure 7-10

10. While holding the belt and pulley together, rotate the pulley to the left. Continue holding and rotating the pulley and belt until the belt is fully rolled into the PTO pulley.

Changing the Transmission Drive Belt

Several components must be removed and special tools used in order to change the tractor's transmission drive belt. See your Cub Cadet dealer to have the transmission drive belt replaced.

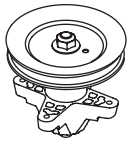
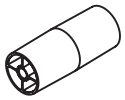
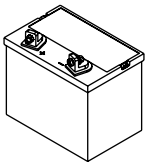
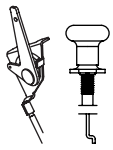
Troubleshooting

8

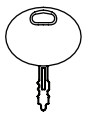
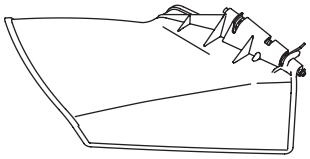
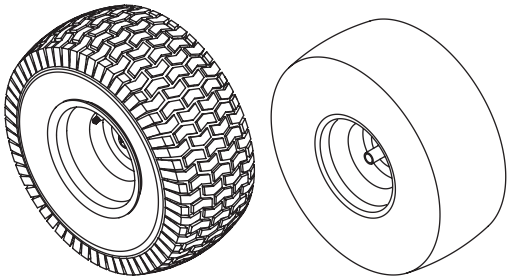
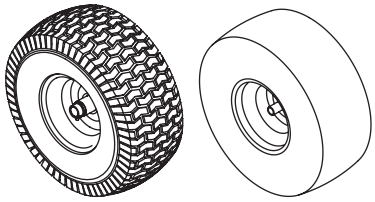
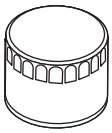
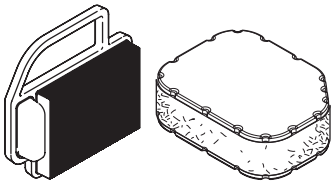
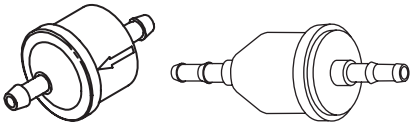
Problem	Cause	Remedy
Excessive vibration	1. Cutting blade loose. 2. Damaged, unbalanced or bent cutting blade.	1. Tighten blade and spindle. 2. Replace blade.
Uneven cut	1. Deck not leveled properly. 2. Dull or damaged blade. 3. Uneven tire pressure.	1. Perform side-to-side deck adjustment. 2. Sharpen or replace blade. 3. Check and correct tire pressure in all four tires.

Replacement Parts

9

Component	Part Number and Description	
	954-05021 954-05022A 954-04077A 954-05025	Deck Belt, 42" Deck Deck Belt, 46" Deck Deck Belt, 50" Deck Deck Belt, 54" Deck
	942-04308 942-04308-X 942-04244A 942-04290-X 942-05052A 942-05056A	Blades, 42" Xtreme Blades, 42" Blades, 46" Xtreme Blades, 46" Blades, 50" Blades, 54"
	618-06976 618-06977 618-06980 618-06978	Deck Spindle, 42" Deck Spindle, 46" Deck Spindle, 50" Deck Spindle, 54"
	734-04155 734-0973	Front Deck Wheel Rear Deck Wheel (Manual PTO tractors & LX 46)
	731-05679B	Nose Roller (50" Stamped, 54" FAB & 54" Stamped Decks)
	925-1707D	Battery
	751-14767	Gas Cap
	746-05097 746-05098 746-05095 746-05114A	Throttle/Choke Control Cable (Kohler Single Engine) Throttle/Choke Control Cable (Kohler Twin Engine) Throttle Control Cable (Kawasaki Twin Engine) Choke Control Cable (Kawasaki Twin Engine)

Phone (800) 965-4CUB to order replacement parts or a complete Parts Manual (have your full model number and serial number ready). Parts Manual downloads are also available free of charge at www.cubcadet.com.

Component	Part Number and Description
	625-05000 Ignition Key
	631-04354 Discharge Chute Assembly, 42" & 46" 631-05168 Discharge Chute Assembly, 50" & 54"
	634-0104 Rear Wheel Assembly, 20.0 x 8.0 x 8.0 (LT Models) 634-05160 Rear Wheel Assembly, 20.0 x 8.0 x 8.0 (LX Models) 634-05107 Rear Wheel Assembly, 22 x 9.5 x 12 (GT Models) 634-05114 Rear Wheel Assembly, 22 x 8.5 x 12 (GX Models)
	634-05149 Front Wheel Assembly, 15 x 6 x 6 (LT Models) 634-05159 Front Wheel Assembly, 15 x 6 x 6 (LX Models) 634-05082 Front Wheel Assembly, 16 x 6.5 x 8 (GT Models) 634-05163 Front Wheel Assembly, 16 x 6.5 x 8 (GX Models)
	KM-BPR4ES Spark Plug (Kawasaki) 759-3336 Spark Plug (Kohler)
	KM-49065-7007 Oil Filter (Kawasaki) KH-12-050-01-S Oil Filter (Kohler)
	KM-99999-0384 Air Filter (Kawasaki) KH-32-883-09-S1 Air Filter (Kohler Twin) KH-20-883-06-S1 Air Filter (Kohler Single)
	KM-49019-0014 Fuel Filter (Kawasaki) KH-25-050-22-S1 Fuel Filter (Kohler Twin) KH-25-050-21-S1 Fuel Filter (Kohler SIngle)

Phone (800) 965-4CUB to order replacement parts or a complete Parts Manual (have your full model number and serial number ready). Parts Manual downloads are also available free of charge at www.cubcadet.com.

Attachments & Accessories

Part No.	Part
19A30003100	Bagger, 42" & 46"
19A30018100	Bagger, 50" & 54"
19A70041100	Mulch Kit, 42"
19B30005100	Mulch Kit, 46"
19A30005100	Mulch Kit, 50"
19A70042100	Mulch Kit, 54"
19A30025100	Striping Kit, 54" FAB Decks
19A30024100	Striping Kit, 50" & 54" Stamped Decks
19A30017OEM	Snow Blade
19A40024100	Snow Thrower
490-241-0023	Tire Chains
490-900-M060	Weight Kit
490-900-M059	Extra Weight
19A30022OEM	Snow Cab
19A3021OEM	Sun Shade
19A30020OEM	Bumper
19A30019OEM	Manual Sleeve Hitch
490-290-0013	Tractor Cover
490-850-0008	Oil Siphon
490-850-0005	Blade Removal Tool
490-900-0045	Oil Filter Wrench
22216	32 oz. STA-BIL Fuel Additive

FEDERAL and/or CALIFORNIA EMISSION CONTROL WARRANTY STATEMENT
YOUR WARRANTY RIGHTS AND OBLIGATIONS

MTD Consumer Group Inc, the United States Environmental Protection Agency (EPA), and for those products certified for sale in the state of California, the California Air Resources Board (CARB) are pleased to explain the evaporative emission control system (ECS) warranty on your 2014-2015 small off-road equipment (outdoor equipment). In California, new outdoor equipment must be designed, built and equipped to meet the State's stringent anti-smog standards (in other states, outdoor equipment must be designed, built, and equipped to meet the U.S. EPA small off-road spark ignition engine regulations). MTD Consumer Group Inc must warrant the ECS on your outdoor equipment for the period of time listed below, provided there has been no abuse, neglect, or improper maintenance of the outdoor equipment.

Your ECS may include parts such as fuel tanks, fuel lines, fuel caps, valves, canisters, filters, vapor hoses, clamps, connectors, and other associated emission-related components.

Where a warrantable condition exists, MTD Consumer Group Inc will repair your outdoor equipment at no cost to you including diagnosis, parts, and labor.

MANUFACTURER'S WARRANTY COVERAGE:

This emission control system is warranted for two years. If any emission-related part on your outdoor equipment is defective, the part will be repaired or replaced by MTD Consumer Group Inc.

OWNER'S WARRANTY RESPONSIBILITIES:

As the outdoor equipment owner, you are responsible for performance of the required maintenance listed in your owner's manual. MTD Consumer Group Inc recommends that you retain all receipts covering maintenance on your outdoor equipment, but MTD Consumer Group Inc cannot deny warranty solely for the lack of receipts.

As the outdoor equipment owner, you should however be aware that MTD Consumer Group Inc may deny you warranty coverage if your outdoor equipment or a part has failed due to abuse, neglect, improper maintenance, or unapproved modifications.

You are responsible for presenting your outdoor equipment to MTD Consumer Group Inc's distribution center or service center as soon as the problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days. If you have a question regarding your warranty coverage, you should contact the MTD Consumer Group Inc Service Department at 1-800-800-7310 or at http://support.mtdproducts.com.

GENERAL EMISSIONS WARRANTY COVERAGE:

MTD Consumer Group Inc warrants to the ultimate purchaser and each subsequent purchaser that the outdoor equipment is: (1) designed, built, and equipped so as to conform with all applicable regulations; and (2) free from defects in materials and workmanship that cause the failure of a warranted part for a period of two years.

The warranty period begins on the date the outdoor equipment is delivered to an ultimate purchaser or first placed into service.

Subject to certain conditions and exclusions as stated below, the warranty on emission-related parts is as follows:

1. Any warranted part that is not scheduled for replacement as required maintenance in the written instructions supplied is warranted for the warranty period stated above. If the part fails during the period of warranty coverage, the part will be repaired or replaced by MTD Consumer Group Inc according to subsection (4) below. Any such part repaired or replaced under warranty will be warranted for the remainder of the period.
2. Any warranted part that is scheduled only for regular inspection in the written instructions supplied is warranted for the warranty period stated above. Any such part repaired or replaced under warranty will be warranted for the remaining warranty period.
3. Any warranted part that is scheduled for replacement as required maintenance in the written instructions supplied is warranted for the period of time before the first scheduled replacement date for that part. If the part fails before the first scheduled replacement, the part will be repaired or replaced by MTD Consumer Group Inc according to subsection (4) below. Any such part repaired or replaced under warranty will be warranted for the remainder of the period prior to the first scheduled replacement point for the part.
4. Repair or replacement of any warranted part under the warranty provisions herein must be performed at a warranty station at no charge to the owner.
5. Notwithstanding the provisions herein, warranty services or repairs will be provided at all of our distribution centers that are franchised to service the subject engines or equipment.
6. The outdoor equipment owner will not be charged for diagnostic labor that is directly associated with diagnosis of a defective, emission-related warranted part, provided that such diagnostic work is performed at a warranty station.
7. MTD Consumer Group Inc is liable for damages to other engine or equipment components proximately caused by a failure under warranty of any warranted part.
8. Throughout the off-road engine and equipment warranty period stated above, MTD Consumer Group Inc will maintain a supply of warranted parts sufficient to meet the expected demand for such parts.
9. Any replacement part may be used in the performance of any warranty maintenance or repairs and must be provided without charge to the owner. Such use will not reduce the warranty obligations of MTD Consumer Group Inc.
10. Add-on or modified parts that are not exempted by the Air Resources Board may not be used. The use of any non-exempted add-on or modified parts by the ultimate purchaser will be grounds for disallowing a warranty claim. MTD Consumer Group Inc will not be liable to warrant failures of warranted parts caused by the use of a non-exempted add-on or modified part.

WARRANTED PARTS:

The repair or replacement of any warranted part otherwise eligible for warranty coverage may be excluded from such warranty coverage if MTD Consumer Group Inc demonstrates that the outdoor equipment has been abused, neglected, or improperly maintained, and that such abuse, neglect, or improper maintenance was the direct cause of the need for repair or replacement of the part. That notwithstanding, any adjustment of a component that has a factory installed, and properly operating, adjustment limiting device is still eligible for warranty coverage. Further, the coverage under this warranty extends only to parts that were present on the off-road equipment purchased.

The following emission warranty parts are covered (if applicable):

1. Fuel Metering System
    - Fuel pump
    - Fuel tank
2. Evaporative Control
    - Fuel hose
    - Fuel hose clamps
    - Tethered fuel cap
    - Carbon canister
    - Vapor lines

CUB CADET LLC MANUFACTURER'S LIMITED WARRANTY FOR XT1 AND XT2 SERIES TRACTORS

IMPORTANT: To obtain warranty coverage owner must present an original proof of purchase and applicable maintenance records to the servicing dealer. Please see the operator's manual for information on required maintenance and service intervals.

The limited warranty set forth below is given by Cub Cadet LLC with respect to new merchandise purchased or leased and used in the United States and/or its territories and possessions, and by MTD Products Limited with respect to new merchandise purchased or leased and used in Canada and/or its territories and possessions (either entity respectively, "Cub Cadet").

This warranty is in addition to any applicable emissions warranty provided with your product.

Cub Cadet warrants this product (excluding its *Normal Wear Parts, Batteries, Frame, Front Axle, Drive Shaft* and *Fabricated Deck Shell*, and *Attachments* which are separately described below) against defects in material and workmanship for a period of three (3) years from the date of original retail purchase or lease and will, at its option, repair or replace, free of charge, any part found to be defective in materials or workmanship during that period.

Normal Wear Parts are warranted to be free from defects in material and workmanship for a period of thirty (30) days from the date of original purchase or lease. Normal wear parts include, but are not limited to items such as: belts, blades, blade adapters, grass bags, rider deck wheels, seats, and tires.

Batteries have a one-year prorated limited warranty against defects in material and workmanship, with 100% replacement during the first three months. After three months, the battery replacement credit is based on the months remaining in the twelve (12) month period dating back to the original date of original sale or lease. Any replacement battery will be warranted only for the remainder of the original warranty period.

Frame and Front Axle — Cub Cadet warrants the frame, and front cast iron pivot axle against defects in material and workmanship for a period of five (5) years from the date of original purchase or lease.

Fabricated Deck Shell — Cub Cadet warrants the optional fabricated cutting deck shell (excluding wear parts etc. thereon.) against defects in material and workmanship for the lifetime of the product, namely for as long as it is owned by its initial purchaser or the party for whom it was originally purchased as gift or seven years (7) from the date of its initial sale to a consumer, whichever comes first.

Attachments — Cub Cadet warrants all other approved attachments for this product against defects in material and workmanship for a period of two (2) years, commencing on the date of the attachment's original purchase or lease. Attachments include, but are not limited to items such as: grass collectors and mulch kits.

This limited warranty shall only apply if this product has been operated and maintained in accordance with the Operator's Manual furnished with the product, and has not been subject to misuse, abuse, neglect, accident, improper maintenance, alteration, vandalism, theft, fire, water, or damage because of other peril or natural disaster. Damage resulting from the installation or use of any part, accessory or attachment not approved by Cub Cadet for use with the product(s) covered by this manual will void your warranty as to any resulting damage. In addition, Cub Cadet may deny warranty coverage if the hour meter, or any part thereof, is altered, modified, disconnected or otherwise tampered with.

HOW TO OBTAIN SERVICE: Warranty service is available, WITH PROOF OF PURCHASE AND APPLICABLE MAINTENANCE RECORDS, through your local authorized service dealer. To locate the dealer in your area:

In the U.S.A.

Check your Yellow Pages, or contact Cub Cadet LLC at P.O. Box 361131, Cleveland, Ohio 44136-0019, call 1-877-282- 8684 or log on to our website at www.cubcadet.com.

In Canada:

Contact MTD Products Limited, Kitchener, ON N2G 4J1,
call 1-800-668- 1238 or log on to our website at www.mtdcanada.com.

Without limiting the foregoing, this limited warranty does not provide coverage in the following cases:

a. Routine maintenance items such as lubricants, filters, blade sharpening, tune-ups, brake adjustments, clutch adjustments, deck adjustments, and normal deterioration of the exterior finish due to use or exposure.

b. Service completed by someone other than an authorized service dealer.

c. Cub Cadet does not extend any warranty for products sold or exported outside of the United States and/or Canada, and their respective possessions and territories, except those sold through Cub Cadet's authorized channels of export distribution.

d. Replacement parts and/or accessories that are not genuine Cub Cadet Parts.

e. Transportation charges and service calls.

f. When the product has been used for commercial or Institutional applications

There are no implied warranties, including without limitation any implied warranty of merchantability or fitness for a particular purpose. No warranties shall apply after the applicable period of express written warranty above. No other express warranties beyond those mentioned above, given by any person or entity, including a dealer or retailer, with respect to any product, shall bind Cub Cadet. The exclusive remedy is repair or replacement of the product as set forth above.

The terms of this warranty provide the sole and exclusive remedy arising from the sale and/or lease of the products covered hereby. Cub Cadet shall not be liable for any incidental or consequential loss or damage including, without limitation, expenses incurred for substitute or replacement lawn care services or for rental expenses to temporarily replace a warranted product.

Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions or limitations may not apply to you.

In no event shall recovery of any kind be greater than the amount of the purchase price of the product sold. **Alteration of safety features of the product shall void this warranty.** You assume the risk and liability for loss, damage, or injury to you and your property and/or to others and their property arising out of the misuse or inability to use the product.

This limited warranty shall not extend to anyone other than the original purchaser or to the person for whom it was purchased as a gift.

HOW LOCAL LAWS RELATE TO THIS WARRANTY: This limited warranty gives you specific legal rights, and you may also have other rights that vary in different jurisdictions.

Cub Cadet LLC, P.O. BOX 361131 CLEVELAND, OHIO 44136-0019, Phone: 1-877-282-8684
MTD Products Limited, Kitchener, ON N2G 4J1, Phone: 1-800-668-1238

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