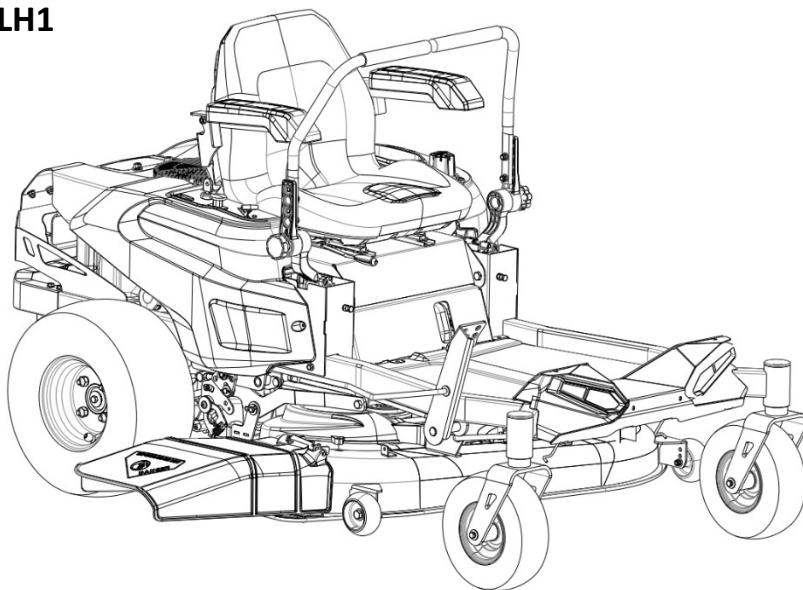


PRORUN®

***GAS*/// ZERO TURN RIDING MOWER**

MODEL: PZT42LH1

OPERATOR'S MANUAL



Before using, read the instructions.

⚠ IMPORTANT – READ CAREFULLY BEFORE USE.

⚠ IMPORTANT SAFETY INSTRUCTIONS – SAVE THESE INSTRUCTIONS



WARNING: To reduce the risk of injury, the user must read and understand the User manual before using this product. Keep these instructions for future reference.

Please let us know what you think. To leave a comment and see our complete product line,

Visit:

PRORUNTOOLS.COM

1-844-905-0882, info@proruntech.com

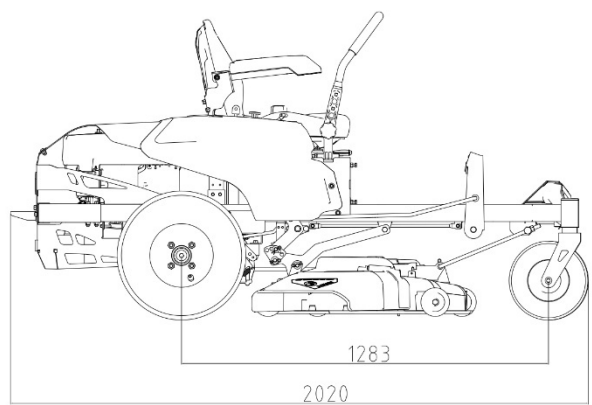
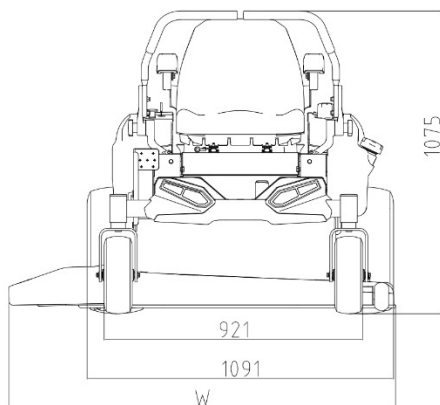
Version: A – Issue Date: 6/24/2025



1. SPECIFICATION

Model	PZT42LH1
Power Source	Petrol
Power	12.5kw
Engine Brand	LONCIN
Engine Model	LC2P73F
Displacement	586CC
Engine rotation speed	2800 r/min-1
Fuel tank capacity	12L
Cutting method	Side discharge, Mulching
Cutting width	108cm
Deck lift	Manual
Cutting height	30~100mm
Blades	Twin
Mower deck	Steel
Traction	Rear-wheel drive
Transmission type	Hydraulic
Seat adjustment	Adjustable slide
Front wheel size	11×4.00-5
Rear wheel size	18×8.50-8
Cruise control	No
PTO Engagement	Electromagnetic
Forward speed	0~10km
Reverse speed	0~6.5km
Turning radius	0
Product weight	235Kg
Width(Chute up) (L×W×H)	2020×1380×1075
Packing size (L×W×H)	1970×1150×820

It will cause damage by using of non-genuine spare parts, e.g. non-genuine blade etc.



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3. IMPORTANT SAFE INSTRUCTIONS

WARNING DEFINITIONS

 This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

 **DANGER!** Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

 **WARNING!** Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

 **CAUTION!** Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTE Addresses practices not related to personal injury.

SAVE THESE INSTRUCTIONS

This manual contains important instructions that should be followed during setup, operation, and maintenance of the chainsaw.

 **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 the 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!**

 **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. 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). Throwing objects can cause serious personal injury.
6. 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.
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 being tired, ill or under the influence of alcohol or drugs.
16. Mow only in daylight or good artificial light and keep bystanders away.
17. Never carry passengers.
18. Back up slowly. Always look down and behind before and while backing to avoid a back-over accident. Be aware and pay attention to the safety system function that stops power to the blades when driving in reverse. If not functioning properly, contact an authorized dealer for safety system inspection and repair.
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. 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.
22. Mufflers and engines become hot and can cause a burn. Do not touch. The muffler keeps the noise levels to a minimum and sends the exhaust fumes away from the operator. Do not use the product if the muffler is missing or damaged. A damaged muffler increases the noise level and the risk of fire.
23. 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.
24. Disengage all attachment clutches, set the parking brake to the 'ON' position and move the RH and LH drive control levers to the neutral position before attempting to start the engine.
25. 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.
26. 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.
27. 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.
28. If situations occur which are not covered in this manual, use care and good judgment. Contact your customer service representative for assistance.
29. Never operate the lawnmower without either the entire grass catcher or self-closing discharge opening guard in place.
30. Mow under highest engine speed and never mow wet grass in order to avoid the blockage.
31. Do not use the product in bad weather, for example in fog, in rain, moist or in wet locations, strong winds, intense cold, risk of lightning, etc.

Driving and Transport on public roads

Check the relevant road traffic regulations before driving the machine on a public road. If transporting the machine on another vehicle always use approved securing devices and make sure that the machine is securely held in order to prevent loss of fuel, damage or injury.

Slope Operation

Only mow on slopes with gradients up to the maximum already mentioned

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



> 15°



> 15°



> 10°

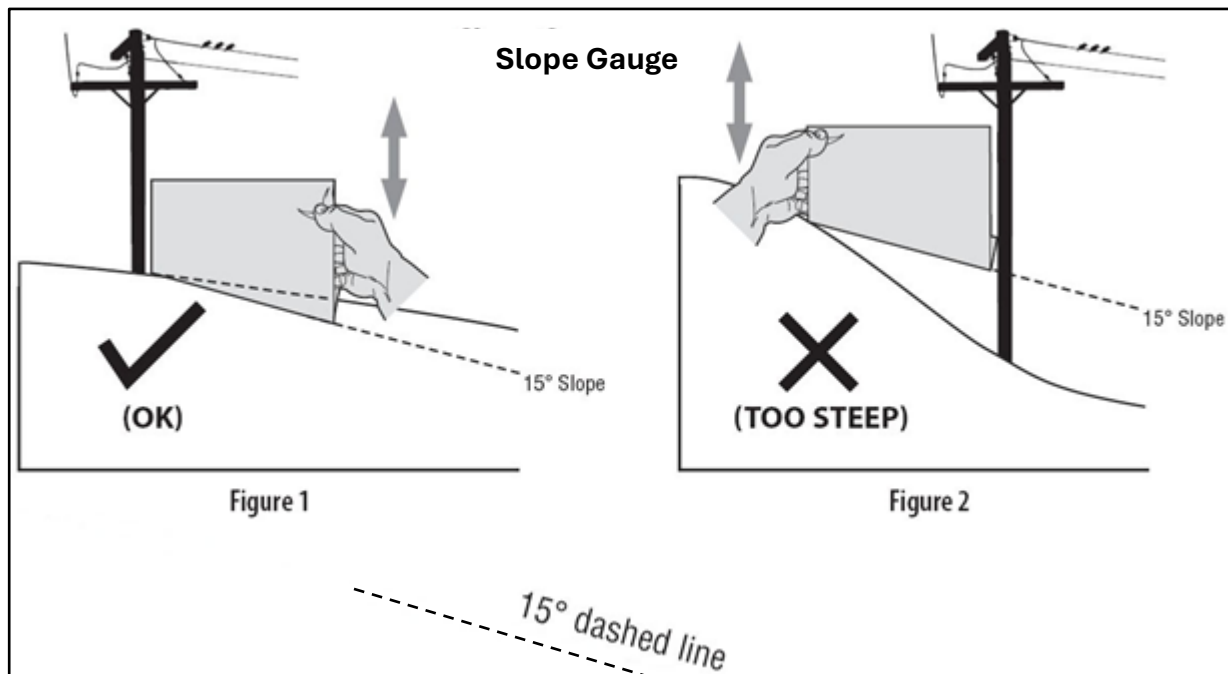
shown on the slope gauge, do not operate this machine on that area or serious injury could result.

Do:

1. Mow across slopes, not up and down. 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 so that you will not have to stop while on the slope. Avoid starting or stopping on a slope. If the tires are unable to maintain traction, disengage the blades and proceed slowly and carefully straight down the slope.
4. Use extra care with any attachments. These can change the stability of the machine.
5. Keep all movement on the slopes slow and gradual. Do not make sudden changes in speed or direction. Rapid acceleration or deceleration could cause the front of the machine to lift and rapidly flip over backwards, which could cause serious injury.

Do Not:

1. Do not turn on slopes unless necessary; then turn slowly uphill and use extra care while turning.
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 operate the tractor in the rain or in wet areas.
5. Do not mow on wet grass. Reduced traction could cause sliding.
6. Do not tow heavy pull behind attachments (e.g. loaded dump cart, lawn roller, etc.) on slopes greater than 5 degrees. When going downhill, the extra weight tends to push the tractor and may cause you to lose control (e.g. tractor may speed up, braking and steering ability are reduced, attachment may jack-knife and cause tractor to overturn).
7. Do not turn key off and coast downhill.



⚠ WARNING! Slopes are a major factor related to tip-over and accidents which can result injury or death. Do not operate machine on slope in excess of 15 degrees, All slopes require extra caution. Always mow across the face of slopes, never up and down slopes.

1. Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to machines and mowing activities. 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 the machine off if a child enters the area.
 - c. To avoid back-over accidents, always 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. Remove key when machine is unattended to prevent unauthorized operation.
2. Never allow children under 14 years of age to operate this machine. Children 14 and over should read and understand the instructions and safe operation practices in this manual and on the machine and should be trained and supervised by an adult.

Towing

1. Tow only with a machine that has a hitch designed for towing. Do not attach towed equipment except at the hitch point.
2. Follow the manufacturers recommendation for weight limits for towed equipment and towing on slopes.
3. Never allow children or others in or on towed equipment.
4. On slopes, the weight of the towed equipment may cause loss of traction and loss of control.
5. The maximum weight on the hitch is 50 lbs. and the maximum towed load is 250 lbs.
6. Loss of traction can occur on slopes, 5° (9 %) maximum grade.
7. Travel slowly and allow extra distance to stop.
8. Use caution during turns to avoid jack-knifing.
9. Use extra caution when operating in reverse.
10. Do not modify or repair the hitch, replace the hitch if damaged.
11. Travel slowly and allow extra distance to stop.
12. Do not turn key off and coast downhill.

General Service

1. Have your tractor serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the ride-on lawn mower is maintained.
2. Recharge only with the charger specified by the manufacturer. A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
3. A loose blade causes unwanted vibrations and can be dangerous.
4. Replace batteries if battery capacity drops below 50% of initial capacity.
5. Using old or faulty batteries could cause a system fault that results in loss of power.

6. Turn off and remove key before servicing, cleaning, or removing material from the tractor.
7. Before cleaning, repairing, or inspecting, make certain the blade(s) and all moving parts have stopped.
8. 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 dealer.
9. Regularly check the safety interlock system for proper function, as described later in this manual. If the safety interlock system does not function properly, have your machine serviced professionally by an authorized dealer.
10. Check the blade(s) 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!"
11. Mower blades are sharp. Wear gloves when wrapping the blade or servicing them.
12. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
13. Never tamper with the safety interlock system or other safety devices. Check their proper operation regularly.
14. After striking a foreign object, stop the tractor. Thoroughly inspect the machine for any damage. Repair the damage before starting and operating.
15. Never attempt to make adjustments or repairs to the tractor while it is running.
16. The discharge cover is 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!
17. Maintain or replace safety and instruction labels, as necessary.

Storage

Store idle tractor indoors, when not in use, the tractor should be stored in an indoor dry and locked-up place — out of reach of children.

4. 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 OPERATORS MANUAL(S) Read, understand, and follow all instructions in the manual(s) before attempting to assemble and operate
	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.

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	WARNING-THROWN SHOCK This machine may pick up and throw objects which can cause serious personal injury.
	WARNING-- ROTATING BLADES Pay more attention to the operator's hands and feet to avoid injury!
	DANGER-ROTATING BLADES To reduce the risk of injury, keep hands and feet away. Do not operate unless the discharge cover or grass catcher is in its proper place. If damaged, replace immediately
	WARNING-SLOPE OPERATION Do not use the machine on slopes with longitudinal gradients of more than 18°; do not use the machine on slopes with lateral gradients above 12°
	DANGER--ROTATING BLADES Never carry passengers. Never carry the children even with the blades off.
	DANGER--RTATING BLADES To avoid a back-over accident, keep children away from the machine while it is in operation.
	DANGER--RTATING BLADES Always look down and behind before and while backing to avoid a back-over accident.
	WARNING-FIRE HAZARD Do not allow debris to accumulate, the buildup of debris can lead to a fire.
	Warning: No step on the deck or discharge guard. Do Not Step.
	Warning: Keep hand and feet away from the blades.
	Danger! Risk of burns Wait for the engine to completely cool down before making any adjustments or servicing the engine itself.

Residual risks

Even if you are operating this machine in accordance with all the safety requirements, potential risks of injury and damage remain. The following dangers can arise in connection with the structure and design of this machine:

1. Health defects resulting from vibration emission if the machine is being used over long periods of time or not adequately managed and properly maintained.
2. Injuries and damage to property due to broken application tools or the sudden impact of hidden objects during use.
3. Danger of injury and property damage caused by flying objects.
4. Burns, if touching hot surfaces

⚠ WARNING! This machine produces an electromagnetic field during operation! This field may under some circumstances interfere with active or passive medical implants! To reduce

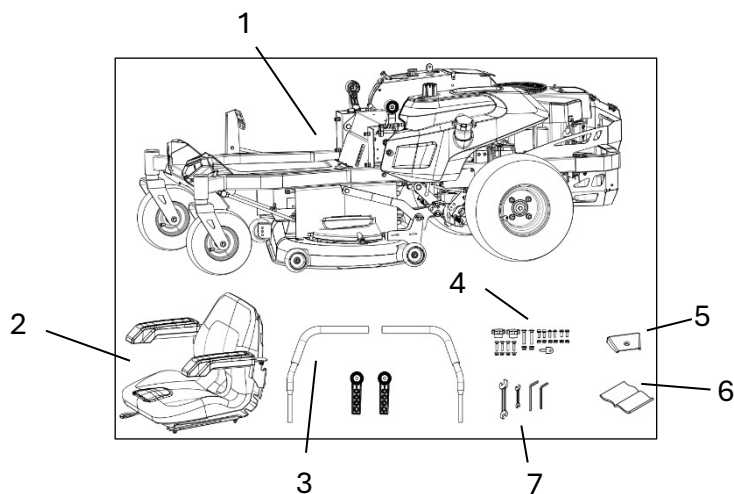
the risk of serious or fatal injury, we recommend people with medical implants to consult their doctor and the medical implant manufacturer before operating this machine!

⚠ 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!

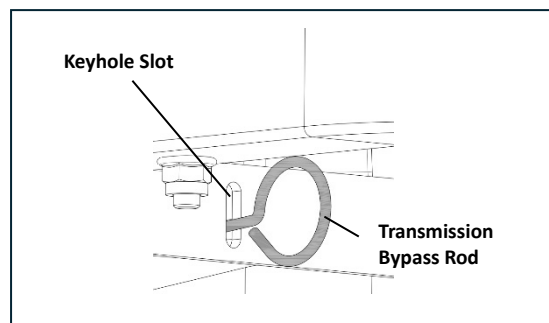
5. ASSEMBLY & SET UP

1. Machine body.
2. Seat.
3. Drive control Lever.
4. Nuts, bolts, washers and starter key.
5. Towing plate.
6. Instruction manual.
7. Tools.



2.1 Tractor Preparation

Remove the upper crating material from the shipping pallet and cut any bands or tie straps securing the tractor to the pallet. Use the lift handle to raise the deck to its highest position. Engage the transmission bypass rods on each side of the tractor; then carefully roll the tractor off the shipping pallet. The transmission bypass rods (one for each RH and LH transmission) are located beneath the frame platform, just inside each rear wheel. Disengage the bypass rods.



2.2 Install Operator's Seat

To install the seat proceed as follows:

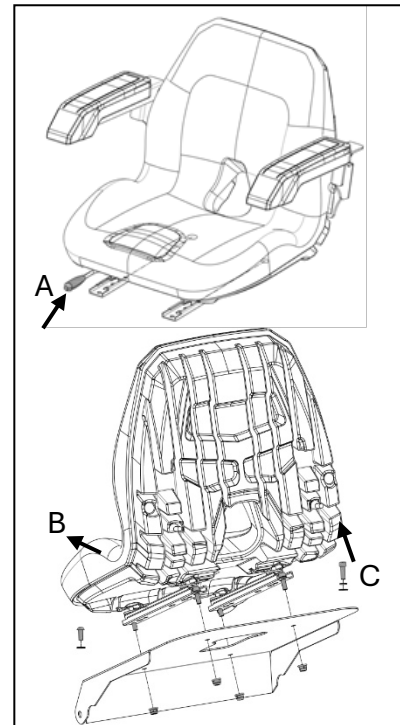
NOTE *The seat is shipped with the seat switch and seat pan attached.*

- A. 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 in the bottom of the seat.*

- B. Adjust the seat backwards by adjusting the handle(a), insert the bolts(b) into the hole in front of the slide rail, attach the seat mounting plate with nuts(no tighten).
- C. Adjust the seat forward by adjusting the handle(a), insert the bolts into the hole behind the slide rail, attach the seat mounting plate with nuts(no tighten).
- D. Tighten the bolts in front of the slide
- E. Adjust the seat forward ,tighten the bolts behind the slide.

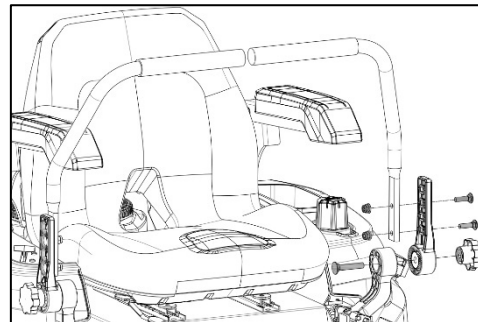
NOTE *Be careful not to crimp or damage the wire harness while installing the seat.*



2.3 Assemble Drive Control Lever

Using the hardware found in the manual bag, the control levers must be repositioned to operate the tractor. To reposition the control levers for operation, proceed as follows:

- A. Use the two screws and two flange nuts that secure the drive control lever to the upper handle adjuster.
- B. Keep the larger tip of the upper handle adjuster in line with the adapter that secures the lever to the mower.
- C. Connect them tightly by screwing the knob clockwise.
- D. Repeat this process on the remaining side.
- E. Refer to "Adjusting the Drive Control Levers" in the Maintenance & Adjustments section for instructions on the final adjustment of the levers.

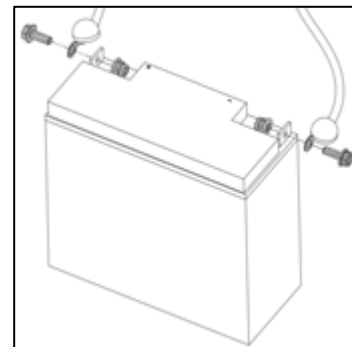


2.4 Connecting the Battery Cables

⚠ 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.
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.
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 Maintenance section your Operator's Manual prior to operating the tractor.

6. CONTROLS & FEATURES

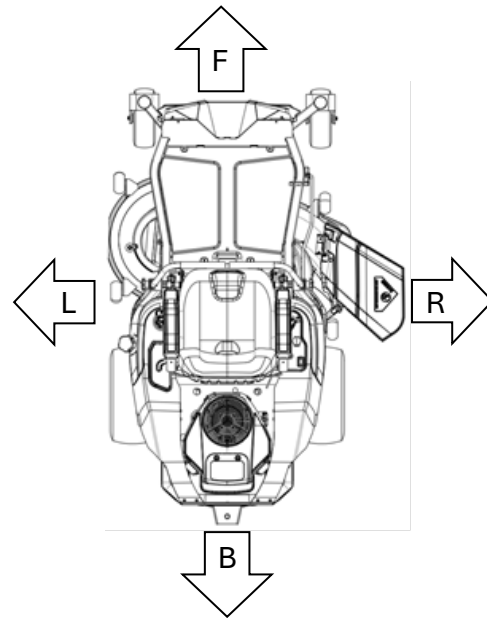
⚠ WARNING! Non-observance will result in the risk of injury to oneself or others.

⚠ DANGER! Non-observance will result in the risk of serious injury or death to oneself or others.

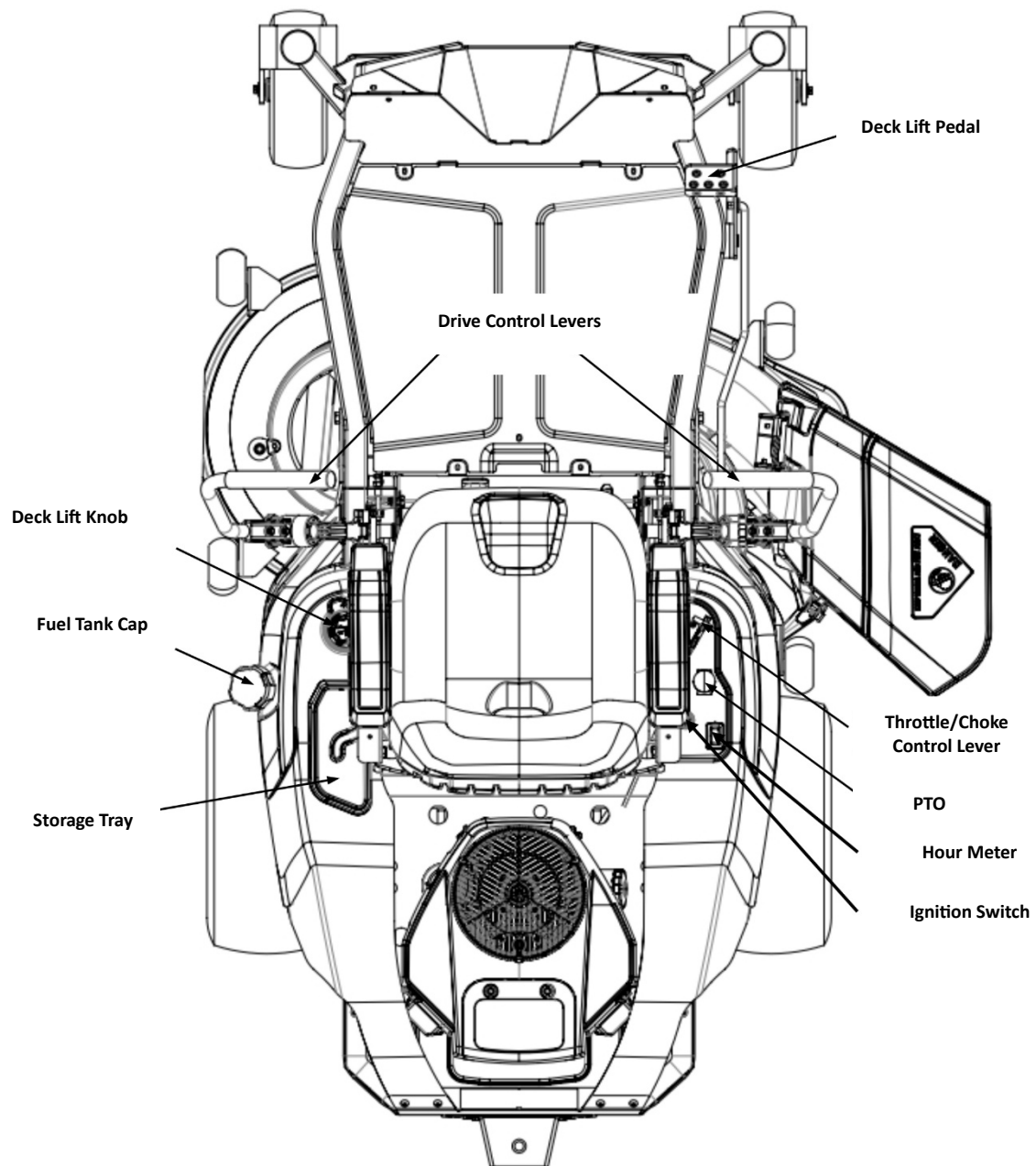
This manual describes various versions of the machine

NOTE Positions on the machine, such as "front", "back", "left" or "right" hand side, refer to the direction of forward travel.

⚠ IMPORTANT! For all operations regarding the use and maintenance of the engine not described in this manual, refer to the relevant manuals which form an integral part of all the documentation supplied with the machine.

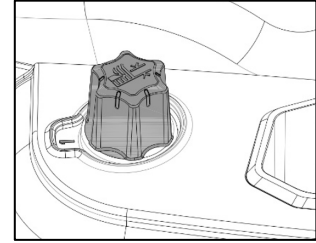


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3.1 Deck Lift Knob

The deck lift Knob is used in conjunction with the deck lift pedal to raise and lower the mowing Deck. Push forward on the deck lift pedal, rotate the deck knob lift to the desired height and release the deck lift pedal (1-9) .



3.2 Storage Tray

The storage tray is located at the rear of the LH console.

3.3 Deck Lift Pedal

The deck lift pedal is located on the front, right corner of the platform, The pedal is used in conjunction with the deck lift knob to raise and lower the mowing deck. Push forward on the deck lift pedal, rotate the deck lift knob to the desired height and release the deck lift pedal.

3.4 Drive Control Levers

The RH and LH control levers are located on each side of the operator's seat. The hinged levers pivot outward to permit the operator to sit in the seat or dismount. To start the mower engine, the drive control levers must be fully out and in PARK position. When the drive control levers are fully outward, the parking brake is engaged.

Each drive control lever controls the respective transmission. Consequently, these levers control all of the mower movements. Driving and steering using these control levers is quiet different from a conventional mower and will take practice to master. Refer to Practice Operation section for further instructions.

3.5 Ignition Switch

The ignition switch is located on the RH console to the right of the operator's seat. The ignition switch has three positions as follows:

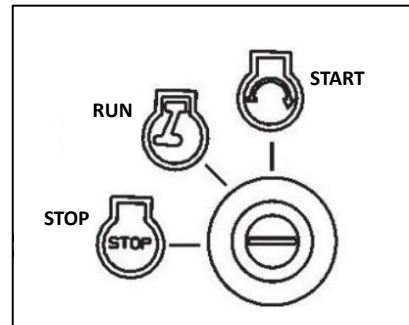
STOP — The engine and electrical system is turned off.

RUN — The tractor electrical system is energized.

START — The starter motor will turn over the engine.

Release the key immediately when the engine starts.

To prevent accidental starting and/or battery discharge, remove the key from the ignition switch when the tractor is not in use.

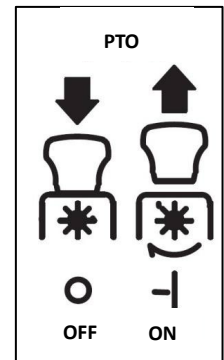


3.6 Power Take-Off (PTO) Switch

The PTO switch is located on the RH console to the right of the operator's seat next to the ignition switch.

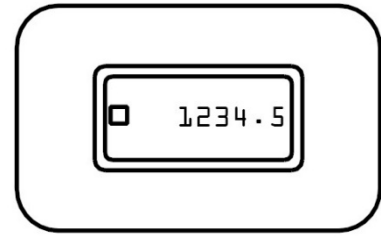
The PTO switch operates the electric PTO clutch mounted on the bottom of the engine crankshaft. Pull the switch knob upward to engage the PTO clutch or push the knob downward to disengage the clutch.

NOTE The PTO switch must be in the "disengaged" position when starting the engine.



3.7 Hour Meter

The hour meter/indicator panel is located on the RH console to the right of the operator's seat. The hour meter records the hours that the tractor has been operated in the digital display. The hour meter is activated whenever the ignition switch is turned to the "ON" position. Keep a record of the actual hours of operation to assure all maintenance procedures are completed according to the instructions in this manual and the engine manual.



NOTE An optional meter provides engine speed (RPM), service reminders (oil, lube), and running time (hours).

3.8 Throttle/Choke Control Lever

Push the throttle/choke control lever forward to increase the engine speed. The mower is designed to operate with the throttle/choke control lever at full throttle (FAST) while being driven and the mower deck is engaged. Pull the throttle/choke control lever rearward to decrease the engine speed. When starting the engine, push the control lever fully forward into the CHOKE position. After starting and warming the engine, move the control lever rearward until you feel it move past the choke detent. Throttle is not meant to control unit's speed, throttle should remain in high speed while operating blades.



«CHOKE» Cold starting



«SLOW» for minimum engine speed



«FAST» for maximum engine speed

- The «CHOKE» position enriches the mixture so must only be used for the time necessary when starting from cold.
- When moving from one area to another, put the lever in a position between «SLOW» and «FAST».
- When cutting, shift into «FAST»

3.9 Fuel Tank Cap

Turn the fuel tank cap at least two clicks counterclockwise and pull upward to remove. The fuel cap is tethered to the mower to prevent losing it. Do not attempt to remove the cap from the mower. Fill tank to 1/2" below the bottom of filler neck, allowing some space in the tank for fuel expansion. Do not overfill the tank.

Push the cap downward on the fuel tank fill neck and turn at least two clicks clockwise to tighten. Always re-install the fuel cap tightly onto the fuel tank after removing.

⚠WARNING! Never fill the fuel tank when the engine is running. If the engine is hot from recently running, allowing it to cool for several minutes before refueling. Highly flammable gasoline could splash onto the engine and cause a fire.

3.10 Seat Adjustment Lever (Not Shown)

The seat adjustment lever is located below the front/right of the seat. The lever allows for adjustment of the fore to aft position of the operator's seat. Refer to the Maintenance & Adjustments section for instructions on adjusting the seat position.

3.11 Transmission Bypass Rods (Not Shown)

The transmission bypass rods (one for each RH and LH transmission) are located beneath the frame platform, just inside each rear wheel. When engaged, the two rods open a bypass within the hydrostatic transmissions, which allows the tractor to be pushed short distances by hand. Refer to the Maintenance & Adjustments section for instructions on using the bypass feature.

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

3.12 Operator Presence Control (OPC)

The OPC engages when the operator lifts from the seat.

The engine stops if the parking brake is not applied.

The blades stop if the blades are engaged.

7. OPERATION

4.1 General Safety

1. RECEIVE INSTRUCTION — Entirely read this operator's manual. Learn to operate this machine SAFELY. Do not risk INJURY or DEATH. Allow only those who have become competent in its usage to operate this tractor.
2. Before starting the engine or beginning operation, be familiar with the controls. The operator should be in the operator's seat. The PTO switch must be in the disengaged position, the parking brake engaged, and the RH and LH drive control levers moved fully outward in the neutral position.
3. Keep all shields in place. Keep away from moving parts.
4. NO RIDERS! Keep all people and pets a safe distance away. Look behind and down to both sides of the tractor before and while backing up.
5. DO NOT direct the mower discharge at people. Never walk or stand on the discharge side of the mower when the engine is running. Turn off the PTO if another person approaches while you are operating the mower.
6. Avoid slopes where possible. Never operate on slopes greater than 15°. Slopes with a greater incline present dangerous operating conditions. Tractors can be rolled over. Always mow across slopes, never up and down the slope. Avoid turning downhill if possible, start at the bottom and work up to the top. Use extra care and go slowly when turning downhill. Control the speed and direction of the zero turn machine "primarily" with the speed/directional control (lap bar) of the downhill side of the machine, i.e., maintain the uphill side lap bar "essentially" in a fixed position.
7. Before leaving the operator's seat: Shut off the PTO, move the RH and LH drive control levers fully outward in the neutral position, engage the parking brake, shut off the engine and remove the ignition key. Wait for all movement to stop before servicing or cleaning.
8. When operating this mower, in the forward direction, do not allow the steering levers to return to neutral on their own. Operate the drive control levers smoothly and avoid any sudden movements of the levers when starting and stopping. Keep a firm grip on the control levers.
9. Be careful when operating near gravel paths and roadways. Stop the blades and tractor motion and wait for vehicles to pass before operating along the road
10. Do not operate the tractor with the mower deck removed. Removal of the deck will change the balance of the tractor, and could contribute to a tractor rollover.

11. Avoid operation on traction surfaces that are unstable; use extreme caution if the surface is slippery. Always remove debris and other objects from the area to be mowed -debris and loose grass will reduce traction.
12. Mow only in daylight or good artificial light.
13. Watch for holes, sprinkler heads, and other hidden hazards.
14. Avoid driving too close to trees, creeks, ditches, sand traps, and other obstacles.
15. Slow down before turning and come to a complete stop before any zero-turn maneuver.
16. If you hit a solid object while mowing, turn off the PTO, place the steering levers in the neutral, open out position, move the throttle to slow, set the parking brake, shut off the engine, and take the key from the ignition switch. Inspect for damage. Repair the damage. Make sure the blades are in good condition and that the blade bolts are tight before restarting the engine.
17. Do not stop the tractor or park the tractor over combustible materials such as dry grass, leaves, debris, etc.
18. Keep the mower and especially the engine and hydraulic components clean and free of grease, grass, and leaves to reduce the chance of fire and permit proper cooling.
19. Do not fill the fuel tank when the engine is running or while the engine is hot. Allow the engine to cool for several minutes before refueling. **If you spill petrol, do not start the engine and move the machine away from the area of spillage. Do not create any source of ignition until the petrol vapors have evaporated.** Tighten the fuel cap securely.
20. Fueling should be carried out in an open or well-ventilated area with the engine off. Always remember that petrol fumes are inflammable. **DO NOT USE A NAKED FLAME TO LOOK INSIDE THE TANK AND DO NOT SMOKE WHEN REFUELLING.**

4.2 Before Operating Your Tractor

1. Before you operate the tractor, study this manual carefully to familiarize yourself with the operation of all the instruments and controls. It has been prepared to help you operate and maintain your tractor efficiently.
2. Fill the fuel tank with only clean, fresh, unleaded gasoline with a pump sticker octane rating of 87 or higher. When the fuel reaches one inch from the top of the tank, stop. DO NOT OVERFILL. Space must be left for expansion.
3. Check the engine oil level. Pull out the oil dipstick, wipe it off and reinsert it. Pull it out again and read the oil level. If it is below the operating range, add oil through the fill tube using a funnel to bring it up to the top of the operating range.
4. Check the tire inflation pressures 20-22 psi for the rear tires, 42-46 psi front caster tires.
NOTE New tires are overinflated in order to properly seat the bead to the rim.
5. Check that all nuts, bolts and screws are tight.
6. Check the tension of the deck drive belts.
 - a. Remove the deck cover
 - b. The tension of the deck drive belts are maintained by a spring mechanism that adjusts for wear and stretch.
 - c. Examine the belts for cuts, fraying, and excessive wear. Replace if any of these are detected.
 - d. Replace the deck cover.
7. Check if deck is level. When correctly adjusted the mower deck should be level side to side, and the front of the deck should be approximately 1/4" lower than the rear of deck. If deck needs to be leveled, refer to the Maintenance & Adjustments section.

8. Lubricate all pivot points listed in the Maintenance & Adjustments section. Adjust the seat for operator's maximum comfort, visibility and for maintaining complete control of the tractor.

4.3 Safety Interlock System

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

1. The safety interlock system prevents the engine from cranking or starting unless the RH and LH drive control levers are moved fully outward in the neutral position, the parking brake is engaged, and the PTO is disengaged.
2. To avoid sudden movement when disengaging the parking brake, the safety interlock system will shut off the engine if the RH and/or LH drive control levers are moved to a position other than the fully out in the neutral position when the parking brake is engaged.
3. The safety interlock system will shut off the engine if the operator leaves the seat before engaging the parking brake Cadet Dealer.
4. The safety interlock system will shut off the engine if the operator leaves the seat with the PTO engaged, regardless of whether the parking brake is engaged.

NOTE The PTO switch must be moved to the "OFF" position to restart the engine.

4.4 Starting the Engine

⚠ WARNING! This tractor is equipped with a safety interlock system designed for the protection of the operator. Do not operate the tractor if any part of the interlock system is malfunctioning. Periodically check the functions of the interlock system for proper operation.

⚠ WARNING! For personal safety, the operator must be sitting in the tractor seat when starting the engine.

1. Open the fuel shut-off valve.
2. The operator must be sitting in the tractor seat with both drive control levers in the neutral/start position.
3. Engage the parking brake.
4. Make certain the PTO switch is in the disengaged (down) position.
5. Pull the choke knob up into the CHOKE position.

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

6. Turn the ignition key clockwise to the "START" position and release it as soon as the engine starts; however, do not crank the engine continuously for more than 10 seconds at a time. If the engine does not start within this time, turn the key to "OFF" and wait at least 30 seconds to allow the engine's starter motor to cool. Try again after waiting. If after a few attempts the engine fails to start, do not keep trying to start it with the choke closed as this will cause flooding and make starting more difficult.

Cold Weather Starting

When starting the engine at temperatures near or below freezing, ensure the correct viscosity motor oil is used in the engine and the battery is fully charged. Start the engine as follows:

1. Be sure the battery is in good condition. A warm battery has much more starting capacity than a cold battery.
2. Use fresh winter grade fuel. Winter grade gasoline has higher volatility to improve starting. Do not use gasoline left over from summer.

3. Follow the previous instruction for Starting the Engine.

Using Jumper Cables To Start Engine

⚠ WARNING! Batteries contain sulfuric acid and produce explosive gasses. Make certain the area is well ventilated, wear gloves and eye protection, and avoid sparks or flames near the battery.

If the battery charge is not sufficient to crank the engine, recharge the battery. If a battery charger is unavailable and the tractor must be started, the aid of a booster battery will be necessary. Connect the booster battery as follows:

1. Connect the end of one cable to the disabled tractor battery's positive terminal; then connect the other end of that cable to the booster battery's positive terminal.
2. Connect one end of the other cable to the booster battery's negative terminal; then connect the other end of that cable to the frame of the disabled tractor, as far from the battery as possible.
3. Start the disabled tractor following the normal starting instructions previously provided; then disconnect the jumper cables in the exact reverse order of their connection.
4. Have the tractor's electrical system checked and repaired as soon as possible to eliminate the need for jump starting.

Stopping the Engine

1. Place the PTO switch in the "OFF" position.
2. Move the RH and LH drive control levers fully outward in the neutral position.
3. Engage the parking brake.
4. Move the throttle control to midway between the SLOW and FAST positions.
5. Turn the ignition key to the "OFF" position and remove the key from the ignition switch.

NOTE Always remove the key from the ignition switch to prevent accidental starting or battery discharge if the equipment is left unattended.

Practice Operation (Initial Use)

1. Operating a zero-turn tractor is not like operating a conventional type riding tractor. Although and because a zero-turn tractor is more maneuverable, getting used to operating the control levers takes some practice.
2. We strongly recommend that you locate a reasonably large, level and open "practice area" where there are no obstructions, pedestrians, or animals. You should practice operating the tractor for a minimum of 30 minutes.
3. Carefully move (or have moved) the tractor to the practice area. When performing the practice session, the PTO should not be engaged. While practicing, operate the tractor at approximately 1/2-3/4 throttle and at less than full speed in both forward and reverse.
4. Use protective equipment for eyes, hands, hearing, feet, legs, head and other areas of the body if needed — safety eyeglasses, gloves, earplugs, boots, hats, etc.
5. While mowing, always wear sturdy and slip-resistant footwear and long trousers. Do not operate the equipment barefoot or wearing open sandals.
6. Use approved hearing protection. Long-term exposure to noise can result in permanent hearing impairment.

⚠ WARNING! Hearing Protection is required for all operator exposure exceeding two (2) hours.

Carefully practice maneuvering the tractor using the instructions in the following section "Driving the Tractor." Practice until you are confident that you can safely operate the tractor.

4.5 Driving the Tractor

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

1. Adjust the operator's seat to the most comfortable position that allows you to operate the controls. See seat adjustment in the Maintenance & Adjustments section.
2. Move the RH and LH drive control levers inward in the neutral position. This disengages the parking brake.

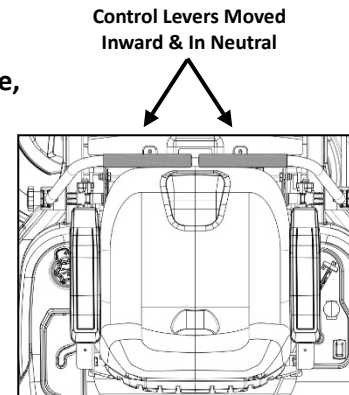
NOTE: If the control levers are not even in the neutral position, refer to Maintenance & Adjustments for instructions to adjust the levers so that they are even.

3. Move the throttle control lever forward to the full throttle Position.

NOTE Although the tractor's engine is designed to run at full throttle, when performing a practice session, the tractor must be operated at less than full throttle (approximately 2000-2500 RPM). This only applies to practice.

⚠WARNING! Always maintain a firm grip on the control levers. DO NOT release the control levers to slow or stop the tractor; move levers to neutral position using your hands.

4. To drive the tractor, firmly grasp the respective drive control levers with your right and left hands and continue with Driving the Tractor Forward in the next section.

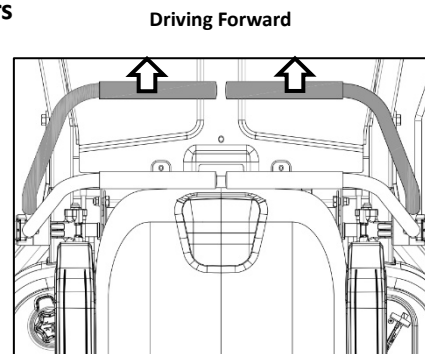


4.5.1 Driving the Tractor Forward

⚠WARNING! Keep all movement of the drive control levers slow and smooth. Abrupt movement of the control levers can affect the stability of the tractor and could cause the tractor to flip over, which may result in serious injury or death to the operator.

1. Slowly and evenly move both drive control levers forward. The tractor will start to move forward.
2. As the control levers are pushed farther forward the speed of the tractor will increase.
3. To slow the tractor move the controls lever rearward to attain the desired speed, or move the levers to the neutral Position to stop the tractor.

⚠WARNING! Always maintain your grasp on the drive control levers. Do not release the levers to Slow the tractor or to return to neutral.

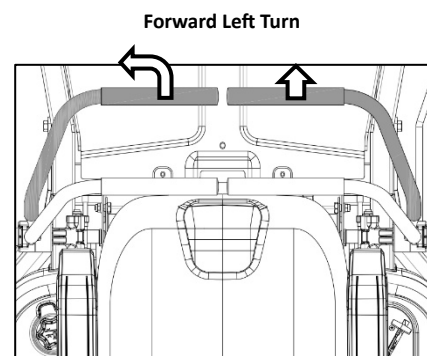


4.5.2 Turning the Tractor While Driving Forward

⚠WARNING! When reversing the direction of travel, we recommend performing gradual 'U' turns where possible. Sharper turns increase the possibility of turf defacement and could affect control of the tractor.

ALWAYS slow the tractor before making sharp turns.

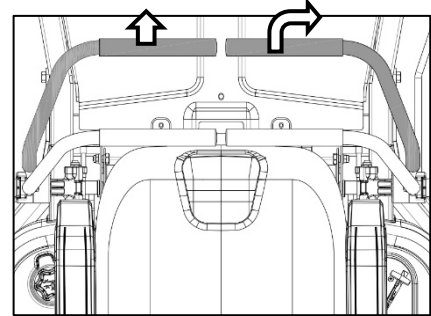
To turn the tractor while driving forward, move the control levers as necessary so that one lever is rearward of the other. The tractor will turn in the direction of the rearward control lever.



1. To turn left, move the left drive control lever rearward of the right lever.
2. To turn to the right, move the right drive control lever rearward of the left lever.
3. The greater the fore-to-aft distance between the two levers, the sharper the tractor will turn.
4. To execute a “pivot turn,” move the turn side drive control lever to the neutral position, while moving the other control lever forward.

NOTE Making a “pivot turn” on grass will greatly increase the potential for defacement of the turf.

Forward Right Turn

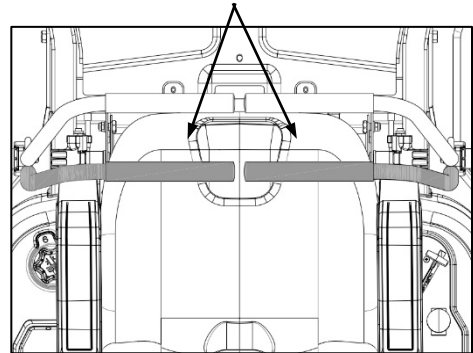


4.5.3 Driving the Tractor In Reverse

⚠WARNING! Always look behind and down on both sides of the tractor before backing up. Always look behind while traveling in the reverse direction.

1. Slowly and evenly move both drive control levers rearward. The tractor will start to move in the reverse direction.
2. As the control levers are pushed farther rearward the speed of the tractor will increase.
3. To slow the tractor, move the controls lever forward to attain the desired speed or move the levers to the neutral position to stop the tractor.

Neutral Position



Slower



Faster

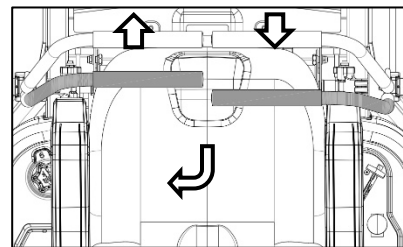
4.5.4 Turning While Driving Rearward

To turn the tractor while driving rearward, move the control levers as necessary so that one lever is forward of the other. The tractor will turn in the direction of the forward control lever.

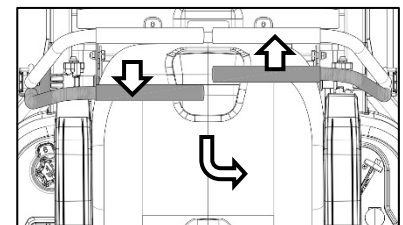
1. To turn to the left while traveling in reverse, move the left drive control lever forward of the right lever.
2. To turn to the right while traveling in reverse, move the right drive control lever forward of the left lever.
3. The greater the fore-to-aft distance between the two levers, the sharper the tractor will turn.
4. To execute a “pivot turn,” move the turn side drive control lever to the neutral position, while moving the other control lever rearward.

NOTE: Making a “pivot turn” on grass will greatly increase the potential for defacement of the turf.

Rearward Left Turn



Rearward Left Turn

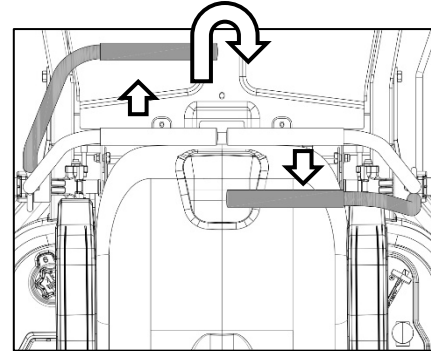


4.5.5 Executing a Zero Turn

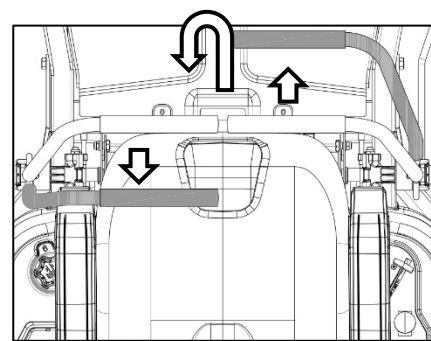
⚠ WARNING! When executing a zero turn, the tractor **MUST BE STOPPED**. Executing a zero turn while the tractor is moving can significantly reduce your control of the tractor and will cause severe turf defacement to occur.

1. Stop the forward or reverse motion of the tractor by moving the two drive control levers to neutral.
2. To turn clockwise, move the left control lever forward while simultaneously moving the right control lever rearward.
3. To turn counterclockwise, move the right control lever forward while simultaneously moving the left control lever rearward.

Clockwise Zero Turn



Counterclockwise Zero Turn



4.5.6 Stopping the Tractor

1. Move both drive control levers to the neutral position to stop the motion of the tractor.
2. Push the PTO switch downward to the disengaged position.
3. If dismounting the tractor, move the drive control handles fully outward in the neutral position, engage the parking brake, move the throttle control lever to the fast position, turn the ignition switch to "OFF" and remove the key from the switch.

⚠ WARNING! Do not leave the seat of the tractor without disengaging the PTO, moving drive control levers fully outward in the neutral position, and engaging the parking brake. If you leave the tractor unattended, turn the ignition key off and remove the key.

4.5.7 Operating The PTO

1. Move the throttle control lever to approximately the mid throttle position.
2. Pull the PTO switch upward to the "ENGAGED" position.
3. Advance the throttle lever to the operating speed (full engine speed).
4. The operator must remain in the tractor seat at all times. If the operator should leave the seat without turning off the power take-off switch, the tractor's engine will shut off.

4.5.8 Using the Mower Deck

⚠ 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 'V' belt and PTO clutch will result. Fully raise the deck or move to a non-grassy area before engaging the mower deck.

1. Mow across slopes, not up and down. If mowing a slope, start at bottom and work upward to ensure turns are made uphill.
2. On the first pass pick a point on the opposite side of the area to be mowed.

3. Engage the PTO clutch using the PTO switch and move the throttle control to the fast position.
4. Lower the mower deck to the desired height setting using the lift handle.
5. Slowly and evenly push the RH and LH drive control levers forward to move the tractor forward, and keep the tractor headed directly toward the alignment point.

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 the control levers.

6. When approaching the other end of the strip, slow down or stop before turning. A U-turn is recommended unless a pivot or zero turn is required.
7. Align the mower with an edge of the mowed strip and overlap approximately 3".
8. Direct the tractor on each subsequent strip to align with a previously cut strip.
9. 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:

- Place the shift lever in neutral,
- Engage the parking brake,
- Shut 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.

4.5.9 Checking the Safety Interlock Circuits

Periodically check the safety interlock circuits to ensure they are working properly. If a safety circuit is not working as designed, contact your dealer to have the tractor inspected. DO NOT operate the tractor if any safety circuit is not functioning properly. To check the safety circuits, proceed as follows:

1. Sitting in the tractor seat with both drive control levers opened fully outward, disengage the parking brake and momentarily turn the ignition switch to the start position. The engine should not crank.
2. Engage the parking brake and pull the PTO switch upward to the engaged position. Momentarily turn the ignition switch to the start position; the engine should not crank.
3. Push the PTO switch downward to the disengaged position and engage the parking brake. Start the engine and move one of the drive control levers from the fully outward neutral position. The engine should stop running. Repeat the procedure with the opposite control lever.
4. Move both control levers fully outward in the neutral position and disengage the parking brake; then lift upward from the operator's seat. The engine should stop.
5. With both control levers fully outward in the neutral position and the parking brake engaged, engage the PTO. Lift upward from the operator's seat; the engine should stop.
6. Start the tractor, engage the parking brake, and move the control levers from the fully outward neutral position. The engine should stop.

8. MAINTENANCE & ADJUSTMENTS

5.1 Maintenance Schedule

	Before Each use	Every 25 Hours	Every 50 Hours	Every 100 Hours	Every 300 Hours	After Mowing
Check Engine Oil/ Gasoline Level	X					
Check Hydraulic Transaxles for leaks	X					
Check Tires & Tire Pressure	X					
Check Deck, Mower and Hydro Drive Belts	X					
Check Blades and Blade Bolt Tightness	X					
Check Safety Switches for proper Operation	X					
Check Engine Intake Screen/Cover						X
Clean Mower						X
Lubricate Wear Points (See Chart)			X			X
Clean and Re-oil Air Filter's Foam Precleaner*		X				
Grease three Spindle Bearings		X				
Check Fluid Level in Transaxle Expansion Reservoir		X				
Replace Air Filter Element*			X			
Change Engine Oil† and Replace Oil Filter			X			
Check Battery Electrolyte Level		X				
Clean Engine Cooling Fins & External Surfaces*			X			
Check Spark Plug Condition & Gap				X		
Lubricate all grease fittings (See Chart)			X			
Check air gap PTO clutch				X		
Change Hydrostatic fluid & filter in transaxles					X	

† — After first 5 hours, change engine oil & filter. Change oil every 25 hours under heavy duty operation.

* — Perform more frequently under dusty conditions.

5.2 OIL CHART

Apply a few drops of SAE engine oil, grease, or use a spray lubricant. Apply the oil to both sides of pivot points. Wipe off any excess. Start the engine and operate mower briefly to insure that oil spreads evenly.

Number of Oil Points	Description
Daily	
4	Deck Suspension Pivots
4	Height Adjustment Turnbuckle Clevis Pin
2	Height Adjustment Handle Pivots
2	Height Adjustment Stop Pivots
2	Deck Lift Linkage Pivots
2	Transport Handle Pivots
1	Transport Handle Pin
2	Deck Frame Up-and-Down Pivots
Weekly	
1	Seat Hinge
2	Steering Lever Linkage Rod End Bearings
2	Lever Return Assembly Rod End Bearings
2	Pump Control Lever Pivots
2	Grass Collection System Lid Hinges (If Mower is so equipped)

LUBRICATION CHART

Use a grease-gun filled with NO. 2 Multipurpose Lithium Base Grease

Number of Grease Fittings	Description
EVERY 25 HOURS	
3	Blade Spindle Bearings
WEEKLY	
2	Front Caster Wheels
2	Front Caster Wheel Spindles
2	Mower Deck Ball Wheels
Number of Grease Points	Description
WEEKLY	
4	Mowing Deck Pivots
2	Deck Take-Up Idler Pivots

Engine Oil: Rimula 15W40 recommended or 10W40 engine oil rated SJ or higher.

Hydrostatic Fluid: Rimula 15W40 recommended.

Spindle Lubricant: Use only Shell Alvania RL 2 grease. This grease is an amber-colored grease designed for high speed bearing applications. It has a base oil viscosity that reduces running losses, has been formulated for low noise, has excellent corrosion protection, and has excellent bearing lubrication.

General Purpose Lubrication: Use any NLGI grade 2 multi-purpose grease. Shell Albida EP2 is recommended. Shell Albida EP 2 is a red-colored multi-purpose grease designed for heavy-duty bearing applications. It has high base oil viscosity for mechanical stability, has been formulated for high load, low-speed applications, and has excellent lubrication and corrosion protection.

5.2 Maintenance

⚠ WARNING! Before performing any maintenance or repairs, disengage the PTO, move the drive control levers fully outward in the neutral position, engage the parking brake, stop the engine and remove the key to prevent unintended starting.

Improper maintenance, using non-genuine parts, or removing / modifying safety components may lead to malfunction / failure of the machine and injury of operators. Many accidents are caused by poorly maintained machines.

5.3.1 Engine

Refer to the Owner's Manual for all engine maintenance intervals, procedures, specifications and instructions.

5.3.2 Changing the Engine Oil

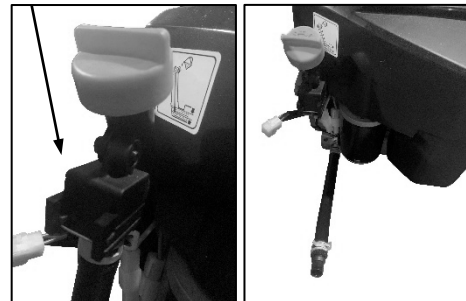
⚠ WARNING! If the engine has been recently run, the engine, muffler and surrounding metal surfaces will be hot and can cause burns to the skin. Exercise caution to avoid burns.

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.
2. Use care to avoid burning hot oil.
3. Press the elastic rod, take off the oil hose.
4. Route the free end of the oil drain hose toward an appropriate oil collection container with at least a 2.5-quart capacity, to collect the used oil. Remove the oil fill cap/dipstick
6. from the oil fill tube.
5. While holding the free end of the oil drain hose over the oil collection container, unscrew the square-head hose plug from the end of the hose. Drain the engine oil into the collection container.
6. After draining the oil, wipe any residual oil from the oil drain hose. The oil drain hose is inserted into the fixed checkpoint.
7. Refill the engine with new oil. Refer to the engine's Manual for information regarding the volume and weight of engine oil.

NOTE If the oil drain hose is not installed, unscrew the square-head hose plug from the engine.

Elastic rod



5.3.3 Air Cleaner

Service the pre-cleaner and cartridge/air cleaner element as instructed in the Kohler Owner's Manual.

5.3.4 Spark Plug

The spark plugs should be cleaned and the gap reset once a season. Refer to the Kohler Owner's Manual for correct plug type and gap specifications.

5.3.5 Hydrostatic Transmission

The zero-turn tractor is equipped with dual integrated hydrostatic pumps/transaxles that are sealed and are maintenance-free. Fluid levels in the transaxles cannot be checked and fluid cannot be added or changed.

NOTE If the pumps/transaxles fail contact your dealer. DO not disassemble the pumps/transaxles.

5.3.6 General Battery Information

WARNING!

- Should battery acid accidentally splatter into the eyes or onto the skin, rinse the affected area immediately with clean cold water. If there is any further discomfort, seek prompt medical attention.
- If acid spills on clothing, first dilute it with clean water, then neutralize with a solution of ammonia/water or baking soda/water.
- NEVER connect (or disconnect) battery charger clips to the battery while the charger is turned on, as it can cause sparks.
- Keep all sources of ignition (cigarettes, matches, lighters) away from the battery. The gas generated during charging can be combustible.
- As a further precaution, only charge the battery in a well-ventilated area.
- Always shield eyes and protect skin and clothing when working near batteries.
- Batteries contain sulfuric acid and may emit explosive gases. Use extreme caution when handling batteries. Keep batteries out of the reach of children.

5.3.7 Battery Maintenance

- The battery is filled with battery acid and then sealed at the factory. However, if the battery is equipped with fill caps, remove them and check the level of the electrolyte liquid in the battery every 50 operating hours. If the level in any of the six cells has dropped below the bottom of the split ring inside the fill hole, refill the cell with distilled water.
- Spray the terminals and exposed wire with a battery terminal sealer, or coat the terminals with a thin coat of grease or petroleum jelly, to protect against corrosion.
- Always keep the battery cables and terminals clean and free of corrosion.
- Avoid tipping. Even a sealed battery will leak electrolyte when tipped.

⚠ WARNING! Batteries contain sulfuric acid and may emit explosive gases. Use extreme caution when handling batteries. Keep batteries out of the reach of children.

5.3.8 Tire Maintenance

Check the tire air pressure before each use. Inflation pressure of the rear tires is important for stability while the mower is in operation. If the tire diameter is not equal between the two tires, the mower will pull to one side. Keep the tires inflated to the recommended pressures. Improper inflation will shorten the tire service life. See the tire side wall for proper inflation pressures.

- Observe the following guidelines:
- Do not inflate a tire above the maximum pressure shown on the sidewall of the tire.
- Do not reinflate a tire that has been run flat or seriously under inflated. Have a qualified tire mechanic inspect and service the tire.
- Balance inflation pressure between the rear tires to help maintain straight travel (see tire side wall for proper inflation pressure).

- Keep the valve caps tightened to prevent air pressure loss.

5.3.9 Lubrication

- Using a pressure lubricating gun, lubricate all grease fittings and points as noted in the Lubrication Chart.
- Lubricate all other pivot points with quality lubricating oil as noted in the Oil Chart.

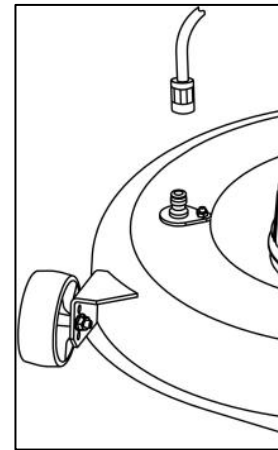
5.3.10 Using the Deck Wash System

⚠ WARNING! When using the deck wash system, never engage the deck from any position other than the operator's seat of the tractor. Do not use an assistant or engage deck in the presence of any bystanders.

Use the Deck Wash System to rinse grass clippings from the deck's underside and prevent the buildup of corrosive chemicals. Complete the following steps after each mowing:

NOTE Make certain the machine's discharge chute is directed away from people, children, animals, and your house, garage, parked cars, etc.

1. Attach the nozzle adapter to a standard garden hose connected to a water supply.
2. Move the tractor to an area within reach of the hose where the dispersal of wet grass clippings is not objectionable to you. Disengage the PTO, engage the parking brake, and stop the engine.
3. Pull back the lock collar of the nozzle adapter and push the adapter onto one of the deck wash nozzles at either end of the mower deck. Release the lock collar to lock the adapter on the nozzle.
4. Turn on the water supply.
5. From the tractor operator's seat, start the engine and engage the PTO. Allow to run as needed. Disengage the PTO and stop the engine.
6. Turn off the water supply.
7. Pull back the lock collar of the nozzle adapter to disconnect the adapter from the nozzle.
8. Repeat the previous steps to clean the deck using the nozzle at the other end of the deck.



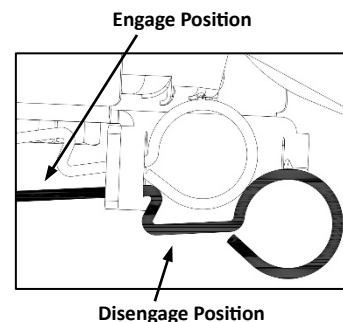
5.3.11 Cleaning the Spindle Pulleys

Once a month remove the belt covers to remove any accumulation of grass clippings from around the spindle pulleys and V-belt. Clean more often when mowing tall, dry grass.

5.3.12 Using the Transmission Bypass Rods

⚠ WARNING! Do not tow the tractor, even with the bypass rod engaged. Serious Transmission damage will result from doing so.

1. From just in front of the two rear tires, locate the transmission bypass rods.
2. Pull one rod toward the rear of the tractor until the flange on the rod is forward of the keyhole slot in the frame assembly.
3. Lower the bypass rod into the keyhole slot and release so, the rod flange is against the front of the frame bracket.
4. Repeat the above procedure to engage the other bypass rod on the other side of the tractor.



6. After moving the tractor, disengage both bypass rods. Lift the rod and guide the flange of the rod back through the larger circular opening of the keyhole, then release the rod.

NOTE The tractor will not drive with the bypass rods in the engage position.

5.3.13 Battery Storage

1. When storing the tractor for extended periods, disconnect the negative battery cable. It is not necessary to remove the battery.
2. All batteries discharge during storage. Keep the exterior of the battery clean, especially the top. A dirty battery will discharge more rapidly.
3. The battery must be stored with a full charge. A discharged battery can freeze sooner than a charged battery. A fully charged battery will store longer in cold temperatures than hot. Refer to the chart below.
4. Recharge battery whenever the specific gravity value is less than 1.225.

5.3.14 Tractor Storage

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

1. Change the engine oil and filter following the instructions provided in the engine manual packed with this manual.

⚠️ WARNING! Never store the tractor 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. If storing the tractor for 30 days or more:
 - a. To prevent gum deposits from forming inside the engine's carburetor and causing possible malfunction of the engine, the fuel system must be either completely emptied, or the gasoline must be treated with a stabilizer to prevent deterioration.

⚠️ WARNING! Fuel left in the fuel tank deteriorates and will cause serious starting problems.

- b. Using a fuel stabilizer:
 - Read the product manufacturer's instructions and recommendations.
 - Add to clean, fresh gasoline the correct amount of stabilizer for the capacity (approximately 5 gallons) of the fuel system.
 - Fill the fuel tank with treated fuel and run the engine for 2-3 minutes to get stabilized fuel into the carburetor.
- c. Emptying the fuel system:
 - Prior to putting the tractor in storage, monitor fuel consumption with the goal of running the fuel tank empty.
 - Close the fuel tank shutoff valve. Disconnect the fuel line from the carburetor and put the end into an approved fuel container.
 - Open the fuel tank shutoff valve and drain the fuel tank and line into the approved container.
 - Reinstall the fuel line on the carburetor.
 - Start the engine and allow it to run out of fuel. This will prevent gum and varnish deposits from forming. Replace the fuel filter.

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 tractor thoroughly.

NOTE Use of a pressure washer or garden hose is not recommended to clean your tractor. 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
7. Preventive oil on any unpainted surfaces including the pulleys and blades. (Be careful not to get any oil on the drive belts.)
8. 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.

9. Lubricate all lubrication points.
10. Jack the mower up and store it on blocks to take the weight off the tires.

5.3.15 Removing the Tractor from Storage

1. Check the engine oil.
2. Fully charge the battery, lower tractor 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 it to idle for a few minutes to ensure the engine is operating properly.
7. Drive the tractor without a load to make certain all the tractor systems are functioning properly.

5.4 Adjustments

5.4.1 Adjusting the Seat

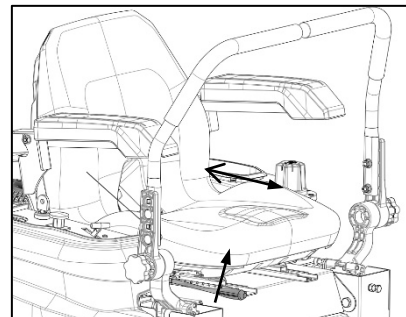
To adjust the position of the seat, pull up and hold the seat adjustment lever. Slide the seat forward or rearward to the desired position; then release the adjustment lever. Make Sure seat is locked into position before operating the tractor.

5.4.2 Adjusting Drive Control Levers

The drive control levers can be adjusted up/down and forward/backward for the operator's comfort. Three height positions are available and/or levers can be rotated forward or rearward using the knob.

To adjust the drive control levers height:

1. Removed the bolts and two lock flange nut that secure the drive control lever to the upper handle adjuster.



Adjustment lever

2. There are two selectable positions, with the ability to move up or down for adjustment.
Secure the two bolts either in the upper or lower position.

To adjust levers forward/rearward:

The drive control levers are designed to be adjustable. Adjust them to a comfortable for you before operation.

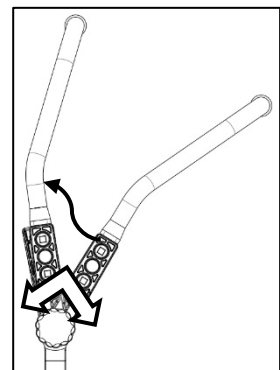
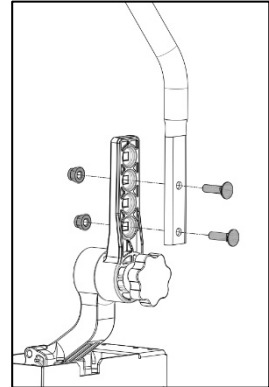
1. Rotate the knob counterclockwise to loosen it.
2. Lift and rotate the drive lever into the desired position.
3. Rotate the knob clockwise to secure the drive control lever into position.
4. If the lever do not line up after making the knob adjustment, loosen nuts, align, and re-tighten nuts.

Set the seat to the preferred operating position.

- Adjustment lever is located under the front edge of the seat.
- The seat has five inches of front-to-rear adjustment available.

Check factory settings of control levers for the conditions listed above.

NOTE If control lever adjustments are required, height adjustments should be made prior to angular adjustments.

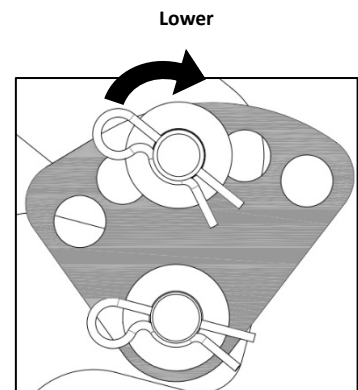


5.4.3 Leveling the Mower Deck

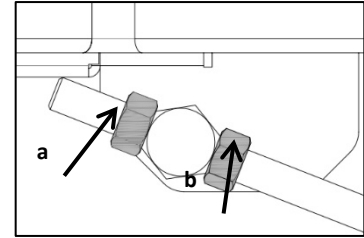
When correctly adjusted the mower deck should be level side to side, and the front of the deck should be approximately 1/4" lower than the rear of deck.

NOTE Check the tractor's tire pressure before performing any deck leveling adjustments. See the tire side wall for proper inflation pressures.

1. Park the mower on a flat paved surface, engage the parking brake, shut off the engine, remove the key from the ignition switch, disconnect the spark plug wires.
2. Place the deck lift handle or deck lift knob in a middle mowing position and rotate both outside blades so that they are perpendicular with the mower.
3. Measure the distance from the outside of the left blade 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 are not, proceed to the next step.
4. Take off the pin and washer, change the hole of the adjustment plate to lift or down as necessary until the side-to-side heights are equal. See figure 3



5. Rotate the blade nearest the discharge chute so that it is parallel with the mower.
6. Measure the distance from the tip of the blade to the ground .the front tip of the blade should be approximately 1/4"lower than the rear of tip.
7. If front-to-back adjustment is needed, after loosening the nut(b), turn the adjustment nut(a) clockwise to raise or counterclockwise to lower the front of deck.
8. Measure again to verify the front tip is now approximately 1/4"lower than the rear of tip. If not, continue to adjust and measure until they are.
9. When proper adjustment is achieved, re-tighten the adjustment nut(a).



5.4.4 Brakes

NOTE The parking brakes normally do not need to be adjusted. To adjust either brake individually, loosen the jam nuts on the rod near the brake arm on the transaxle. Adjust the nuts so that the brake cable becomes shorter.

Repair: The mower is equipped with internal gear/pawl brakes and will not normally require maintenance. If they are not working properly, please contact your service center.

9. SERVICE

6.1 Battery Removal

⚠ WARNING! Battery posts, terminals and related accessories contain lead and lead compounds. Wash hands after handling. The battery is located on the right/rear of the tractor beneath the seat box frame. To remove the battery:

1. Remove the hold down straps.
2. Remove the hex cap screw and sems nut securing the black negative battery lead to the negative battery post (marked NEG(-)). Move the cable away from the negative battery post.
3. Remove the hex cap screw and sems nut securing the red positive battery lead to the positive battery post (marked POS(+)).
4. Carefully lift the battery out of the tractor.
5. Install the battery by repeating the above steps in the reverse order.

⚠ WARNING! Always connect the positive lead to the battery before connecting the negative lead. This will prevent sparking or possible injury from an electrical short caused by contacting the tractor body with tools being used to connect the cables.

6.2 Charging the Battery

Test and, if necessary, recharge the battery after the tractor has been stored for a period of time.

1. A voltmeter or load tester should read 12.6 volts (DC) or higher across the battery terminals.
2. Charge the battery with a 12-volt battery charger at a MAXIMUM rate of 10 amps.

Voltmeter Reading	State of Charger	Charging Time
12.7	100%	Full Charge
12.4	75%	90 min.
12.2	50%	180 min.
12.0	25%	280 min.

6.2 Jump Starting

WARNING! Failure to use this starting procedure can cause sparking, and the gases in the battery to explode.

1. Attach the end of the red jumper cable to the positive terminal (+) of the charged battery.
2. Attach the other end of the red jumper cable to the positive terminal (+) of the low charge battery.
3. Attach the end of the black jumper cable to the negative terminal of the charged battery.
4. Attach the other end of the black jumper cable to the frame of the unit with the low charge battery.

Servicing Electrical System

Fuse

1. There is one fuse located in the wiring between the battery and ignition start switch. This is a standard plug-in type automotive fuse rated at 20 amp. Always use the same capacity fuse for replacement. If the electrical system does not function, check for a blown fuse.
2. If you have a recurring problem with blown fuses, have the tractor's electrical system checked by your Service Dealer.

Relays and Switches

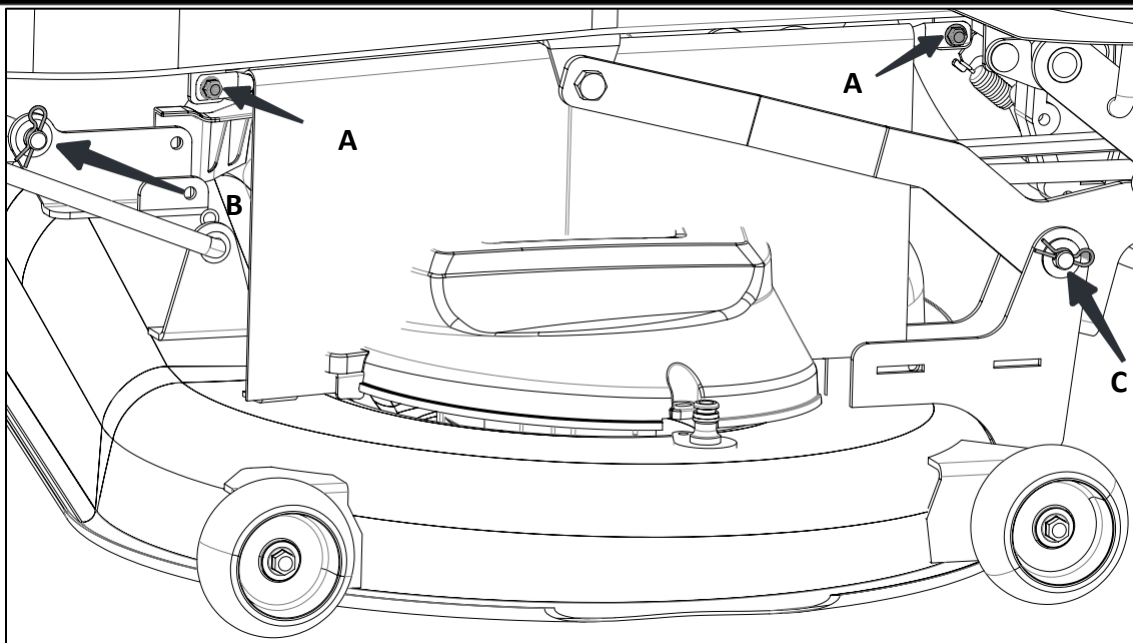
There are several safety switches in the electrical system (PTO Switch, PTO Clutch, Parking Brake/Drive Control Lever Switch and Seat Switch). If a function of the safety interlock system described earlier is not functioning properly, have the electrical system checked by your Service Dealer.

6.3 Deck Removal

⚠WARNING! The muffler at the rear of the tractor may be extremely hot and could cause serious burns. Use extreme caution when near the muffler. Allow the muffler to fully cool before removing the belt from the PTO pulley.

Remove the mower deck from the tractor as follows:

1. Make sure the drive control levers are in the PARKING BRAKE ENGAGED position.
2. Stop the engine and remove ignition key.
3. Lower the deck to its lowest position.
4. Take the 2 bolts(a) off.
5. Remove 4 hitch pins, 2 on the right(b&c), 2 on the right(b&c) that secure the deck in place.
6. Slip the deck belt off the electromagnetic clutch.
7. Slide the deck out from under the mower.
8. Reverse the process to reattach the deck to the mower.



Dismantling, replacing and remounting the blades

Always wear work gloves when handling the blades. Before you inspect or remove the blade, stop the engine and disconnect the wire to the spark plug.

Damaged or bent blades must always be replaced; never try to repair them! ALWAYS USE ORIGINAL BLADES BEARING THE SYMBOL "ZHONG JIAN" ! Make sure the blades are correctly balanced. Make sure you put them back in the right place by referring to the code and rotate direction stamped on the outside of each blade.

Blade models please refer to the chapter "SPECIFICATIONS".

1. Dismantling

Loosen anticlockwise the screw.

2. Remounting

Make sure the printed code on the blade to face the operator who remounted the blade.

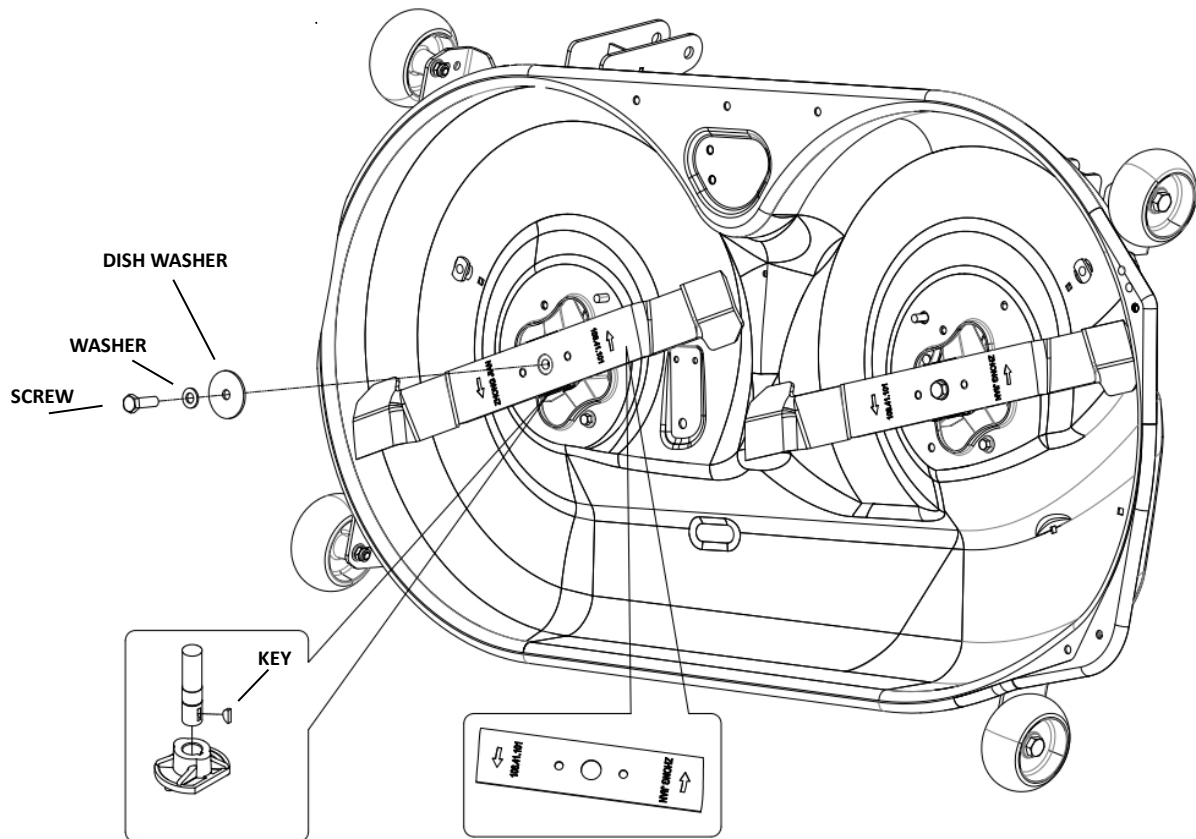
Check that the concave part of the disc washer presses against the blade.

Remount the shaft hubs, making sure the key are securely lodged in place.

3. Tightening the screws

Tightening clockwise with a torque wrench calibrated to 40~45N.m.

PZT42LH1 – ZERO TURN RIDING MOWER



10. TROUBLESHOOTING

⚠CAUTION! RISK OF INJURY

Sharp-edged and moving appliance parts can lead to injury.

Always wear protective gloves during maintenance, care and cleaning work.

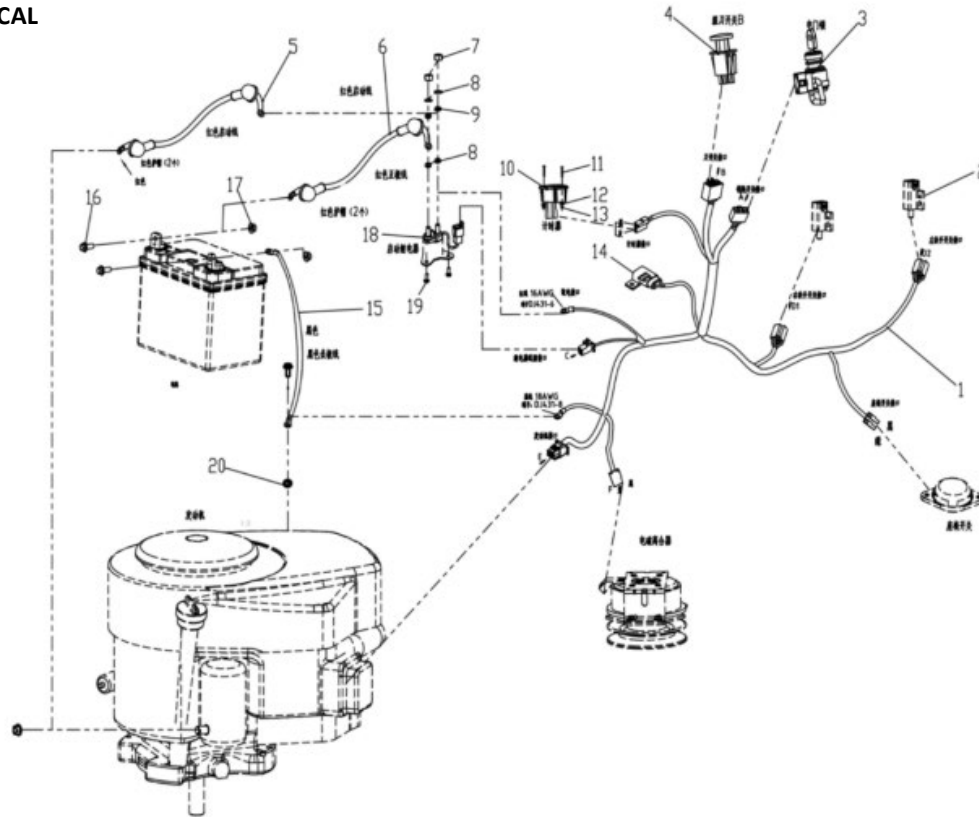
NOTE FOR MALFUNCTIONS THAT ARE NOT LISTED IN THIS TABLE OR THAT YOU CANNOT RESOLVE YOURSELF, PLEASE CONTACT OUR CUSTOMER SERVICE.

Problem	Cause	Remedy
Engine fails to start	1. PTO/Blade Engage knob engaged 2. Parking brake not engaged. 3. Drive control levers not fully outward in neutral position. 4. Spark plug wire(s) disconnected. 5. Throttle control lever not in correct starting position. 6. Choke not activated. 7. Fuel tank empty, or stale fuel. 8. Blocked fuel line. 9. Faulty spark plug(s). 10. Engine flooded. 11. Fuse(s) blown.	1. Place knob in disengaged (OFF) position. 2. Engage parking brake. 3. Move drive control levers fully outward in neutral position. 4. Connect wire(s) to spark plug(s). 5. Place throttle lever in the fast position. 6. Pull choke control into full choke position. 7. Fill Tank with clean, fresh (less than 30 days old) gas. 8. Clean fuel line and replace fuel filter. 9. Clean, adjust gap or replace plug(s). 10. Crack engine with throttle in FAST position. 11. Replace fuse(s).
Engine runs erratic	1. Tractor running with CHOKE activated. 2. Spark plug wire(s) loose. 3. Blocked fuel line or stale fuel. 4. Vent in gas cap plugged. 5. Water or dirt in fuel system. 6. Dirty air cleaner	1. Push the choke control into the choke off position. 2. Connect spark plug wire(s). 3. Clean fuel line; fill tank with clean, fresh gasoline and replace fuel filter. 4. Clear vent or replace cap if damaged. 5. Drain fuel tank. Refill with clean, fresh gasoline. 6. Replace air cleaner paper element or clean foam pre-cleaner.
Engine overheats	1. Engine oil level low. 2. Air flow restricted.	1. Fill crankcase with proper amount and weight of oil. 2. Clean grass clippings and debris from around the engine's cooling fins and blower housing.
Engine hesitates at high RPM	1. Spark plug(s) gap too close	1. Remove spark plug(s) and reset the gap.
Engines idles rough	1. Spark plug(s) fouled, faulty or gap too wide. 2. Dirty air cleaner	1. Replace spark plug(s). Set plug gap. 2. Replace air cleaner element and/or clean pre-cleaner. 3. pre-cleaner.
Excessive vibration	1. Cutting blade loose or unbalanced. 2. Damaged or bent cutting blade.	1. Tighten blade and spindle. 2. Replace blade.
Uneven cut	1. Deck not leveled properly. 2. Dull blade 3. Uneven tire pressure	1. Perform side-to-side deck adjustment. 2. Sharpen or replace blade 3. Check tire pressure in all four tires.
Mower will not mulch grass (If Equipped w/Mulching Kit)	1. Engine speed too low. 2. Wet grass 3. Excessively high grass. 4. Dull Blade	1. Place throttle in FAST (rabbit) position 2. Do not mulch when the grass is wet. 3. Mow once at a high cutting height, then mow again at desired height or make a narrower cutting swath. 4. Sharpen or replace blade.

If problems persist after having performed the above operations, contact your Dealer or an authorized Service Center.

11. EXPLODED VIEWS AND PARTS

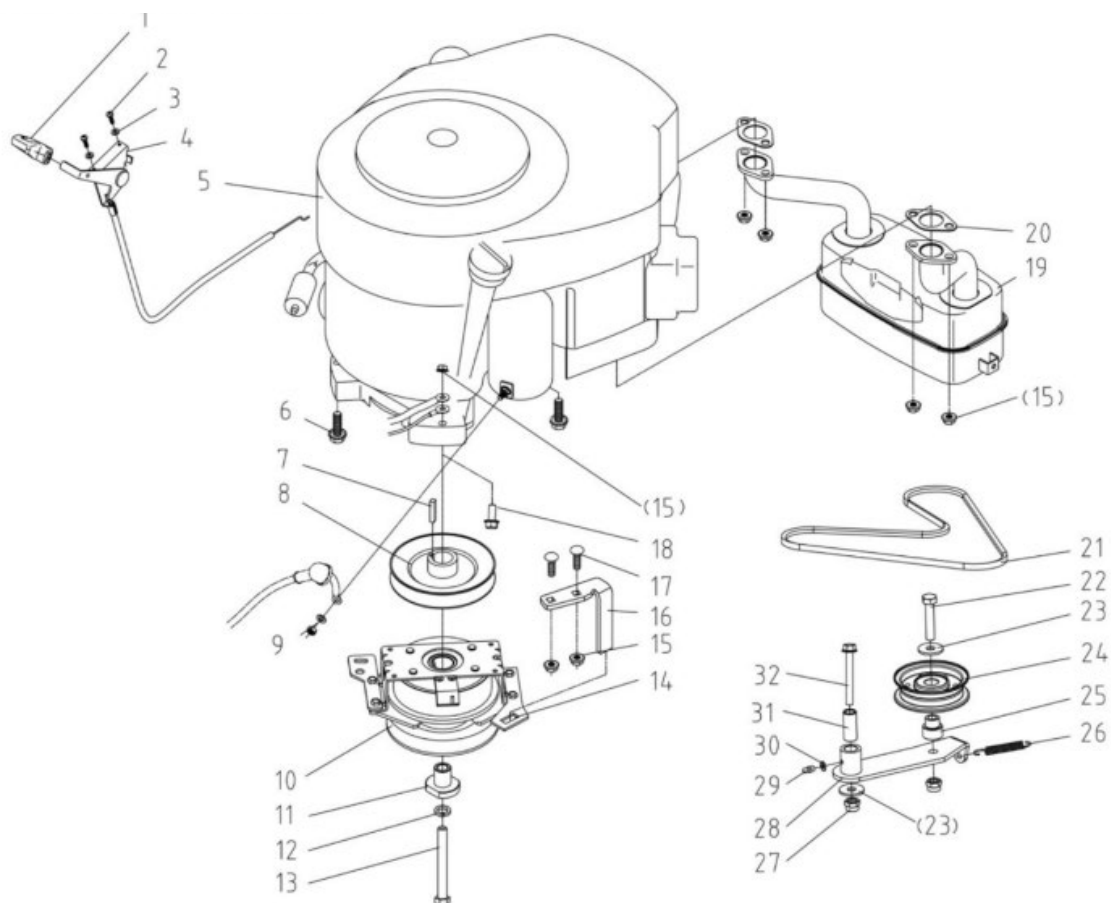
ELECTRICAL



NO	PART NAME	QTY	PART #
1	MAIN CABLE	1	20094064
2	SWITCH / PLUNGER	1	20093538
3	KEY SW	1	20089346
4	PTO SW	1	20062234
5	RED START LINE	1	20094062
6	RED POSITIVE WIRE	1	20094063
7	HEXAGON NUT M6	2	INCLUDED WITH RELAY
8	SPRING WASHER 6	2	
9	FLAT WASHER 6	4	
10	HOUR-METER	1	20081704
11	SCREW M3 X 12	2	20087039
12	WASHER 3	2	20084633

13	NUT M3	2	20061334
14	FUSE 20A	1	20085696
15	BLACK NEGATIVE WIRE	1	20094065
16	HEXAGON FLANGE BOLT M6 X 16	2	20061200
17	HEXAGON FLANGE LOCK NUT M6		20061385
18	STAR RELAY	1	20071221
19	HEX FLANGE SCREW M5 X 12	2	20097807
20	INTERNAL TOOTHED WASHER 6	1	20061507

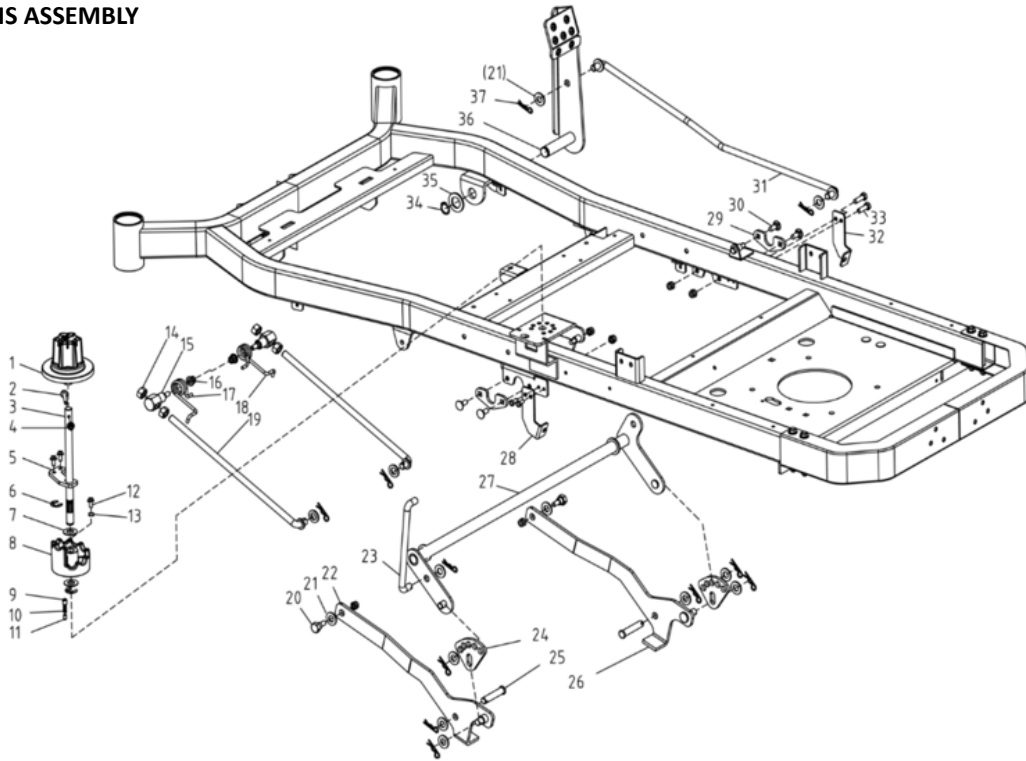
ENGINE ASSEMBLY



NO	PART NAME	QTY	PART #
1	THROTTLE HANDLE COVER	1	20096499
2	SCREWS M5x16	2	20062524
3	THROTTLE CABLE ASSEMBLY	1	20084286
4	HEXAGON FLANGE LOCK NUT M5	2	20061341
5	ENGINE	1	20084914
6	OIL LINE CLAMP TRM074	1	20089223
7	TAPPING SCREW 3/8"-16-1 1/4"	3	20061285
8	FLAT KEY 6.35x30	1	20070519
9	ENGINE PULLEY WELDMENT	1	20093988
10	WASHER 6	1	20061482
11	ELECTRIC CLUTCH	1	20085206
12	CLUTCH STEP BUSHING	1	20085758
13	TAPER WASHER 12	1	20078309
14	BOLT, 7/16"-20-3",UNF	1	20062410
15	CLUTCH CLAMP PLATE	1	20085121
16	FLANGE LOCK NUT M8	3	20061348
17	CLUTCH BAFFLE	1	20093985
18	BOLT M8x25	2	20078739

19	FLANGE BOLT M8x40	1	20061254
20	MUFFLE	2	20089585
21	GASKET	2	20071433
22	HEX NUT M8, GB/T5175, WHITE ZINC PLATED	4	20061393
23	SPRING WASHER 5/16"	4	20061453
24	DRIVE BELT LG4-670KHR	1	20093991
25	FLANGE BOLT M10x1.25x50	1	20062515
26	WASHER 10	2	20061542
27	TENSION PULLEY	1	20071213
28	PRESSURE PULLEY BUSHINGS	1	20093987
29	SPRING	1	20070875
30	LOCK NUT M10x1.25	2	20061405
31	DRIVING TENSION ARM WELDMENT	1	20093986
32	OIL INJECTION NOZZLE	1	20092292
33	WASHER 6	1	20061482
34	TENSION ARM SWIVEL SLEEVE	1	20093990
35	FLANGE BOLT M10x1.25x60	1	20062514

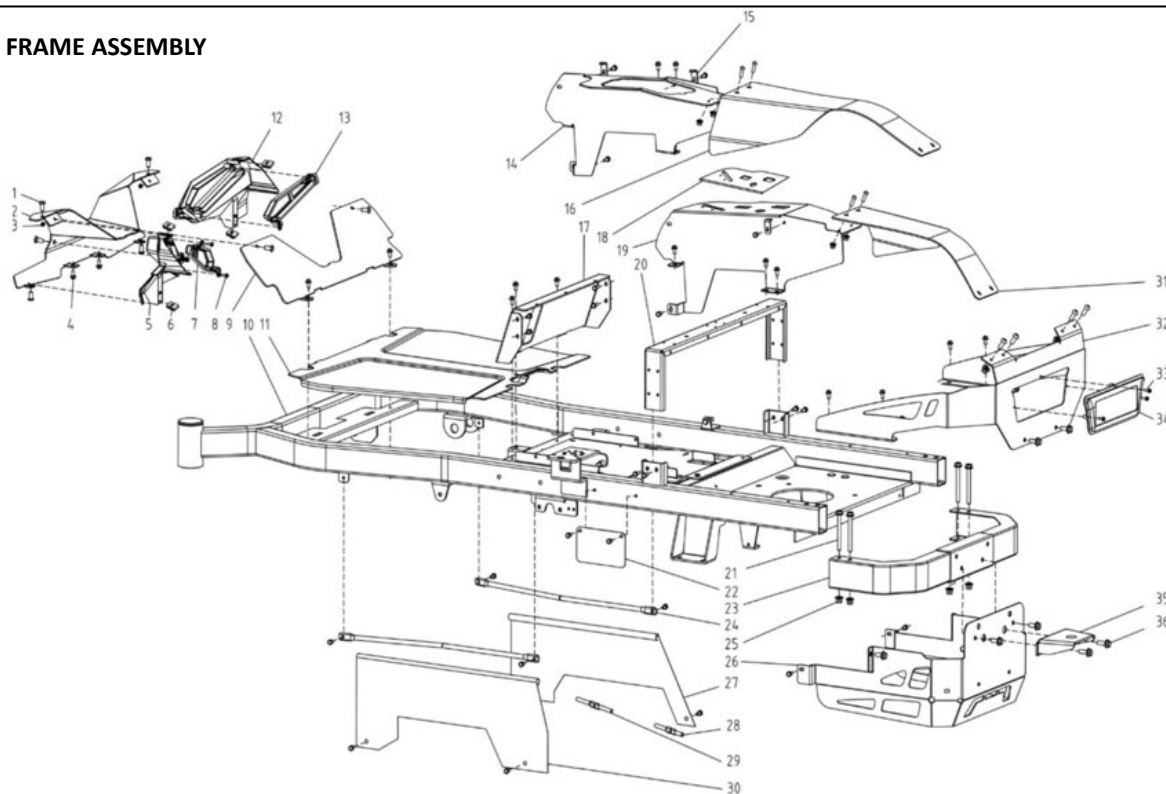
CHASSIS ASSEMBLY



NO	PART NAME	QTY	PART #
1	ADJUST KNOB	1	20094070
2	FLANGE BOLT M5 X 00	1	20061229
3	KNOB LEVER	1	20094096
4	FLANGE LOCK NUT M5	1	20061341
5	KNOB SHAFT FIXING PLATE	1	20094077
6	SNAP RING 12 GP / T896	2	20061473
7	FLAT WASHER 14 X 1.5, GB / T97.1	2	20062529
8	ROTARY DIAL INDEXING PLATE	1	20094097
9	SLOTTED FLAT END SCREW M8 X 10 GB73-85	1	20094089
10	THICK BUTTON SPRING SBC 653 KD	1	20059487
11	LIMIT PIN	1	20094075
12	SCREW M5 X 20	1	20060861
13	HEX THIN NUT M5 GB / T6172.1	1	20061374
14	HEX THIN NUT M12	4	20061337
15	DECK LIFT PIVOT (FRONT)	2	20094072
16	HEXAGON LOCK NUT M8	8	20061348
17	LEFT LIFTING TORSION SPRING	1	20094090
18	RIGHT LIFTING TORSION SPRING	1	20094101

19	FRONT PULL ROD WELDMENT	2	20094102
20	PIN AXIS BOLT	2	20094074
21	FLAT WASHER	13	20061498
22	LEFT HINGE PLATE WELDMENT	1	20094092
23	HEIGHT LIFTING ROD	1	20094066
24	ENHANCE THE DIVIDING PLATE	2	20094084
25	B-TYPE PIN SHAFT 12 X 60	2	20094082
26	RIGHT HINGE PLATE WELDMENT	1	20094081
27	LINKAGE SHAFT WELDMENT	1	20094098
28	LEFT BRAKE LINE FIXING PLATE	1	20094083
29	LINKAGE AXIS FIXING PLATE	2	20094068
30	SQUARE NEXT BOLT M8 X 25 BRM 148S-108	4	20078739
31	LIFT THE LINKAGE ROD	1	20094100
32	RIGHT BRAKE LINE FIXING PLATE	1	20094095
33	TAPPING SCREW M6 X 1	6	20082800
34	ELASTIC RETAINING RING FOR SHAFT 19 GB / T894.1	1	20061488
35	FLAT WASHER 20 BG / T97.1	1	20061440
36	PEDAL ARM WELDING ASSEMBLY	1	20094080
37	COTTER PIN	11	20070576

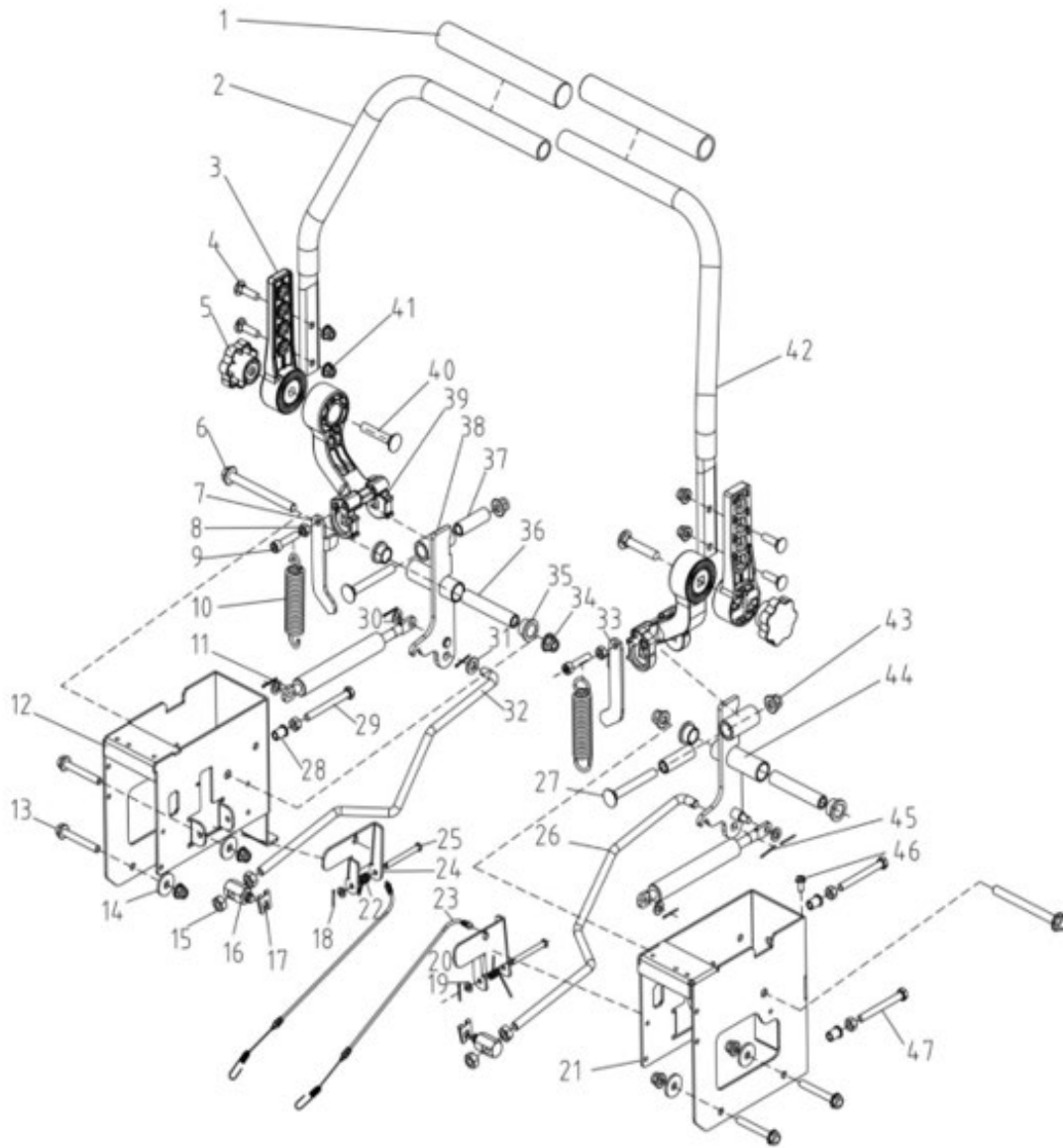
FRAME ASSEMBLY



NO	PART NAME	QTY	PART #
1	FLAT HEAD SCREW M6 X 20	16	20060858
2	FRONT DECORATIVE PANEL	1	20094219
3	HEXAGON LOCK NUT M6	12	20061385
4	TAPPING SCREW M6 X 1	45	20082800
5	LEFT LIGHT HOLDER	1	20094161
6	BUCKLE NUT M6	4	20070630
7	LEFT LIGHT COVER	1	20094155
8	FLAT HEAD SELF – TAPPING SCREW ST4.8 X 16	4	20061038
9	FRONT PEDAL	1	20094321
10	FRONT ASSEMBLY	1	20094343
11	PEDAL	1	20094178
12	RIGHT LIGHT HOLDER	1	20094171
13	RIGHT LIGHT COVER	1	20094180
14	LEFT SIDE PANEL	1	20094204
15	SHELL FIXING PLATE	3	20094193
16	LEFT DECORATIVE PANEL	1	20094323
17	SEAT FIXING BRACKET	1	20094341

18	LABEL	1	30027840
19	RIGHT SIDE PANEL	1	20094160
20	SEAT BRACKET	1	20094340
21	HEX FLANGE BOLT M8 X 80	4	20083999
22	MOTOR PROTECTIVE NET	2	20094197
23	PROTECTIVE BEAM WELDMENT	1	20094342
24	PROTECTIVE NET PULL ROD	2	20094201
25	HEXAGON LOCK NUT M8	10	20061348
26	MUFFLER COVER	1	20094149
27	RIGHT PROTECTIVE NET	1	20094148
28	PROTECTIVE NET FIXING ROD II	2	20094189
29	PROTECTIVE NET FIXING ROD I	2	20094202
30	LEFT PROTECTIVE NET	1	20094162
31	RIGHT DECORATIVE PANEL	1	20094320
32	ENGINE COVER	1	20094184
33	SELF-TAPPING SCREW ST 2.9 X 8F	3	20051780
34	REAR DECORATIVE PANEL	1	20094318
35	TRACTION PLATE	1	20094154
36	HEX FLANGE BOLT M8 X 20	6	20061274

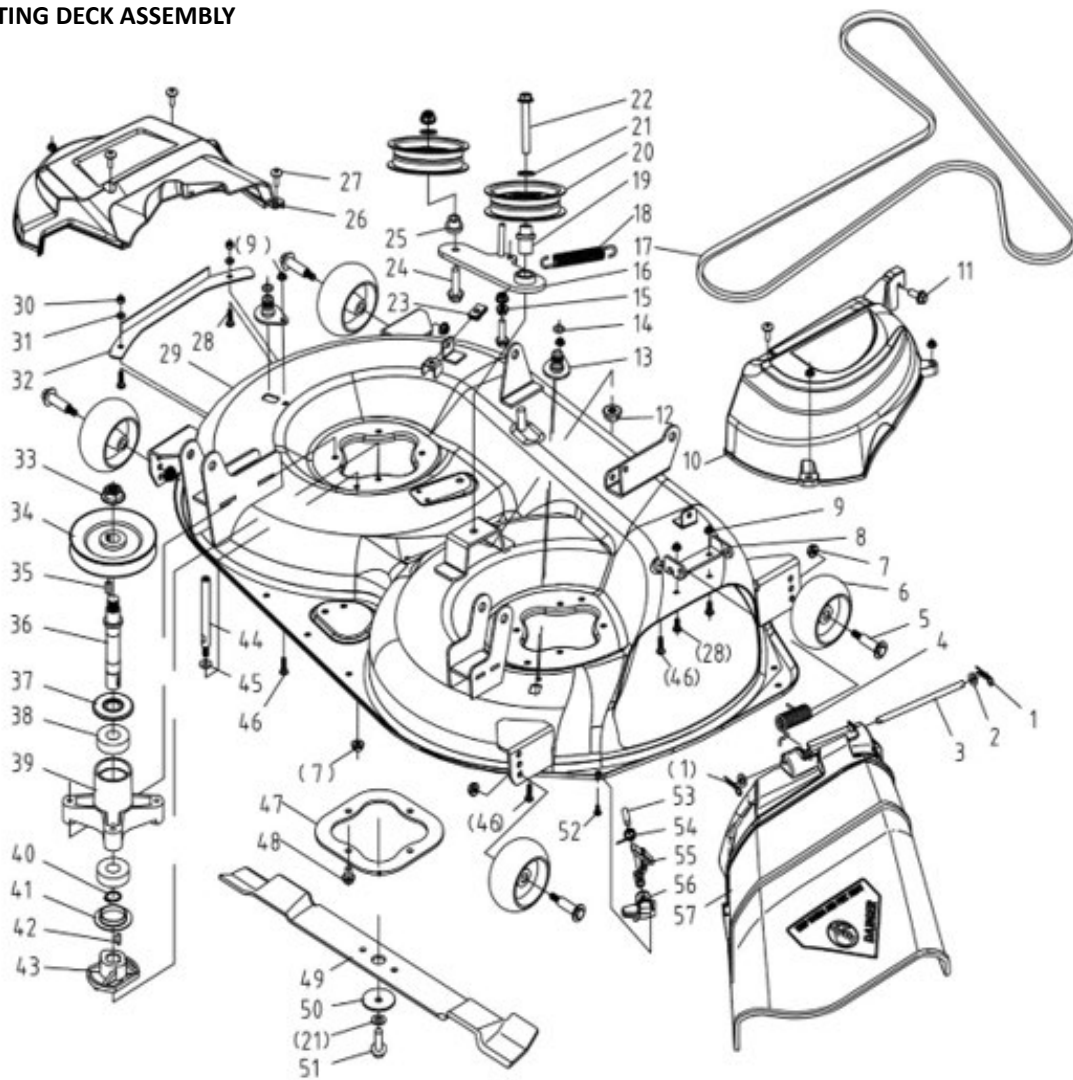
CONTROL LEVERS ASSEMBLY



NO	PART NAME	QTY	PART #
1	ARMREST COVER	2	20094043
2	LEFT ARMREST	1	20094025
3	ARMREST FRAME	2	20094060
4	SEMI-ROUD HEAD SQUARE DIAMETER BOLT	4	20078735
5	STAR SHAPED KNOB	2	20094029
6	FLANGE BOLT M10 X 1.25 X 110, GB/T5789	2	20084767
7	LEFT SWITCH PRESSURE PLATE	1	20094050
8	HEX NUT M8	6	20061393
9	BOLT M8 X 35	2	20062550
10	TENSION SPRING	2	20094037
11	DAMPER	2	20092498
12	LEFT TRAVELING BRACKET WELDMENT	1	20094027
13	FLANGE BOLT M8 X 60, GB/T5789	4	20061275
14	BIG WASHER 8	4	20061541
15	HEX NUT M10	4	20061399
16	JOINT	2	20094047
17	SNAP RING 10	2	20081157
18	FUEL CAP COTTER PIN	2	20059765
19	FLAT WASHER 6	2	20061482
20	RIGHT SWITCH SEAT	1	20094058
21	RIGHT TRAVELING BRACKET WELDMENT	1	20094034
22	BRAKE TORSION ROD SPRING	2	20094055
23	BRAKE CABLE	2	20094061
24	LEFT SWITCH SEAT	1	20094046

25	B-TYPE PIVOT 6 X 60	2	20094023
26	RIGHT TRAVELING LEVER	1	20094045
27	BOLT M10 X 1.5 X 80	2	20086468
28	RIVET NUT M8 X 16.5	4	20061414
29	HEX BOLT M8x1.25x40 GB/T 5783	2	20097057
30	FLAT WASHER 8	2	20061426
31	WASHER 10	2	20061497
32	LEFT TRAVELING LEVER	1	20094049
33	RIGHT SWITCH PRESSURE PLATE	1	20094057
34	HEXAGON LOCK NUT M10 X 1.25	2	20061405
35	NLYON SLEEVE BRM148S	4	20082643
36	BRACKET SPACER TZM108	2	20084763
37	COMBINATION BRACKET LINING TUBE	2	20094030
38	LEFT COMBINATION BRACKET WELDMENT	1	20094038
39	ROTARY JOINT	2	20094054
40	SQUARE NECK BOLT M10 X 1.5 X 55	2	20094033
41	FLANGE LOCK NUT M8	8	20061348
42	RIGHT ARMREST	1	20094040
43	FLANGE LOCK NUT M10 X 1.5	2	20062551
44	RIGHT COMBINATION BRACKET WELDMENT	1	20094026
45	DAMPING BOLTS	2	20096922
46	ELASTIC BOLT	4	20070582
47	TAPPING SCREW M6*1	2	20082800
48	HEX BOLT M8x1.25x55 GB/T 5783	2	20078738

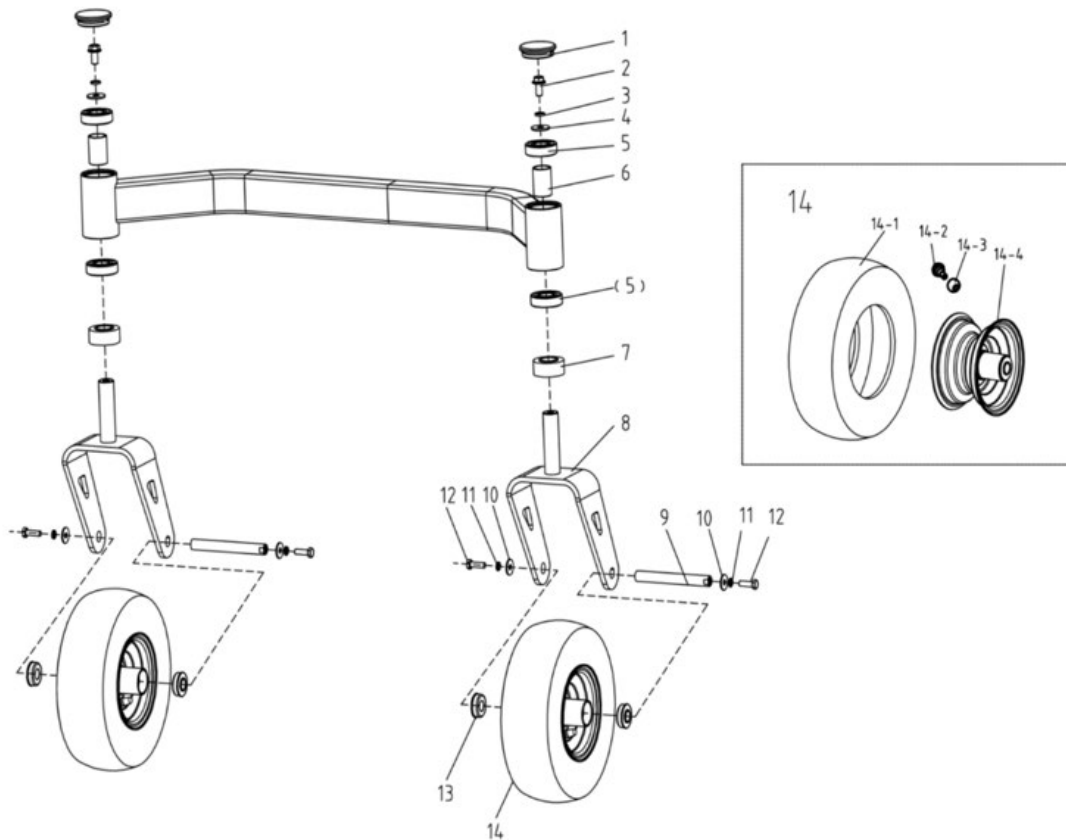
CUTTING DECK ASSEMBLY



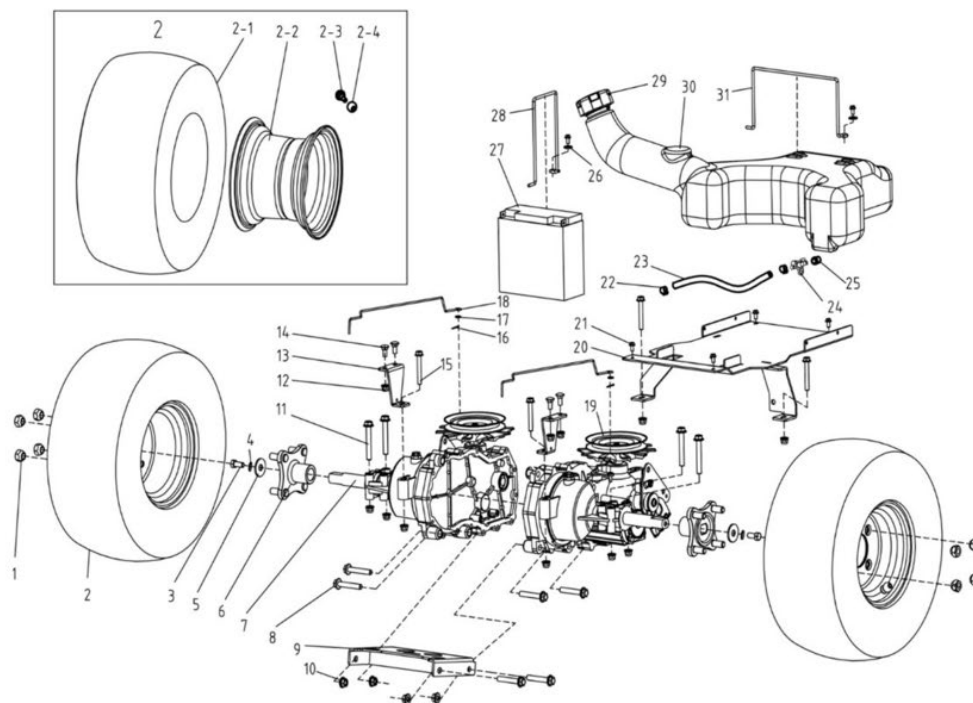
NO	PART NAME	QTY	PART #
1	SPRING PIN	2	20070576
2	WASHER 8	4	20061544
3	PIN 8 X 16 8	1	20082335
4	TORSION SPRING	1	20086192
5	WHEEL AXLE	4	20085378
6	WHEEL	4	20088559
7	FLANGE LOCK NUT M8	5	20061348
8	HINGE	1	20084843
9	FLANGE LOCK NUT M6	8	20061385
10	BEARING CLAMP 6, COX3500	1	20062405
11	RIGHT SHIELD	1	20098065
12	TAPPING SCREW M6*1	1	20082800
13	LOCK NUT M10x1.25	2	20061405
14	WATER NOZZLE	2	20070624
15	O RING 11.2x2.65	2	20055756
16	FLANGE BOLT M8x40,GB/T5789	1	20061254
17	FLANGE NUT M8	4	20061336
18	PRESS THE PULLEY PAD 10*30*2	1	20098298
19	PRESSURE ROLLER ARM WELDMENT	1	20094127
20	DECK BELT	1	20094123
21	ADJUSTING SCREW ROD	1	20084542
22	TRAVELLING TENSION SPRING TRM074	1	20090090
23	GUIDE WHEEL CUSHION COVER	1	20094128
24	IDLENESS PULLEY	2	20070908
25	WASHER 10	4	20061497
26	HEX FLANGE BOLT M10x1.25x60	1	20062514
27	BUCKLE NUT M6	2	20060893
28	BOLT M6 X 16	4	20070630
29	TRAVELLING BELT ROLLER LINER	1	20093987
30	LEFT SHIELD	1	20068224
31	SCREW M6x16	4	20060893
32	BOLT M6x16	4	20061289
33	DECK WELDMENT SIDE BLACK SPRAY MOLDING	1	20094107

34	HEXAGON LOCK NUT M6	2	20061421
35	WASHER 6	2	20061482
36	REINFORCE PLATE TTM108S BLACK SPRAY MOLDING	1	20086368
37	NUT FOR BLADE AXLE	2	20070627
38	PULLEY	2	20089723
39	FLAT KEY C6x18	2	20061650
40	BLADE SPINDLE	2	20070622
41	HOOD, BEARING	2	20071285
42	BEARING 6204-2RZ	4	20092592
43	BLADE SEAT	2	20054347
44	SNAP RING 19	2	20061488
45	HOOD, BEARING	2	20070635
46	HALFMOON KEY 4x16	2	20061651
47	SLEEVE	2	20054345
48	BELT COVER SUPPORT ROD	2	20094111
49	BIG WASHER 8	1	20061541
50	BOLT M6x30	3	20061249
51	DECK DISC REINFORCEMENT PLATE	2	20093234
52	FLANGE BOLT M8x35	8	20061265
53	BLADE	2	20071405
54	DISH WASHER	2	20070623
55	BOLT	2	20061267
56	TAPPING SCREW ST4.8x13	1	20051827
57	SELF LOCKING PIN TTM86S	1	20086275
58	SELF LOCKING TORSION SPRING TTM86S	1	20086276
59	SELF LOCKING BUCKLE TTM86S, RAL3020	1	20086278
60	SELF LOCKING BASE TTM86S, BLACK	1	20086277
61	DISCHARGE CHUTE	1	20086249
62	GEAR LEVER 12, TZM0108SH, ELECTROPLATED	1	20096311
63	HEX FLANGE FACE LOCK NUT M12x1.25, WHITE ZINC PLATED	1	20061359
64	SCREW M6x12	1	20060923
65	FRONT WEARING PLATE	1	20095175

FRONT BEAM ASSEMBLY

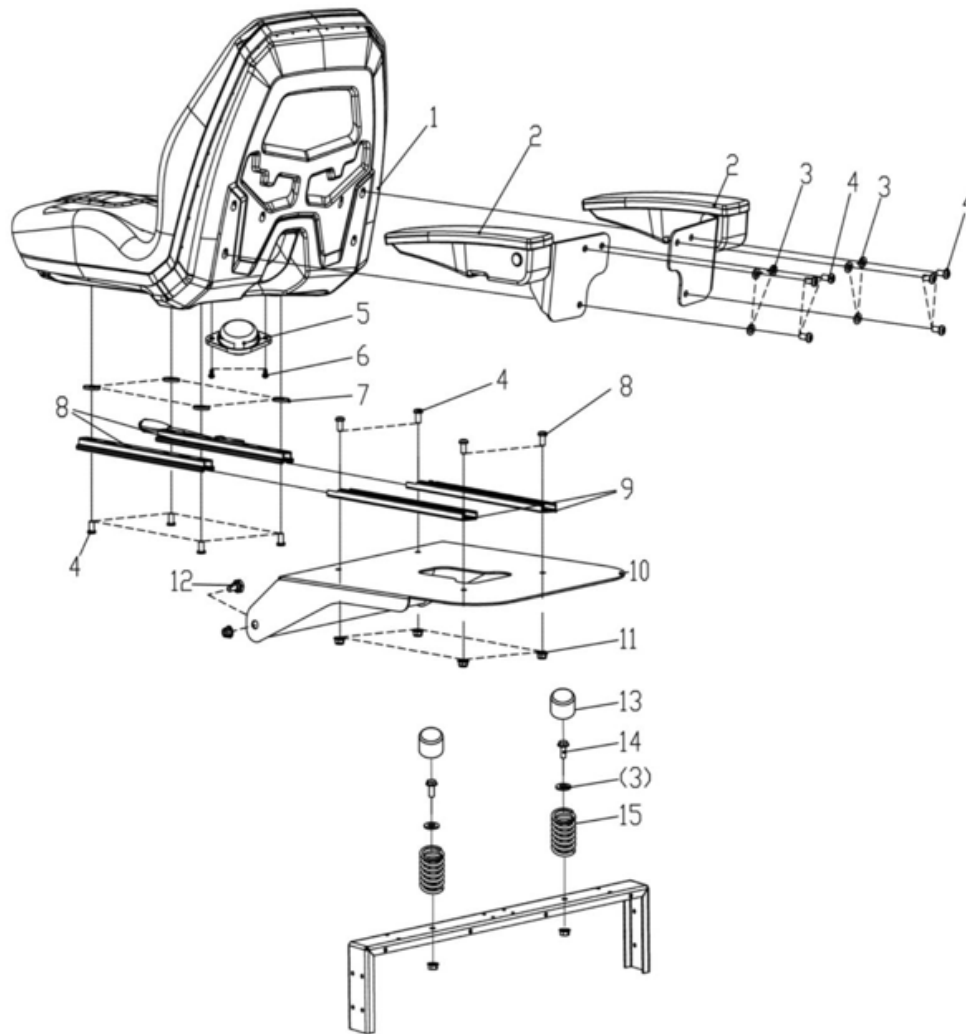


NO	PART NAME	QTY	PART #				
1	END CAP	2	20093999				
2	FLANGE BOLT M10 X 1.25 X 20	2	20062513				
3	SPRING TENSION	2	20061536				
4	BIG WASHER 10	2	20061542				
5	BEARING 6205 GB / T276	4	20062511				
6	BEARING SUPPORT SLEEVE	2	20093998				
7	BUSHINGS	2	20093995				
8	FRONT WHEEL BRACKET WELDMENT	2	20093996				
9	FRONT AXLE	2	20093997				
10	BIG WASHER 8	4	20061541				
11	SPRING WASHER 8	4	20061533				
12	FLANGE BOLT M8 X 20	4	20061274				
13	FLANG BEARING1635	4	20061627				
14	FRONT WHEEL ASSEMBLY	2	20094939				
14-1	VACUUM TIRE ZTM108 11 X 4 - 5 (BARE TIRE)	1	20094000				
14-2	PISTON	1	20061665				
14-3	PISTON CAP	1					
14-4	FRONT WHEEL HUB BZM160S 147 X 89	1	20086296				

REAR DRIVE ASSEMBLY


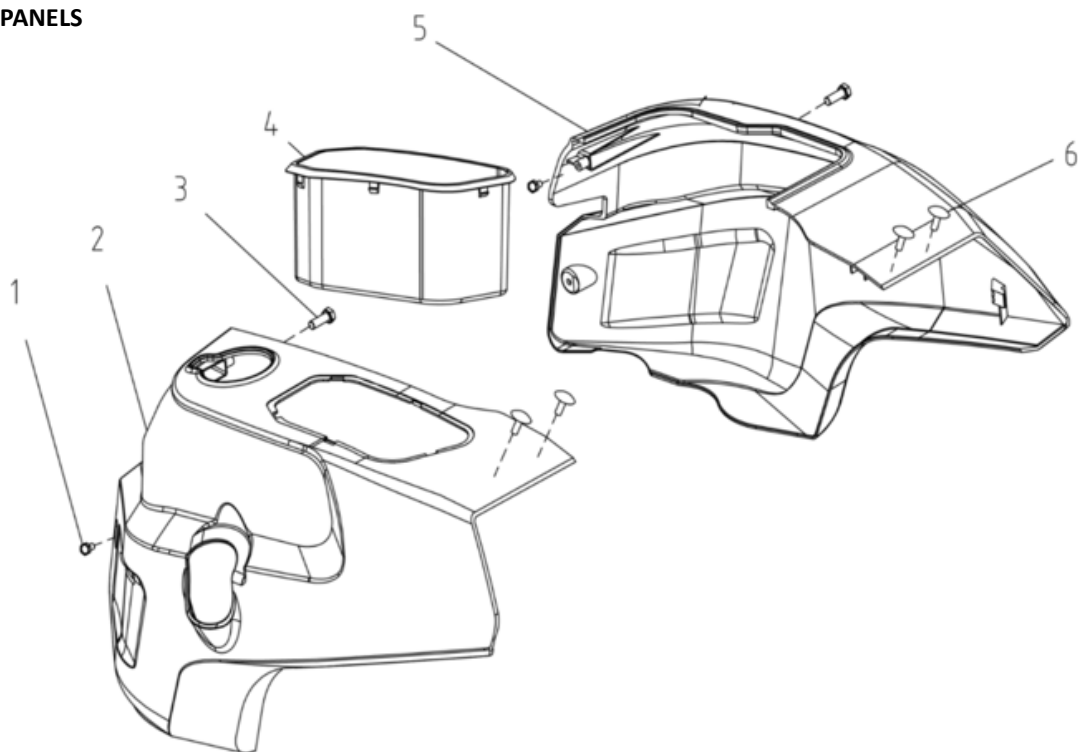
NO	PART NAME	QTY	PART #		15	HEXAGON FLANGE BOLT M8 X 60	4	20061275
1	REAR WHEEL FIXING NUT ½ UNF - 20	8	20084112		16	SPLIT PIN	2	20059765
2	REAR WHEEL ASSEMBLY	2	20094940		17	WASHER5	2	20061482
2-1	REAR VACUUM TIRE 18 X 8.5 - 8	1	20083979		18	RETURN OIL ROD	2	20094014
2-2	REAR HUB	1	20084096		19	RIGHT GEARBOX ASSEMBLY	1	20093053
2-3	PISTON	1	20061665		20	PROTECTIVE PLATE WELDMENT	1	20094001
2-4	PISTON CAP	1			21	TAPPING SCREW M6 X 16	6	20082800
3	SCREW 3/8" - 16-1	2	20094018		22	CLIP φ10	2	20062744
4	SPRING TENSION	2	20061536		23	FUEL HOSE	1	20070865
5	BIG WASHER 10	2	20061542		24	OIL PIPE VALVE	1	20062407
6	REAR AXLE FLANGE ASSEMBLY	2	20095063		25	OIL PIPE VALVE SEALING RING	1	20062409
7	LEFT GEARBOX ASSEMBLY	2	20093052		26	FUEL TANK LIMIT WELDED PARTS	1	20098330
8	FLANGE BOLT M10x1.25x6, GB/T5789	4	20062514		27	BIG WASHER 6	2	20061539
9	TRANSAXLE BRACKET	1	20094007		28	BATTERY 12V 18Ah	1	20092080
10	FLANGE LOCK NUT M10 X 1.25	2	20061405		29	BATTERY PRESSURE ROD	1	20094002
11	HEXAGON FLANGE BOLT M8 X 70	4	20061240		30	KELCH FUEL TANK CAP COMPONENTS, 204691	1	20092500
12	FLANGE LOCK NUT M8	12	20061348		31	FUEL TANK	1	20098385
13	MOTOR LIFTING EYE	2	20094004		32		1	20095393
14	BOLT M8 X 25 BRM148S - 108	4	20078739		33	BREATHING VALVE	1	20095392
					34	FUEL TANK PRESSURE ROD	1	20094012
					35		1	30030017
					36	REAR AXLE BAFFLE	2	20098301

SEAT ASSEMBLY



NO	PART NAME	QTY	PART #		9		1	20061544
1	SEAT ASSEMBLY	1	20073330		10	SEAT RAILS (ONE SET WITH BOTH SIDES) WITH HANDLE	1	20073331
2	SEAT ARMREST COMPONENTS	1	20062262		11	SEAT CONNECTION PLATE	1	20095367
3	WASHER 8	8	20061426		12	HEX FLANGE LOCK NUT M8	8	20061348
4	SCREW M8 X 20	12	20062556		13	SEAT PIVOT TZM108	2	20086979
5	SEAT SWITCH ASSEMBLY COX 3500	1	20062394		14	RUBBER SEAT PLUGS MPP98, NITRILE RUBBER BLACK	2	20068240
6	FLANGE SCREW M5 X 12	2	20061411		15	HEXAGON FLANGE BOLT M8X25	2	20061298
7	SEAT WASHER 32 X 10.5 X 8	4	20062501		16	SEAT SPRING	2	20098054
8	HEX SCREW M8 X 25	2	20078651					

SIDE PANELS



NO	PART NAME	QTY	PART #
1	SELF-TAPPING SCREW M6 X 1	2	20082800
2	LEFT SIDE COVER	1	20094208
3	SELF-TAPPING SCREW ST 4.8 X 16	2	20061038
4	STORAGE BOX	1	20094205
5	CLUTCH COVER	1	20094207

6	NUMBER 6 BARBED RIVET	4	20094461
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PRORUN regularly improves our products, and you may find slight differences between your machine and the descriptions contained within this operator's manual. Modifications can be made to the machine without notice and without the obligation to update the manual, providing that the essential safety and functional characteristics remain unaltered. Contact PRORUN Customer Service with any questions and for current specifications.

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