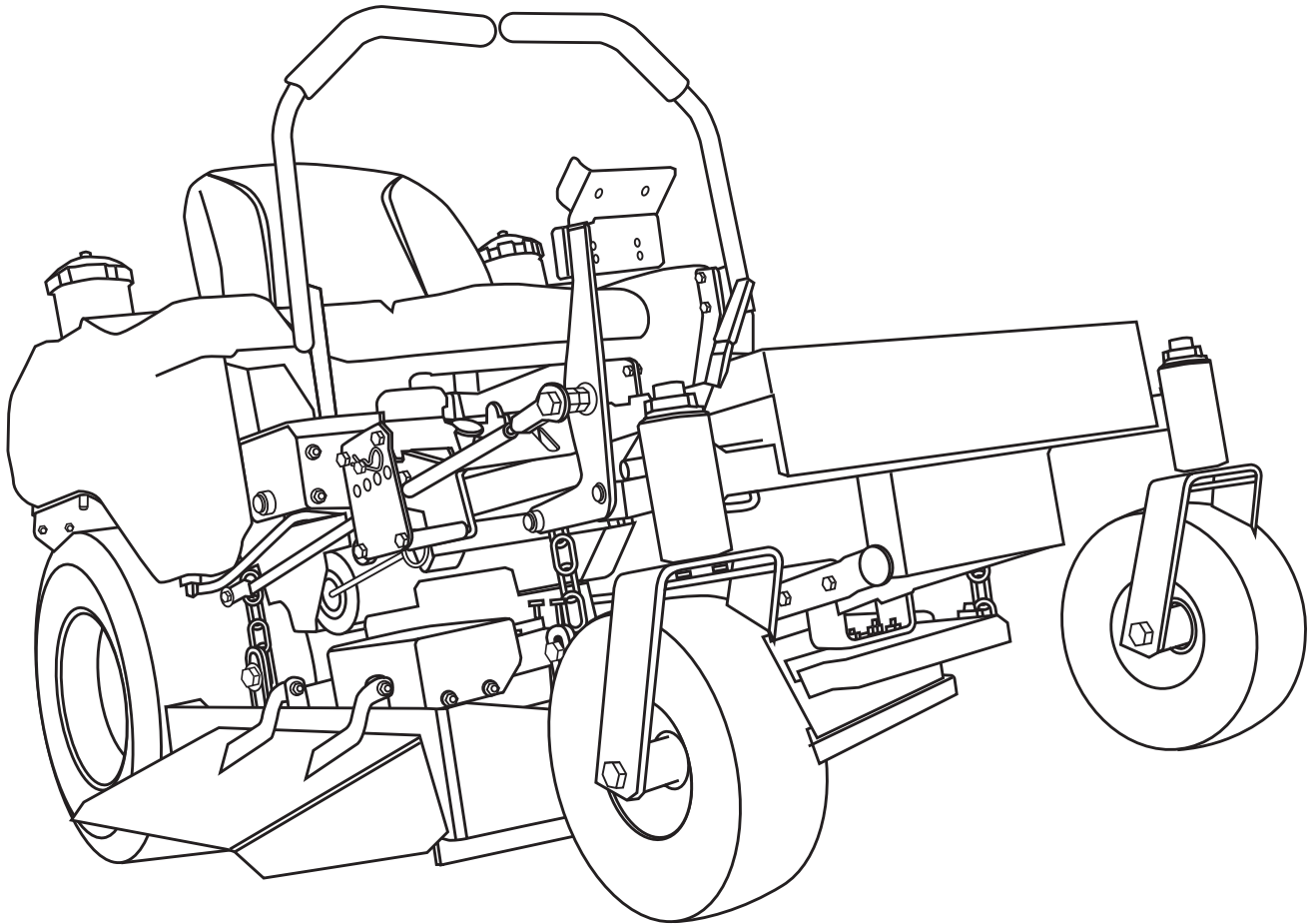


BUSHRANGER



48



OPERATORS MANUAL

F48K19
Decemeber 2006



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WARNING:

THE ENGINE EXHAUST FROM THIS PRODUCT CONTAINS CHEMICALS KNOWN IN THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARMS.

IMPORTANT:

A separate Engine Owner's Manual is included with your owner's packet which contains additional engine information that will not be repeated in this manual. You are urged to read it before attempting any operation or repair of the engine. Engine Owner's Manual covers the engine manufactures warranty.

General Information

This manual covers the following equipment models:

F48K19

To the new owner

The purpose of this manual is to assist owners and operators in maintaining and operating the Encore Rider mower and deck. Please read it carefully; information and instructions furnished can help you achieve years of dependable service. A separate Engine Owner's Manual is included with your owner's packet which contains additional engine information that will not be repeated in this manual. You are urged to read it before attempting any operation or repair of the engine.

The Engine Owner's Manual covers the engine manufactures warranty.

It is the owner's responsibility to make certain that the operator reads and understands this manual and all decals before operating this machine. It is also the owner's responsibility to make certain that the operator is a qualified and physically able individual, properly trained in the operation of this equipment. Local regulations may restrict the age of the operator.

Using this manual

General operation, adjustment and maintenance guidance is outlined for both the experienced and novice Encore user. Operating conditions vary considerably and cannot all be addressed individually. Through experience, however, operators should find no difficulty in developing good operating skills suitable to most conditions. Directions used in this manual, for example RIGHT or LEFT, refer to directions when seated on the mower facing forward unless otherwise stated.

Photographs and illustrations used were current at the time of printing, but subsequent production changes may cause your machine to vary slightly in detail. ENCORE MFG. CO., INC. reserves the right to redesign and change the machine as deemed necessary, without notification.

Warranty Registration

The Delivery and Warranty Registration form must be completed and signed to validate your warranty protection. As the new equipment owner, you are expected to see that the form is completed and forwarded to ENCORE MFG. CO., INC. at time of delivery.

IMPORTANT: Any unauthorized modification, alteration, or use of non-approved attachments voids the warranty and releases ENCORE MFG. CO., INC. from any liability arising from subsequent use of this equipment.

Model and Serial Number

Mower model and serial number are found on the serial tag, located on the seat frame directly under the seat plate.

These numbers are required on the Warranty Registration form. They will also assure you of the correct service parts when replacement becomes necessary.

Parts and Service

Use original Encore replacement parts only. These parts are available through your local Encore dealer. To obtain prompt, efficient service, always provide the following information when ordering parts:

1. Correct part number and description
2. Correct model number
3. Correct serial number

All warranty repair and service must be handled through an authorized Encore dealer. Arrangements should be made through your local service center.

For location of nearest dealer look up our dealer search on our website: www.seriousred.com or www.encoreequipment.com

General Information

Quick Reference Sheet

Engine

19hp Kawasaki electric FH601V-CS26R

Blades

483035 16" blade
483049 16" mulch blade
483050 16" super hi-lift blade

Belts

353139 blade drive belt
353112 pump drive belt

Tires

353126 wheel/tire assy
353148 drive tire (18x7.5x8)
353149 rim w/ valvestem
363311 front caster complete
363260 front tire & tube (4.10/3.50-4)
* * * * front rim not serviced

Spindles

583106 spindle assy comp.
583111 housing
363350 bearing
583112 shaft
583113 brg. Spacer tube

Transmission

353127 RH EZT transaxle (Hydro-Gear Model # ZC-ACBB-2YLB-1EXA)
353128 LH EZT transaxle (Hydro-Gear Model # ZC-DCBB-2YLC-1EXA)

*** lifetime lubricated transaxles

Throttle

363352

Choke

523037

Muffler

353182

Wire Harness

353132

Pigtail Harness

353180

Clutch

423285

Electrical Components

423027 Ignition Switch
422150 Starter Relay
583423 Time Delay Module
583351 Relay
523034 Park Brake Switch
593041 Neutral Switch
523031 PTO Switch
353048 Seat Switch
523283 Hour Meter

Torque Specs

65 ft-lbs blade bolt
90 ft-lbs nut on top of spindle
50 ft-lbs clutch bolt

Pulleys

483078 spindle pulley
523329 stationary idler pulleys
533114 tensioner pulley-blade drive belt
823351 pump tensioner pulley
353101 pump drive pulley

Front Caster Bearings

423200 bearing
423201 bearing retainer

Seat

353098 seat complete w/o tracks
593097 molded arm rest

ENCORE WARRANTY

WHAT IS COVERED BY THIS WARRANTY

This warranty extends to the original retail purchaser only and commences on the date of original retail purchase:

1. Residential use: The warranty will be **Three years from the date of purchase** against defects in workmanship and materials for any Encore rider that is used for consumer purpose. Normal residential use means use of product on owners' property only.
2. Commercial use: The warranty will be **One year from the date of purchase and 90 days for rental use** against defects in workmanship and materials for any Encore rider that is used for commercial purpose.
3. If the Purchaser discovers within this warranty period a defect in materials or workmanship:
 - Purchaser must promptly notify an Authorized Encore Dealer and return the mower, including any defective parts, to an Authorized Encore Service Dealer.
 - Encore Mfg. Co. Inc. will determine if material or workmanship is defective and then either repair or replace such parts.
 - Service calls and/or transportation expense of the product to and from the authorized dealer, for warranty work, will be paid by the owner of the product.
3. Encore Mfg. Co., Inc. provides a limited warranty for **One year from the date of purchase** against defects in workmanship and materials for all parts, excluding normal wear items such as batteries, tires, belts and blades.
4. The Deck Shell warranty is **Ten years from the date of purchase** against defects in workmanship and materials for any Encore rider that is used for consumer and commercial use only.
5. **NOTICE:** Cutter housings, electrical components, hydraulic components and electric-clutch must be returned before warranty will be paid.
6. **The engine warranty is covered by its respective manufacturer.** Please refer to the manufacturer's warranty statement in the manufacture's engine manual that is included in the literature packet. **Engine warranties should be referred to the nearest authorized service outlet of the engine manufacturer.**

Encore Mfg. Co., Inc. reserves the right to change or improve the design of any mower without assuming any obligation to modify any mower previously manufactured.

WHO MUST PERFORM THE WARRANTY SERVICE

All warranty service will be performed by dealers authorized by Encore Mfg., Co., Inc. Service calls and/or transportation expense of the product to and from the authorized dealer, for warranty work, will be paid by the owner of the product. For warranty service you can contact an authorized dealer or contact:

Encore Mfg., Co., Inc.
PO Box 888
Beatrice, Nebraska 68310
1-800-267-4255
www.encoreequipment.com
www.seriousred.com

WHAT IS NOT COVERED BY THIS WARRANTY

Encore Mfg., Co., Inc. does not warranty:

- Repairs made by unauthorized persons.
- Damage caused by use of the Encore equipment for purposes other than those for which it was designed

- Damages caused by disasters such as fire, flood, wind, and lightning.
- Damages caused by neglect, abuse, abnormal use, improper or unreasonable use, accident, negligence or misuse.
- Repairs or replacement resulting from the use of unauthorized parts, accessories or attachments.
- Repairs or replacement as the result of any alterations or modifications, in the determination of Encore, which adversely affects the operation, performance or durability of the equipment.
- Encore unit which has the serial number removed or made illegible.
- Depreciation or damage caused by normal wear, lack of reasonable and proper maintenance or failure to follow the product's owner's manual provided by Encore Mfg. Co., Inc.
- Normal maintenance parts and service including, but not limited to: filters, fuel, lubricants, tune-up parts, belts, blades, blade sharpening, brake or steering adjustments.
- Repairs necessary due to improper fuel, contaminates in the fuel system, or failure to properly prepare the fuel system prior to any period of non-use over three months.

LIMITATION OF REMEDIES

In no case shall Encore Mfg., Co., Inc., be liable for any special, incidental, or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability in tort, or any other legal theory.

Such damages include, but are not limited to

- Loss of profits
- Loss of savings or revenue
- Loss of use of Encore mower or any associated equipment
- Cost of capital
- Cost of any substitute equipment, facilities, services, or downtime
- The claims of third parties including customers, and injury to property
- Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

OWNER'S RESPONSIBILITY

You must maintain your Encore Product following the maintenance procedures described in your owner's manual. Such routine maintenance, whether performed by a dealer or by you, is at your expense.

This machine, like any other powered equipment, is potentially dangerous unless properly operated. Any operator must be cautious and keep safety in mind at all times. Any operator, prior to using the Encore equipment, should thoroughly familiarize himself with the owner's manual regarding operation and safety of the machine, as well as all safety warnings on the machine itself.

ENCORE MFG. CO., INC. CANNOT BE RESPONSIBLE FOR THE WAY YOU OPERATE, OR THE CONDITIONS IN WHICH YOU OPERATE THE MOWER. USE COMMON SENSE AT ALL TIMES.

WARRANTY REGISTRATION

1. The Warranty registration form MUST be completed and forwarded to Encore Mfg., Co., Inc., within fifteen days following date of purchase.
2. The date of purchase constitutes delivery.

Encore Mfg. Co., Inc. does not assume or authorize anyone to assume for them any other obligation.

Your mower is only as safe as the operator! Operator carelessness or error may result in serious bodily injury. Improper maintenance of the machine may also result in injury. Please read and follow these instructions on Safe Operation and be certain that anyone using this mower fully understands and follows these instructions. Instructions are from ANSI Standard B17.4-2004.

1. Familiarize yourself with the controls and know how to stop the rider and mower deck quickly.



WARNING:

DO NOT allow children to operate the machine. **DO NOT** allow any adult to operate the machine without proper instruction.

2. Inspect your work area carefully. Remove debris from the area to be cut. Keep all bystanders away from the mowing area.
3. **Avoid contact with moving parts. Keep hands and feet clear of the mower deck.**
4. Never direct the discharge of material toward bystanders or allow anyone near the machine while in operation.
5. The machine is not intended for highway or street use. Never carry passengers!
6. Never tamper with safety devices or guards. If a guard or safety device is damaged or removed, replace it before operating the rider.



CAUTION:

Never add fuel to the tank while the engine is running or hot. ALWAYS WAIT at least five minutes before refueling and REFUEL WITH THE ENGINE OFF. KEEP FUEL AWAY FROM SPARKS OR FLAMES. WIPE AWAY any fuel spillage BEFORE starting unit. Never fill the fuel tank indoors. Wipe up any spilled gasoline. **Gasoline is highly flammable - NO SMOKING.**

7. Handle gasoline carefully. Use an approved gasoline container. Fill the fuel tank, to within 1" from the neck, with good quality unleaded gasoline.
8. Seat must be occupied and drive levers must be in the Neutral position and the Blade Clutch must be disengaged before starting engine.
9. Operator must wear proper shoes and clothing, which may include safety glasses and ear protection.
10. Mow only during daylight hours or under very good artificial light.
11. The safety shield over the Grass Discharge area must always be bolted in place and in the DOWN position unless the Grass Catcher is being used.
12. If a solid object has been hit by the blades stop the machine and check for damage. Repair or replace any damaged / broken part prior to restarting the engine.
13. To avoid burns, **DO NOT TOUCH** the engine or muffler immediately after operation or during.
14. Disengage blades when transporting and when crossing walks and gravel roads.
15. **DO NOT** mow close to drop-offs, deep ditches or other hazards. **DO NOT** attempt to mow slopes greater than 15°, Always mow across the face of a slope **NOT** up and down.
16. Reduce speed and exercise extreme caution on slopes and in sharp turns to prevent tipping or loss of control. Be especially cautious when changing direction on slopes.
17. The Encore Rider is **NOT** designed for towing.
18. **Only factory approved Grass Collection Systems are permitted.**
19. Shut off fuel while storing or transporting. Do Not store fuel near flames or drain indoors.

Before Operating - Reminders

Fill engine crankcase as per engine manufacturer's manual. **ENGINE DOES NOT HAVE OIL IN CRANKCASE FROM THE FACTORY.** Add proper fuel to fuel tank, open shut-off valve.

The battery is a gel-cell and will not require acid. Before hooking up the ground wires make sure that the engine has been filled to the proper level with oil. If battery will not turn the engine over after hooking the wires up it may require a charge for 15 to 20 minutes.

ASSEMBLY INSTRUCTIONS

1. Remove unit from the crate.
2. Remove seat from packing. Remove the 5/16 x 3/4 bolts and disc spring washers from the seat plate. Attach seat to the seat plate using these same bolts and tighten.
3. Plug in the seat switch.
4. Connect the ground wire to the battery using the bolt on the negative battery post.
5. Remove the 5/16 x 1 1/4 bolts from the top side of the handle mounts. Rotate the handle to match up the holes, re-install the bolts and tighten.
6. Put oil in engine. See the Engine Manual for type and quantity required.
7. Put fuel in fuel tank.
8. Check all tire pressures.
9. Read "Operator's Manual" before starting unit.

CAUTION:

Always remove the key and set the parking brake when leaving the machine unattended, even for just a few minutes.

PREVENT ACCIDENTS: Do not give children or unauthorized persons an opportunity to operate this machine.

STARTING ENGINE

The throttle control, ignition switch and choke control are located between the motion control levers on the front panel under the front of the seat.

Because of a built-in safety interlock system, your machine will not start unless the seat is occupied.

TO START ENGINE: occupy seat, set park brake, leave the motion control levers swung out, move throttle control lever all the way to choke position. Turn ignition key to start position to engage starter, release the key when engine starts. Ignition switch is spring loaded and will return to run position automatically.

Slowly return choke to run position once the engine has started.

STOPPING ENGINE

TO STOP ENGINE: move throttle lever to idle position and turn ignition key to "OFF" position. If engine has been working hard or is hot, allow engine to idle for a short period of time before turning off key. This practice will help cool engine before stopping.

IN CASE OF EMERGENCY engine may be stopped by turning ignition key to "OFF" position.



WARNING:

DO NOT allow children to operate the machine. **DO NOT** allow any adult to operate the machine without proper instruction.



WARNING:

THE ENGINE EXHAUST FROM THIS PRODUCT CONTAINS CHEMICALS KNOWN IN THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARMS.

SAFETY INTERLOCK SYSTEM

Your Encore Rider is equipped with a Safety Interlock System that is designed to help prevent possible serious injuries. Understanding and maintaining this system is vital, for maximum safe operation.

TO START ENGINE:

1. Blades (PTO) must be "OFF".
2. Control levers in neutral (swung out).
3. Park Brake "ON".
4. Operator in seat.

THE ENGINE WILL KILL IF:

1. The operator leaves the seat with:
 - a. The control levers out of neutral (swung in).
 - b. The blades on (PTO).
 - c. The park brake is "OFF".
 - d. All the above.
2. The park brake is set before the control levers are in neutral (swung out).

CORRECT TRANSMISSION OPERATION TO GO FORWARD OR REVERSE

The Encore Rider is equipped with a pump/wheel motor unit for each wheel and are controlled with "Motion Control Levers", one for each wheel. See Figure 1

MOWING SPEED

The Encore Rider is designed to operate most efficiently at maximum blade speeds.

The running speed of the machine should allow the mower blades to maintain this maximum speed while mowing across turf. Use a slower ground speed for cutting tall grass, grass which is heavy with moisture, or when mowing uphill. If ground speed is too fast, or blade speed is too slow, mowing will be uneven because mower blades will not be able to lift grass into cutting position as the mower passes.

Throttle control regulates speed of engine as measured in RPM. This control SHOULD NOT be used to control ground speed.

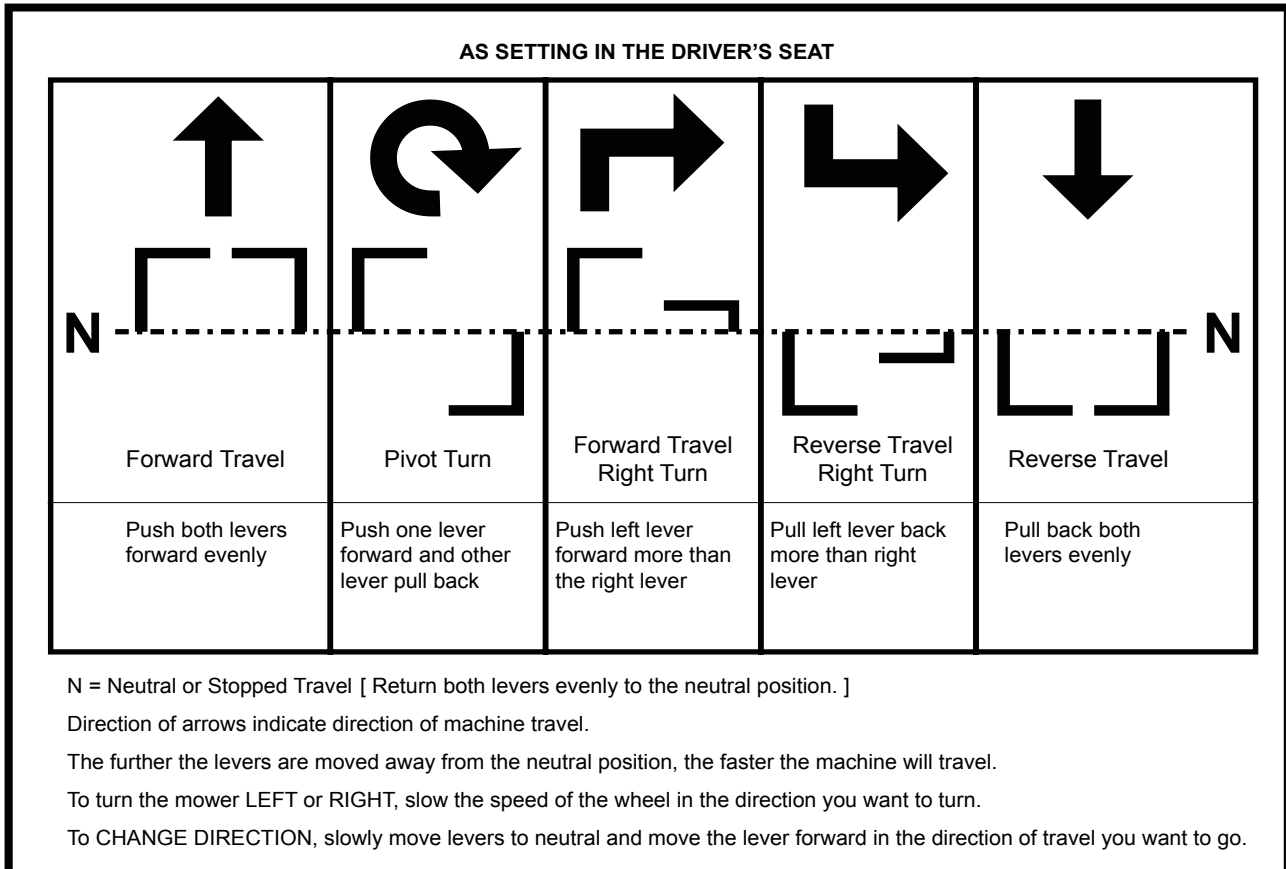
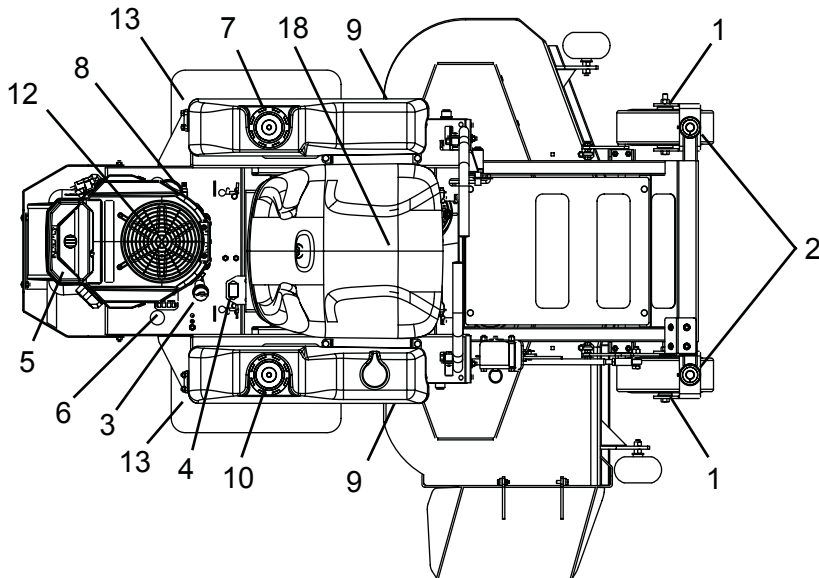
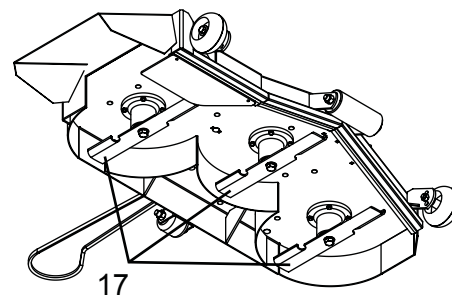
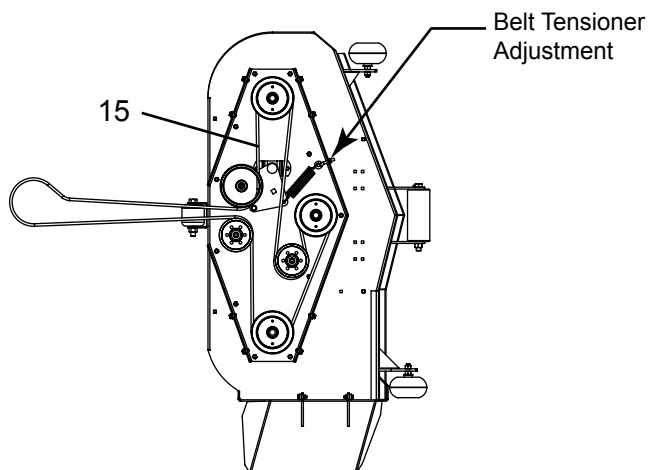


Figure 1

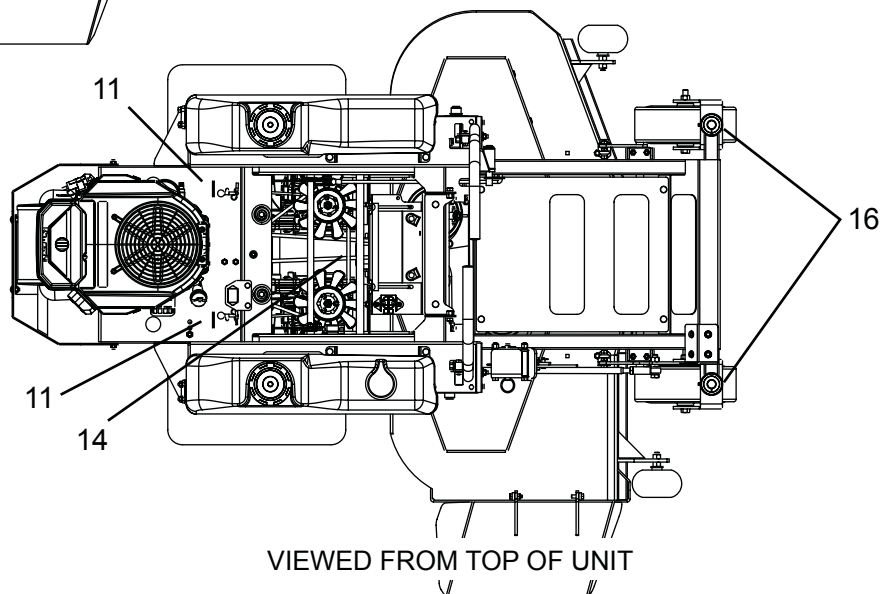
SERVICE LOCATOR CHART



1. Front Caster Wheel Bearings (2)
2. Front Caster Pivot Bearing Zerk (2)
3. Engine Oil Fill & Dipstick
4. Hour Meter
5. Engine Air Filter
6. Engine Oil Filter
7. Fuel Tank
8. Engine Fuel Filter
9. Fuel Shut-off Valve
10. Fuel Tank w/ Cup Holder
11. Hydraulic Bypass
12. Engine Vent Screen
13. Drive Tires
14. Pump Belt (353112)
15. Blade Drive Belt (353139)
16. Front Casters Wheels
17. 16" Blade (483035)
18. Located inside the seat frame under operators seat:
 1. Time delay module
 2. Relays
 3. Fuse Block
 4. Start Relay
 5. Battery



VIEWED FROM UNDER OF DECK



VIEWED FROM TOP OF UNIT

Figure 2

MAINTENANCE INFO

1. Do not adjust mower or change attachments unless the engine has been stopped and the key has been removed.
2. Good maintenance, wiping up gasoline and oil spills, will reduce potential fire hazards.
3. To insure that the mower will remain in safe operating condition, check and tighten all bolts, nuts and screws. Especially make certain the blade bolt/nuts are always tightened properly.
4. Never adjust governor on engine to a faster speed. The engine manufacturer adjusts the engine RPM to the proper setting.
5. Allow time for the engine to cool down prior to storing mower. Do not store mower or gasoline near any open flame or where gasoline fumes may be ignited.
6. Always replace worn or broken parts with genuine Encore repair parts purchased from an authorized Encore dealer. Using anything other than Encore repair parts may void all Encore factory warranties.

OIL AND FILTER

Since the hydraulic drives on the Encore Rider are lifetime lubricated there are no required filter and or oil changes required. Please refer to the engine manual for engine lubrication recommendations.



CAUTION:
DO NOT SPILL OIL OR GREASE ON BELTS.

TIRE PRESSURE

This vehicle has been designed to achieve maximum operator comfort and ride. This cannot be achieved without proper tire pressure. A low pressure gauge is required to check the front tires.

Front Tires - 14 PSI
Rear Tires - 20 PSI

NOTES:

The Encore Rider is driven and steered by the rear wheels.

REAR TIRE CIRCUMFERENCE DIRECTLY EFFECTS THE TRACKING OF THE MACHINE.

If the machine will not drive in a straight line, check air pressure and adjust accordingly.

Lubrication

The following recommendations on lubrication chart below should be adhered to. Environmental conditions may be cause to vary frequency. Grease points are pointed out in Figure 2.

Description of Maintenance Task	Service Intervals
Blades - sharpen & securely fastened to 65 ft-lbs	Every 10 hours
Check fuel level	Daily
Discharge chute - securely in place & in lowest position	Daily
Verify safety start interlock system	Daily
Visually inspect tires	Daily
Visually inspect unit for loose hardware and/or damaged parts	Daily
Check battery connections	Every 50 hours
Check tire pressure with a guage	Every 50 hours
Check pump drive belt tension & condition	Every 100 hours
Check blade drive belt tension & condition	Every 100 hours
Check deck drive belt tension & condition	Every 100 hours
Tighten lug nuts on wheels	Every 100 hours
Check oil level in engine	See Note A
Change engine oil & filter	See Note A
Change fuel filter	See Note A
Clean air intake screen	See Note A
Clean cylinder / head fins	See Note A
Clean foam element	See Note A
Clean paper element	See Note A
Replace air cleaner paper element	See Note A
Clean and regap or replace spark plugs	See Note A

Note:

- A. Refer to Supplied Engine Manufactures Owner's Manual for all maintance and engine manufactures warranty policy information

BATTERY

The battery is located under the seat of the machine. The gel-cell battery is maintenance free.



CAUTION:

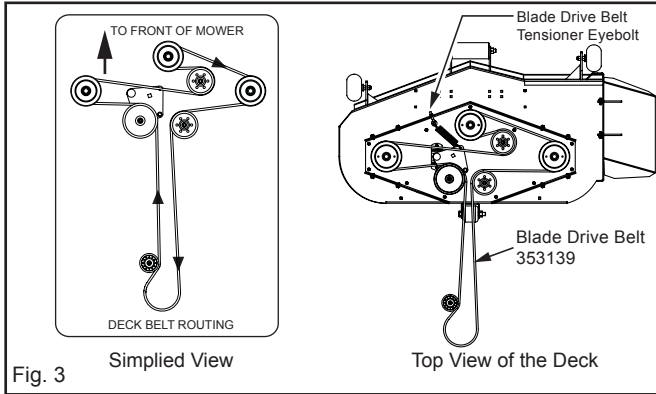
When servicing the battery or any other part of the electrical system, or if the battery must be removed for any reason, always, disconnect negative (ground) cable FIRST and reconnect it LAST to avoid possibility of electrical shorts.

At temperatures below 32° F (0° C), full charge state must be maintained to prevent cell electrolyte from freezing and causing permanent battery damage.

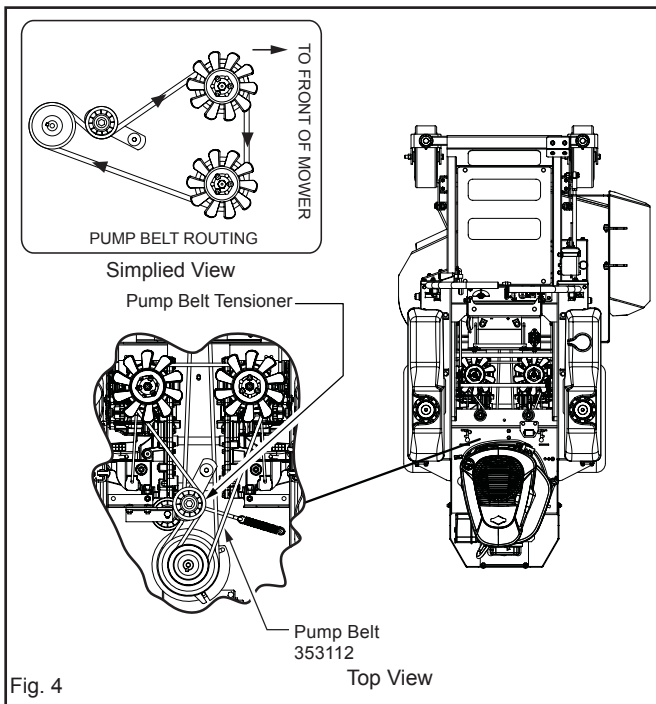
For longest service life, battery should be kept clean by wiping it off with a paper towel. Any corrosion around battery should be removed by applying a solution of one part baking soda to four parts water. A light coating of grease or petroleum jelly may be applied to all exposed terminal surfaces to prevent corrosion.

Belt Adjustment

Remove key from the ignition switch. The blade drive belt may be accessed by removing belt shields. Spring tension should be maintained by having



approximately 1/8" stretch between coils. Turning the nut on the eyebolt clockwise will decrease tension. When installing a blade drive belt please refer to figure 3 for routing the blade drive belt. The pump belt

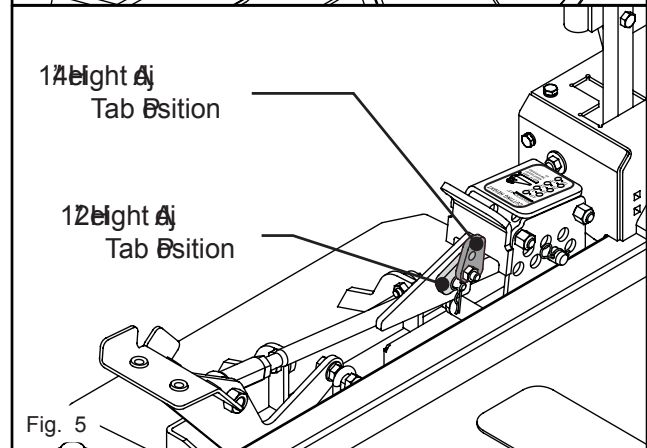
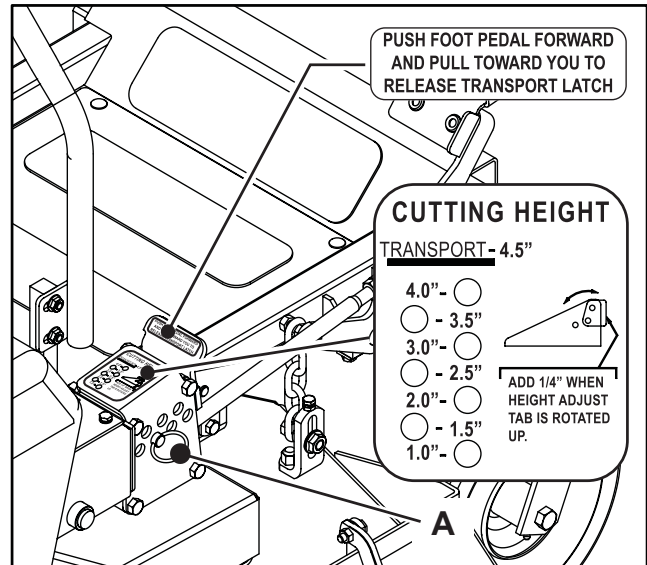


may be accessed from under the rear chassis. The pump belt is removed by unhooking the tensioner spring to provide slack in the belt for removal. When installing a pump belt please refer to figure 4 for the routing the pump belt.

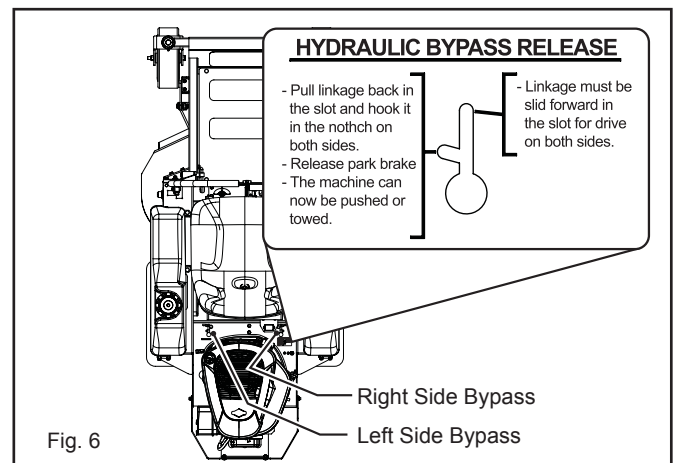
Bypass Valve

In some applications, it is desirable to move the machine for short distances at low speeds without operating the engine. See Fig. 6

Deck Height Adjustment



Height of cut positions are drilled at 1/2 inch increments. To add 1/4 inch to the setting you must first remove the #4 hairpin cotter, pull pin and rotate the tab to the vertical position. The foot pedal must be depressed slightly in order to replace the pin in tab. See Fig. 5



DECK LEVELING ADJUSTMENT

Before checking the deck level make sure that tire pressures are at the proper level. Begin by setting the deck to a fixed position and pointing the blades to the front edge of the deck.

Measuring from the blade to the ground on each side of the deck will give the best reading. To adjust deck position loosen the bolt on the deck hanger bracket and move bolt in the slot either up or down depending which way you need to move the deck. You should

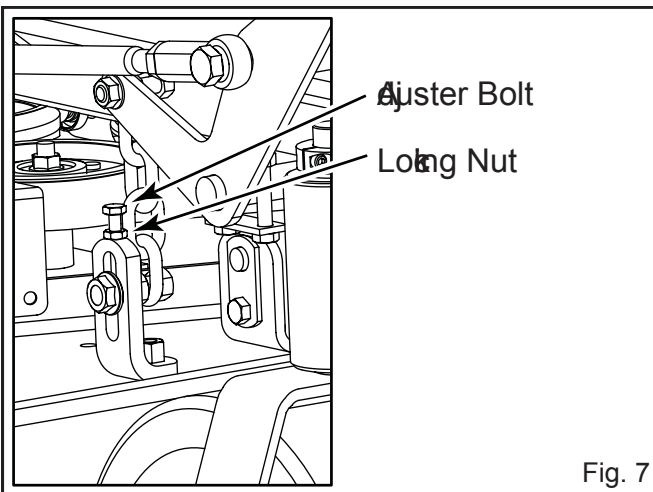


Fig. 7

always maintain at least a 1/8 inch of deck pitch from front to back. Also all four chains must support the deck equally or must have equal tension on them.

Tracking Adjustment

Before adjusting the tracking you must be sure that the tire pressures are equal. If the machine will not track straight on a flat surface it may be adjusted by moving the stop bolt (located by either control arm) clockwise to increase ground speed and counter clockwise to decrease ground speed. Normally only one side is adjusted to match the ground speed of the other pump.

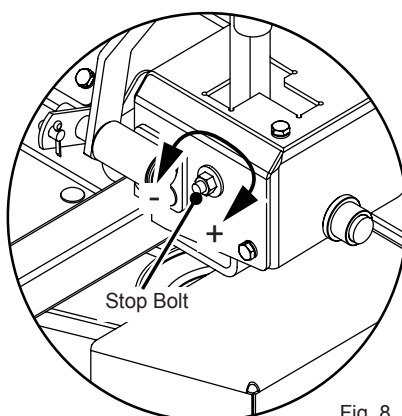


Fig. 8

Mower Blades

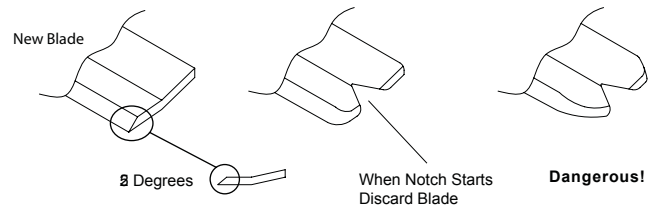
Check sharpness of mower blades after every 10 hours of operation. To sharpen blades proceed as follows:



CAUTION:

TURN OFF ENGINE BEFORE MAKING ANY ADJUSTMENTS.

- ◆ Block front end of mower up or run front up on ramps.
- ◆ Remove blade by turning bolt counter clockwise.
- ◆ Blades should be discarded when worn excessively. See Sketch.



- ◆ Sharpen blade with a hand file, electric grinder or blade sharpener. Wear gloves and eye protection when sharpening. Grind blade at original bevel.
- ◆ Check balance of blade by positioning the blade on a nail or blade balance pedestal. Grind the blade on the end that is heavier until both sides balance.
- ◆ Reinstall blades. Refer to Figure 9 for further information

Important Note:

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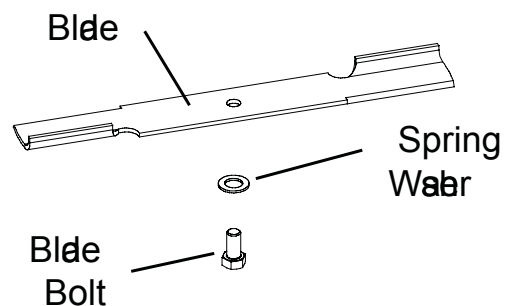


Figure 9

Notes

Notes

PLP

**POWERUP
LAWNCARE PRODUCTS**

www.poweruplawncare.com.au

1300 363 027



ENCORE
POWER EQUIPMENT