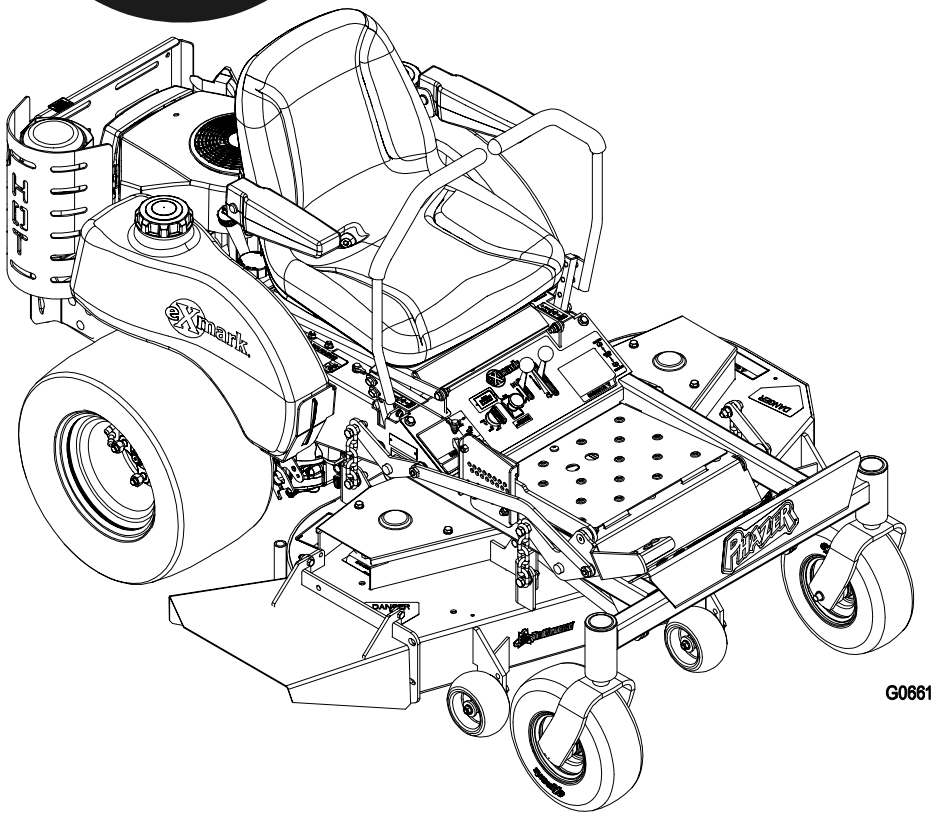
For Serial Nos. 600,000 & Higher

eXmark® MFG. CO. INC.



PHAZER™

OPERATOR'S MANUAL

CONGRATULATIONS on the purchase of your new Exmark equipment. This product has been carefully designed and manufactured to give you a maximum amount of dependability and years of trouble-free operation. If additional information is needed, or should you require trained mechanic service, contact your authorized Exmark equipment dealer or distributor. If you need to order replacement parts from your dealer, always give the model number and serial number of your equipment as well as the part number, description and quantity of the part needed.

The Serial No. plate is located on right side of the console. For ease of ordering and reference, we suggest that you record the information requested in the following identification table.

Place Model No. and Serial No. Label Here
(Included in Literature Pack)
or Fill in Below

Model No. _____

Serial No. _____

Date Purchased _____

Part No. 109-4354 Rev A

⚠ WARNING ⚠
POTENTIAL HAZARD ♦ This product is a piece of power equipment.
WHAT CAN HAPPEN ♦ Failure to follow safe operating practices can result in serious operator injury or even death.
HOW TO AVOID THE HAZARD ♦ Keep all shields, guards, and safety devices (especially the grass discharge system) in place and in proper working condition. ♦ Stop engine, wait for all moving parts to stop, and engage parking brake. Remove spark plug wire(s) or remove key before adjusting, servicing, or performing maintenance. ♦ If mower deck becomes clogged, stop engine, wait for all moving parts to stop, and engage parking brake. Remove spark plug wire(s) or remove key before cleaning blockage. ♦ Keep hands, feet, and clothing away from power driven parts. ♦ Keep off mower unless seat platform is provided. ♦ Keep others off mower.

⚠ WARNING ⚠
POTENTIAL HAZARD ♦ Gasoline is harmful or fatal if swallowed. Long-term exposure to vapors has caused cancer in laboratory animals.
WHAT CAN HAPPEN ♦ Failure to use caution may cause serious injury or illness.
HOW TO AVOID THE HAZARD ♦ Avoid prolonged breathing of vapors. ♦ Keep face away from nozzle and gas tank/container opening. ♦ Keep away from eyes and skin. ♦ Never siphon by mouth.

IMPORTANT

When the mower is used or operated on any California forest, brush or grass covered land, a working spark arrester must be attached to the muffler. If not, the operator is violating state law, Section 4442 Public Resource Code. To acquire a spark arrester for your unit, see your Engine Service Dealer.

This spark ignition system complies with Canadian ICES-002
Ce système d'allumage par ètincelle de vèhicule est conforme à la norme NMB-002 du Canada

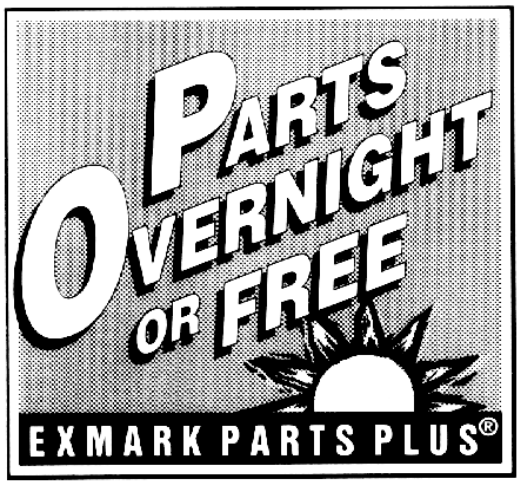
The enclosed Engine Owner's Manual is supplied for information regarding The U.S. Environmental Protection Agency (EPA) and the California Emission Control Regulation of emission systems, maintenance and warranty.

Keep this engine Owner's Manual with your unit. Should this engine Owner's Manual become damaged or illegible, replace immediately. Replacements may be ordered through the engine manufacturer.

Exmark reserves the right to make changes or add improvements to its products at any time without incurring any obligation to make such changes to products manufactured previously. Exmark, or its distributors and dealers, accept no responsibility for variations which may be evident in the actual specifications of its products and the statements and descriptions contained in this publication.

EXMARK PARTS PLUS® PROGRAM

EFFECTIVE DATE: September 1, 1995



Program

If your Exmark dealer does not have the Exmark part in stock, Exmark will get the parts to the dealer the next business day or the part will be FREE* Guaranteed!!

How the Program Works

1. If dealer does not have part in stock for a "down" unit at the time of request by customer, the dealer contacts his distributor by 1:00 p.m., local time, and requests Exmark Parts Plus® shipment of six (6) line items or less.

2. Distributor ships part(s) to dealer or customer, as requested by dealer, same day, overnight UPS Distributor bills dealer for part and freight charges where applicable.

3. If distributor does not have the part(s) in stock to satisfy Exmark Parts Plus® order, he contacts Exmark by 3:00 p.m., central time, with an Exmark Parts Plus® order of six (6) line items or less.

4. If order is received by 3:00 p.m. central time, Exmark ships part(s) direct to dealer or customer, as requested by distributor, same day, overnight UPS, Exmark bills the distributor for parts and shipping charges, where applicable.

5. The customer pays for the part and freight if it is shipped under the Exmark Parts Plus® and if it arrives in accordance to the program.

6. Who pays for the part and freight if it fails to arrive overnight in accordance to the program?

   A. Under any circumstance the customer does not pay.

   B. If the part does not arrive overnight due to:

      1. The dealer not submitting the Exmark Parts Plus® order to his Exmark distributor by 1:00 p.m., the dealer pays for the part and freight.

      2. The Distributor being unable to ship the part the same day or not submitting the Exmark Parts Plus® order to Exmark by 3:00 p.m., central time, the Distributor pays for the part and freight.

      3. Exmark being unable to ship the part and the Exmark parts order is received by 3:00 p.m., central time, Exmark pays for the part and freight.

      4. If the part does not arrive overnight due to the shipper (UPS), the shipper pays for the freight and Exmark pays for the part.

The following restrictions apply -- The Exmark Parts Plus® Program is available only through participating Exmark Dealers and applies only to orders submitted on this program Monday through Thursday. Parts Plus service is available only in the 48 contiguous United States. UPS has initiated a Saturday delivery program to many areas of the continental United States and can be requested for an overnight shipment on Friday to be delivered Saturday. The next day air charge, plus the Saturday delivery fee will be the responsibility of the purchaser. Exmark Mfg. will assume no responsibility for Saturday delivery shipments. To qualify, all Exmark Parts Plus® orders must be received by Exmark by 3:00 p.m., central time. Orders must be six (6) line items or less. Exclusions from the Exmark Parts Plus® Program are: Any wholegood or accessory in its entirety, engines and engine replacement parts, 5-speed Peerless transmissions and 5-speed transaxles, hydraulic or hydrostatic wheel motors, cutter decks and engine decks or any item exceeding United Parcel Service size and weight restrictions.

Due to UPS restrictions, aerosol spray paint is considered a hazardous material and cannot be shipped via UPS next day or Second Day Air.

Exmark Manufacturing stocks a limited supply of parts for transaxles, pumps and wheel motors. These parts can be ordered for Next Day Air shipment but will not be guaranteed per the Parts Plus Program.

CONGRATULATIONS on the purchase of your Exmark Mower. This product has been carefully designed and manufactured to give you a maximum amount of dependability and years of trouble-free operation.

OPERATOR'S MANUAL

This manual contains operating, maintenance, adjustment, and safety instructions for your Exmark mower.

BEFORE OPERATING YOUR MOWER, CAREFULLY READ THIS MANUAL IN ITS ENTIRETY.

By following the operating, maintenance, and safety instructions, you will prolong the life of your mower, maintain its maximum efficiency, and promote safe operation.

If additional information is needed, or should you require trained mechanic service, contact your authorized Exmark equipment dealer or distributor.

All Exmark equipment dealers and distributors are kept informed of the latest methods of servicing and are equipped to provide prompt and efficient service in the field or at their service stations. They carry ample stock of service parts or can secure them promptly for you from the factory.

All Exmark parts are thoroughly tested and inspected before leaving the factory, however, attention is required on your part if you are to obtain the fullest measure of satisfaction and performance.

TABLE OF CONTENTS

1. SAFETY

1.1 SAFETY ALERT SYMBOL

This SAFETY ALERT SYMBOL  is used both in this manual and on the machine to identify important safety messages which must be followed to avoid accidents. This symbol means:

ATTENTION! BECOME ALERT!

YOUR SAFETY IS INVOLVED!

The safety alert symbol appears above information which alerts you to unsafe actions or situations and will be followed by the word **DANGER**, **WARNING**, or **CAUTION.**

DANGER: White lettering / Red background. Indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.

WARNING: Black lettering / Orange background. Indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.

CAUTION: Black lettering / Yellow background. Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury.

1.2 TRAINING

1.2.1 Regard the Exmark mower as a piece of power equipment and teach this regard to all who operate this unit. 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.

1.2.2 Read the instructions carefully. Familiarize yourself with the controls and the proper use of the equipment. If the operator(s) or mechanic(s) can not read English it is the owner's responsibility to explain this material to them.

1.2.3 Do not allow operation of this machine by untrained personnel. Never allow children, or teenagers to use the mower. Only allow responsible adults who are familiar with the instructions, to operate this machine. Local regulations may restrict the age of the operator.

1.2.4 Data indicates 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.

1.2.5 Avoid mowing while people, especially children, or pets, are nearby. Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.

1.3 PREPARATION

1.3.1 Evaluate the terrain to determine what accessories and attachments are needed to properly and safely perform the job. Only use accessories and attachments approved by Exmark.

1.3.2 Always wear eye protection. The use of personal protective equipment for the ears, feet, and head is also recommended.

CAUTION
POTENTIAL HAZARD ♦ This machine produces sound levels in excess of 85 dBA at the operator's ear when in operation.
WHAT CAN HAPPEN ♦ Exposure to sound levels of 85 dBA or above for extended periods of time can cause hearing loss.
HOW TO AVOID THE HAZARD ♦ Wear hearing protection when operating this machine.

1.3.3 While mowing, always wear substantial footwear and long trousers. Do not operate equipment when barefoot or when wearing open sandals.

1.3.4 Thoroughly inspect the area where the equipment is to be used and remove all stones, sticks, wires, bones, toys, and other foreign objects which may damage the equipment or cause personal injury to the operator or bystanders.

DANGER

POTENTIAL HAZARD

- In certain conditions gasoline is extremely flammable and highly explosive.

WHAT CAN HAPPEN

- A fire or explosion from gasoline can burn you, others, and cause property damage.

HOW TO AVOID THE HAZARD

- *DO NOT* smoke while refueling, and stay away from an open flame or where gasoline fumes may be ignited by spark.
- Refuel only outdoors.
- Store gasoline in an approved container and keep it out of the reach of children.
- Add fuel before starting the engine. *Never* remove the cap of the fuel tank or add fuel when engine is running or when the engine is hot.
- Never fill the fuel tank so that the gasoline level rises above a level that is 1/2” below the bottom of the filler neck to allow for gasoline expansion and prevent fuel spillage. Replace gas cap and tighten securely.
- If fuel is spilled on clothing, change clothing immediately.
- If fuel is spilled, *DO NOT* attempt to start the engine. Move away from the area of the spill and avoid creating any source of ignition until fuel vapors have dissipated.
- *DO NOT* operate without entire exhaust system in place and in proper working condition.

DANGER

POTENTIAL HAZARD

- In certain conditions gasoline is extremely flammable and highly explosive.

WHAT CAN HAPPEN

- A static charge can ignite gasoline vapors. A fire or explosion from gasoline can burn you, others, and cause property damage.

HOW TO AVOID THE HAZARD

- Purchase and store gasoline only in an approved container.
- Always place gasoline containers on the ground away from your vehicle before filling.
- *DO NOT* fill gasoline containers inside a vehicle or on a truck or trailer bed because interior carpets or plastic truck bed liners may insulate the container and slow the loss of any static charge.
- When practical, remove gas-powered equipment from the truck or trailer and refuel the equipment with its wheels on the ground.
- If this is not possible, then refuel such equipment on a truck or trailer from a portable container, rather than from a gasoline dispenser nozzle.
- If a gasoline dispenser nozzle must be used, keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete.

WARNING

POTENTIAL HAZARD

- Engine exhaust contains carbon monoxide, which is an odorless deadly poison.

WHAT CAN HAPPEN

- Carbon monoxide can kill you.

HOW TO AVOID THE HAZARD

- *DO NOT* run engine indoors or in a small confined area where dangerous carbon monoxide fumes can collect.

WARNING

POTENTIAL HAZARD

- Gasoline vapor can collect inside an enclosed trailer, building, or room, and may be ignited by electrical sparks or hot engine/exhaust components.

WHAT CAN HAPPEN

- Explosion and fire may occur, resulting in property damage, personal injury, and/or death.

HOW TO AVOID THE HAZARD

- Provide adequate ventilation of any enclosed trailer, building, or room to prevent build up of gasoline vapors, especially at floor level.
- Refuel only outdoors, never inside an enclosed trailer, building, or room.
- Be sure all fuel tanks and gasoline storage containers have proper caps installed to prevent spillage and minimize vapor escaping into the trailer, building, or room.
- Fuel containers should not be stored in a basement or any enclosed area where open pilot lights or heat appliances are present.
- *DO NOT* place any equipment that is leaking gasoline in an enclosed trailer, building, or room.

1.4 CHILDREN

1.4.1 Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. *Never* assume that children will remain where you last saw them.

1.4.2 Keep children out of the mowing area and in the watchful care of a responsible adult other than the operator.

1.4.3 Be alert and turn machine off if a child enters the area.

1.4.4 Use EXTREME caution when backing up. Before and while backing, look behind and down for small children.

1.4.5 Never carry children even with the blade(s) shut off. They may fall off and be seriously injured or interfere with safe machine operation. Children who have been given rides in the past may suddenly appear in the mowing area for another ride and be run over or backed over by the machine.

1.4.6 Never allow children to operate the machine.

1.4.7 Use extreme care when approaching blind corners, shrubs, trees, or other objects that may block your view of a child.

1.5 OPERATION

Although hazard control and accident prevention partially are dependent upon the design and configuration of the equipment, these factors are also dependent upon the awareness, concern, prudence, and proper training of the personnel involved in the operation, transport, maintenance, and storage of the equipment. It is essential that all Operator Safety Mechanisms be connected and in operating condition prior to use for mowing.

WARNING
POTENTIAL HAZARD ♦ Operating engine parts, especially the muffler, become extremely hot.
WHAT CAN HAPPEN ♦ Severe burns can occur on contact. ♦ Debris, such as leaves, grass, brush, etc. can catch fire.
HOW TO AVOID THE HAZARD ♦ Allow engine parts, especially the muffler, to cool before touching. ♦ Remove accumulated debris from muffler and engine area. ♦ Install and maintain in working order a spark arrester before using equipment on forest-covered, grass-covered, or brush-covered unimproved land.

WARNING
POTENTIAL HAZARD ♦ Hands, feet, hair, clothing, or accessories can become entangled in rotating parts.
WHAT CAN HAPPEN ♦ Contact with rotating parts can cause traumatic amputation or severe lacerations.
HOW TO AVOID THE HAZARD ♦ *DO NOT* operate the machine without guards, shields, and safety devices in place and working properly. ♦ Keep hands, feet, hair, jewelry, or clothing away from rotating parts.

1.5.1 Give complete, undivided attention to the job at hand.

1.5.2 Mow only in daylight or good artificial light, keeping away from holes and hidden hazards. Tall grass can hide obstacles.

1.5.3 ***DO NOT*** operate the mower when children or others are in the area!

1.5.4 When feasible, avoid operating the equipment in wet grass.

1.5.5 Use ***EXTREME*** caution when backing up. Before and while backing, look behind and down for small children.

1.5.6 Watch for traffic when operating near or crossing roadways.

1.5.7 ***DO NOT*** change the engine governor settings or overspeed the engine. Operating an engine at excessive speed may increase the hazard of personal injury.

1.5.8 Disengage PTO before starting engine.

1.5.9 Start the engine carefully with feet well away from the blades.

1.5.10 Keep hands, feet, and clothing away from rotating parts while the mower is being operated. Keep clear of the discharge opening at all times.

1.5.11 Stop engine, wait for all moving parts to stop, and remove key. Engage parking brake:

- Before adjusting, servicing, or cleaning the mower.
- After striking a foreign object (inspect the mower for damage and make repairs before restarting and operating the mower).
- Before clearing blockages.
- Whenever you leave the mower.

Stop the engine and wait for all moving parts to stop. Engage parking brake:

- Before refueling.
- Before dumping the grass catcher.

1.5.12 Before stopping the engine, place the throttle control **midway** between the “slow” and “fast” positions. Allow the engine to run a minimum of 15 seconds; then stop the engine.

1.5.13 The fuel system is provided with a shut-off valve. The fuel shut-off valve is used to shut off the fuel:

- When the machine will not be used for a few days.
- During transport to and from the job.
- When parked inside a building.

1.5.14 This mower was designed for one operator only. Never carry passengers and keep all others away from mower during operation.

1.5.15 Never operate the mower with defective guards, shields, or covers. Always have safety shields, guards, switches, and other devices in place and in proper working condition.

1.5.16 ***DO NOT*** mow with the discharge deflector raised, removed, or altered unless there is a grass collection system or mulch kit in place and working properly.

1.5.17 Be aware of the mower discharge and direct discharge away from others.

1.5.18 Stop the blades when crossing surfaces other than grass and when transporting the mower to and from the area to be mowed. Avoid discharging material against wall or obstruction. Material may ricochet back toward the operator.

1.5.19 ***DO NOT*** operate the mower under the influence of alcohol or drugs.

1.5.20 Use extra care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.

1.5.21 If jump starting is required:

a) connect the positive (+) power cable from the positive post on the booster battery to the positive terminal post on the starter solenoid switch (this post has the positive battery cable attached to it).

b) connect the negative or ground cable (-) from the negative post on the booster battery to any engine deck ground, preferably the engine block as far away from the battery as possible.

c) disconnect battery cables in the reverse order after starting.

1.6 SLOPE OPERATION

1.6.1 Use ***EXTREME*** caution when mowing and/or turning on slopes as loss of traction and/or tip-over could occur. The operator is responsible for safe operation on slopes.

⚠ DANGER ⚠
POTENTIAL HAZARD ♦ Mowing on wet grass or steep slopes can cause sliding and loss of control.
WHAT CAN HAPPEN ♦ Wheels dropping over edges, ditches, steep banks, or water can cause rollovers, which may result in serious injury, death or drowning.
HOW TO AVOID THE HAZARD ♦ Do not mow slopes when grass is wet. ♦ Do not mow near drop-offs or near water. ♦ Do not mow slopes greater than 15 degrees. ♦ Reduce speed and use extreme caution on slopes. ♦ Avoid sudden turns or rapid speed changes.

1.6.2 See inside the back cover to determine the approximate slope angle of the area to be mowed.

1.6.3 Use a walk behind mower and/or a hand trimmer near drop-offs, ditches, steep banks or water. This area can be dangerous, see Figure 1.

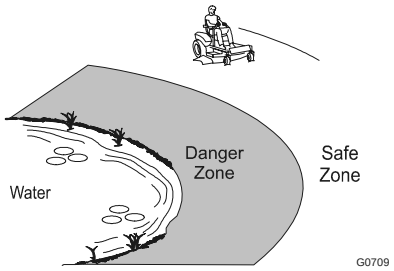


FIGURE 1

1.6.4 Progressively greater care is needed as the slope increases.

1.6.5 Do not try to stabilize the machine by putting your foot on the ground.

1.6.6 Always avoid sudden starting or stopping on a slope. If tires lose traction, disengage the blades and proceed slowly down the slope.

1.6.7 Avoid sudden starts when mowing uphill. Mower may tip backwards.

1.6.8 Be aware that loss of traction may occur going downhill. Weight transfer to the front wheels may cause drive wheels to slip and cause loss of braking and steering.

1.6.9 Watch for ditches, holes, rocks, dips, and rises that change the operating angle, as rough terrain could overturn the machine. Tall grass can hide obstacles.

1.6.10 Remove or mark obstacles such as rocks, tree limbs, etc. from the mowing area. Tall grass can hide obstacles.

1.6.11 Use extreme care with grass catchers or attachments. These can change the stability of the machine and cause loss of control.

1.6.12 Follow the manufacturer's recommendations for wheel weights or counterweights to improve stability.

1.6.13 Be certain that the seat belt can be released quickly if the machine is driven or rolls into ponds of water.

1.6.14 Check carefully for overhead clearances (i.e. branches, doorways, and electrical wires) before driving under any objects and do not contact them.

1.7 TOWING

1.7.1 Use for towing only if equipped with an Exmark hitch kit. Do not attach towed equipment except at the hitch point.

1.7.2 Follow Exmark's recommendation for weight limits for towed equipment.

1.7.3 Never allow children or others in or on towed equipment.

1.7.4 On slopes, the weight of the towed-equipment may cause loss of traction and loss of control.

1.7.5 Travel slowly and allow extra distance to stop.

1.8 MAINTENANCE AND STORAGE

1.8.1 For engine maintenance, follow the engine manufacturer's recommendations precisely as stated in the engine manual.

1.8.2 Disconnect the battery cable from the negative battery post when the unit will be allowed to sit for more than 30 days without use.

1.8.3 Allowing batteries to stand for an extended period of time without recharging them will result in reduced performance and service life. To preserve optimum battery performance and life, recharge batteries in storage when the open circuit voltage drops to 12.4 volts.

Note: To prevent damage due to freezing, battery should be fully charged before putting away for winter storage.

1.8.4 Keep engine, engine area, and hydraulic pump area free from accumulation of grass, leaves, excessive grease or oil, and other debris which can accumulate in these areas. These materials can become combustible and may result in a fire. Allow engine to cool completely before storing.

1.8.5 Store fuel in a container specifically designed for this purpose in a cool, dry place.

1.8.6 Keep the mower and fuel container in locked storage to prevent children from playing or tampering with them.

1.8.7 Gasoline powered equipment or fuel containers should not be stored in a basement or any enclosed area where open pilot lights or heat appliances are present.

1.8.8 Maximum mowing results and safety can only be achieved if the mower is properly maintained and operated correctly.

1.8.9 Check all nuts and bolts frequently to maintain proper tightness.

1.8.10 Check brake operation frequently. See an Authorized Exmark Dealer if service is necessary.

1.8.11 Keep all guards, shields and all safety devices in place and in safe working condition.

1.8.12 Frequently check for worn or deteriorating components that could create a hazard.

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

1.8.14 All replacement parts must be the same as or equivalent to the parts supplied as original equipment.

WARNING

POTENTIAL HAZARD

- Hydraulic fluid escaping under pressure can penetrate skin and cause injury.

WHAT CAN HAPPEN

- Fluid accidentally injected into the skin must be surgically removed within a few hours by a doctor familiar with this form of injury or gangrene may result.

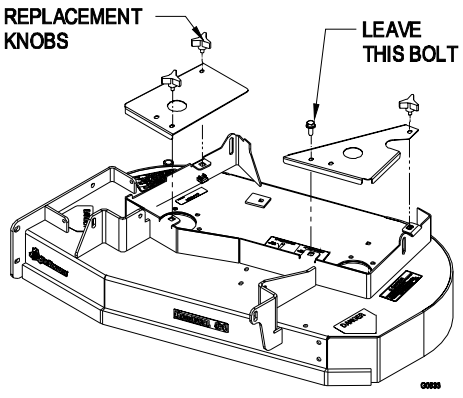
HOW TO AVOID THE HAZARD

- Make sure all hydraulic fluid hoses and lines are in good condition an all hydraulic connections and fittings are tight before applying pressure to hydraulic system.
- Keep body and hands away from pinhole leaks or nozzles that eject high pressure hydraulic fluid.
- Use cardboard or paper, not your hands, to find hydraulic leaks.
- Safely relieve all pressure in the hydraulic system by placing the motion control levers in neutral and shutting off the engine before performing any work on the hydraulic system.

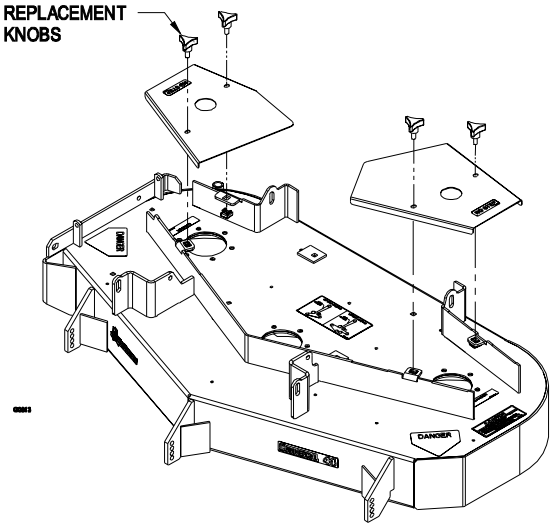
1.9 COMMERCIAL USER SETUP

1.9.1 On the 34” deck, three of the four 5/16-18 x 3/4 hex capscrews that secure the belt shields to the mower deck can be replaced with the knobs (Figure 2A).

On the 44” deck replace the four capscrews with the knobs (Figure 2B).



34” DECK
FIGURE 2A



44” DECK
FIGURE 2B

1.9.2 The 5/16-18 x 3/4 Button Head Screw and 5/16-18 Flanged Nyloc Nut that secures the floor plate can be removed. See Figure 3

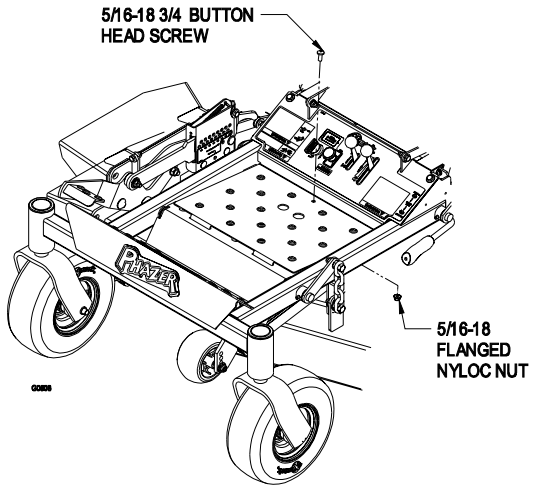


FIGURE 3

1.9.3 The Seat Retention Bracket and 1/4-20 Jam Nut can be removed from the mainframe. See Figure 4.

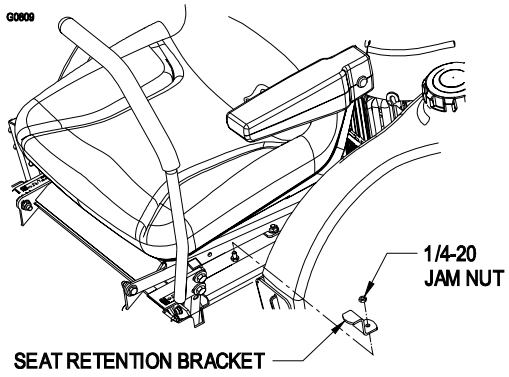


FIGURE 4

NOTE: The changes outlined in Steps 1.9.1-1.9.3 are in compliance with the American National Standards Institute (ANSI) B71.4-2004 Safety Standard for Commercial Turf Care Equipment – Safety Specifications.

1.9.4 **For Non-Commercial (Consumer) Users:**

IMPORTANT: ***DO NOT*** make the changes outlined in Steps 1.9.1-1.9.3. These changes are not in compliance with ANSI B71.1-2003 Safety Standard for Consumer Turf Care Equipment – Walk-Behind Mowers and Ride-On Machines with Mowers – Safety Specifications.

1.9.5 For non-commercial users locate roller bracket assembly (attached to crate) and install as shown in Figure 5.

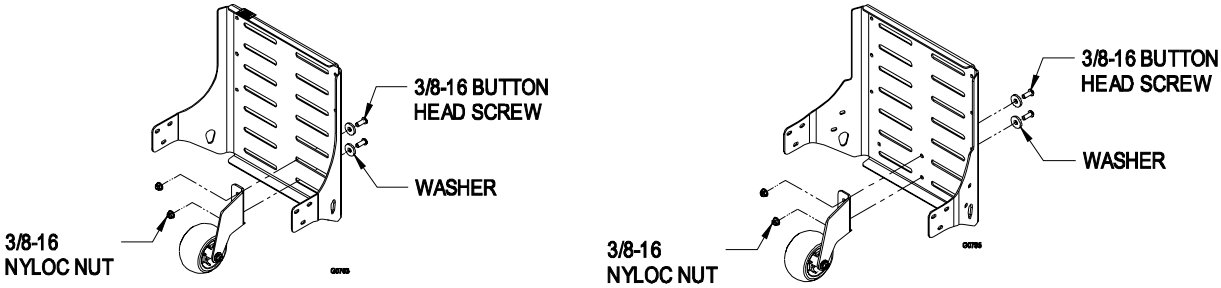


FIGURE 5

1.10 SAFETY SIGNS

1.10.1 Keep all safety signs legible. Remove all grease, dirt, and debris from safety signs and instructional labels.

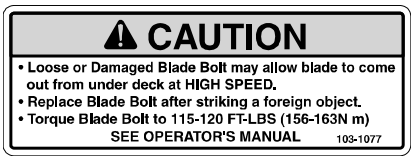
1.10.2 Safety signs must be replaced if they are missing or illegible.

1.10.3 When new components are installed, be sure that current safety signs are affixed to the replaced components.

1.10.4 New safety signs may be obtained from your authorized Exmark equipment dealer or distributor or from Exmark Mfg. Co. Inc.

1.10.5 Safety signs may be affixed by peeling off the backing to expose the adhesive surface. Apply only to a clean, dry surface. Smooth to remove any air bubbles.

1.10.6 Familiarize yourself with the following safety signs and instruction labels. They are critical to the safe operation of your Exmark commercial mower.



PART NO. 103-1077
LOCATION: LH side of Mower Deck

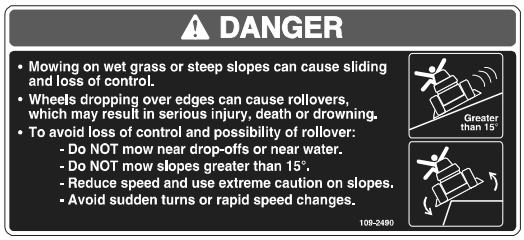
PART NO. 1-513746
LOCATION: On Rear Guard

PART NO. 109-2467
LOCATION: On RH and LH Engine Base

PART NO. 109-2862
LOCATION: RH Frame Panel

PART NO. 1-513747
LOCATION: On Frame Panel (beside seat)

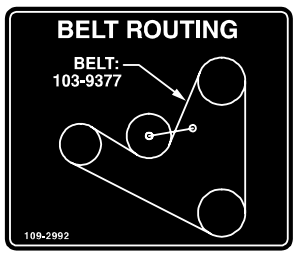
PART NO. 1-303508
LOCATION: Bottom Right Corner of Mower Deck



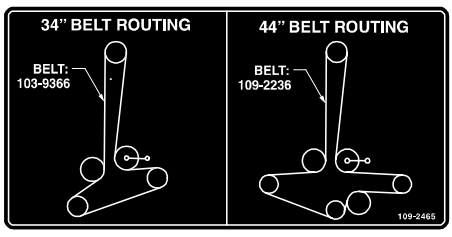
PART NO. 109-2490
LOCATION: Center of Footrest

PART NO. 1-403005
LOCATION: Left and Right Corners of Mower Deck

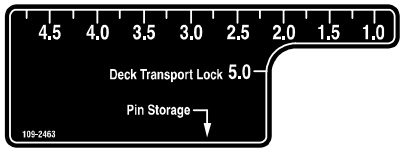
PART NO. 98-5954
LOCATION: Under Mower Deck Belt Shield(s)



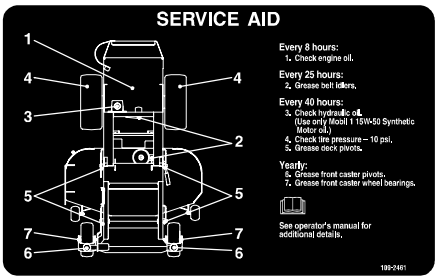
PART NO. 109-2992
LOCATION: RH Frame Panel(beside seat)



PART NO. 109-2465
LOCATION: Left of Center on Mower Deck, Under Floor Pan



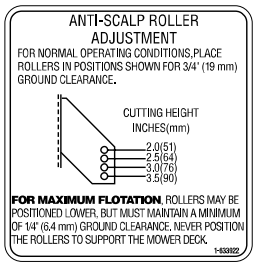
PART NO. 109-2463
LOCATION: Inside Height Adjustment Bracket



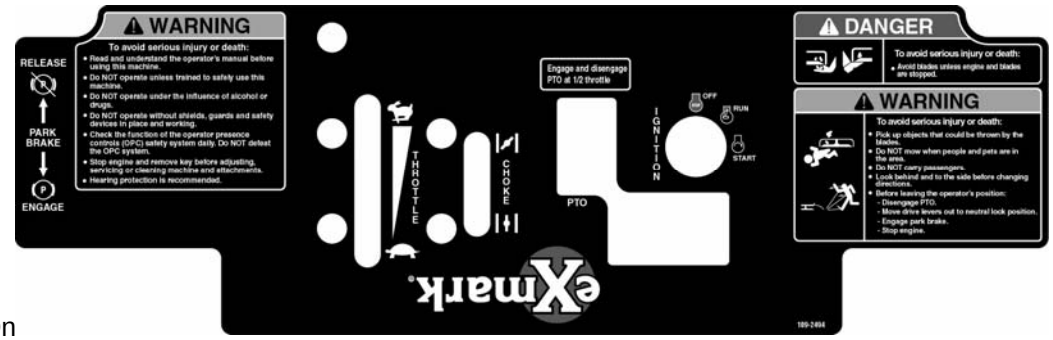
PART NO. 109-2461
LOCATION: Backside of Seat

PART NO. 109-2539
LOCATION: Under Seat

PART NO. 109-2356
LOCATION: On Top LH and RH Frame Panels



PART NO. 1-633922
LOCATION: 44" Only - On Top LH Side of Mower Deck



PART NO. 109-2494
LOCATION: Center of Console

2. SPECIFICATIONS

2.1 MODEL NUMBER:

Serial Nos. 600,000 & Higher: PHZ19KA343, PHZ19KA443

2.2 ENGINE:

2.2.1 Engine Specifications: See Your Engine Owner's Manual

2.2.2 RPM: Full Speed: 3750 (max) RPM (No Load) Idle: 1400 (min) RPM

2.3 FUEL SYSTEM

2.3.1 Capacity: 7.7 gal. (29.1 L.)

2.3.2 Type of Fuel: Regular ***unleaded*** gasoline, 87 octane or higher.

2.3.3 Fuel Filter: Replaceable in-line **Kawasaki** P/N 49019-7001

2.3.4 Fuel Shut-Off Valve: in-line, 1/4 turn

2.4 ELECTRICAL SYSTEM

2.4.1 Charging System: Flywheel Alternator

2.4.2 Charging Capacity: 13 amps

2.4.3 Battery Type: BCI Group U1

2.4.4 Battery Voltage: 12 Volt

2.4.5 Polarity: Negative Ground

2.4.6 Fuses: Two 20 amp blade type

2.4.7 Safety Interlock System:

PTO must be ***disengaged, brake engaged***, and ***motion control levers out*** (neutral lock) ***to start engine***. (It is not necessary for the operator to be in the seat to start the engine.)

Operator must be in seat ***when PTO is engaged***, ***brake is disengaged***, or ***motion control levers are moved in*** or engine will stop.

Engine will stop if either the left, the right, or both levers are ***moved from neutral lock position while brake is engaged***.

2.5 OPERATOR CONTROLS

2.5.1 Steering and Motion Control:

Separate levers, on each side of the console, control speed and direction of travel of the respective drive wheels.

Steering is controlled by varying the position of the levers relative to each other.

Moving motion control levers outward (in slots) locks the drive system in neutral.

Motion control levers are adjustable to two heights.

2.5.2 PTO Switch: Engages electric clutch (to drive belt) which engages mower blades.

2.5.3 Parking Brake Lever: Engages parking brake.

2.5.4 Deck Height Adjustment Lever: Sets cutting height to desired position.

2.5.5 Deck Lift : Foot pedal that assists in raising the deck.

2.6 SEAT

2.6.1 Type: Standard seat: high back, foam padded

2.6.2 Mounting: Hinged to tilt up for access to battery and other components. Held in tilted position with lanyard. Adjustable fore and aft.

2.6.3 Armrests: Standard: foam padded flip-up armrests.

2.6.4 Seat Safety Switch: Incorporated into the Safety Interlock System.

Time delay seat switch eliminates rough ground cut-outs.

2.7 HYDROSTATIC GROUND DRIVE SYSTEM

2.7.1 Hydrostatic Drive: Two Hydro Gear ZT2800 Integrated drive systems.

2.7.2 Hydraulic Oil: Use Mobil 1 15W-50 Synthetic Motor Oil.

2.7.3 Speeds: All units: 0 – 7.2 mph (11.6 km/hr) forward.
0 – 4.0 mph (6.4 km/hr) reverse.

2.7.4 Drive wheel releases allow machine to be moved when the engine is not running and brake is off (left and right sides of engine).

2.8 TIRES AND WHEELS

2.8.1 Tires:

	Size	***Qty***	***Tread***	***Ply***	***Inflation***
Drive Tires 34" Unit 44" Unit	 18 x 7-8 18 x 9.5-8	2	"Turf Mate"	4	13 psi (90 kPa)
Front Caster Tires	11 x 4.00-5	2	Smooth	4	Semi pneumatic

2.9 CUTTING DECK

2.9.1 Cutting Width:

34" deck	***44" deck***
34.5 in. (87.6 cm)	44.0 in. (111.8 cm)

2.9.2 Discharge: Side (Optional Mulch and/or Bag)

2.9.3 Blade Size: (3 ea.)

34" deck	***44" deck***
17.5 in. (44.5 cm)	15.25 in. (38.7cm)

2.9.4 Blade Spindles: solid steel spindles with 1" (2.54 cm) I.D. bearings.

2.9.5 Deck Drive: Electric clutch mounted on vertical engine shaft. Blades are driven by one belt (w/self-tensioning idler) direct from the engine.

2.9.6 Deck: Full floating deck is attached to out-front support frame.

Maximum turf protection is provided anti-scalp rollers:

34" Decks: Qty 2 (optional)

***44" Decks*:** Qty 3 (standard)

Deck design allows for bagging, mulching or side discharge.

2.9.7 Cutting Height Adjustment: a foot deck lift lever is used to adjust the cutting height from 1" (2.5 cm) to 5" (12.7 cm.) in 1/4" (.64 cm.) increments.

The cutting height adjustment handle has a transport position and all adjustments can be made while the operator remains seated.

2.9.8 Mulching Kit: Optional. Kit numbers: 34" MK343, 44" MK443

2.10 DIMENSIONS

2.10.1 Overall Width:

	34" Deck	***44" Deck***
Without deck	34.5 in. (87.6 cm)	40.0 in. (101.6 cm)
Discharge chute up	35.0 in. (89.0 cm)	47.4 in. (120.4 cm)
Discharge chute down	44.0 in. (111.8 cm)	54.7 in. (139.0 cm)

2.10.2 Overall Length:

34" Deck	***44" Deck***
70.0 in. (177.8 cm)	70.0 in. (177.8 cm)

2.10.3 Overall Height:

34" Deck	***44" Deck***
39.0in. (99.1 cm)	39.0in (99.1 cm)

2.10.4 Tread Width: (center to center of tires, widthwise)

	34" deck	***44" deck***
Drive Wheels	26.5 in. (67.3 cm)	35.0 in. (88.9 cm)
Front Casters	29.0 in. (73.7 cm)	29.0 in. (73.7 cm)

2.10.5 Wheel Base: (center of caster tire to center of drive tire)

34" deck	***44" deck***
45.0 in. (114.3 cm)	45.0 in. (114.3 cm)

2.10.6 Curb Weight:

34" deck	***44" deck***
570 lbs. (258.5 kg)	605 lbs. (274.4 kg)

2.11 TORQUE REQUIREMENTS

Bolt Location	Torque
Cutter Housing Spindle Nut (secured with threadlocker)	140-145 ft-lbs. (190-197 N-m)
Blade Mounting Bolt	115-120 ft-lbs. (156-163 N-m)
Anti-Scalp Roller Nuts	40-45 ft-lbs. (54-61 N-m)
Engine Mounting Bolts	25-30 ft-lbs. (34-41 N-m)
Wheel Lug Nuts	90-95 ft-lbs. (122-129 N-m)
Clutch Retaining Bolt (secured with threadlocker)	55-60 ft-lbs. (75-81 N-m)

3. OPERATION INSTRUCTIONS

3.1 CONTROLS

3.1.1 Familiarize yourself with all controls before operating the mower.

3.1.2 Motion Control Levers: Located on each side of the console.

The left lever controls the flow of hydraulic oil from the left hydrostatic pump to the left drive wheel motor. The right lever controls the flow of hydraulic oil from the right hydrostatic pump to the right drive wheel motor.

IMPORTANT: To begin movement (forward or backward) the operator must be in the seat, the brake lever must be disengaged (pushed down) before the motion control levers can be moved in or the engine will kill.

When levers are centered in the T-slot the drive system is in the neutral position. With levers moved out in the T-slot the drive system is in the ***neutral lock*** position (See Figure 6).

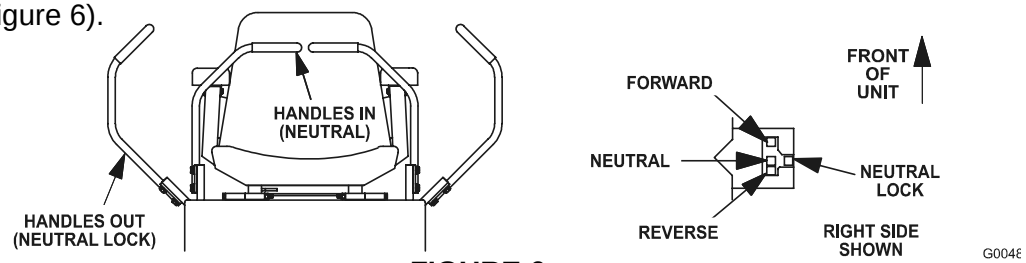


FIGURE 6

By moving both levers an ***equal*** amount forward or back from the neutral position the machine can be caused to move forward or backward in a straight line.

Movement of the ***left lever forward*** will cause the ***left drive wheel*** to rotate in a forward direction. Movement of the ***right lever forward*** will cause the ***right drive wheel*** to rotate in a forward direction. To ***stop*** forward travel, pull the levers back to the neutral position.

To ***turn left*** while moving forward, move the ***left lever*** back toward neutral to slow the left drive wheel. To ***turn right*** while moving forward, move the ***right lever*** back toward neutral to slow the right drive wheel.

To make a ***zero turn*** to the ***left***, pull the left lever back beyond neutral while holding the right lever slightly ahead of neutral.

To make a ***zero turn*** to the ***right***, pull the right lever back beyond neutral while holding the left lever slightly ahead of neutral.

Pulling the ***levers back*** from the neutral position will cause the respective drive wheels to rotate in a ***reverse*** direction (spring tension can be felt when moving into reverse from neutral).

To turn to the left while backing, move the left lever forward toward neutral. To turn to the right while backing, move the right lever forward toward neutral.

⚠ CAUTION ⚠
POTENTIAL HAZARD ♦ Machine can spin very rapidly by positioning one lever too much ahead of the other.
WHAT CAN HAPPEN ♦ Operator may lose control of the machine, which may cause damage to the machine or injury.
HOW TO AVOID THE HAZARD ♦ Use caution when making turns. ♦ Slow the machine down before making sharp turns.

3.1.3 PTO Engagement Switch: Located right of center on the console (left side of ignition switch). Switch must be ***pulled out*** to the "**ROTATE**" position to engage the blades. Switch is pushed in to the "**STOP**" position to stop the blades.

3.1.4 Choke Control: Located on center of the console.

Choke is used to aid in starting a cold engine. ***DO NOT*** run a warm engine with choke in the "ON" position.

Moving the choke lever ***forward*** will put the choke in the **"ON"** position and moving the choke lever ***to the rear*** will put the choke in the **"OFF"** position.

3.1.5 Throttle Control: Located on the console (left side of the choke).

Throttle is used to control engine speed. Moving throttle lever ***forward*** will increase engine speed and moving throttle lever ***to the rear*** will decrease engine speed.

3.1.6 Brake Lever: Located on left side of the console. The brake lever engages a parking brake stopping the drive wheels.

Pull the lever up and ***rearward*** to ***engage*** the brake.

Push the lever ***forward*** and ***down*** to ***disengage*** the brake.

The unit must be tied down and brake engaged when transporting.

3.1.7 Ignition Switch: Located right of center on the console.

The ignition switch is used to start and stop the engine. The switch has three positions "OFF", "ON" and "START". Insert the key into switch and rotate clockwise to the "ON" position.

Rotate clockwise to the next position to engage the starter (key must be held against spring pressure in this position).

Brake must be engaged, motion control levers out (neutral lock position) and PTO switch "OFF" to start engine. (It is not necessary for the operator to be in the seat to start the engine.)

3.1.8 Hour Meter: Located right of center on console (below ignition switch).

The hour meter is connected to a pressure switch installed in the engine block and it records the number of hours that the engine has run. If ignition switch is left on without engine running, hour meter will not run.

NOTE: This switch is not a low oil sensor and will not alert the operator if the engine oil is low.

3.1.9 Fuel Shut-Off Valve: Located In the fuel line midway between the fuel tank and the engine behind seat.

The fuel shut-off valve is used to shut off the fuel when the machine will not be used for a few days, during transport to and from the jobsite, and when parked inside a building.

Rotate the valve 1/4 turn clockwise to shut off fuel. Rotate the valve 1/4 turn counter-clockwise to turn on fuel.

3.1.10 Drive Wheel Release Levers: Located at the rear of the mainframe. The release levers are used to release the hydrostatic drive system to allow the machine to be pushed without the engine running. Pull each lever rearward and outward to lock. Pull each lever inward and push forward to reset. **DO NOT** tow machine.

3.2 PRE-START

3.2.1 Fill fuel tank. For best results use only clean, fresh regular grade ***unleaded*** gasoline with an octane rating of 87 or higher. Regular grade leaded gasoline may also be used; however, combustion chamber and cylinder head will require more frequent service. See Engine Owner's Manual. ***DO NOT*** add oil to gasoline.

DO NOT overfill fuel tank. Never fill the fuel tank so that the fuel level rises above a level that is 1/2" below the bottom of the filler neck to allow for fuel expansion and prevent fuel spillage.

3.2.2 Make sure you understand the controls, their locations, their functions, and their safety requirements.

3.2.3 Refer to Maintenance, Section 4, and perform all the necessary inspection and maintenance steps.

3.3 MOWING

3.3.1 Open fuel shut-off valve:

The fuel shut-off valve is located under the seat in the fuel line between the left fuel tank and the engine.

3.3.2 Starting Engine:

Brake must be engaged**, **the PTO switch disengaged**, and **the motion control levers out (neutral lock position). (The operator does not need to be in the seat to start the engine.)

On a ***cold*** engine, place the ***throttle midway*** between the "SLOW" and "FAST" positions and place the ***choke*** to the "ON" position. Turn ignition switch to the "start" position. Release the switch as soon as the engine starts.

IMPORTANT: ***DO NOT*** **crank the engine continuously for more than ten (10) seconds at a time. If the engine does not start, allow a 60 second cool-down period between starting attempts. Failure to follow these guidelines can burn out the starter motor.**

After starting a cold engine, gradually return choke to the "OFF" position as the engine warms up.

On a ***warm*** engine, place the ***throttle midway*** between the "SLOW" and "FAST" positions and leave the ***choke*** in the "OFF" position.

3.3.3 Engaging PTO:

DANGER
POTENTIAL HAZARD ♦ The rotating blades under the mower deck are dangerous.
WHAT CAN HAPPEN ♦ Blade contact can cause serious injury or kill you.
HOW TO AVOID THE HAZARD ♦ *DO NOT* put hands or feet under the mower or mower deck when the blades are engaged.

DANGER
POTENTIAL HAZARD ♦ An uncovered discharge opening will allow objects to be thrown in an operator's or bystander's direction. Also, contact with the blade could occur.
WHAT CAN HAPPEN ♦ Thrown objects or blade contact can cause serious injury or death.
HOW TO AVOID THE HAZARD ♦ Never operate the mower with the discharge deflector raised, removed, or altered unless there is a grass collection system or mulch kit in place and working properly.

The PTO clutch push-pull switch engages the cutting blades. Be sure that ***all*** persons are ***clear*** of mower deck and discharge area ***before engaging*** PTO.

IMPORTANT: Operator must be in seat before the PTO can be engaged.

Set throttle to "midway" position. Pull outward on the switch to the "ROTATE" position. Accelerate to full throttle to begin mowing.

3.3.4 Stopping PTO: Set the throttle to the "midway" position. Push in on the switch to the "STOP" position stopping the PTO.

3.3.5 Stopping Engine: Bring unit to a ***full stop***. ***Disengage*** the PTO, ***move motion control levers out*** to the ***neutral lock*** position and ***engage parking brake***.

Before stopping the engine, place the throttle control **midway** between the "slow" and "fast" positions. Allow the engine to run a minimum of 15 seconds; then stop the engine.

Rotate ignition switch to "OFF" position. Remove the key to prevent children or other unauthorized persons from starting engine.

Close fuel shut-off valve when machine will not be used for a few days, when transporting, and when the unit is parked inside a building.

3.4 TRANSPORTING

3.4.1 Transporting a Unit: Use a heavy-duty trailer or truck to transport the machine. Lock brake and block wheels. Securely fasten the machine to the trailer or truck with straps, chains, cable, or ropes. Be sure that the trailer or truck has all necessary lighting and marking as required by law.

Secure a trailer with a safety chain.

CAUTION
POTENTIAL HAZARD ♦ This unit does not have proper turn signals, lights, reflective markings, or a slow moving vehicle emblem. These items are required to drive on a public street or roadway.
WHAT CAN HAPPEN ♦ Driving on a street or roadway without such equipment is dangerous and can lead to accidents causing personal injury. ♦ Driving on a street or roadway without such equipment may also be a violation of State laws and the operator may be subject to traffic tickets and/or fines.
HOW TO AVOID THE HAZARD ♦ DO NOT drive a unit on a public street or roadway.

CAUTION

POTENTIAL HAZARD

- Loading a unit on a trailer or truck increases the possibility of backward tip-over.

WHAT CAN HAPPEN

- Backward tip-over of the unit could cause serious injury or death.

HOW TO AVOID THE HAZARD

- Use extreme caution when operating a unit on a ramp.
- Use only a single, full width ramp; DO NOT use individual ramps for each side of the unit.
- If individual ramps must be used, use enough ramps to create an unbroken ramp surface wider than the unit.
- DO NOT exceed a 15° angle between ramp and ground or between ramp and trailer or truck.
- Avoid sudden acceleration while driving unit up a ramp to avoid tipping backward.
- Avoid sudden deceleration while backing unit down a ramp to avoid tipping backward.

3.4.2 Loading a Unit: Use extreme caution when loading units on trailers or trucks. One full width ramp that is wide enough to extend beyond the rear tires is recommended instead of individual ramps for each side of the unit. The lower rear section of the tractor frame extends back between the rear wheels and serves as a stop for tipping backward. Having a full width ramp provides a surface for the frame members to contact if the unit starts to tip backward. If it is not possible to use one full width ramp, use enough individual ramps to simulate a full width continuous ramp.

Ramp should be long enough so that the angles between the ramp and the ground and the ramp and the trailer or truck do not exceed 15°. A steeper angle may cause mower deck components to get caught as the unit moves from ramp to trailer or truck. Steeper angles may also cause the unit to tip backward. If loading on or near a slope, position the trailer or truck so it is on the down side of the slope and the ramp extends up the slope. This will minimize the ramp angle. The trailer or truck should be as level as possible.

DO NOT attempt to turn the unit while on the ramp, you may lose control and drive off the side.

Avoid sudden acceleration when driving up a ramp and sudden deceleration when backing down a ramp. Both maneuvers can cause the unit to tip backward.

4. MAINTENANCE & ADJUSTMENTS

⚠ WARNING ⚠
POTENTIAL HAZARD ♦ While maintenance or adjustments are being made, someone could start the engine.
WHAT CAN HAPPEN ♦ Accidental starting of the engine could seriously injure you or other bystanders.
HOW TO AVOID THE HAZARD ♦ Remove the key from the ignition switch and engage parking brake. Pull the wire(s) off the spark plug(s) before you do any maintenance. Also push the wire(s) aside so it does not accidentally contact the spark plug(s).

⚠ WARNING ⚠
POTENTIAL HAZARD ♦ The engine can become very hot.
WHAT CAN HAPPEN ♦ Accidental starting of the engine could seriously injure you or other bystanders.
HOW TO AVOID THE HAZARD ♦ Allow the engine to cool completely before service or making repairs around the engine area.

4.1 PERIODIC MAINTENANCE

4.1.1 Check engine oil level:

Service Interval: Daily

a) Stop engine, wait for all moving parts to stop and engage parking brake. Make sure unit is on a level surface.

b) Check with engine cold.

c) Clean area around dipstick. Remove dipstick and wipe oil off. Reinsert the dipstick. Screw dipstick into place. Remove the dipstick and read the oil level.

d) If the oil level is low, wipe off the area around the oil fill cap, remove cap, and fill to the "FULL" mark on the dipstick. Use oil as specified in the Engine Owner's Manual.

DO NOT overfill.

IMPORTANT*: DO NOT* operate the engine with the oil level below the "LOW" (or "ADD") mark on the dipstick, or over the "FULL" mark.

4.1.2 Clean engine air cooling system:

Service Interval: Daily or more often in dry conditions

⚠ CAUTION ⚠
POTENTIAL HAZARD ♦ Excessive debris can cause the engine and hydraulic system to overheat.
WHAT CAN HAPPEN ♦ Excessive debris around the engine cooling air intake and inside of the pump compartment can create a fire hazard.
HOW TO AVOID THE HAZARD ♦ Clean all debris from around the engine and hydraulic pumps daily.

a) Stop engine, wait for all moving parts to stop, and remove key. Engage parking brake.

b) Clean all debris from rotating engine air intake screen and from around engine shrouding.

4.1.3 Check battery charge:

Service Interval: Monthly

Allowing batteries to stand for an extended period without recharging them will result in reduced performance and service life. To preserve optimum battery performance and life, recharge batteries in storage when the open circuit voltage drops to 12.4 volts.

Note: To prevent damage due to freezing, battery should be fully charged before putting away for winter storage.

a) Check the voltage of the battery with a digital voltmeter. Locate the voltage reading of the battery in the table below and charge the battery for the recommended time interval to bring the charge up to a full charge of 12.6 volts or greater.

IMPORTANT: Make sure the negative battery cables are disconnected and the battery charger used for charging the battery has an output of 16 volts and 7 amps or less to avoid damaging the battery (see chart below for recommended charger settings).

Voltage Reading	Percent Charge	Maximum Charger Settings	Charging Interval
12.6 or greater	100%	16 volts/7 amps	No Charging Required
12.4 – 12.6	75 – 100%	16 volts/7 amps	30 Minutes
12.2 – 12.4	50 – 75%	16 volts/7 amps	1 Hour
12.0 – 12.2	25 – 50%	14.4 volts/4 amps	2 Hours
11.7 – 12.0	0 – 25%	14.4 volts/4 amps	3 Hours
11.7 or less	0%	14.4 volts/2 amps	6 Hours or More

4.1.4 Clean grass build-up under deck:

Service Interval: Daily

a) Stop engine, wait for all moving parts to stop, and remove key. Engage parking brake.

b) Raise deck to the transport (4.5” (11.4cm) cutting height) position. Lift the front of unit and support unit using jack stands or equivalent support.

⚠ CAUTION ⚠
POTENTIAL HAZARD ♦ Raising the mower deck for service or maintenance relying solely on mechanical or hydraulic jacks could be dangerous.
WHAT CAN HAPPEN ♦ The mechanical or hydraulic jacks may not be enough support or may malfunction allowing the unit to fall, which could cause injury.
HOW TO AVOID THE HAZARD ♦ DO NOT rely solely on mechanical or hydraulic jacks for support. Use adequate jack stands or equivalent support.

c) Clean out any grass build-up from underside of deck and in discharge chute.

4.1.5 Check mower blades:

Service Interval: Daily

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

a) Stop engine, wait for all moving parts to stop, and remove key. Engage parking brake.

b) Lift deck and secure in raised position as stated in Section 4.1.4.

c) Inspect blades and sharpen or replace as required.

d) Re-install the blades (if they were removed) in the following order (See Fig. 7):

1) Install bushing through blade with bushing flange on bottom (grass) side of blade.

2) Install bushing/blade combo into spindle.

3) Install blade bolt and spring disc washer. Be sure the spring disc washer cone is installed towards the bolt head. Place a block of wood between front or rear baffles and the blade then torque the blade bolts to 115-120 ft-lbs. (156-163 N-m).

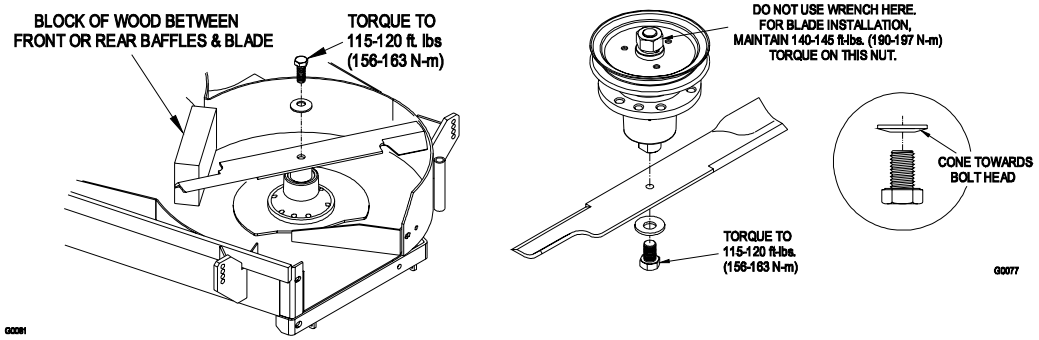


FIGURE 7

IMPORTANT: DO NOT use components other than the original blade, blade bushing, spring disc washer, and blade bolt supplied with the unit. Failure to use all original components and assembled as shown will increase the risk of a blade bolt becoming loose or weak after striking a foreign object.

⚠ CAUTION ⚠
POTENTIAL HAZARD ♦ Operating a mower deck with loose or weakened blade bolts can be dangerous.
WHAT CAN HAPPEN ♦ A loose or weakened blade bolt could allow a blade rotating at a high speed to come out from under the deck, causing serious injury or property damage.
HOW TO AVOID THE HAZARD ♦ Always re-install original Exmark blades, blade bushings, spring disc washers, and blade bolts in the correct positions as shown.

4.1.6 Check safety interlock system:

Service Interval: Daily

a) Check starting circuit. Starter ***should*** crank with parking brake ***engaged***, PTO ***disengaged*** and motion control levers moved out in the ***neutral lock*** position. The operator does not need to be in the seat to start the engine.

Try to start with ***operator in seat***, parking brake ***disengaged,*** PTO ***disengaged*** and motion control levers in the ***neutral lock*** position - starter ***must not crank***.

Try to start with ***operator in seat***, parking brake ***engaged,*** PTO ***engaged*** and motion control levers in the ***neutral lock*** position - starter ***must not crank***.

Try to start with ***operator in seat***, parking brake ***engaged,*** PTO ***disengaged, and the left motion control lever in,*** starter ***must not crank,*** repeat again with the ***right lever in***, then with ***both levers in*** - starter ***must not crank.***

b) Check kill circuits. Run engine at one-third throttle, ***disengage*** parking brake and ***raise off*** of seat (but do not get off of machine) engine ***must stop*** after approx. 1/2 second has elapsed (seat has time delay kill switch to prevent cut-outs on rough terrain).

Run engine at one-third throttle, ***engage PTO*** and ***raise off*** of seat (but do not get off of machine) engine ***must stop*** after 1/2 second has elapsed.

Run engine at one-third throttle, with brake disengaged, move levers in and raise off seat (but do not get off of machine) engine ***must stop*** after 1/2 second has elapsed.

Again, run engine at one-third throttle, brake ***engaged,*** and move ***left motion control lever in*** - engine ***must stop.***

Repeat again moving the ***right lever in***, then moving ***both levers in*** - engine ***must stop*** whether operator is ***on seat or not***.

NOTE: If machine *does not* pass any of these tests, do not operate. Contact your authorized EXMARK SERVICE DEALER.

IMPORTANT: It is essential that operator safety mechanisms be connected and in proper operating condition prior to use for mowing.

4.1.7 Check for loose hardware:

Service Interval: Daily

a) Stop engine, wait for all moving parts to stop, and remove key. Engage parking brake.

b) Visually inspect machine for any loose hardware or any other possible problem. Tighten hardware or correct the problem before operating.

4.1.8 Service air cleaner:

Service Interval: See Engine Owner's Manual

a) Stop engine, wait for all moving parts to stop, and remove key. Engage parking brake.

b) See Engine Owner's Manual for cleaning instructions.

4.1.9 Change engine oil:

Service Interval: See Engine Owner's Manual.

NOTE: Change oil and filter after first five (5) hrs. of operation. Follow engine manufacturer's recommendations for future oil changes.

a) Stop engine, wait for all moving parts to stop, and remove key. Engage parking brake.

b) Drain oil while engine is warm from operation.

c) Oil drain hose is located on left hand side of the engine.

Place pan under machine to catch oil. Fit hose in literature pack over oil drain valve. Rotate valve 1/4 turn counterclockwise and gently pull outward to open valve. Allow oil to drain, then close valve by pushing inward and rotating 1/4 turn clockwise. Remove and retain the hose for future use.

d) Replace the oil filter as per the Engine Owner's Manual. Clean around oil filter and unscrew filter to remove.

Before reinstalling new filter, apply a thin coating of oil on the surface of the rubber seal. Turn filter clockwise until rubber seal contacts the filter adapter then tighten filter an additional 2/3 to 3/4 turn.

e) Clean around oil fill cap and remove cap. Fill to specified capacity and replace cap. Use oil recommended in engine owner's manual. ***DO NOT*** overfill.

f) Start the engine and check for leaks. Stop engine and recheck oil level.

4.1.10 Check hydraulic oil level:

Service Interval: 40 hr.

a) Stop engine, wait for all moving parts to stop, and allow engine to cool.

b) Clean area around hydraulic expansion reservoir.

c) Oil level should be at the FULL COLD line on expansion reservoir. If needed add MOBIL 1 15W-50 Synthetic motor oil.

4.1.11 Check tire pressures:

Service Interval: 40 hrs.

a) Stop engine, wait for all moving parts to stop, and remove key. Engage parking brake.

b) Inflate drive tires to 13 psi (90 kPa).

NOTE: DO NOT add any type of tire liner or foam fill material to the tires. Excessive loads created by foam filled tires may cause failures to the hydro drive system, frame and other components. Foam filling tires will void the warranty.

4.1.12 Check condition of belts:

Service Interval: 40 hrs.

a) Stop engine, wait for all moving parts to stop, and remove key. Engage parking brake.

b) Check under engine to check hydro drive belt.

c) Remove left and right belt shields on deck and lift up floor pan to inspect deck drive belt.

d) See Sections 4.2.3 and 4.2.4, for belt adjustment.

4.1.13 Lubricate grease fittings:

Service Interval: Refer to chart.

a) Stop engine, wait for all moving parts to stop, and remove key. Engage parking brake.

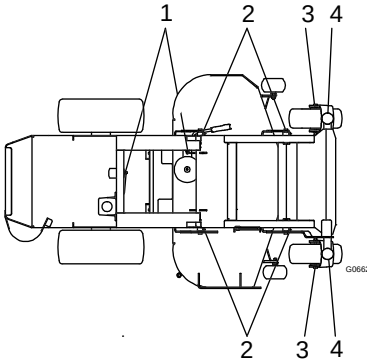
b) Lubricate fittings with one to two pumps of NGLI grade #2 multi-purpose gun grease.

Refer to the following chart for fitting locations and lubrication schedule.

LUBRICATION CHART

FITTING LOCATIONS	INITIAL PUMPS	NO. of PLACES	SERVICE INTERVAL
1. Belt Idlers	0	2	25 hours
2. Deck Pivots	0	4	40 hours
3. Front Caster Wheel Bearings	*1	2	yearly
4. Front Caster Pivots	*1	2	yearly

* See 4.1.13 Section c) for special lubrication instructions on the front caster pivots and Section 4.1.14 for special lubrication instructions on the front caster wheel hubs.



c) Lubricate front caster pivots once a year. Remove hex plug and cap. Thread grease zerk in hole and pump with grease until it oozes out around top bearing. Remove grease zerk and thread plug back in. Place cap back on.

4.1.14 Lubricate caster wheel hubs:

Service Interval: Once Yearly

a) Stop engine, wait for all moving parts to stop, and remove key. Engage parking brake.

b) Remove caster bolt and caster wheel from caster fork. Remove seal guards from the wheel hub.

c) Remove one of the spacer nuts from the axle assembly in the caster wheel. Note that thread locking adhesive has been applied to lock the spacer nuts to the axle. Remove the axle (with the other spacer nut still assembled to it) from the wheel assembly.

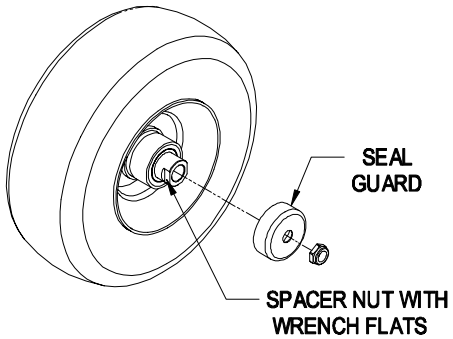


FIGURE 8

d) Pry out seals, and inspect bearings for wear or damage and replace if necessary.

e) Pack the bearings with a NGLI grade #1 multi-purpose grease.

f) Insert (1) bearing, (1) new seal into the wheel.

NOTE: Seals (Exmark PN 103-0063) must be replaced.

g) If the axle assembly has had both spacer nuts removed (or broken loose), apply a thread locking adhesive to (1) spacer nut and thread onto the axle with the wrench flats facing outward. Do not thread spacer nut all of the way onto the end of the axle. Leave approximately 1/8" (3 mm) from the outer surface of the spacer nut to the end of the axle inside the nut.

h) Insert the assembled nut and axle into the wheel on the side of the wheel with the new seal and bearing.

i) With the open end of the wheel facing up, fill the area inside the wheel around the axle full of NGLI grade #1 multi-purpose grease.

j) Insert the second bearing and new seal into the wheel.

k) Apply a thread locking adhesive to the 2nd spacer nut and thread onto the axle with the wrench flats facing outward.

l) Torque the nut to 75-80 in-lbs. (8-9 N-m), loosen, then re-torque to 20-25 in-lbs. (2-3 N-m). Make sure axle does not extend beyond either nut.

m) Re-install the seal guards over the wheel hub and insert wheel into caster fork. Re-install caster bolt and tighten nut fully.

IMPORTANT: To prevent seal and bearing damage, check the bearing adjustment often. Spin the caster tire. The tire should not spin freely (more than 1 or 2 revolutions) or have any side play. If the wheel spins freely adjust torque on spacer nut until there is a slight amount of drag.

4.1.15 Lubricate brake handle pivot:

Service Interval: 160 hrs.

a) Stop engine, wait for all moving parts to stop, and remove key. Engage parking brake.

b) Locate grease zerk under brake arm on left side of machine, pump until grease oozes out of pivot.

4.1.16 Remove engine shrouds and clean cooling fins:

Service Interval: 80 hrs.

a) Stop engine, wait for all moving parts to stop, and remove key. Engage parking brake.

b) Remove cooling shrouds from engine and clean cooling fins. Also clean dust, dirt and oil from external surfaces of engine, which can cause improper cooling.

c) Make sure cooling shrouds are properly reinstalled. Operating the engine without cooling shrouds will cause engine damage due to overheating.

4.1.17 Check spark plug:

Service Interval: 160 hrs.

a) Remove spark plug, check condition and reset gap, or replace with new plug. See Engine Owners Manual.

4.1.18 Change fuel filter:

Service Interval: As Required

a) A fuel filter is installed between the fuel tanks and the engine. Replace when necessary.

For Kawasaki engines use **Kawasaki** P/N 49019-7001

4.1.19 Change hydraulic system filter:

Service Interval: After First 250 hrs.
Then yearly thereafter

NOTE: Use only MOBIL 1 15W-50 Synthetic motor oil.

a) Stop engine, wait for all moving parts to stop, and allow engine to cool. Remove key and engage parking brake.

b) Locate the two (2) filters under the transmissions. Remove filter guards.

c) Carefully clean area around filters. It is ***important*** that ***no dirt*** or ***contamination*** enter hydraulic system.

d) Unscrew filters to remove and allow oil to drain from drive system.

IMPORTANT: Before reinstalling new filters, apply a thin coat of oil on the surface of the filters rubber seal.

Turn the filters clockwise until rubber seal contacts the filter adapter then tighten the filter an additional 3/4 to 1 full turn.

e) Remove the vent plug on each transmission and fill through expansion reservoir, when oil comes out of vent reinstall plug. Torque plugs to 180 in-lbs (244 N-m). Continue to add oil until it reaches the FULL COLD line on the expansion reservoir.

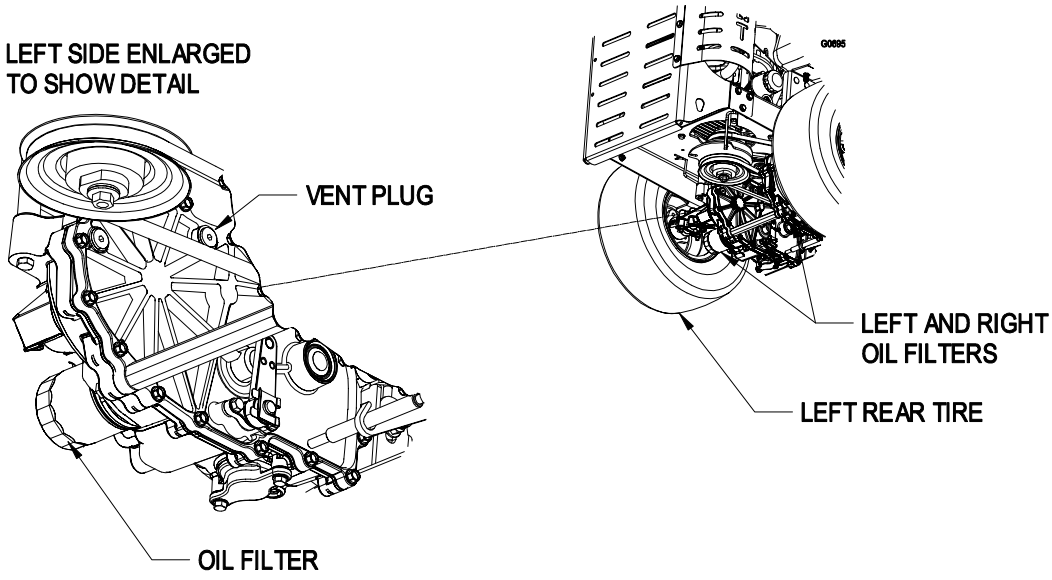


FIGURE 9

f) Raise the rear of machine up and support with jack stands (or equivalent support) just high enough to allow drive wheels to turn freely.

g) Start engine and move throttle control ahead to 1/2 throttle position. Disengage parking brake.

1. With the bypass valve open and the engine running, slowly move the directional control in both forward and reverse (5 or 6 times).
2. With the bypass valve closed and the engine running, slowly move the directional control in both forward and reverse directions (5 to 6 times). Check the oil level, and add oil as required after stopping the engine.
3. It may be necessary to repeat Steps 2 and 3 until all the air is completely purged from the system. When the transaxle operates at normal noise levels and moves smoothly forward and reverse at normal speeds, then the transaxle is considered purged.

DO NOT change hydraulic system oil (except for what can be drained when changing filter), unless it is felt the oil has been contaminated or been extremely hot.

Changing oil unnecessarily could ***damage*** hydraulic system by introducing contaminates into the system.

4.1.20 Fuel Tank – mounting hardware specification.

When installing the nuts onto the fuel tank studs, fully tighten the nyloc nut and back off 1/2 turn. This allows for normal fuel tank expansion and contraction with changes in temperature and fuel levels.

4.1.21 Thread locking adhesives such as “Loctite 242” or “Fel-Pro, Pro-Lock Nut Type” are used on the following fasteners:

a) Pump drive sheave setscrews.

b) Square head setscrews on hydro pump control arms.

c) Clutch retaining bolt in the end of engine crankshaft.

d) Caster wheel spacer nuts.

e) Fuel tank bulk head fitting nuts.

f) Cutter housing spindle nut

Adhesives such as “Loctite RC/609 or RC/680” or “Fel-Pro Pro-Lock Retaining I or Retaining II” are used on the following:

a) Fuel tank studs where studs are inserted into tank.

4.1.22 Mobil HTS grease (or food-grade antisieze) is used in the following locations:

a) Between the cutter housing spindle and bearings.

b) Between the cutter housing spindle and sheave.

c) Under top cutter housing bearing guard.

4.1.23 Dielectric grease is used on all blade type electrical connections to prevent corrosion and loss of contact.

4.2 ADJUSTMENTS

IMPORTANT: Disengage PTO, shut off engine, wait for all moving parts to stop, remove key, and engage parking brake before servicing, cleaning or making adjustments to the unit.

4.2.1 Cutting Height Adjustment.

a) Stop machine and move drive levers out to neutral lock position.

b) Disengage PTO.

c) Raise the deck lever to the transport position (also the 5” (12.7 cm) cutting height position). See Figure 10.

NOTE: When changing cutting height positions, always come to a complete stop and disengage the PTO.

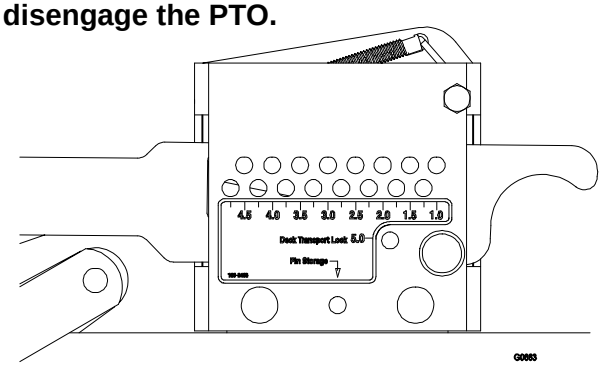


FIGURE 10

d) Insert height adjustment pin into hole corresponding to desired cutting height and install hairpin cotter. See decal on deck lift plate.

e) Move lever out of transport (or 5" (12.7 cm) cutting height) position and down onto height adjustment pin to mow at selected height.

f) To transport, move lever back up to transport (or 5" (12.7 cm) cutting height) position.

g) Adjust anti-scalp rollers for Normal Operating Conditions. Stop engine, wait for all moving parts to stop, and remove key. Engage parking brake. Place rollers in one of the positions shown in Figure 11. Rollers will maintain 3/4 in. (19 mm) clearance to the ground to minimize gouging and roller wear or damage.

For Maximum Deck Flotation, place rollers one hole position lower. Rollers should maintain 1/4 in. (6.4 mm) minimum clearance to ground. ***DO NOT*** adjust rollers to support the deck. Be sure *bolt is tightened properly* or loss of anti-scalp roller may result. Torque the whizlock nuts on each end to 40-45 ft-lbs (54-61 N-m).

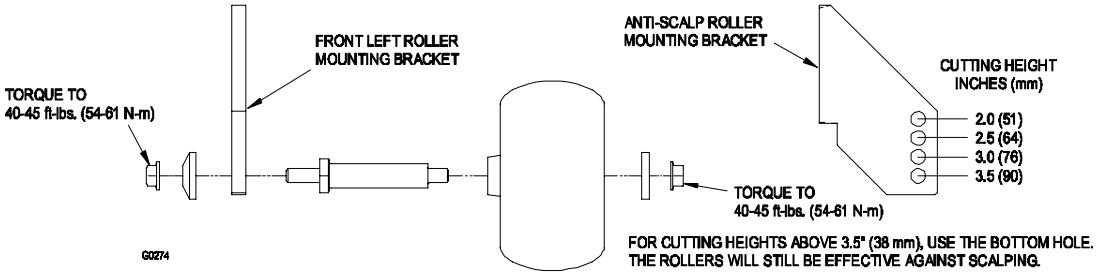


FIGURE 11

4.2.2 Deck Leveling:

a) Position mower on a flat surface.

b) Stop engine, wait for all moving parts to stop, and remove key. Engage parking brake.

c) Check tire pressure in drive tires. Proper inflation pressure for drive tires is 13 psi (90 kPa). Proper inflation for caster tires is 16 psi (110 kPa). Adjust if necessary.

d) Set anti-scalp rollers to top holes or remove completely for this adjustment.

e) Lower the deck to the 1-1/2" (3.8 cm) height position. Place two 1-1/8" (2.9 cm) thick blocks under the rear edge of the cutting deck skirt; one on each side of the cutting deck. Place a 1" (2.5 cm) block under the center front edge, but not under the anti-scalp roller brackets.

f) Loosen the four (4) bottom chain bolts in slots until the deck is supported by the blocks. Take the slack out of the chains and retighten the hardware.

g) Recheck that blocks fit just snugly under the deck skirt and that the tension on all the chains is approximately equal. Make sure all chain attachment bolts are tight.

h) Reposition anti-scalp rollers and tighten securely.

NOTE: When above adjustments have been made, the front of the deck will be slightly lower than the rear of the deck.

4.2.3 Pump Drive Belt Tension.

Self-tensioning - No adjustment necessary.

4.2.4 Adjust Throttle Lever Tension.

a) Stop engine, wait for all moving parts to stop, and remove key. Engage parking brake.

b) Tension in throttle lever can be adjusted by adjusting the tightness of the lever pivot bolt, which is located under the console. See Figure 12.

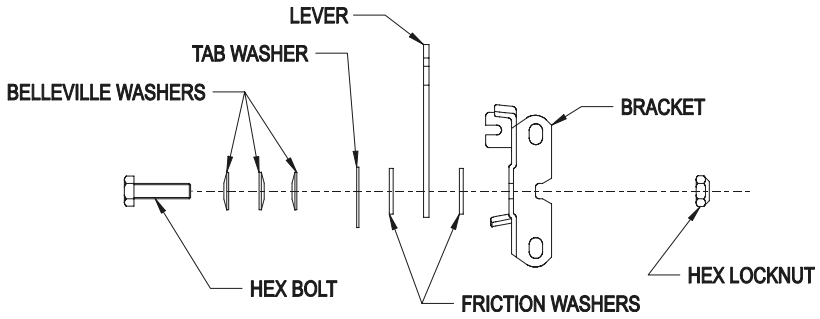


FIGURE 12

4.2.5 Electric Clutch Adjustment:

No adjustment necessary.

4.2.6 Motion Control Lever Adjustment:

NOTE: There are two lever height options available. Place the levers in the top two holes to increase height of the levers, or in the bottom two holes to decrease the height of the levers.

a) Align the levers front/rear position. With the levers in the neutral position, loosen the hardware and adjust the levers sliding and/or tilting the lever(s) forward or backward until properly aligned and tighten hardware (See Figure 13).

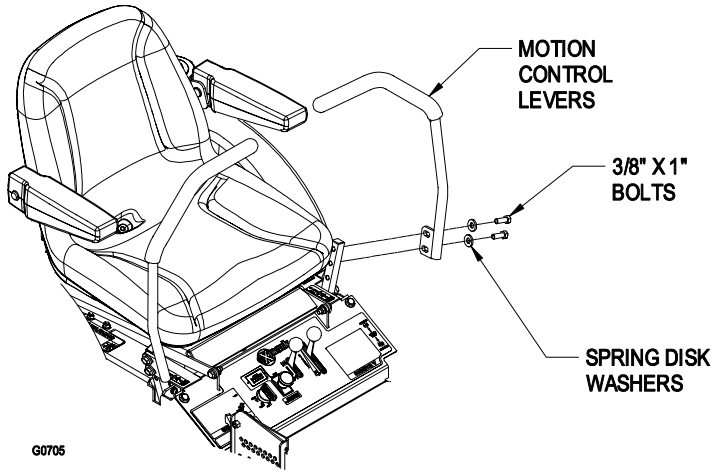


FIGURE 13

b) If the ends of the levers hit against each other, while in the drive position (levers rotated in as far as possible), make adjustments by moving the levers outwards to the neutral lock position and carefully bending them outward. Move them back to the drive position and check for clearance. Repeat if necessary.

c) If the machine turns right or left when handles are pushed forward together, adjust the stop on the side opposite the direction of turn (see Figure 14). Move the stop back until the unit drives straight. Readjust handles if necessary.

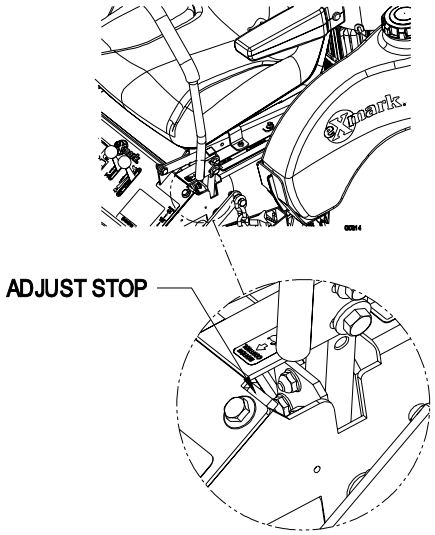


FIGURE 14

4.2.7 Deck Drive Belt Tension:

a) Stop engine, wait for all moving parts to stop, and remove key. Engage parking brake.

b) The spring extension should measure 6.12-6.25” (15.5-15.9 cm) in length as shown in Figure 15. Loosen the bolt and slide the bracket to adjust the length and retighten the hardware. If the specified length cannot be achieved by adjusting the bracket, replace the belt. This should be checked in the 3” position.

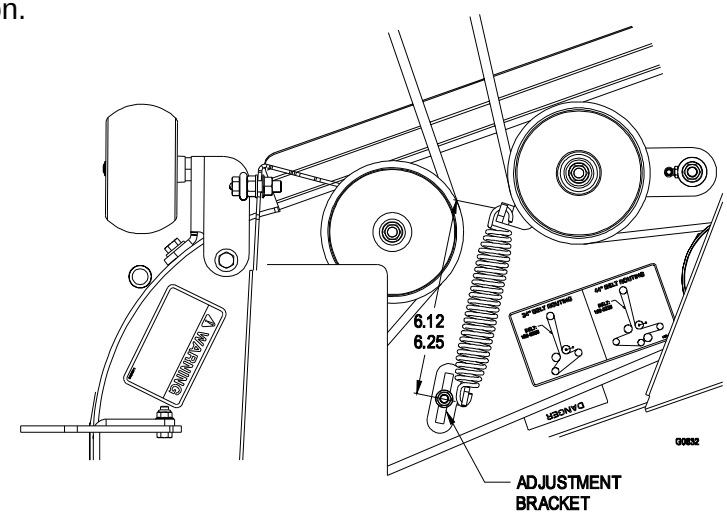


FIGURE 15

c) Belt tension and spring adjustment should be checked during the break-in period and readjusted if necessary. Break-in should stabilize after the first 30 hours of operation.

5. WASTE DISPOSAL

5.1 MOTOR OIL DISPOSAL

Engine oil and hydraulic oil are both pollutants to the environment. Dispose of used oil at a certified recycling center or according to your state and local regulations.

5.2 BATTERY DISPOSAL

DANGER

POTENTIAL HAZARD

- Battery electrolyte contains sulfuric acid, which is poisonous and can cause severe burns

WHAT CAN HAPPEN

- Swallowing electrolyte can be fatal or if it touches skin can cause severe burns.

HOW TO AVOID THE HAZARD

- Wear safety glasses to shield eyes, and rubber gloves to protect skin and clothing when handling electrolyte.
- DO NOT swallow electrolyte.

Federal law states that batteries should not be placed in the garbage. Management and disposal practices must be within relevant federal, state or local laws.

If a battery is being replaced or if the unit containing the battery is no longer operating and is being scrapped, take the battery to a local certified recycling center. If no local recycling is available, return the battery to any certified battery reseller.

6. TROUBLE SHOOTING

6.1 MOWER PULLS LEFT OR RIGHT (WITH LEVERS FULLY FORWARD).

a) Check air pressure in tires; 13 psi/drive.

b) Check motion control linkage adjustment. See Section 4.2.6.

6.2 MOWER CUTS UNEVENLY.

a) Check air pressure in tires; 13 psi/drive. A more uniform cutting height may be obtained with higher tire pressure on rough terrain. A lower tire pressure provides more flotation. Higher pressures in front casters may cause them to shimmy on hard surfaces.

b) Check deck support chains.

c) Check deck leveling (See Adjustments Section 4.2.2.)

Note: The front of the mower deck will be approximately 1/4” (6.4 mm) lower than the back of the mower deck. This is the “rake” of the deck.

d) Check blades tip to tip for straightness (they should be within 3/16" (4.8 mm) or one blade width from being in line.)

6.3 ENGINE WILL NOT START.

a) Make sure battery is at a full charge.

b) Be sure the throttle control is midway between the “SLOW” and “FAST” positions, and the choke is in the “ON” position for a cold engine or the “OFF” position for a warm engine.

c) Make sure there is fuel in the fuel tank and that the fuel valve is open.

d) Be sure the seat switch is working properly.

e) Make sure the parking brake is set and motion control levers are moved out (neutral lock position).

f) Check that the PTO is disengaged.

g) Check that the spark plug wires are properly connected.

h) Check for loose or faulty wiring connections.

i) Check for corrosion at all wiring connections. Even minor corrosion may cause a faulty connection. Clean connector terminals thoroughly with electrical contact cleaner, apply dielectric grease and reconnect.

NOTE: When disconnecting electrical connectors *DO NOT* pull on the wires to separate the connectors.

NOTE*:* After carefully checking the above steps, attempt to start the engine. If it does not start, contact your authorized Exmark service dealer.

IMPORTANT: It is essential that all operator safety mechanisms be connected and in proper operating condition prior to mower use.

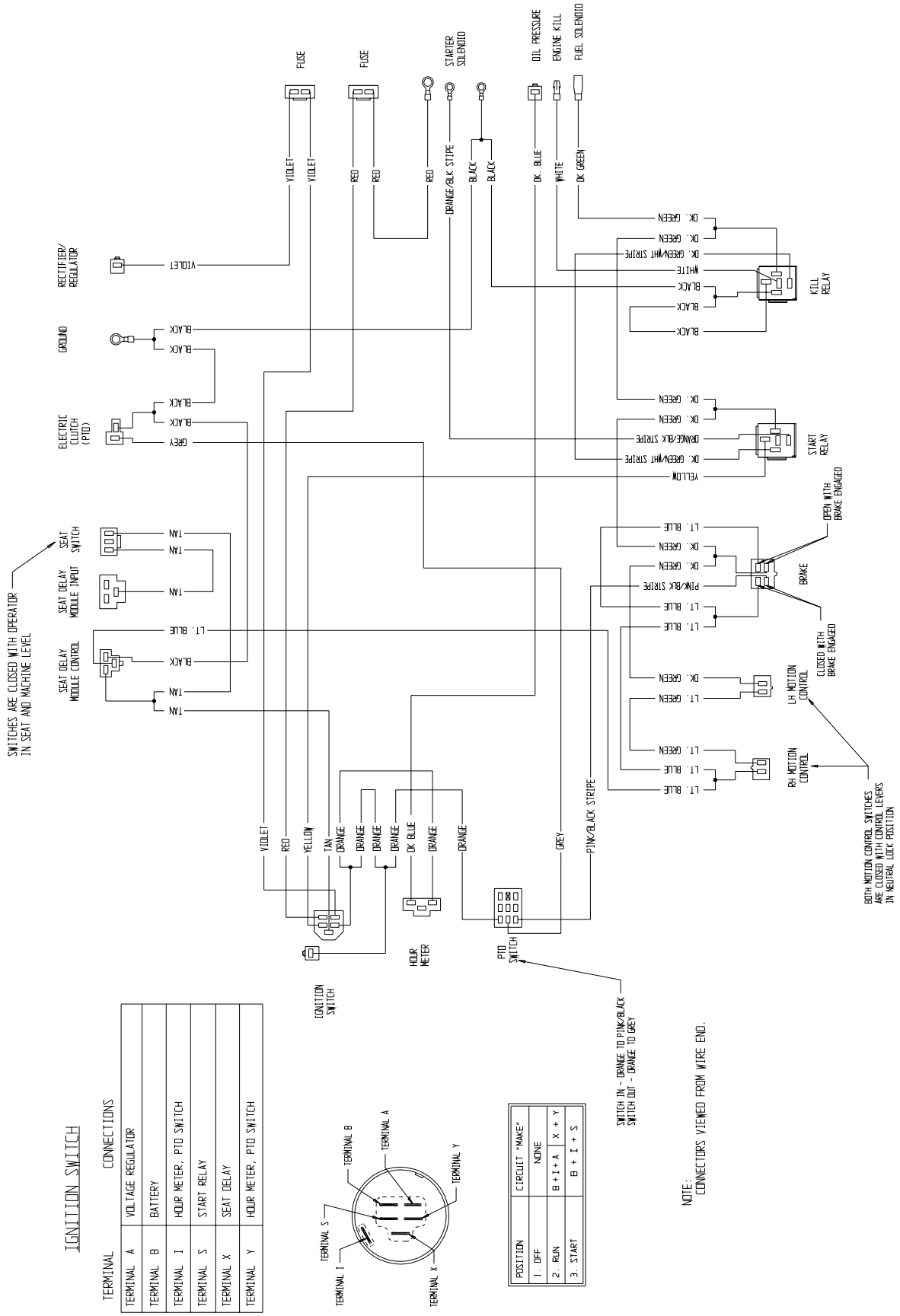
When a problem occurs, do not overlook the simple causes. For example, starting problems could be caused by an empty fuel tank.

The following table lists some of the common causes of trouble. DO NOT attempt to service or replace major items or any items that call for special timing of adjustments procedures (such as valves, governor, etc.). Have this work done by your **Engine Service Dealer.**

ENGINE TROUBLESHOOTING TABLE

PROBLEM	NO FUEL	IMPROPER FUEL	DIRT IN FUEL LINE	DIRTY AIR FILTER	FAULTY SPARK PLUG	ENGINE OVERLOADED	BLOCKED FUEL FILTER	INCORRECT OIL LEVEL	DIRTY AIR SCREEN
Will not start	X		X	X	X	X	X		
Hard starting	X	X	X	X	X	X	X		
Stops suddenly	X		X	X		X	X	X	X
Lacks power		X	X	X	X	X	X	X	X
Operates erratically		X	X	X	X	X	X		X
Knocks or pings		X				X			X
Skips or misfires		X	X	X	X				X
Backfires			X	X	X	X			X
Overheats			X	X		X		X	X
High fuel consumption				X	X	X			X

7. KAWASAKI ELECTRICAL DIAGRAM



8.

2-Year Limited Warranty
Exmark Turf Equipment

(For units purchased on or after October 1, 2004)

Conditions and Products Covered

Exmark Mfg. Co. Inc. and its affiliate, Exmark Warranty Company, pursuant to an agreement between them, jointly warrant on the terms and conditions herein, that we will repair, replace or adjust any part manufactured by Exmark and found by us (in the exercise of our reasonable discretion) to be defective in factory materials or workmanship for a period of two years.

This warranty applies to Exmark turf equipment purchased on or after October 1, 2004 sold in the US or Canada. This warranty may only be assigned or transferred to a second (or third) owner by an authorized Exmark dealer. The warranty period commences upon the date of the original retail purchase.

Products	Warranty Period
• All Products (except as noted below)	2 years
• All Attachments and Accessories	1 year
• Metro 21 and Metro 26 Series	1 year
• Belts and Tires	90 days
• Battery	1 Year Prorated
• Engine*	Warranty is covered by engine manufacturer

*Please refer to the engine manufacturer's warranty statement that is included in the literature packet. We are not authorized to handle warranty adjustments on engines.

This warranty only includes the cost of parts and labor.

Items and Conditions Not Covered

This warranty does not cover the following:

- Pickup and delivery charges to and from any authorized Exmark Service Dealer.
- Any damage or deterioration due to normal use, wear and tear, or exposure.
- Cost of regular maintenance service or parts, such as filters, fuel, lubricants, tune-up parts, and adjustments.
- Any product or part which has been altered or misused or required replacement or repair due to normal wear, accidents, or lack of proper maintenance.
- Any repairs necessary due to use of parts, accessories or supplies, including gasoline, oil or lubricants, incompatible with the turf equipment or other than as recommended in the operator's manual or other operational instructions provided by Exmark.

All warranty work must be performed by an authorized Exmark Service Dealer using Exmark approved replacement parts.

Instructions for Obtaining Warranty Service

1. Contact any Exmark Service Dealer to arrange service at their dealership. To locate a dealer convenient to you, access our website at www.exmark.com. U.S. Customers may also call 402-223-6375.
2. Bring the product and your proof of purchase (sales receipt) to the Exmark Service Dealer.

If for any reason you are dissatisfied with the Service Dealer's analysis or with the assistance provided, contact us at:

Exmark Customer Service Department
The Exmark Warranty Company
2101 Ashland Avenue
Beatrice, NE 68310
402-223-6375 or
service@exmark.com

Owner's Responsibilities

The Exmark turf equipment, including any defective part, must be returned to an authorized Exmark service dealer within the warranty period. This warranty extends only to turf equipment operated under normal conditions. You must properly service and maintain your Exmark product as described in the operator's manual. Such routine maintenance, whether performed by a dealer or by you, is at your expense.

As a condition to this warranty, customer shall have read the operator's manual and shall have completed and submitted to Exmark Warranty Company, within the prescribed time, the Exmark warranty registration.

General Conditions

The sole liability of Exmark and Exmark Warranty Company with respect to this warranty shall be repair and replacement as set forth herein. **Neither Exmark nor Exmark Warranty Company shall have any liability for any other cost, loss or damage, including but not limited to, any incidental or consequential loss or damage.**

In particular, we shall have no liability or responsibility for:

- Expenses related to gasoline, oil or lubricants.
- Travel time, overtime, after hours time or other extraordinary repair charges or charge relating to repairs or replacements outside of normal business hours at the place of business of the authorized Exmark service dealer.
- Rental of like or similar replacement equipment during the period of any warranty, repair or replacement work.
- Any telephone or telegram charges or travel charges.
- Loss or damage to person or property other than that covered by the terms of this warranty.
- Any claims for lost revenue, lost profit or additional cost as a result of a claim of breach of warranty.
- Attorney's fees.

No Claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any Exmark mower.

There are no understandings, agreements, representations, or warranties, express or implied, including but not limited to any regarding the merchantability (that product is fit for ordinary use) or fitness for use (that product is fit for a particular purpose), not specified herein, respecting the equipment which is the subject of this warranty.

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

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

9. Evaporative Emission Control Warranty Statement

California Evaporative Emission Control Warranty Statement
Your Warranty Rights and Obligations

Introduction

The California Air Resources Board and Exmark Manufacturing Company are pleased to explain the evaporative emission control system's warranty on your 2006 model year equipment. In California, new equipment that uses small off-road engines must be designed, built, and equipped to meet the State's stringent anti-smog standards. Exmark Manufacturing Company must warrant the evaporative emission control system on your equipment for two years provided there has been no abuse, neglect or improper maintenance of your equipment.
Your evaporative emission control system may include parts such as: fuel lines, fuel line fittings, and clamps.

Manufacturer's Warranty Coverage:

This evaporative emission control system is warranted for two years. If any evaporative emission-related part on your equipment is defective, the part will be repaired or replaced by Exmark Manufacturing Company.

Owner's Warranty Responsibilities:

- As the equipment owner, you are responsible for performance of the required maintenance listed in your Operator's Manual. Exmark Manufacturing Company recommends that you retain all receipts covering maintenance on your equipment, but Exmark Manufacturing Company cannot deny warranty solely for the lack of receipts.
- As the equipment owner, you should however be aware that Exmark Manufacturing Company may deny you warranty coverage if your emission warranty parts have failed due to abuse, neglect, or improper maintenance or unapproved modifications.
- You are responsible for presenting your equipment to an Authorized Service Dealer as soon as the problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days. If you have a question regarding your warranty coverage, you should contact Exmark Manufacturing Company at 1-402-223-6375.

Defects Warranty Requirements:

1. The warranty period begins on the date the engine or equipment is delivered to an ultimate purchaser.
2. General Evaporative Emissions Warranty Coverage. The emission warranty parts must be warranted to the ultimate purchaser and any subsequent owner that the evaporative emission control system when installed was:
   A. Designed, built, and equipped so as to conform with all applicable regulations; and
   B. Free from defects in materials and workmanship that causes the failure of a warranted part for a period of two years.
3. The warranty on evaporative emissions-related parts will be interpreted as follows:
   A. Any warranted part that is not scheduled for replacement as required maintenance in the written instructions must be warranted for the warranty period of two years. If any such part fails during the period of warranty coverage, it must be repaired or replaced by Exmark Manufacturing Company. Any such part repaired or replaced under the warranty must be warranted for a time not less than the remaining warranty period.
   B. Any warranted part that is scheduled only for regular inspection in the written instructions must be warranted for the warranty period of two years. A statement in such written instructions to the effect of "repair or replace as necessary" will not reduce the period of warranty coverage. Any such part repaired or replaced under warranty must be warranted for a time not less than the remaining warranty period.
   C. Any warranted part that is scheduled for replacement as required maintenance in the written instructions must be warranted for the period of time prior to the first scheduled replacement point for that part. If the part fails prior to the first scheduled replacement, the part must be repaired or replaced by Exmark Manufacturing Company. Any such part repaired or replaced under warranty must be warranted for a time not less than the remainder of the period prior to the first scheduled replacement point for the part.
   D. Repair or replacement of any warranted part under the warranty provisions of this article must be performed at no charge to the owner at an Authorized Service Dealer.
   E. Notwithstanding the provisions of subsection (D) above, warranty services or repairs must be provided at an Authorized Service Dealer.
   F. The owner must not be charged for diagnostic labor that leads to the determination that a warranted part is in fact defective, provided that such diagnostic work is performed at an Authorized Service Dealer.
   G. Throughout the evaporative emission control system's two year warranty period, Exmark Manufacturing Company must maintain a supply of warranted parts sufficient to meet the expected demand for such parts.
   H. Manufacturer approved replacement parts must be used in the performance of any warranty maintenance or repairs and must be provided without charge to the owner. Such use will not reduce the warranty obligations of Exmark Manufacturing Company.
   I. The use of any add-on or modified parts will be grounds for disallowing a warranty claim made in accordance with this article. Exmark Manufacturing Company will not be liable under this Article to warrant failures of warranted parts caused by the use of an add-on or modified part.
   J. Exmark Manufacturing Company shall provide any documents that describe the warranty procedures or policies within five working days of request by the Air Resources Board.

Emission Warranty Parts List:

The following list includes the parts covered under this warranty:

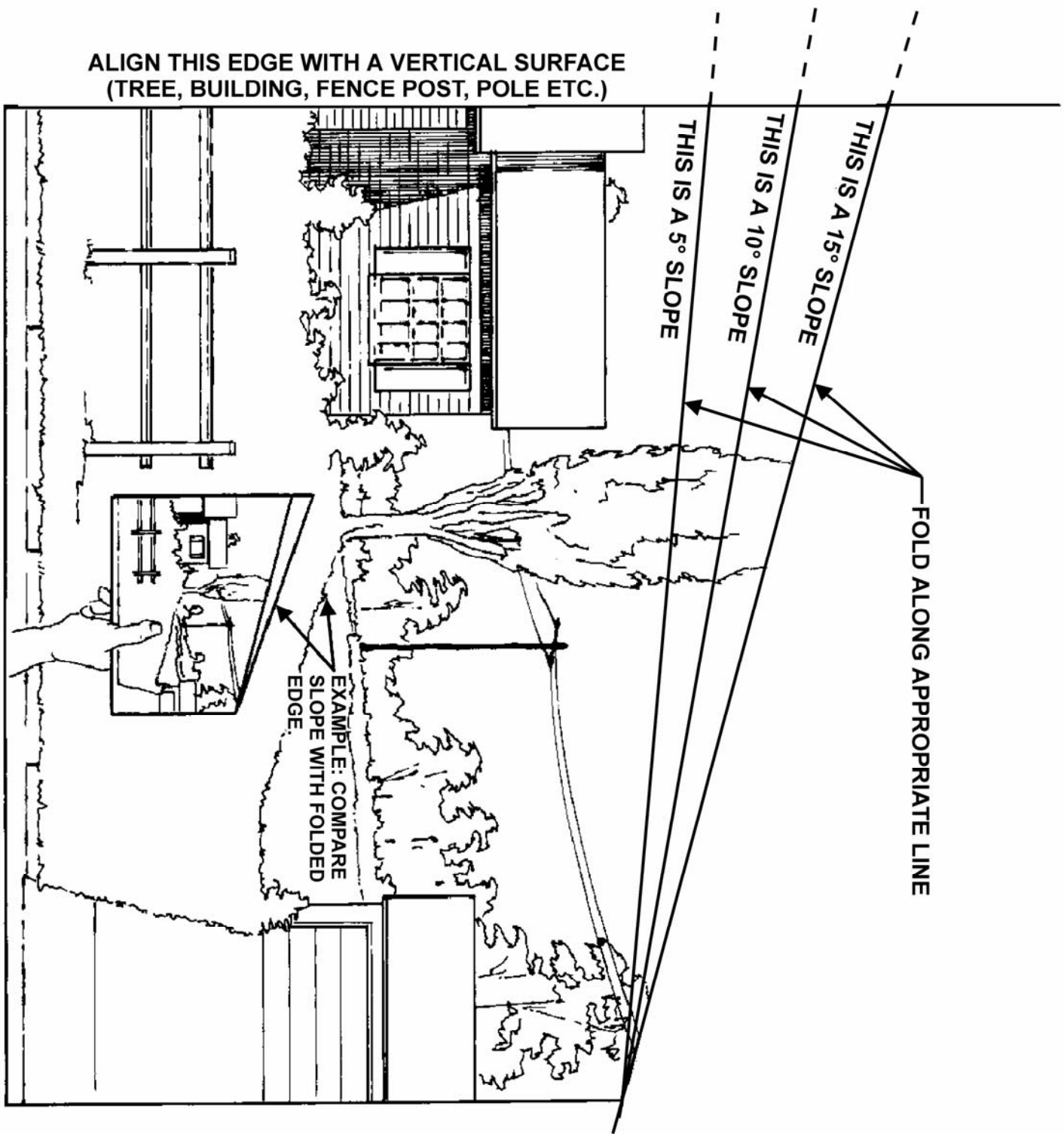
- Fuel Lines
- Fuel Line Fittings
- Clamps

NOTES

NOTES

SERVICE RECORD

Date	Description of Work Done	Service Done By



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TRASH CONTAINER
TURF STRIPER
ULTRA VAC COLLECTION SYSTEM
ULTRA VAC QUICK DISPOSAL SYSTEM

WALK BEHIND ACCESSORIES

GRASS CATCHER
MICRO-MULCH SYSTEM
STEERABLE SULKY
SULKY HITCH KIT
TURF STRIPER
STANDON

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www.exmark.com

WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

PART NO. 109-4354 Rev A.
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