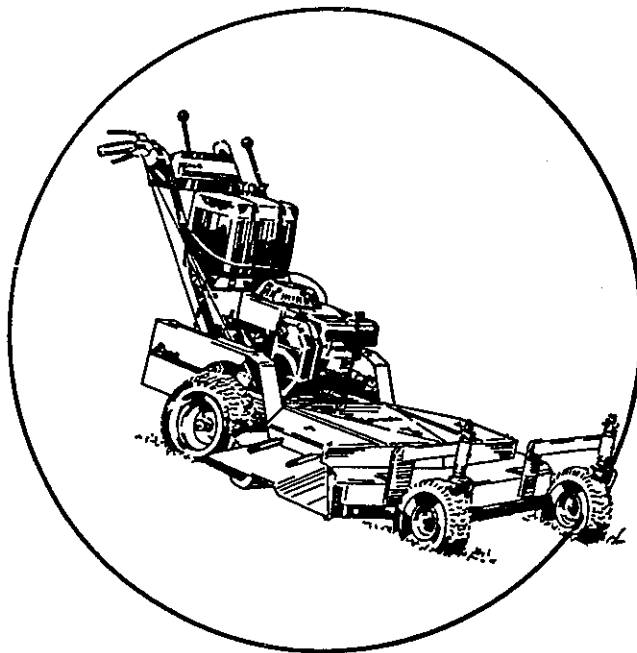




# Viking



## Operator's Manual

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

If you need to order replacement parts from your dealer, please furnish the serial number and model number from your mower, as well as the part number and description of the part you need.

For your convenience, we have provided this space for you to record the model and serial number from your mower. Please read this booklet and keep handy for all operators and servicemen.

MODEL NO. \_\_\_\_\_

SERIAL NO. \_\_\_\_\_

DATE PURCHASED \_\_\_\_\_

PURCHASED FROM \_\_\_\_\_

\_\_\_\_\_

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## OPERATOR'S MANUAL

This manual contains assembly, operating, maintenance, and adjustment instructions for your Exmark mower. Before operating your mower, carefully read this manual in its entirety. By following the operating and maintenance instructions, you will prolong the life of your mower and maintain its maximum efficiency.

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

All Exmark equipment 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, some attention is required on your part. The amount of attention is slight, but important if you are to obtain the fullest measure of satisfaction and performance.

When ordering parts, always give the serial number and model number of your mower as well as the quantity, part number and description of the part needed.

The serial number plate of the tractor is located on the top rear engine frame on the left hand side of the machine. We suggest you record the numbers below for ready reference.

Tractor Unit Serial No. \_\_\_\_\_

Date Purchased \_\_\_\_\_

Purchased From \_\_\_\_\_

## 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!

This signal word used in conjunction with the safety alert symbol indicates the relative degree of a hazard:

**DANGER:** DENOTES THAT AN EXTREME HAZARD EXISTS WHICH WOULD RESULT IN HIGH PROBABILITY OF DEATH OR IRREPARABLE INJURY IF PROPER PRECAUTIONS ARE NOT TAKEN.

**WARNING:** DENOTES THAT A HAZARD EXISTS WHICH CAN RESULT IN INJURY OR DEATH IF PROPER PRECAUTIONS ARE NOT TAKEN.


**CAUTION:** DENOTES A REMINDER OF SAFETY PRACTICES OR DIRECTS ATTENTION TO UNSAFE PRACTICES WHICH COULD RESULT IN PERSONAL INJURY IF PROPER PRECAUTIONS ARE NOT TAKEN.

### 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.
- 1.2.2 Read the instructions carefully. Be familiar with the controls and the proper use of the equipment.
- 1.2.3 Never allow children, young teenagers, or people unfamiliar with these instructions to use the mower.
- 1.2.4 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 The use of personal protective equipment, such as (but not limited to) protection for the eyes, ears, feet and head is recommended.

- 1.3.2 While mowing, always wear substantial footwear and long trousers. Do not operate the equipment when barefoot or wearing open sandals.
- 1.3.3 Thoroughly inspect the area where the equipment is to be used and remove all stones, sticks, wires, bones and other foreign objects.
- 1.3.4  **DANGER: FUEL IS HIGHLY FLAMMABLE.**
  - a) **STORE FUEL IN CONTAINERS SPECIFICALLY DESIGNED FOR THIS PURPOSE.**
  - b) **REFUEL OUTDOORS ONLY. DO NOT SMOKE WHILE REFUELING.**
  - c) **ADD FUEL BEFORE STARTING THE ENGINE. NEVER REMOVE THE CAP OF THE FUEL TANK OR ADD FUEL WHILE ENGINE IS RUNNING OR WHEN ENGINE IS HOT.**
  - d) **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.**

#### 1.4 Operation

- 1.4.1 Give complete, undivided attention to the job at hand.
- 1.4.2 Do not operate the engine in a confined space where dangerous carbon monoxide fumes can collect.
- 1.4.3 Mow only in daylight or good artificial light.
- 1.4.4 Avoid operating the equipment in wet grass, when feasible.
- 1.4.5 Mow across the face of steep slopes, never up and down. Exercise extreme caution when changing direction on slopes. Do not mow excessively steep slopes.
- 1.4.6 Use extreme caution when backing up.
- 1.4.7 Stop the blades when crossing surfaces other than grass and when transporting the mower to and from the area to be mowed.
- 1.4.8 Never operate the mower with defective guards, shields, or without safety devices in place.

- 1.4.9 Do not change the engine governor settings or overspeed the engine. Operating an engine at excessive speed may increase the hazard of personal injury.
- 1.4.10 Disengage blade drive before starting.
- 1.4.11 Start the engine carefully with feet well away from the blades.
- 1.4.12 Keep hands, feet and clothing away from rotating parts while the mower is being operated.
- 1.4.13 Stop the engine:
  - a) Before checking, cleaning or working on the mower.
  - b) After striking a foreign object (inspect the mower for damage and make repairs before restarting and operating the mower).
  - c) Before clearing blockages.
  - d) Whenever you leave the mower.
  - e) Before refueling.
  - f) Before making height adjustments.
- 1.4.14 Return the throttle control to the idle position for 30 seconds for engine cool down before stopping the engine.
- 1.4.15 The fuel system is provided with a shut-off valve. The fuel shut-off valve is used to shut off the fuel when machine will not be used for a few days, when parking inside a building, or during transport to and from the job.
- 1.4.16 This mower was designed for one operator only. Keep all others away from mower during operation.
- 1.4.17 Do not mow without grass deflector or entire grass collection system in place and in proper working condition.
- 1.4.18 Do not operate machine unless all guards, shields and covers are in place and in proper working condition.

- 1.4.19  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.

## 1.5 Maintenance and Storage

- 1.5.1 Precisely follow the engine manufacturer's recommendations for maintenance.
- 1.5.2 If carburetor adjustment is necessary, stand to one side and keep feet and hands clear while making adjustments.
- 1.5.3 Keep engine free from accumulation of grass, leaves and excessive grease or oil. An accumulation of these combustible materials may result in a fire.
- 1.5.4 Store fuel in a container specifically designed for this purpose in a cool, dry place.
- 1.5.5 Keep the mower and fuel container in locked storage to prevent children from playing or tampering with them.
- 1.5.6 Gasoline powered equipment or fuel containers should not be stored in a basement or any closed area, where heat appliances or open pilot lights are present, unless completely drained of fuel.
- 1.5.7 Maximum mowing results and safety can only be achieved if the mower is properly maintained and operated correctly.
- 1.5.8 Check all bolts frequently to maintain proper tightness.
- 1.5.9 Keep all guards, shields and other safety devices in place and in safe working condition.
- 1.5.10 Check for worn or deteriorating components that could create a hazard.

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

## 1.6 Safety Signs

- 1.6.1 Keep all safety signs legible. Remove all grease, dirt and debris from safety signs.
- 1.6.2 Safety signs must be replaced if they are missing or illegible.
- 1.6.3 When new components are installed, be sure that current safety signs are affixed to the replaced components.
- 1.6.4 New safety signs may be obtained from your authorized Exmark equipment dealer or distributor or from Exmark Mfg. Co. Inc.
- 1.6.5 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.
- 1.6.6 Familiarize yourself with the following safety signs. They are critical to the safe operation of your Exmark commercial mower.



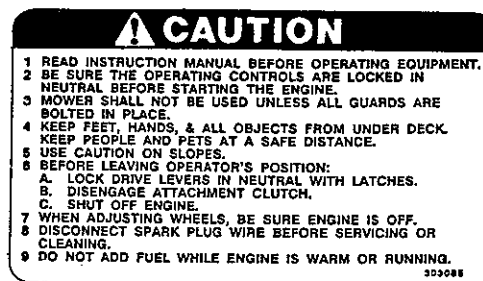
LOCATION: Upper Handle





LOCATION: Front Corner(s) of Mower Deck

LOCATION: Right Rear Corner of Engine Deck



LOCATION: On Mower Deck Between Belt Shield and Discharge Opening

LOCATION: On Top Rear Center of Fuel Tank



LOCATION: On Engine Blower Housing Next to Muffler

## 2. SPECIFICATIONS

### 2.1 V36-12.5BV-5 and V48-14BV-5

#### 2.2 Engine

- 2.2.1 Manufacturer: Briggs & Stratton
- 2.2.2 Model Number: 260700 and 261700
- 2.2.3 Power: 12.5 HP (9.25 kw) and 14 HP (10.36 kw) at 3600 RPM.
- 2.2.4 Cooling: Air
- 2.2.5 Cylinders: One (overhead valve)
- 2.2.6 Strokes/Cycle: Four (full pressure lubrication)
- 2.2.7 Crankshaft Alignment: Vertical
- 2.2.8 Bore: 3.43 in. (87 mm)
- 2.2.9 Stroke: 2.86 in. (73 mm)
- 2.2.10 Displacement: 26.5 cu. in. (435 cc)
- 2.2.11 Compression Ratio: 8.22:1
- 2.2.12 Oil Type: SAE 30 weight. We recommend the use of a high quality detergent oil classified "For Service SC, SD, SE, SF, or SG" for temperatures above 40° F (4° C)
- 2.2.13 Oil Capacity: 2.25 qt. (2.1 liter) with filter  
2.0 qt. (1.9 liter) without filter
- 2.2.14 Oil Filter: Replaceable cartridge type (Briggs & Stratton Part No. 491056)
- 2.2.15 Air Filter: Dry cartridge type (Briggs & Stratton Part No. 491021) with foam precleaner (Briggs & Stratton Part No. 492947)
- 2.2.16 No Load RPM: 3600
- 2.2.17 Idle RPM: 1800
- 2.2.18 Spark Plug: Briggs & Stratton Part No. 491055 or Champion RC12YC
- 2.2.19 Spark Plug Gap: .030 in. (.76 mm)
- 2.2.20 Ignition: Electronic

### 2.1 V36-12.5K-5, V48-12.5K-5 and V48-14K-5

#### 2.2. Engine

- 2.2.1 Manufacturer: Kawasaki
- 2.2.2 Model Number: FB460V and FC420V
- 2.2.3 Power: 12.5 HP (9.25 kw) and 14 HP (10.36 kw) at 3600 RPM
- 2.2.4 Cooling: Air
- 2.2.5 Cylinders: One (overhead valve, 14 HP only)
- 2.2.6 Strokes/Cycle: Four (full pressure lubrication)
- 2.2.7 Crankshaft Alignment: Vertical
- 2.2.8 Bore: FB460V - 3.5" (89 mm), FC420V - same
- 2.2.9 Stroke: FB460V - 2.91" (74 mm),  
FC420V - 2.68" (68 mm)
- 2.2.10 Displacement: FB460V - 28.1 cu. in. (460 cc),  
FC420V - 25.8 cu. in. (423 cc)

- 2.2.11 Compression Ratio: FB460V - 6.4:1  
FC420V - 8.4:1
- 2.2.12 Oil Type: SAE 30 or 40 weight. We recommend the use of a high quality 30 weight detergent oil classified as "API Service SD, SE or SF" for temperatures between 32° F (0° c) and 92° F (33° c) and 40 weight for temperatures between 68° F (20° c) and 110° F (43° c).
- 2.2.13 Oil Capacity: FB460V - 1.5 qt. (1.4 liter), FC420V - 1.35 qt. (1.3 liters)
- 2.2.14 Oil Filter: Replaceable cartridge type (Kawasaki Part No. 49065-2071)
- 2.2.15 Air Filter: Dry cartridge type with foam precleaner (FB460 paper element P/N 11013-2021, foam element P/N 11013-2020; FC420 paper element P/N 11013-2110, foam element P/N 11013-2109)
- 2.2.16 No Load RPM: 3600
- 2.2.17 Idle RPM: 1400
- 2.2.18 Spark Plug: FB460V - NGK BMR YA or Champion RCJ8, FC420V - NGK BPR 5ES or Champion RN11YC
- 2.2.19 Spark Plug Gap: FB460V - .024 - .028 in. (.6 - .7 mm), FC420V - .028 - .032 in. (.7 - .8 mm)
- 2.2.20 Ignition: Transistorized Flywheel Magneto

## 2.1 V36-12.5KO-5 and V48-14KO-5

### 2.2 Engine

- 2.2.1 Manufacturer: Kohler
- 2.2.2 Model Number: CV12.5 and CV14
- 2.2.3 Power: 12.5 HP (9.25 kw) and 14 HP (10.36 kw) at 3600 RPM
- 2.2.4 Cooling: Air
- 2.2.5 Cylinders: One (overhead valve)
- 2.2.6 Stroke/Cycle: Four (full pressure lubrication)
- 2.2.7 Crankshaft Alignment: Vertical
- 2.2.8 Bore: 3.43 in. (87 mm)
- 2.2.9 Stroke: 2.64 in. (67 mm)
- 2.2.10 Displacement: 24.3 cu. in. (398 cc)
- 2.2.11 Compression Ratio: 8.5:1
- 2.2.12 Oil Type: SAE 10W30 or 10W40. Use high quality detergent oil of API service class SF for temperatures above 0° F (-18° c)
- 2.2.13 Oil Capacity: 2 qt. (1.9 liter) with filter
- 2.2.14 Oil Filter: Replaceable cartridge type (Kohler Part No. 52 050 02)
- 2.2.15 Air Filter: Dry cartridge type (Kohler Part No. 12 083 03) with foam precleaner (Kohler Part No. 12 083 01)
- 2.2.16 No Load RPM: 3600
- 2.2.17 Idle RPM: 1200 ± 75 RPM
- 2.2.18 Spark Plug: Champion RC12YC (or equivalent)
- 2.2.19 Spark Plug Gap: .040 in. (1.02 mm)
- 2.2.20 Ignition: Electronic

## 2.3 Fuel System (all models)

- 2.3.1 Capacity: 5 gal. (18.9 liter)
- 2.3.2 Type of Fuel: Use only clean, fresh, regular grade, unleaded gasoline with the pump sticker octane rating of 87 or higher. In countries using the research method, it should be 90 octane minimum.
- 2.3.3 Fuel Filter: Replaceable in-line
- 2.3.4 Fuel Shut Off Valve: 1/4 turn

## 2.4 Safety Interlock System (all models)

Operator must have transmission in neutral and blades disengaged to start engine. Release of OPC levers will cause engine to stop if transmission is not in neutral and/or blade drive is engaged.

## 2.5 Steering/Brake Control (all models)

Finger tip drive control levers provide independent control of traction, braking and neutral to each drive wheel for moving, stopping and power turning.

## 2.6 Transmission (all models)

- 2.6.1 Peerless 700-035 with low torque drive, five speeds forward and one reverse.
- 2.6.2 Speed range:

1st	1.4 mph (2.3 km/h)
2nd	2.2 mph (3.5 km/h)
3rd	3.3 mph (5.3 km/h)
4th	4.2 mph (6.8 km/h)
5th	5.0 mph (8.0 km/h)
Reverse	1.6 mph (2.7 km/h)

## 2.7 Wheel Drive System (all models)

Single "B" section V-belt with Posi-Trac pulleys, dual idlers and replaceable bolt on sheave on drive wheel.

## 2.8 Tires (all models)

	<u>Drive</u>	<u>Front Caster</u>
Size	13 x 6.5 - 6	9 x 3.5 - 4
Quantity	2	2
Tread	Turf Saver	Smooth
Ply	2	4
Pressure	.14 psi (97 kpa)	22 psi (152 kpa)
Bearings	Replaceable Roller	Replaceable Roller

## 2.9 Deck

- 2.9.1 Cutting Width: 36 in. (91.4 cm) or 48 in. (121.9 cm)
- 2.9.2 Discharge: Right Side
- 2.9.3 Blade Size: (2) 18.25 in. (46 cm) on 36 in. unit, (3) 16.25 in. (41.2 cm) on 48 in. unit
- 2.9.4 Type of Drive: Manual engagement of belt with over center lock. Blade tension is adjustable via turnbuckle. The 48 in. units have an additional belt which is also adjustable.
- 2.9.5 Deck Mounting: Bolted directly to engine deck
- 2.9.6 Cutting Height: Adjusts from 1.5 in. (3.8 cm) to 5 in. (12.7 cm) in .25 in. (.63 cm) increments by various adjustments of caster spacer, blade spacer and axle height.

## 2.10 Dimensions

### 2.10.1 Overall Width:

	<u>36" (91.4 cm)</u>	<u>48" (121.9 cm)</u>
--	----------------------	-----------------------

#### Discharge:

Down	46.1" (120 cm)	58.1" (148.5 cm)
Up	36.4" (93 cm)	48.4" (124 cm)

- 2.10.2 Overall Length: 36" (91.4 cm) - 76" (193.04 cm)  
48" (121.9 cm) - 73" (185.42 cm)
- 2.10.3 Overall Height: 42.5 in. (109 cm)
- 2.10.4 Tread Width: 35 in. (90 cm)
- 2.10.5 Curb Weight\*: 36 in. (91.4 cm) - V36-12.5KO-5  
379 lbs. (172 kg), 48 in. (121.9 cm) -  
V48-14KO-5 425 lbs. (193 kg)

\* Weights will vary slightly depending on engine option.

## 3. ASSEMBLY INSTRUCTIONS

- 3.1 Uncrate unit, leaving it on the pallet, place inner box beside unit and open. Place caster box at front of unit.
- 3.2 Remove the upper handle from the inner box and lay it at the rear of the unit.
- 3.3 Remove hood from inner box and set in place.
- 3.4 Place muffler on left side of unit. (Kawasaki ONLY)
- 3.5 Remove bumper from inner box and lay in front of unit.
- 3.6 Remove chute deflector from box and lay at right front corner of unit.
- 3.7 Place a length of 4 x 4 block between the front of the cutter deck and the pallet.
- 3.8 Remove all hardware from the bolt bag at the front of the unit.

- 3.9 Find three 5/16 x 1-3/4 in. bolts, three 5/16 nyloc nuts and three bumper spacers (NOTE: 48 in. units require one more of each item) and fasten the bumper to the unit. (TIGHTEN HARDWARE.)
- 3.10 Find three 5/16 in. flat washers and three 5/16 in. wingnuts. Install and tighten them on the three studs for the belt shield.
- 3.11 Locate two 5/16 x 1 in. bolts and two 5/16 nyloc nuts and attach the chute deflector to the unit. Tighten hardware so that it is snug, but loose enough that the deflector can be moved up and down freely.
- 3.12 Open caster box and install casters with bolt bag supplied with casters (six 3/8 x 1 in. bolts and six 3/8 whizlock nuts) tightening the lower four first then the top two.
- 3.13 To install the upper handle, locate from the hardware three 3/8 x 1 in. bolts and three 3/8 nyloc nuts. Lay these items on the fuel tank support plate. Place the handle in a vertical position on the outsides of the lower handle brace and install two of the one inch bolts in the two top upper handle holes turning the nyloc nuts on finger tight. Now, remove the nyloc nut from the blade engagement lever bolt on the lower left upper handle bolt. With one hand hold the engagement assembly together, pull the 3/8 x 3 in. bolt out, move the handle into place and reinstall the 3/8 x 3" bolt on the lower left hand side. Reinstall the nyloc nut and the remaining 3/8 x 1" bolt on the lower right hand side. Make sure the upper and lower handles are parallel and tighten all four bolts.
- 3.14 Route the throttle cable to the right side of the upper handle attaching it to the upper handle with the cable clip provided. Position the throttle control at the control console within 1/8 in. from the upper end of the slot. Cross the throttle control over to the left side of the engine, attach the inner wire to the appropriate place on the engine. Loosen the cable clamp on the engine, place the cable behind it and pull up on the cable to move the engine linkage to the full choke position and tighten the cable clamp screw.
- 3.15 Attach shifter linkage to bellcrank on transmission and shifter bracket under console with the #2 hairpin cotters provided. Both hairpin cotters should be located on the left hand side of the brackets. With transmission in neutral, check position of shifter rod in upper console shifter slot. There should be 1/16" clearance between the shifter rod and bottom of the slot. If adjustment is necessary, loosen the jam nut on each end of the turnbuckle (the top jam nut is a left hand thread, the bottom a right hand) and adjust the turnbuckle for above clearance. Retighten jam nuts.

NOTE: This clearance should be checked when there is a slight upward force placed on the shifter to remove any "slack" in the linkage.

- 3.16 Attach the blade engagement linkage to the blade engagement lever on the lower handle by inserting the linkage into the hole from the left hand side and fasten with the #2 hairpin cotter supplied.
- 3.17 Mount the fuel tank on the lower handle saddle with the hose and valve pointing toward the carburetor side of the engine. Center tank on saddle and loosely fasten in place with two fuel tank straps, two  $\frac{1}{4}$  x 3" machine screws and two  $\frac{1}{4}$ " nyloc wingnuts.  
CAUTION: DO NOT OVERTIGHTEN FUEL TANK STRAPS AS THE TANK WILL EXPAND ONCE FUEL IS ADDED.
- 3.18 Attach the fuel tank hose to the engine and secure with clamp provided.
- 3.19 Thread longest linkage into swivel on brake arm assembly. Thread short linkage into caliper swivel. Do this for both sides.
- 3.20 Insert brake rod through drive linkages and drive levers as shown in Figure #1, do not fasten.

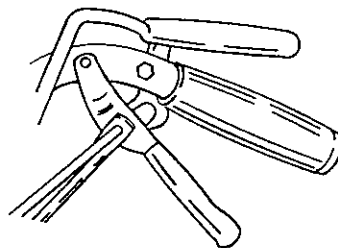


Fig. 1 Lever and Rod Adjustment

Adjust drive linkage length by threading into or out of the swivel until there is a  $\frac{1}{8}$ " clearance between the linkage assembly and the bottom of the slot in the neutral lock lever as shown in Figure #2.

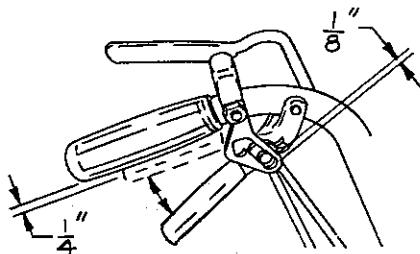


Fig. 2 Neutral Lock Lever Clearance

NOTE: This clearance should be checked when there is a slight upward force placed on the drive levers to remove any "slack" in the linkage.

- 3.21 Adjust brakes by threading brake rod into or out of swivel until brakes are engaged with approximately 1/4" clearance between the end of the drive lever and the handle grip. See Figure #2. Fasten brake linkage to drive lever with 5/16 washer next to the thumb latch slot and hairpin cotter. Do this for both sides.

NOTE: The thumb latches must be able to be moved into the neutral lock position, if not, re-adjust brake linkages.

- 3.22 Kawasaki Only - Mount muffler and attach with hardware in bolt bag provided. Tighten the exhaust manifold bolts first then the bracket hardware (NOTE: This hardware is metric).
- 3.23 Route the unattached wiring harness lead up the inside of the handle on the left side and connect the two leads in any order to the operator presence control switch terminals on the inside of the control console. Fasten the lead to the handle with the two plastic ties provided.
- 3.24 Squeeze drive levers and move both thumb latches into the neutral lock position. Mower should move forward and backward freely, if not, readjust brakes as per 3.21.
- 3.25 Service Engine: As per instructions in Engine Operators Manual.
- 3.26 Grease Unit: Note: Unit is not greased at factory. Refer to 5.1.13 for initial grease amounts.

#### 4. OPERATION INSTRUCTIONS

##### 4.1 Pre-Start

- 4.1.1 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.

NOTE: Fuel tank may appear loose at setup, however, once fuel is added in tank, tank will slowly expand to fit tank strap.

Do not add oil to gasoline.

Do not overfill fuel tank. Leave room for fuel to expand.



- 4.1.2 Refer to Maintenance Section and perform all of the necessary inspection and maintenance steps.
- 4.1.3 Familiarize yourself with controls. See Controls Section.

## 4.2 Controls

- 4.2.1 Drive Levers - Located on each side of the upper handle assembly directly below the handle grips. These levers individually control clutching action of the wheel drive belts and brakes. When the drive levers are all the way down the wheel drive belts are engaged and the brakes are disengaged. Squeezing the left hand or right hand drive lever causes the left hand or right hand wheel to slow down or stop, which makes the machine turn to the left or right respectively. The sharpness of the turn can be varied by how much the lever is "squeezed". If both levers are squeezed all the way back, both brakes will engage and the machine will stop. For straight ahead motion, smoothly release both drive levers to engage both drive wheels simultaneously.
- 4.2.2 Thumb Latches - Located directly above the drive levers. The purpose of these levers are to allow the operator to lock the drive levers in a "neutral" position where neither the wheel drive belts or the brakes are engaged.

To lock the drive levers in neutral, squeeze the drive levers back, place thumbs on the upper portion of the thumb latches and move them to the rear. Release drive levers.



**CAUTION: BE SURE THE RODS PROTRUDING THRU THE SLOTS OF EACH THUMB LATCH ARE COMPLETELY ENGAGED IN THE REAR SLOT OF EACH LATCH, IF NOT, THE DRIVE LEVERS COULD UNEXPECTEDLY SLIP INTO THE DRIVE POSITION.**

- 4.2.3 Operator Presence Control (OPC) Levers - Located on the upper handle assembly directly above the handle grips. When these levers are depressed the OPC system senses that the operator is in the normal operator's position. When the levers are released, the OPC system senses that the operator has moved from his normal operating position and will kill the engine if the blade drive is engaged and/or the transmission is in gear.

- 4.2.4 Blade Engagement - The push/pull blade engagement knob is located on the left side of the control console. To engage the blades, the knob must be pulled toward the operator until the turnbuckle locks over center. To disengage the blades, push the knob down until the bell-crank contacts the rear deck.
- 4.2.5 Throttle-Choke Control - Located on the control console right side. Choke is used to aid in starting a cold engine. Choke is achieved by moving the throttle control to the full forward position. Once the engine has started, move the control from choke to the full or medium throttle position. All units are equipped with throttle kill as a standard feature and moving the throttle to the full rear position will shut off the engine.
- 4.2.6 Transmission Shift Lever - Located in middle of control console, it shifts the 5-speed transmission into five forward gears, neutral or reverse.
- 4.2.7 Fuel Shut-Off Valve - Located underneath the fuel tank. The fuel shut-off valve is used to shut off the fuel when machine will not be used for a few days, when parking inside a building, or during transport to and from the job. Rotate valve 1/4 turn clockwise to shut fuel off. Rotate valve 1/4 turn counter-clockwise to turn fuel on.

### 4.3 Operating Instructions

- 4.3.1 Starting Engine - Operator must have blade drive disengaged and transmission in neutral.

Open fuel shut-off valve.

On a cold engine, place the throttle in the full "choke" position. On a warm engine, place the throttle midway between "slow" and "fast" positions.

NOTE: Kawasaki engines generally need to be "choked" even when warm.

Pull the recoil rope to start the engine.

On a cold engine, gradually return choke to full throttle position after engine starts and warms up.

4.3.1 (Con't.)

NOTE: It is helpful to have the left and right neutral lock thumb latches applied when starting the engine. (See 4.2.2)

4.3.2 Stopping Engine - Disengage blade drive, shift transmission to neutral and lock drive levers in neutral. Move throttle to "slow" position.

Allow engine to idle for 30 seconds to allow cool down. Move throttle to full rear position to stop the engine. Close fuel shut-off valve when machine will not be used for a few days or when parking inside a building, or when transporting.

4.3.3 Drive Wheel Engagement/Turning - With drive levers located in neutral, shift transmission into desired gear. Squeeze both drive levers and move both thumb latches from the neutral lock position. For straight ahead motion, smoothly release both drive levers to engage drive wheels. Squeeze right hand drive lever to turn right and left hand drive lever to turn left.

4.3.4 To Stop - Squeeze drive levers all the way back to engage brakes. Move thumb lock latches into the neutral lock position and shift transmission into neutral. If unit is to be parked on a hillside, the machine must be chocked or blocked.

4.3.5 Blade Engagement - Pulling on the push/pull blade engagement knob engages the blades. Be sure that all persons are clear of mower deck and discharge area before engaging the blades.

Set throttle to "midway" position. Pull knob to engage blades. Accelerate to full throttle to begin mowing.

4.3.6 Blade Disengagement - Pushing down on the push/pull blade engagement knob disengages the blades.

4.4 **Transporting**

Use a heavy duty trailer to transport the machine. Engage neutral lock thumb latches and block wheels. Securely fasten the machine to the trailer with straps, chains, cables or ropes. Be sure that the trailer has all necessary lighting and marking as required by law and use a safety chain.

## 5. MAINTENANCE AND ADJUSTMENTS

### 5.1 Periodic Maintenance

#### 5.1.1 Check engine oil level. Service Interval: Daily

- a. Make sure engine is stopped and on a level surface.
- b. Check with engine cold.
- c. Clean area around dipstick. Remove dipstick and wipe off oil. Reinsert the dipstick. NOTE: On Kawasaki engines, oil level is checked after screwing the dipstick into place and then removing. On Kohler and Van Guard engines, the dipstick is only inserted and not screwed into place. Remove dipstick and check oil level.
- d. If the oil level is low, add oil as specified in the Specifications Section or in the engine owners manual to bring the oil level up to the "F" mark on the dipstick. DO NOT OVERFILL.
- e. IMPORTANT: Do not operate the engine with oil level below the "L" mark on the dipstick or over the "F" mark.

#### 5.1.2 Clean engine air cooling system. Service Interval: Daily (or more frequently as required under dusty and dirty conditions.)

- a. Stop engine.
- b. Clean all debris from engine air intake screen and from around engine shrouding.

#### 5.1.3 Clean grass build-up under deck and check mower blades. Service Interval: Daily

- a. Disengage blades.
- b. Stop engine.
- c. Raise deck, block up and use proper safety precautions.
- d. Clean out any grass build-up from underside of deck and in deck discharge chute.
- e. Inspect blades and sharpen or replace as required.
- f. Torque blade bolts to 40 FT-LBS.
- g. Lower deck to ground.

5.1.4 Check safety interlock system.  
Service Interval: Daily

- a. For your safety, your Exmark mower is equipped with Operator Presence Controls (OPC). When either the mower blades or the traction drive is engaged and both hands are removed from the handles, the mower engine should stop.
- b. To determine if the OPC is in operating condition, clear the area and engage the cutter blades, momentarily release the OPC levers and the engine should begin to stop. On a 5-speed mower, shift the transmission into gear and release the OPC levers and the engine should stop.
- c. If the mower engine does not stop under any of the above conditions, contact your authorized Exmark service dealer.



**CAUTION: IT IS ESSENTIAL THAT OPERATOR-SAFETY MECHANISMS BE CONNECTED AND IN PROPER OPERATING CONDITION PRIOR TO USE FOR MOWING.**

5.1.5 Check Brake and Wheel Drive Linkage Adjustment.  
(See 3.20 and 3.21)

5.1.6 Check for loose hardware.  
Service Interval: Daily

- a. Stop engine.
- b. Visually inspect machine for any loose hardware or any other possible problem. Tighten hardware or correct the problem before operating.

5.1.7 Service pre-cleaner element and air cleaner.  
Service Interval: 25 hrs. pre-cleaner and 50 hrs. paper element (more often under extremely dusty or dirty conditions).

- a. Stop engine.
- b. Remove wing nut and remove air cleaner cover.
- c. Remove foam pre-cleaner element and wash in warm water with detergent, then rinse until all traces and detergent are eliminated. Squeeze out excess water (do not wring). Air dry. Saturate pre-cleaner in clean, fresh engine oil and squeeze out excess oil.

- d. Check paper element. Gently tap the flat side of the paper element to dislodge any dirt. Do not wash and do not use compressed air to clean filter as small holes could develop in the element and cause engine damage. Replace if dirty, bent or damaged.
- e. Reinstall foam pre-cleaner to paper element, then reinstall paper element and cover and tighten wingnut.

5.1.8 Change engine oil.  
Service Interval: 50 hrs.

NOTE: Change oil and filter after first five (5) hrs. of operation

- a. Disengage blades.
- b. Stop engine.
- c. Drain oil while engine is warm from operation.
- d. Remove the oil drain plug from the right hand side of the engine. Allow oil to drain, then replace drain plug.
- e. Replace the oil filter every other oil change. Clean around oil filter and unscrew filter to remove. Before re-installing 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.
- f. Clean around oil dipstick and remove. Fill to specified capacity and replace cap. Use oil as specified in Specifications Section and in Engine Owners Manual. Do not overfill.
- g. Start the engine and check for leaks.

5.1.9 Check tire pressures.  
Service Interval: 25 hrs.

- a. Stop engine.
- b. Inflate tires to pressures specified in Specifications Section.

5.1.10 Check low torque drive chain  
Service Interval: 40 hrs. (Check after first 10 hrs. of operation).

- a. Stop engine.
- b. Place drive levers and thumb lock latches in neutral lock position. Remove chain guard.

- c. Check chain for proper tension. Move the chain up and down in the middle of the bottom span between the sprockets. The chain should move a minimum of 3/8" and a maximum of 1-3/8". See 5.2.4 if adjustment is needed.

5.1.11 Check grease level, input and output shaft bearing wear on Peerless Transmission.  
Service Interval: 150 hrs.

- a. Stop engine.
- b. Place drive levers and thumb lock latches in the neutral lock position.
- c. Remove the chain guard and the chain. Release the tension on the transmission belt.
- d. Check for side play caused by bearing wear on the input and output shafts of the transmission. Replace bearings if necessary.
- e. Remove bellcrank mount from top of transmission and the two leads from the neutral start switch. Remove the 1/4-20 x 3/4 HHCS from the transmission lever.
- f. Remove the six bolts that fasten the upper case to the lower case and carefully remove the upper case half.
- g. Check the grease level in the lower case. Unit should contain 12 to 18 oz. of bentonite grease, Peerless Part No. 788067. Add grease if necessary.
- h. Reinstall upper case half and fasten in place with six bolts previously removed.
- i. Reverse Step "e".
- j. Reinstall the drive chain and guard, retension the transmission belt as instructed in 5.2.3.

5.1.12 Inspect belt wear.  
Service Interval: 25 hrs.

- a. Stop engine.
- b. Remove the cutter deck belt shield to check mower primary and secondary belt condition. NOTE: Secondary belt used on 48" units only.
- c. Look under engine deck to check the transmission drive belt condition.
- d. Remove wheel drive belt fender/guards and inspect drive belt conditions.
- e. Check all idler arms to be sure they pivot freely.

### 5.1.13 Lubrication

- a. Stop engine.
- b. Lubricate grease fittings with SAE No. 2 multi-purpose gun grease, two to three pumps each.

<u>Fitting Locations</u>	<u>Initial Amount</u>	<u>No. of Places</u>		<u>Service Interval</u>
		<u>36"</u>	<u>48"</u>	
Caster Wheel Bearings	12	2	2	Daily
Caster Pivots	2	2	2	Daily
Cutter Spindles	6	2	3	Weekly
Drive Wheels	18	2	2	Daily

- c. Lubricate pivot points with a spray penetrating lubricant as directed below.

<u>Pivot Point</u>	<u>No. of Places</u>		<u>Service Interval</u>
	<u>36"</u>	<u>48"</u>	
Caliper Pivots	4	4	Monthly
Blade engagement	2	2	Monthly
Cutter Deck	1	2	Monthly
Transmission Bellcrank	1	1	Monthly
OPC	2	2	Monthly

- d. Lubricate low torque drive chain with engine oil or special chain lubricant every 40 hours (or more often when operating in severe conditions).
- e. Replace 5-speed gearbox grease yearly. Use 18 ounces of Peerless, P/N 788067.

### 5.1.14 Remove engine shrouds and clean cooling fins. Service Interval: 50 hrs. (more often under extremely dusty or dirty conditions).

- a. Stop engine.
- 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.

### 5.1.15 Check spark plug. Service Interval: 100 hrs.

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



- 5.1.16 Change fuel filter.  
Service Interval: As Required

A fuel filter is installed in the fuel line between the fuel tank and the engine. Replace when necessary.

- 5.1.17 Refer to the Engine Operators Manual for detailed maintenance required.

## 5.2 Adjustments

### 5.2.1 Cutting height.

- a. Blades may be adjusted for cutting height by using the four, 1/4" spacers found on the blade spindle bolts (factory setting is two above and two below). This allows a 1" range in 1/4" increments of cutting height in any axle position. The same number of blade spacers must be used on all blades to achieve a level cut (three above and one below, two above and two below, etc.).
- b. An additional 1/2" of cutting height may be attained without changing the axle position by moving one caster spacer up or down from the factory setting.

EXAMPLE: 2-1/4" to 3-1/4" - two caster spacers under caster arm and three on top, rear axle third hole. (You may have one caster spacer under and four on top, or three caster spacers under and two on top.)

**IMPORTANT:** To achieve the highest quality of cut, the blades should be level with the ground or tipped slightly down at the front. If you need to cut higher or lower, it will be necessary to adjust the rear axle height.

### 5.2.2 Axle height.

NOTE: When using 9" caster wheels, set cutting height by adjusting rear axle and placing caster spacers above or below caster arm as directed.

1-1/4" to 2-1/4"	5 caster spacers on top of caster arm
	Rear axle - 1st hole
	Scraper - Position A
	Brake Arm - Position A

## 5.2.2 (Con't.)

1-3/4" to 2-3/4"	1 caster spacer under caster arm and 4 on top Rear axle - 2nd hole Scraper - Position A Brake Arm - Position A
2-1/4" to 3-1/4"	2 caster spacers under caster arm and 3 on top Rear axle - 3rd hole Scraper - Position A Brake Arm - Position A
2-3/4" to 3-3/4"	3 caster spacers under caster arm and 2 on top Rear axle - 4th hole Scraper - Position B Brake Arm - Position A
3-1/4" to 4-1/4"	4 caster spacers under caster arm and 1 on top Rear axle - 5th hole Scraper - Position B Brake Arm - Position A
3-3/4" to 4-3/4"	5 caster spacers under caster arm and 0 on top Rear axle - 6th hole Scraper - Position C Brake Arm - Position C

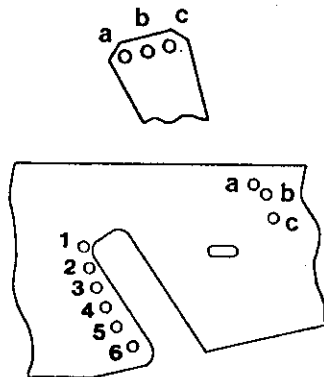


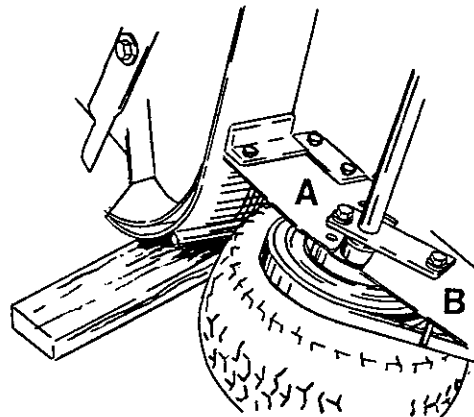
Fig. 3

Rear Axle Mounting Holes On Rear Deck

- Disconnect both brake linkages and have drive levers in the neutral lock position.
- Flip the discharge chute up and tip the mower on its side with the carburetor up.

Fig. 4

Axle Height Adjustment



#### 5.2.2 (Con't.)

- c. Place a 2 x 4, as shown in Figure 4, so that the rear wheel does not touch the floor.
- d. Remove bolt A completely and loosen bolt B on each end of the axle. See Figure 4, points A and B.
- e. The axle should now move freely up or down. Relocate the axle to the desired hole. The use of a tapered punch will help align the holes. Reinstall bolt A in both ends of the axle.
- f. Retighten bolt A then tighten bolt B on both sides of the axle. Remove the 2 x 4 and tip the mower back down.
- g. Readjust the brake and drive linkages as described in the assembly instructions. (See 3.20 and 3.21)
- h. Readjust the caster spacers as directed to match with the axle hole selected.
- i. After changing axle height, it will be necessary to readjust the scrapers as described in Wheel Drive Belts, Step B, in the Adjustment Section.

#### 5.2.3 Transmission belt adjustment.

- a. To tighten transmission belt, tighten 5/16 nyloc nut located near the right corner of the engine mounting deck. See Figure 5, Point D.
- b. When properly adjusted, the belt should have 1/2" of deflection with three pounds of pressure between the transmission and engine pulley.

#### 5.2.4 Low Torque Drive Chain Tension - Check the drive chain to see if it needs tightening. See 5.1.10. If chain needs tightening, loosen transmission mounting bolts under rear deck, loosen transmission belt, then slide transmission toward the rear of the deck until chain is properly tensioned as outlined in 5.1.10. Retighten transmission, tightening rear bolts first, then front two bolts and retension transmission belt.

#### 5.2.5 Wheel drive belts.

- a. If wheel traction appears to be slipping, drive lever rods may be touching bottom of thumb latch slot. To adjust, refer to assembly instructions, step 3.20.

5.2.5 (Con't.)

- b. Be sure mud and grass scraper, on each side, is adjusted properly and centered in the pulley. The flat part of the scraper should be centered and as deep in the pulley groove as possible without rubbing the pulley at any point.

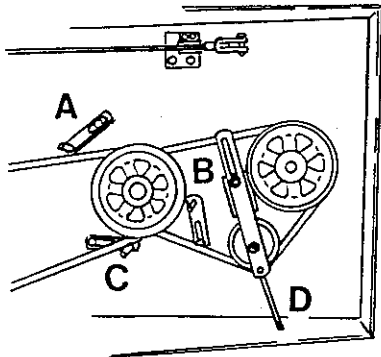


Fig. 5

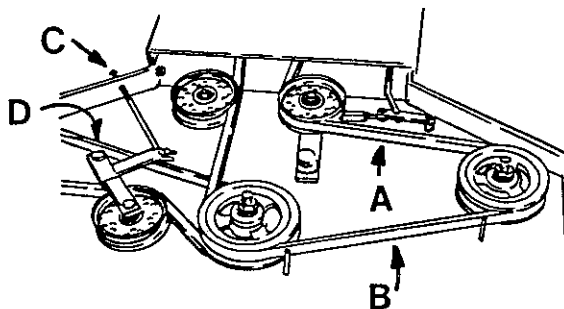
Belt Guide Adjustment

5.2.6 Engine to cutter deck belt.

- a. For proper adjustment of lower blade drive linkage, lengthen or shorten linkage. When properly adjusted, there should be  $1/16$  to  $1/8$ " of clearance between bell-crank and jackshaft when belt is engaged.
- b. Check belt guides under rear deck to see that they are properly set. See Figure 5. When blades are engaged, there should be  $1/4$ " clearance between belt guide A and B, and  $1/8$ " clearance between belt guide C. The disengaged belt should not drag or fall off pulley when guide B is properly adjusted.

Fig. 6

Cutter Deck Belt Adjustment



- c. Belt must be tight enough to not slip during heavy loads while cutting grass. To adjust belt tension, loosen  $5/16$ " whizlock nut and rotate turnbuckle. Rotate

5.2.6 c. (Con't.)

turnbuckle toward rear of mower to tighten, and toward front to loosen belt tension. See Figure 6, Point A. Check belt tension after the first hour of operation and at least twice during the first 24 hours of operation. Adjust as necessary.

- d. Proper belt tension will require about 10 lbs. side pull on belt, halfway between pulleys, to deflect belt sideways 1/2". See Figure 6, Point B.
- e. The four welded belt guides on the main deck should be located 1/8" from belt when blades are engaged.

5.2.7 Secondary belt (48" units only).

- a. The secondary drive belt is adjusted via the belt tension rod, Figure 6, Point C. The 5/16" nyloc adjustment nut is located at the front of the right fender.
- b. Proper belt tension will require about 10 lbs. side pull on belt, halfway between pulleys, to deflect belt sideways 1/2". See Figure 6, Point D.

5.2.8 Brake adjustment - See 3.21.

5.2.9 Wheel drive linkage adjustment - See 3.20.

5.2.10 Shifter linkage - See 3.15.

5.2.11 Blade safety switch.

- a. With the blades disengaged and the bellcrank touching the engine deck, adjust the blade safety switch mounting bracket (if needed) until the bellcrank depresses the plunger by 1/4".
- b. Be sure the bellcrank does not contact the switch body to prevent damage to the switch.
- c. Retighten switch plate mounting hardware.

5.2.12 Fuel tank straps.

NOTE: Fuel tank may appear loose at set-up, however, once fuel is added in tank, the tank will slowly expand to fit tank straps.

- a. Should the fuel tank begin to buckle, relieve pressure on the tank by loosening the tank straps.

#### 5.2.12 (Con't.)

- b. Failure to do so may cause the tank to split or crack at the seams.

### 6. TROUBLE SHOOTING

#### 6.1 Mower pulling left or right.

- a. Check idler arm pulleys and drive sheaves for mud and/or grass buildup. Check for proper scraper position.
- b. Check to be sure idler arms pivot freely, if not, lubricate idler pivots and check to be sure that the idler pivot locknut (located on the inside of the jackshaft bearing support) is not too tight causing the idler to bind.
- c. Check for worn drive belts.  
NOTE: Wheel drive belts should be replaced as a set. A new belt should not be mixed with a worn belt.
- d. Check drive linkage adjustment - See 3.20.
- e. Check for proper tire pressure in drive tires. Recommended tire pressure for the drive tires is 12 - 14 psi. If tire pressures are equal and the mower still pulls to the left or right, increase pressure in the tire (up to 14 psi, 97 kPa) on the side it pulls to and/or reduce the pressure in the tire on the opposite side until the mower runs straight on a level surface.

#### 6.2 Mower cuts unevenly.

- a. Check air pressure in tires; 12 - 14 psi/rear, 18 - 30 psi/pneumatic casters. A more uniform cutting height may be obtained with higher tire pressure on rough terrain. A lower tire pressure provides more flotation.
- b. Check blade spacers. They must be equal on each blade.
- c. Check caster mounting brackets to be sure all bolts are tight.
- d. Check blades tip to tip for straightness. (They should be within 3/16" or one blade width from being parallel.)

#### 6.3 Blades do not stop when disengaged.

Check belt guides under rear deck to see that they are properly set. See Figure 5. When blades are engaged there should be 1/4" clearance between belt and belt guides A and B, and 1/8" clearance between belt and belt guide C. the disengaged belt should not drag or fall off pulley when guide B is properly adjusted.

#### 6.4 Engine will not start.

- a. Check that the throttle control is in the choke (cold engine) or full throttle (warm engine) position.
- b. Make sure 5-speed transmission is in "true neutral" position.
- c. Check that the blades are disengaged and the blade switch is depressed.
- d. Check that there is fuel in the tank and that the fuel valve is open.
- e. Check that the spark plug wire is properly connected.
- f. Check for loose or faulty wiring connections.

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

**CAUTION: IT IS ESSENTIAL THAT ALL OPERATOR SAFETY MECHANISMS BE CONNECTED AND IN PROPER OPERATING CONDITION PRIOR TO MOWER USE.**

#### TROUBLESHOOTING

When a problem occurs, do not overlook the simple causes. For example, starting problems could be caused by an empty fuel tank. The table lists some common causes of troubles.

Do not attempt to service or replace major items or any items that call for special timing or adjustment procedures (governor, valves, etc.). Have this work done by your Engine Service Dealer.

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

## 6. WARRANTY

### Limited Warranty Exmark Commercial Turf Equipment

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

Any part of the Exmark commercial power mower manufactured by Exmark Mfg. Co. Inc. ("Exmark") and found in the reasonable judgment of Exmark to be defective in material or workmanship, will be repaired or replaced by an authorized Exmark dealer without charge for parts and labor.

The Exmark mower, including any defective part, must be returned to an authorized Exmark service dealer within the warranty period. The expense of delivering the mower to the dealer for warranty work and the expense of returning it back to the owner after repair or replacement will be paid for by the owner. Exmark's responsibility in respect to claims is limited to making the required repairs or replacement, and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any Exmark mower. Proof of purchase will be required by the dealer to substantiate any warranty claim. All warranty work must be performed by an authorized Exmark service dealer.

This warranty is limited to two years from the date of original retail purchase for any Exmark mower.

This warranty does not cover any Exmark mower that has been subject to misuse, neglect, negligence, or accident, or that has been operated in any way contrary to the operating instructions as specified in the Operator's Manual. The warranty does not apply to any damage to an Exmark mower that has been altered or modified so as to adversely affect the product. In addition, the warranty does not extend to repairs made necessary by normal wear, or by the use of parts or accessories which, in the reasonable judgment of Exmark, are either incompatible with the mower or adversely affect its operation, performance or durability, or by repair or service by anyone other than an authorized Exmark service dealer. This warranty does not cover the engine, which is warranted separately by the engine manufacturer and for a different period of time.

This warranty covers the 5-speed Peerless transmission for a period of nine months beginning with expiration of the transmission manufacturer's warranty, but not beyond one year from the date of original retail purchase of the mower. (See enclosed manufacturers' warranties.)



Exmark reserves the right to change or improve the design of any mower without assuming any obligation to modify any mower previously manufactured. Exmark's obligation under this warranty is strictly and exclusively limited to the repair or replacement of defective parts by genuine Exmark parts. Exmark does not assume or authorize anyone to assume for them any other obligation.

In no event shall any implied warranty of merchantability or of fitness for a particular purpose exceed the two year warranty period. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

Exmark assumes no responsibility for incidental, consequential or other damages including, but not limited to, expense for gasoline, expense of delivering the mower to an authorized Exmark service dealer and the expense of returning it back to the owner mechanic's travel time telephone or telegram charges, rental of a like product during the time warranty repairs being performed, travel, loss or damage to personal property, damage to the mower in transit, loss of revenue loss of use of the mower, loss of time or inconveniences. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you.

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

This warranty applies to all Exmark mowers sold in the United States, and Canada, whether the mowers are used for commercial, rental or other purposes.

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INDUSTRIAL PARK BOX 748  
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