

**wright**

**VELKE™**

# GEAR DRIVE PISTOL GRIP

Commercial Mower Owner's Manual



**WARNING: READ THIS MANUAL BEFORE USING**

Revised 07/2006

For your safety and for proper operation and maintenance read carefully and keep readily available for future reference.

Additional replacement owner's manuals as well as illustrated parts lists are available from your authorized Wright Dealer for a nominal charge. If a dealer is not available you may also check our web for the most up to date Owner's manual and Illustrated Parts List. Have your complete model number and serial number of your Wright product ready so that you obtain the correct product literature.

For reference please note the following information at the time of purchase:

SERIAL #: \_\_\_\_\_

MODEL #: \_\_\_\_\_

DATE OF PURCHASE: \_\_\_\_\_

## Foreword

Welcome to the progressive group of mowing professionals who use Wright mowers. We are focused on giving you advanced engineering and quality construction in each mower we build.

This manual explains the features and promotes safer use of the mower. Please read it and follow the instructions carefully so you can have many years of productive mowing.

For service, remember that your Wright dealer knows your mower best and is interested in your satisfaction. He can provide you with quality maintenance and other assistance you may need.

Please give this manual to anyone who may use the mower for them to study before they operate it. Give the manual to anyone to whom you may sell the mower in the future. It is important for the next owner to receive this information also.

As Wright Manufacturing, Inc. is constantly seeking ways to improve its products, the mower you have may differ slightly from the information and specifications in this manual. Because of our continuous product improvement, Wright reserves the option to make changes at any time without notice.

Wright Manufacturing, Inc.



**This is the safety alert symbol. It is used throughout this manual and on the mower's safety labels to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death. Read these instructions carefully. It is essential that you read the instructions and safety precautions before you attempt to work on or use this unit.**



**This symbol with the word "WARNING" indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.**



**This symbol with the word "CAUTION" indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.**

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# Pre-Delivery Service Of Mower By Dealer



## WARNING

**If you are not completely familiar with the Safety Instruction Manual read it now before proceeding with the Pre-Delivery Service of the mower. Only your authorized Wright Mower dealer should perform the Pre-Delivery Service of the mower**

The Wright Mower is shipped completely assembled and has been adjusted and tested at the factory. However, due to the jostling of the shipping process and the delivery time lapse, the following items need to be repeated again before starting the mower. After you have uncrated the mower, follow these procedures in the order indicated:

- Remove spark plug wire from spark plug(s).
- Inspect the mower for any damage, unusual conditions or missing parts.
- Inspect the mower for all of its decals, especially the warning decals. There should be one blade warning decal on each side of the deck, the “shield missing” decal under the blade belt cover, and the dash decal.
- Check to ensure belt guard is in place before operation.
- Check (and fill if necessary) engine oil level according to the engine manufacturer’s recommendation.
- The Peerless Transmission is a sealed unit and should not require any maintenance.
- Check tire pressures. Adjust to recommended pressure. It should be even on both sides but the recommended pressures are generally different for the front and rear tires. Higher pressures will help keep the caster tires on their rims when impacted from the side but give a stiffer ride.
- Remove the blade belt cover and check all belt for tension. This mower is equipped with an automatic tensioning idler system and should not require adjustment.
- Rotate the blade pulleys slightly to see if they all turn together. (Note: Clutch Brake will create some resistance.)
- Lubricate all moving parts
- Reinstall the blade belt cover.
- Fill fuel tank with regular unleaded gasoline. Open fuel valve under gas tank.
- Reattach spark plug wires to spark plugs.
- Before starting the engine be ready to stop it if the wheels begin to turn with the brake on. (If this happens, check that brake system is correctly adjusted.)
- Start the engine according to the engine manufacturer’s recommendation.
- Before testing the blade clutch/brake operation, make sure the area is clear and there is nothing vulnerable to possible thrown objects from under the mower. No one should be near the mower deck or in its line of discharge at this or at any time. The discharge chute deflector should be in the down position. Move the engine throttle control to its highest RPM speed setting.
- Turn on the blade clutch switch. Run blades for a minute or so. Try engaging and disengaging the blades a few times about 10 seconds apart. If the blades do not start and stop in a few seconds each time, service the blade brake system. With the blades on, now try disengaging the OPC switch to test the Operator Presence Control switch (OPC). The engine should die and the blades should stop in several seconds. If not, service the OPC system. Try this a couple of times.
- Disengage the blades, shut off the engine and remove the mower from the stand(s).
- Drive the mower around on a level parking lot. Check that the mower drives in a straight line when both hand controls are at the full speed position. If not, see further in this manual for information on tracking adjustment.
- As you drive the mower, listen for any unusual noises and test for irregular operation and adjust or service as necessary. Next, go over the safety information and operating procedures in this manual with the customer. Instruct the customer in proper operation and observe the customer during their initial operation on a level parking lot. Make sure the customer is familiar and comfortable with the basic operation and use of the mower.

- **Dealer: Please fill out and follow the instructions on the Product Registration Form and have the customer fill out his part of the form. After the Product Registration Card is filled out and signed by the customer and a representative from your dealership, please mail or fax it immediately (within 30 days from date of retail purchase) to your Wright Commercial Products Distributor according to the directions on the Card. Then give the customer his copy of the registration form and then keep your copy and mail the remaining copies of the form to your Wright Manufacturing Products Distributor. The limited warranty is not valid unless the mower is registered and all of the above steps are taken. Remember, the purchaser is both your and our customer and his satisfaction is very important. Thank you for supporting our products.**
- The mower is now ready for delivery to your customer.

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# SAFETY INSTRUCTIONS



## WARNING

This symbol with the word “WARNING” indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.



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## WARNING

**TO WRIGHT MOWER USERS & OWNERS: READ THIS MANUAL BEFORE USING. PLEASE BE CAREFUL!**

## Introduction

The Velke Mower is built to the highest standards in the industry. However, carelessness or operator error may result in serious bodily injury or death. Accident and hazard prevention are dependent upon the awareness, concern, wisdom, and proper training of the personnel involved in the operation, transport, maintenance, and storage of the equipment. Make sure every operator is properly trained and thoroughly familiar with all of the information in this manual before operating the equipment.

## General Safety Instructions

The Velke Mower is designed with your safety in mind. It has the following safety systems with which you should be familiar:

- The warning decals on the mower including the instrument panel warning
- The blade switch must be “off” before starting the engine
- You must engage the OPC switch in order to engage the blades
- You must engage the OPC switch in order for the engine to run if the blades are engaged
- If the OPC switch becomes disengaged while the blades are running the engine will stop and the blades will brake in seconds
- A Neutral Switch ensures that the mower is in Neutral before starting
- Spring-loaded chute deflector helps reduce trajectory of thrown objects
- Belt/pulley covers on cutter deck



## WARNING

## Owner/User Notice

The owner's/user's obligation is to instruct themselves and all potential users in the safe operation of this equipment and be sure they read and follow the instructions in this safety manual and other material provided by Wright Manufacturing, Inc. before using or allowing others to operate the equipment. Do not operate this unit unless you carefully read, understand and follow the assembly, installation, and safety instructions contained in this manual and the warning decals provided on the unit. Do not allow other persons to use this unit unless you make sure they carefully read, understand and follow these instructions. Never allow children to operate or play on the unit.



## WARNING

## User Experience and Qualifications

This product is designed for use by physically fit, experienced, professional commercial mower operators who have a minimum of 160 hours of experience operating twelve horsepower and greater industrial mowers. Operators must be 18 years or older. They must have read and understood this manual. DO NOT allow children to operate the mower. Do not allow adults to operate the mower without proper instruction mentioned above. Never allow passengers on the mower.



### **User Clothing**

DO NOT operate the mower while wearing sandals, tennis shoes, sneakers or shorts. Always wear long non-baggy pants. Wear high-top leather work boots with thick, textured tread, soft-rubber soled at all times. Hard or smooth soled shoes are too slippery for a good footing the Velke™ or sulky. NEVER wear loose-fitting clothing, which could get caught in moving parts, or jacket pockets that can get caught to the handlebars or control levers of any mower you drive. Wearing safety glasses, ear protection and safety shoes is advisable and required by some local ordinances and insurance regulations.



### **Inspect Mower Before Each Use**

DO NOT use the mower if any parts are not maintained in good operating condition. Examine the moving parts prior to each use. Look for excessive wear, bald or worn tires, cracks in parts, loose or missing bolts, cotter, linchpin or “hair” pins or cable yoke pins and replace before operating the mower. Make sure all safety equipment provided with the mower is in good operating order, including all the warning decals and the required operator-presence device, which stops the engine and blades when the hand-operated Operator Presence Control (OPC) switch is released. (To test the OPC, follow instructions in the [Operating Instructions](#) section of this manual.) Be sure that all parts of the hand-operated transmission control system are tight and secure. This is to reduce the possibility that the mower could have a loss of control or safety.



### **Regular Mower Safety Maintenance**

Replace worn tire(s) with less than 3/32” of any tread groove left. Use tires with the tread pattern specified by Wright Mfg., Inc. only.

Grease all fittings daily. DO NOT change the engine governor settings or over-rev the engine contrary to engine manufacturer specifications. Keep the Wright mower in good operating condition, and keep safety devices and shields in place and in working condition. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition. Check the blade mounting bolts for proper tightness every eight (8) hours of operation. Check the blades for excessive wear and sharpness every four to eight (4-8) hours of operation. Replace excessively worn blades. Sharpen dull blades. The mower should not be used after the blades or other part of the mower strikes a foreign object, until conducting a thorough inspection and any damage is repaired. See the instructions in the [Recommended Maintenance](#) section of this manual for other items of required maintenance.



### **Work Area Conditions & Inspection**

Prior to operating the unit, carefully inspect all lawn/ground areas where you plan to use the mower for hidden, hard-to-see objects or uneven ground that may be hidden in the grass. Clear the work area of movable objects such as wires, rocks, glass, etc. that might be picked up by the mower and dangerously thrown. Remove, if possible, or mark the location of all immovable objects or irregular areas and be sure not to hit them with any part of the mower, its deck or the blades. Obstacles such as holes, abrupt changes in ground contour, tree trunks, stumps or roots, stub pipes protruding from the ground, paving edges, etc. in the path of operation can abruptly turn or stop the mower. This could throw you off the Velke™ or sulky or into and possibly over the handles causing serious injury or death. The faster you are moving the more potential there is for injury. Mow only in daylight or in good artificial light. Keep away from drop-offs, the edges of ponds, streams, pools, etc. especially at the bottom of slopes. Do not mow when children or others are around. When the Wright mower is in use, never direct the grass discharge toward bystanders, traffic, cars or buildings nor allow anyone near the machine while in operation.

Thrown objects can pass through glass windows and some walls of buildings. There is extreme risk of danger from thrown objects or being cut by the blades of the mower or being run over if you lose control. Never operate the mower in an enclosed area without good, approved ventilation. Exhaust fumes are dangerous.



### **Initial Operating Safety Guidelines**

- Read and understand the warning on the instrument panel of the mower.
  - Keep a firm hold on the handles at all times.
  - Know the controls and how to stop quickly.
  - Before attempting to start the engine, follow all starting instructions below and in the engine operator's manual.
  - Look behind before backing up and STEP OFF of the Velke sulky prior to backing up. NEVER stand on the sulky while backing up.
  - Before leaving the operator's position, even momentarily, turn off the blade clutch engagement switch, place the speed control lever in the neutral position and park mower. Keep others from coming near the mower. Return to the operator position as soon as possible.
  - When leaving the Wright mower unattended, turn off the blade clutch engagement switch, stop the engine and remove the key and place the speed control lever in gear. Never leave the machine unattended on a slope. Be careful not to park mower where it can roll, as this could be dangerous.
  - When transporting, driving onto transport vehicles, into buildings, across parking lots or otherwise not mowing grass, turn off the blade clutch engagement switch to reduce risk of thrown objects and rotating blade hazard. After coming to a stop, return the hand grips to neutral, place the speed control lever in the neutral position, stop the engine, remove the key, release the handle-levers from neutral and shift the transmission into a low forward or reverse gear.
- Before performing any maintenance or repair service, mowing height or other adjustments, disengage power to blades, place the speed control lever in the neutral position, apply the parking brake, stop the engine, remove ignition key and spark plug wire from spark plug(s).
  - DO NOT allow inexperienced people to operate the mower until they have read and understood these safety instructions. Operate the mower at slower speeds while becoming familiar with it.
  - Speeding is dangerous for even an experienced operator. Sudden stops from excessive speeds may cause serious injury.
  - The grass discharge chute deflector must be installed at all times and in the down position except that it may be raised when the grass catcher is completely installed.
  - If the mower discharge clogs, turn off the blade clutch switch, stop the engine and park the mower before removing the obstruction. Be certain mower will not move and be careful when reaching under deck. Sharp blades present a risk of personal injury if proper care is not taken.
  - Keep all shields and covers in place, especially grass discharge chute deflector and the blade belt cover.
  - Keep hands, feet and clothing away from rotating parts, especially the rear wheels, blades, engine flywheel, belts and pulleys.
  - Do not touch engine or muffler while engine is running or soon after it is stopped. These areas can be so hot as to cause severe burns.
  - Clean grass, leaves and lubricant spills from surfaces after use to prevent fire hazard.
  - Be alert for traffic when crossing roads or operating near roadways.
  - Before crossing gravel drives, sidewalks or roads, turn off the blades and wait for them to stop.



### **Operation On Slopes**

DO NOT operate on steep slopes. Do not operate the mower on slopes steeper than you can feel secure about the traction of the tires

and the stability of the mower. Do not operate the mower on slopes at all when the grass is wet. There is a danger of suddenly sliding sideways or down the hill. When operating on a slope, travel across the grade whenever possible, not in an up or down pattern. Reduce speed and exercise extreme caution on slopes and in sharp turns to prevent tipping or loss of control. Be especially cautious when changing direction on slopes.

The Wright mower is capable of greater traction on slopes than typical riding mowers because of the benefits of a lower center of gravity. It is essential for you to know more about the handling characteristics of the mower so that you can enjoy more efficient mowing techniques and for increasing your safety.

The Wright mower handles differently at different angles of attack on a slope. It is important to understand the following differences so that you can use or avoid using the mower at different angles for the best and safest mowing advantage. Be aware of the following orientations to a slope and must handle the mower accordingly. As you use the mower you will gain the technique to mow more lawn than ever before.

**When pointing up a slope**, the mower has the most weight on the drive wheels and therefore the most traction at the tires. However, this is the angle that it has the most tendency to allow the front of the mower to tip up. This is the preferred angle for mowing small areas of steeper slopes.

Recommendations for this angle:

- Do not accelerate quickly to avoid the front from tipping up.”
- If backing down the hill, do not stop suddenly but slow down gradually and maintain an upward force on the handles to keep the front of the mower on the ground.

**When pointing down a slope**, the mower has the least weight on the drive wheels and therefore the least traction at the tires. This is the angle that the mower has the most tendency to slide. However, this is the angle that it has the least tendency to tip back. Avoid this angle, as it has the least advantage for the maneuverability of the mower.

Recommendations for this angle:

- Do not change speed suddenly to minimize the tendency of going into a slide. Accelerate and slow down gently. If you ever go into an uncontrolled slide while pointing down a slope, the recommended procedure is to let go of the handles and move up-hill from the mower. Otherwise, control the mower gently and stay off slopes that tend to make the wheels slide at this orientation.

**When crossing a slope sideways**, the mower has the average amount of weight on the drive wheels versus the front wheels, similar to level ground. However, this angle leaves the least weight on the higher side drive wheel, tending to make it slip. This is the preferred angle for mowing large areas of gentle slopes.

Recommendations for this angle:

- Do not accelerate quickly to minimize the tendency of tipping up the front end. Accelerate gently.

Note: Excessively worn tire tread is dangerous. Replace tire(s) with less than 3/32” of any tread groove left. Use tires with the tread pattern recommended by Wright Mfg., Inc. only. Keep the tire pressure in the drive tires at the recommended level. Higher pressures will cause the tires to have less traction, which will force you to go slower and with less safety.



### **Operation in Reverse**

Use extreme caution when operating in reverse. DO NOT operate this mower in reverse while standing on the Velke sulky or other sulky. Always keep a firm grip on the mower handles with both hands. Operate the mower very slowly, inching it backward until you become familiar with how the mower operates. Always operate slowly if in an awkward location or position. While backing up never place your foot or feet on the ground near the back edge of the mower to prevent serious personal injury if mower were to run over you. Look behind you

before backing to prevent injuring yourself or anyone behind you. Operate at slow speeds in forward and reverse if not completely familiar with mower operation.



### **Operation In Forward Direction**

Always keep a firm grip on the mower handles with both hands. Always remember to squeeze the handles to stop. Note: the neutral lock is not a parking brake. The drive-belt idler system can be adjusted to accommodate this, but should not be depended upon as the only means to prevent the machine from rolling down a hill. Operate the mower slowly until you become familiar with how the mower operates. Do not operate the mower faster than conditions allow. For example, hills, wet or bumpy ground, dim light or high grass would all be conditions where you should work slower than normal. Never operate the mower at the highest speed unless you are on level, wide, open areas of clearly visible ground or transporting on paved areas. Speeding with any mower is dangerous, and so is traveling faster than conditions should permit on this mower. Sudden stops from excessive speed or becoming detached from the mower may cause serious injury or death. See the “How to change the Speed Adjustment” section of this manual.



### **Fuel Safety**

Handle gasoline with care – it is HIGHLY FLAMMABLE. Do not smoke while handling gasoline. Use an approved gasoline container. Never remove the fuel cap or add gasoline to a running or hot engine or an engine that has not been allowed to cool for several minutes after running. Never fill the tank indoors and always clean up spilled gas. NEVER store the equipment with gasoline in the tank inside a building where fumes may reach an open flame or spark. Allow the engine to cool before storing



in any enclosure. Always use fresh and clean fuel. Untreated fuel stored for a prolonged period of time can varnish and create problems throughout the fuel delivery system.

### **Belt Safety**

Keep body and hands away from the exposed drive belts on either side of the mower. Serious bodily injury could result for entanglement in the belt and pulley system. Always adjust belt tension with the engine turned off and spark plug disconnected. Be certain to block wheels to prevent the mower from rolling and creating additional risk of pinching.

### **Replacement Parts**

Use of parts other than specified parts supplied by Wright Manufacturing, Inc. may compromise the safe use of the mower and are not recommended. Please check with your Dealer or our website for the latest Owner’s Manuals and Parts Manuals at [www.wrightmfg.com](http://www.wrightmfg.com).

**We want you to be as safe as possible. Please read the above again and again until you fully understand the methods to promote the safest operation possible.**

**REMEMBER – YOUR MOWER CAN BE ONLY AS SAFE AS THE OPERATOR.  
FAILURE TO FOLLOW SAFE OPERATING PRACTICES MAY RESULT IN  
SERIOUS INJURY OR DEATH.**

# OPERATING INSTRUCTIONS



If you are not completely familiar with the Safety Instruction Manual, read it now before proceeding with the operation of the mower. **REMEMBER THERE ARE CERTAIN PRECAUTIONS LISTED IN THIS MANUAL THAT YOU MUST NOW TAKE BEFORE STARTING THE MOWER.**

## Inspect Mower Before Each Use

Do not use the mower if any parts are not maintained in good operating condition. Examine all moving parts prior to each use. Look for excessive wear, bald drive tires or worn out front tires (normally smooth), cracks in parts, loose or missing bolts, cotter, linchpin or “hair” pins and replace before operating the mower. Make sure all safety equipment provided with the mower is in good operating order, including all warning decals and the operator-presence device, which stops the engine and blades when the hand-operated Operator Presence Control (OPC) switch is released. To test the OPC, follow the instructions further down in this manual. Ensure that all parts of the hand-operated transmission control system are tight and secure. This is to reduce the possibility that the mower could have a loss of control or safety.

## Basic Operation

The following procedures are to guide you through the basic operation of the mower. You should be a qualified mower operator according to the safety section of this manual. If this is your first time, operation should only be done with the assistance of your dealer on a level area. You should go through each step, in the order indicated, every time you start the mower.

## Unusual Noises or Irregular Operation

As you drive the mower listen for any unusual noises and test for irregular operation and adjust or service as necessary. It is normal for the clutch to make noises and squealing sounds when engaged and possibly when disengaged.

## Mower Operation

Read and understand the [safety instructions](#) before attempting to operate your machine.

Use caution when operating this piece of equipment. Practice operating the mower at low speeds and without the blades engaged until familiar with the operation of the controls.

Before starting the engine:

- Check the oil level in the engine and the hydraulic reservoir
- Fill the fuel tank with clean, fresh, unleaded gasoline (use gasoline with an octane of 87 or greater)
- Ensure the fuel valve is in the full open position.
- The blade clutch (PTO) switch must be in the OFF position
- Position the speed adjustment lever to NEUTRAL
- Position the neutral latches in the neutral lock position

Start the engine – choke as needed

Make sure the steering hand-levers are locked in the neutral position. Then adjust the transmission shifter to the desired ground speed setting.

While squeezing the steering brake levers with both hands, release both neutral latches (one on each handle). Slowly release the levers to travel forward. To make a right turn, squeeze the right hand lever. To make a left turn, squeeze the left hand lever. To stop, squeeze the levers up beyond the neutral point. This will disengage the drive belt and engage the wheel drum brakes. Always make sure the brakes are properly adjusted and effectively stop the mower when activated.

After comfortable with driving the mower, test the blade system. Engage the blades by first engaging the operator presence device and then pulling up on the blade clutch (PTO) switch. Push the switch down to disengage the cutting blades. \*\*For best equipment life, engage the blades at  $\frac{3}{4}$  engine throttle.

## How to Stop and Park the Mower

To stop the mower, squeeze on both hand-levers. This acts to both disconnect the wheels from the transmission and also to engage the disc brakes. Come to a complete stop. Make sure the steering brake levers are in the neutral position with the neutral latches engaged with the levers. If the blades are on, turn them off using the switch on the instrument panel. Place the speed control lever in the neutral position; reduce the engine speed to idle, shut off the ignition switch to stop the engine and then remove the key from the ignition switch. When parking the mower set the shifter into First or Reverse depending on the direction the mower is facing. If the mower is facing slightly downhill, set the transmission into Reverse. If facing slightly uphill, set the transmission into First. The mower is now parked. Never leave mower unattended on hills or sloped ground.

## How to Drive the Mower Over a Curb

To climb a curb, first see the [Safety Instructions](#) section of this manual, especially the parts on:

- Initial Operating Safety Guidelines
- Operation In Reverse
- Operation In Forward Direction

To drive up and over a curb turn the blades OFF and then proceed forward to the curb, lift the front wheels off the ground by pushing down on the handlebar and move slowly forward allowing the front wheels to rest on the ground beyond the curb. Then proceed slowly while driving the rear wheels over the curb. To drive over and down a curb proceed slowly forward to the curb and allow the front wheels to slowly roll off of the curb and down to the ground below the curb. Then move slowly forward until the rear wheels roll over the curb and down to the ground below. NEVER stand on the Velke (sulky) while driving over a curb.

## Mowing on Varying Terrain

See the [Safety Instructions](#) section of this manual, especially the parts on:

- Initial Operating Safety Guidelines
- Operation On Slopes
- Operation In Reverse
- Operation In Forward Direction
- Operation During Zero-Radius Turns

Be certain to exercise extreme caution when mowing in an unfamiliar area. Mow at a slower speed if the grass is too tall to observe the

contours of the ground. Traveling at lower speeds in rough terrain will help prevent jarring to the operator and machine and can also prevent damage to the machine or landscape from scalping.

## How to adjust the Speed

Set the desired travel speed by moving the transmission lever, located between the handlebars near the operator's knees. This lever is used to set the transmission in Reverse, Neutral, or one of the five forward speeds. The desired initial speed selection should be made while the pistol grips are locked in the neutral position. This is achieved using the hinged locking tab. Change speed with caution while in motion. Otherwise there is a risk of injury to the operator or damage to the machine.

## Straight Line Tracking Adjustments

Verify that both rear tires are inflated to the proper PSI. Tire wear or incorrect pressure can cause the machine to not follow a straight path. Always test for straight line tracking in a wide, open, flat area away from bystanders and objects. An incorrectly adjusted grip or hand-lever can also cause the mower to track to one side or another. Make sure that both sides have sufficient tension during normal operating conditions. More tension may be necessary in wet cutting conditions. Loosening the rear spring nut and bolt and sliding the bolt downward in the tension slot will increase the drive-belt tension.

## How to Test/Use the Blade Clutch/Brake Switch

Before testing the blade clutch/brake operation, make sure the area is clear and there is nothing vulnerable to thrown objects from under the mower. No one should be near the mower deck or in its line of discharge. The discharge chute deflector should be in the down position. Move the engine throttle to the highest RPM speed setting. (When mowing, the engine speed should always be at its highest setting. The engine governor will regulate the engine according to the different mowing conditions at that setting.) Engage the Operator Presence Control OPC switch and turn on the blade clutch switch. Run blades for a minute or so. Try engaging and disengaging the blades a few times about 10 seconds apart. If the blades do not start and stop

in a few seconds each time, service the blade brake system or contact your local Wright dealer. Under mowing load, the clutch's longevity will be the greatest at the 3/4-throttle setting.

## How to Test the Operator Presence Control (OPC) Switch

Before beginning this test, secure a large open area that is free of obstacles or hazards. To test the OPC switch start the engine using the normal starting procedures, release the parking brake and place the speed control in the slowest speed setting. While engaging the OPC lever(s) engage the blades by pulling up on the PTO blade clutch switch. Allow the mower to start moving forward and then release the mower handles. If the engine doesn't stop, then service the OPC system. Never operate the blades without a properly working OPC switch and safety shutoff circuit.



## Service and Adjustments

### Tire Maintenance and Pressure

Excessively worn tire tread is dangerous on all hills. Replace drive tires with less than 3/32" of any tread groove left. Use tires with the tread pattern recommended by Wright Mfg., Inc. only. Keep the tire pressure at the proper level. Higher pressures will cause the tires to have less traction, which will force you to go slower, with less safety and give you a harder ride. Higher pressures will help keep the front caster tires on their rims when impacted from the side but give a harder ride. They do not have any tread but should be replaced when excessively worn.

### Blade Adjustments and Height-of-Cut

Before Adjusting the Height-of-Cut be sure of proper air pressure in all four tires and check for even tire wear. The height-of-cut can be adjusted the following ways:

- **Coarse Adjustment:** For the coarse adjustment the rear wheels, the front casters should be adjusted at the same time.

The rear wheels adjust by pivoting the rear axle, See Parts List, by the upper support bolt. It will be necessary to jack up the rear of the mower and place it on blocks. The rear wheels do not

need to be removed. Make certain there is no weight on the rear axle before loosening any hardware. Loosen the upper pivot bolts slightly. Allow all threads to remain engaged on the nut. Remove the bolts on the lower portion of the rear axle weldment. The bolts are accessible from the inside of the tractor body. Align the rear axle with one of the five adjustment holes in the tractor body. Each adjustment setting changes the mower height by 0.75".

- a. Use the highest hole in tractor frame for cutting heights of 1.75"-3.0".
- b. Use the second highest hole in tractor frame for cutting heights of 2.5"-3.75", factory setting.
- c. Use the middle hold in the tractor frame for cutting heights of 3.25"-4.5".
- d. Use the lowest two holes in tractor frame for cutting heights of 4.0"-5.75".

Adjust the front caster arms at their respective support brackets equally in one of the seven settings up or down 0.25" each through a 1.5" total range.

- a. This should be done with two shims (or spacers) on the bottom and one shim on the top of the caster support arm.
- b. The front-to-rear leveling of the blades should be between level and .25" lower (preferred) at the front of the blades but never higher at the front.

- **Temporary Height-of-Cut Adjustment:** Using the caster shims (or spacers) you can adjust the blades downward temporarily .5" or 1" below the original coarse setting as described above. This assumes that the blades are level with two shims (or spacers) on the bottom and one shim on the top of the caster support arm. With the blades level at this assumed starting point, you should never move all of the shims to the bottom since that would make the blades higher at the front.

The angle of attack of the blades should always be level or lower at the front. This makes the blade cut the grass only once and saves fuel and wear on the whole mower. It also allows more efficient mowing and grass catching or dispersal. If you mow in an area of the country where the lawn is very thick and spongy you may have to set these two adjustments as they would appear on the grass and not on a

hard surface due to the tires “floating” up on or “sinking” down into the lawn.

- **Fine Adjustment:** Adjust the blades equally in five settings up or down 0.25” each in a 1.25” total range. The shims on the blade bolts are moved from under the spindle to the top of the spindle. If possible, leave at least one shim at the top and the bottom of the spindle shaft. Using the maximums and minimums of these methods gives you a total range of 2.75” from 1.75” to 4.5” in eleven distinct settings. The factory setting is 3” when measured to a hard floor surface at the front of the deck.

### Belt Tension Adjustment

The transmission-drive belt is not self-adjusting, and will require readjustment under normal wear as the belt ages and stretches. Tighten belt so that it doesn't slip during operation, but isn't too tight. A belt that is able to slip can become glazed and will need replacement.

The wheel-drive belt may also require tension adjustment, depending on the operating environment and wear. Under wet mowing conditions, or mowing on steep hills, it may be necessary to increase the belt tension to prevent

unwanted slip. Loosening the rear spring bolt attached to the pulley guard and sliding the bolt assembly downward within the slot on the pulley guard plate will increase the belt tension. Note: an increase in tension on the wheel-drive belt will also increase operator fatigue, as it will be harder to squeeze the hand-levers. An increased tension will, however, provide a better belt response.

The blade belts are equipped with an automatic tensioning idler. Therefore, this system will not require any tension adjustment.

### Moving the Mower with the Engine Off

Set the transmission shifter to Neutral and lock the hand levers into the neutral position. The mower is now free to be moved. When parking the mower set the shifter into First or Reverse depending on the direction the mower is facing. If the mower is facing slightly downhill, set the transmission into Reverse. If facing slightly uphill, set the transmission into First. Allow handgrips to remain engaged. Never leave mower unattended on hills or sloped ground.

### **MAINTENANCE SERVICE INTERVALS (see chart on following page)**

It is very important to keep good maintenance records. Use the hour meter on the mower, if equipped, to record the hour reading of each maintenance service so you will not forget how long it has been since you last did certain maintenance. The more faithful and consistent you are, the longer the mower will last and hold its value.

**NOTE: THE FOLLOWING ITEMS ARE REQUIRED TO AVOID INVALIDATING THE WARRANTY.**

# Maintenance Interval Chart

MAINTENANCE ITEM	ENGINE ITEMS	SEE NOTE BELOW	FIRST 8 HOURS	DAILY	EVERY 25 HOURS	EVERY 100 HOURS	EVERY 200 HOURS	EVERY 300 HOURS	ANNUALLY
Inspect for cracks in frame, cutter deck or other steel parts		*1	X						X
Inspect all belts for wear, adjustment and alignment			X		X				X
Check all bolts and nuts for tightness (tighten as necessary)			X						X
Lubricate hand control lever pivot shafts with waterproof grease			X						X
Grease caster wheel bearings			X	X					X
Check tire pressure; Rear tires 18-22 psi-Front tires 30-40 psi			X		X				X
Check and clean engine cooling fins	Engine	*2	X		X				X
Lubricate Operator Presence Control pivots and control rod with waterproof grease			X		X				X
Replace fuel filter	Engine	*2	X			X			
Lubricate choke control cable (if equipped) with WD-40			X			X			X
Check engine oil and add as needed	Engine	*2		X					X
Check for fuel or oil leakage - correct as needed	Engine	*2		X					X
Check and clean air intake screen	Engine	*2		X					X
Clean engine blower screen and fins with compressed air	Engine	*2		X					X
Clean mower with compressed air-do NOT use a pressure washer				X					X
Check all bolts and nuts for tightness (tighten as necessary)				X					X
Check for loose hardware (e-clips, snap rings, nuts, etc.)				X					X
Check blades for wear and sharpness (sharpen and balance or replace as necessary)				X					X
Check and adjust tire pressures to no more than maximum pressure listed on tire and maintaining good traction and comfort				X					X
Clean out debris under blade belt cover				X					X
Scrape clean underside of cutter deck				X					X
Check blade mounting bolts for proper tightness				X					X
Check blade spindle mounting bolts for proper tightness				X					X
Clean air cleaner foam element	Engine	*2			X				X
Inspect tires, replace as needed					X				X
Clean air cleaner paper element	Engine	*2				X			X
Clean and re-gap spark plug (replace as necessary)	Engine	*2				X			X
Change engine oil	Engine	*2	X			X			X
Change engine oil filter	Engine	*2					X		X
Replace air cleaner paper element	Engine	*2					X		X
Completely inspect for excessive wear in all parts of mower, including control system (replace worn parts)							X		X
Inspect and replace (if necessary) worn main cutter deck idler pulleys or pulley bearings (if applicable)							X		X
Replace (if necessary) excessively worn caster wheels and roller bearings							X		X
Clean combustion chamber	Engine	*2						X	
Check and adjust valve clearance	Engine	*2						X	
Clean and lap valve seating surface	Engine	*2						X	

## NOTES:

\*1 - Contact an authorized Dealer immediately if any cracks are found

\*2 - Refer to Engine Manufacturers Owners Manual

\*The service intervals indicated are to be used as a guide. Service should be performed more frequently as necessary by operating conditions\*



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# **WRIGHT MANUFACTURING, INC. POWER EQUIPMENT LIMITED WARRANTY**

## **THIS WARRANTY SUPERSEDES ALL PREVIOUS ON UNITS WITH A RETAIL SALES DATE ON OR AFTER 04/01/05**

Wright Manufacturing, Inc. (hereinafter: WMI) warrants to the original owner that the new WMI mower accompanying this document will be free from manufacturing defects in materials or workmanship subject to the following limitations and exclusions. Any part of the WMI commercial mower manufactured by WMI and found, in the reasonable judgment of WMI, to be defective in materials or workmanship, will be repaired or replaced by an Authorized WMI Service Dealer without charge for parts and (except as excluded below) labor. This Warranty is limited to the original Owner and the mower this document was provided with and is not transferable. Dealer demo units with less than fifty hours when first retailed shall also be covered by this limited warranty. Proofs of Purchase, Authorized Dealer performed Pre-Deliver Service and the First Eight Hour Service will be required by the Authorized WMI Service Dealer to substantiate any warranty claims. All WMI warranty work must be performed by an Authorized WMI Service Dealer and item must be delivered to the dealer prior to the expiration of the warranty period. This Warranty is limited to the following specified periods from the date of the original retail purchase for defects in materials or workmanship and will commence upon the date of original retail purchase. This warranty shall apply only if the warranty registration form has been completed and returned to Wright Manufacturing, Inc. within 30 days from the date of original retail purchase. This warranty includes only the cost of parts and labor (when applicable).

- All parts and components (except as noted below) – 2 years
- Belts – 90 days
- Battery – 90 days
- Engine – warranty covered by engine manufacturer and handled through the respective Authorized engine Dealers

### **Exclusions:**

All damage or deterioration due to normal use, wear and tear or exposure  
All filters, engine oil, hydraulic oil, tires and tubes  
Bent, fractured or broken parts occurring through impact or hard use  
Clutch: linings, anti-rotation failure or other failure due to improper replacement installation  
Cost of regular maintenance service, parts or adjustments  
Worn bearings (other than spindle bearings; see above)  
Worn bushings, cotters, clips, pins and retainers  
Grease fittings/zerks  
Paint, paint fading, cosmetic imperfections and steel surface imperfections  
Fabric, cushion and rubber grip wear or damage  
Cutting blades, light bulbs, fuses  
Damage due to loose pulleys on shafts  
Damage due to loose wheel hubs on tapered hydraulic motor shafts  
Fire Damage  
Abrasion or corrosion wear or damage

### **Repair Parts Replaced During Original Warranty**

All repair parts (excluding wear or otherwise excluded items) installed during the warranty period are warranted until the end of the respective original period according to the categories above except in the case that the respective original warranty period expires in less than ninety (90) days after the installation of the part(s). If this happens then the parts are warranted for a total of ninety (90) days from the time of their installation.

### **Rental Use**

The above warranty periods are limited to maximum of ninety (90) day for mowers that are used for rental purposes.

This WMI mower, including any defective part, must be returned to an Authorized WMI Service Dealer within the warranty period. The expense of lost production time and delivering the mower to the Authorized WMI Service Dealer for warranty work and the expense of returning it to the Owner after repair will be paid for by the Owner. WMI's responsibility is limited to making the required repairs and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any WMI mower. This Warranty does not apply to any mower that was delivered to an Owner prior to the Pre-Delivery Service as specified in the Owner's Manual. This Warranty does not apply to any mower that was shipped in a crate to the Owner or delivered to the Owner by non-employees of an Authorized Dealer. For the Owner's protection and a valid Warranty, please note: WMI does not permit Authorized Dealers to make non-face-to-face deliveries of the mower and any who are found doing so are subject to immediate cancellation as Authorized Dealers. This Warranty does not cover any mower that has been subject to misuse, neglect, negligence, burning in any fire, an accident, or that has been operated or maintained in any way contrary to the operating and maintenance instructions as specified in the Owner's Manual. The Warranty does not apply to any damage to the mower that is the result of improper maintenance, or to any mower or parts that have not been assembled or installed as specified in the Owner's Manual. The Warranty does not cover any mower that has been altered or modified changing performance or durability. 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 WMI, are either incompatible with the WMI mower or adversely affect its operation, performance or durability. WMI reserves the right to change or improve the design of any mower without assuming any obligation to modify any mower previously manufactured.

All other implied warranties are limited in duration to the two (2) year warranty period or ninety (90) days for mowers used for rental purposes. Accordingly, any such implied warranties including merchantability, fitness for a particular purpose, or otherwise, are disclaimed in their entirety after the expiration for the appropriate two (2) year or ninety (90) day warranty period. WMI's obligation under this Warranty is strictly limited to the repair or replacement of defective parts and WMI does not assume, or authorize anyone to assume for them, any other obligation. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply.

WMI 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 WMI Service Dealer and expense of returning it to the Owner, damage by fire, mechanic's travel time, telephone charges, rental of a like product during the time warranty repairs are being performed, travel, loss or damage to personal property, loss of revenue, loss of use of the power equipment, loss of time or inconvenience. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply.

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 WMI mowers sold in the United States of America and Canada.

**For the location of the Authorized WMI Service Dealer nearest you or other information, such as, Parts Lists and Owners Manuals visit our website at:**

[www.wrightmfg.com](http://www.wrightmfg.com)

Wright Manufacturing, Inc.  
4600-X Wedgewood Blvd.  
Frederick, MD 21703



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