

# MZ MAGNUM MODELS ZERO-TURN MOWER OWNER'S, SERVICE & PARTS MANUAL

For additional information, please see us at

www.badboymowers.com

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# This manual applies to the following equipment:

### **Bad Boy MZ MAGNUM Series**

MZ Magnum 48" KT725 Kohler MZ Magnum 54" KT740 Kohler MZ Magnum 48" Kawasaki FR651V MZ Magnum 54" Kawasaki FR651V

# **COMMONLY USED ITEMS AND PART NUMBERS**

48" MZ Blade	Hi-Lift Fusion	Gator Blade	Wave Blade 038-4825-00	
TO WIZ Blade	038-4826-00	038-4826-00 038-4827-00		
54" MZ Blade	Hi-Lift Fusion	Gator Blade	Wave Blade	
	038-0005-00	038-0003-00	038-5220-00	
48" MZ Deck	041-6027-00			
54" MZ Deck	041-4022-00			
MZ Pump Belt	041-6400-00			
Oil Filter	Kohler Engine		Kawasaki Engine	
	063-5004-00		063-8017-00	
Air Filter	Kohler Engine		Kawasaki Engine	
	063-5002-00 063-5003-00 0		063-2097-00	
	(Pre-Cleaner) (Element)			
Fuel Filter	Kohler Engine		Kawasaki Engine	
	063-5001-00		063-6000-00	
Spark Plug	Kohler Engine		Kawasaki Engine	
	015-8000-00 015-80		015-8001-00	
Motor Oil	10W-30 Motor Oil – Bad Boy Synthetic Blend Motor Oil Recommended			

# **SECTION 1: BASIC INFORMATION**

Congratulations on the purchase of your new Bad Boy Mower! The purpose of this manual is to assist operators in maintaining and operating their machine. The information and instructions in this manual can help you attain years of performance from your new Bad Boy. Also, check out our website to learn more about the Bad Boy family.

- 1.1 All Bad Boy engines use 10W-30 engine oil. For maximum protection, Bad Boy synthetic blend engine oil is recommended.
- 1.2 All Bad Boy Mowers use hi-temp multi-purpose grease. NLGI No. 2 for the grease fittings.
- 1.3 MZ models have 12 psi in both front and rear tires.
- 1.4 Most Briggs, Kohler, Kawasaki, and Vanguard engines hold approximately two (2) quarts of motor oil. Be careful not to over fill engine oil. Refer to the engine's service manual.

# **Warranty Registration**

The Warranty Registration form must be completed within 30 days to validate your warranty. As the new equipment owner, you are expected to see that the form is completed and forwarded to Bad Boy, Inc., at time of delivery. Warranty is non transferable. **Warranty registration should be completed by the selling dealership using the on-line registration site.** 

# **Model/Serial Number**

Your MZ model serial numbers are found on the SIN plate underneath seat. Also, these numbers can assist you in the ordering of new parts when replacements become necessary.

# Parts/Service

Only Bad Boy replacement parts are to be used on your mower.

Replacement parts are available through your local Bad Boy Mower Dealer. Remember to always provide the following information when ordering parts:

- 1. Correct part number
- 2. Correct serial number

All warranty repair and service must be handled through your authorized Bad Boy Mowers dealer.

To locate the nearest dealer, go to our website and click on Locate a Dealer.

# **EVAPORATIVE EMISSION CONTROL WARRANTY STATEMENT**

### Federal Evaporative Emission Control Warranty: Your Warranty Rights and Obligations

The Environmental Protection Agency (EPA), and Bad Boy Inc. are pleased to explain the evaporative emission control system's warranty on your 2016 equipment. New equipment that uses spark ignition engines for off-road use must be meet stringent anti-smog standards. The evaporative emission control system on your equipment is designed, built, and equipped so it conforms at the time of sale to the ultimate purchaser with the requirements of 40 CFR 1060. The evaporative emission control system is free from defects in materials and workmanship that may keep it from meeting said requirements. Bad Boy Inc. must warrant the evaporative emission control system on your equipment for two years provided there has been no abuse, neglect or improper maintenance. If an evaporative emission control system component does fail in a manner that would cause the equipment to no longer meet the requirements of 40 CFR 1060 within the first two years Bad Boy Inc. will replace the defective component. Your evaporative emission control system may include parts such as fuel tanks, fuel lines, carbon canisters, fuel caps, valves, vapor hoses, clamps, or connectors.



# **SECTION 2: MOWER SAFETY GUIDELINES**

Never allow untrained people to operate this machine. It is the owner's responsibility to get training and see to it that anyone who has permission to use your machine receives the proper training. Do not mow around people. The factory discharge chute is designed to deflect debris downward, but it could be possible for debris to be thrown in a way that can cause damage to people or property. Seek additional training when possible to learn more about safety techniques and practices. **This cutting machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.** 

# **GENERAL OPERATION**

- 2.1 Read, understand, and follow all instructions on the machine and in the manual before starting.
- 2.2 Do not put hands or feet near rotating parts or under the machine. Keep clear of the discharge opening at all times.
- 2.3 Always remain seated while operating the machine. If the machine is equipped with Roll Over Protection (ROPs), always buckle your seat belt.
- 2.4 Only allow responsible adults who are familiar with the instructions to operate this machine.
- 2.5 Clear the area of objects such as rocks, wire, toys, etc., which could be thrown by the blades.
- 2.6 Always maintain a safe distance from people and pets just prior to, and during, operation. Stop the machine if anyone enters the area.
- 2.7 Never carry passengers.
- 2.8 Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- 2.9 Never direct discharged material toward anyone. Avoid discharging material against a wall or obstruction as material may ricochet back toward the operator. Stop the blades when crossing gravel surfaces.
- 2.10 Never operate the machine without the discharge chute, grass catcher, or other safety devices correctly in place and functioning properly.
- 2.11 Slow down before turning.
- 2.12 Always disengage blades, place steering controls in neutral, engage parking brake, and remove ignition key when leaving operators seat. Never leave a running machine unattended.
- 2.13 Disengage blades when not mowing. Shut off engine and wait for all parts to come to a complete stop before cleaning the machine, inspecting the machine for damage, removing the grass catcher, or unclogging the discharge guard.
- 2.14 Always operate machine in daylight or with adequate working lights.
- 2.15 Do not operate the machine while under the influence of alcohol or drugs.
- 2.16 Watch for traffic when operating near or crossing roadways.
- 2.17 Always wear eye protection when operating or servicing the machine.
- 2.18 Always wear ear protection, such as earplugs, while mowing.
- 2.19 Use extra care when loading or unloading the machine into a trailer or truck.
- 2.20 Be alert of surroundings. Watch for rocks, stumps, mounds, depressions, and low hanging limbs or objects that could be potentially hazardous while mowing.
- 2.21 Data indicates that operators 60 years of age and above are involved in a large percentage of riding mower related injuries.

  These operators should periodically evaluate their ability to operate the riding mower safely enough to protect themselves and others from serious injury.

# **SLOPE OPERATION**

Slopes are a major factor related to loss of control and tip over accidents, which can result in severe injury or death. Operation on all slopes requires extra caution. If you cannot back up the slope, or you feel uneasy on it, do not mow it.

- 2.22 Mow up and down slopes, not across.
- 2.23 Watch for holes, ruts, bumps, rocks, or other hidden objects that tall grass can obscure. Uneven terrain could overturn the machine.
- 2.24 Choose a low ground spend when operating the machine on a slope.
- 2.25 Do not mow on wet grass, the tires may lose traction.
- 2.26 Do not attempt to coast down a slope in the neutral position.
- 2.27 Avoid starting, stopping, or turning on a slope. If the tires lose traction, disengage the blades and proceed slowly, straight down the slope.
- 2.28 Keep all movement on slopes slow and gradual. Sudden changes in speed or direction could cause the machine to roll over.
- 2.29 Use extra care while operating machine with grass catchers or other attachments: they can affect the stability of the machine.

  Do not use on steep slopes.
- 2.30 Do not try to stabilize the machine by putting your foot on the ground.
- 2.31 Do not mow near drop offs, ditches or embankments. The machine could suddenly roll over if a wheel goes over the edge or the edge caves in.
- 2.32 Be aware of what is located at the bottom of slopes. For example: rocks water, cliffs, and roadways.

### **CHILDREN**

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

- 2.33 Keep children out of the mowing area and in the watchful care of a responsible adult other that the operator.
- 2.34 Maintain alertness and turn machine off if a child enters the area.
- 2.35 Before and while backing, look behind and down for small children.
- 2.36 Never carry children, even with the blades shut off. They may fall off and be seriously injured or interfere with safe machine operation. Children who have been given rides in the past may suddenly appear in the mowing area for another ride and be run over or backed over by the machine.
- 2.37 Never allow children to operate the machine.
- 2.38 Never leave key in the ignition, especially around children.
- 2.39 Use extreme care when approaching blind corners, shrubs, trees, or other objects that may block your view of a child.

# **TOWING**

- 2.40 Tow only with a machine that has a hitch specifically designed for towing. Do not attach towed equipment except at the hitch point.
- 2.41 Follow the manufacturer's recommendation for weight limits for towed equipment and towing on slopes.
- 2.42 Never allow children or others in or on towed equipment.
- 2.43 On slopes, the weight of the towed equipment may cause loss of traction and loss of control.
- 2.44 Travel slowly and allow extra distance to stop.



# **SERVICE:**

### SAFE HANDLING OF GASOLINE

To avoid personal injury or property damage, use extreme care in handling gasoline. Gasoline is extremely flammable and the vapors are explosive.

- 2.45 Extinguish all cigarettes, cigars, pipes, and all other sources of ignition.
- 2.46 Use only an approved gasoline container.
- 2.47 Never remove gas cap or add fuel with the engine running.
- 2.48 Allow engine to cool before refueling.
- 2.49 Never fuel the machine indoors.
- 2.50 Do not store machine near open flame or source of ignition, such as a water heater or furnace.
- 2.51 Remove gas powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment with a portable container, rather than from a gasoline dispenser nozzle.
- 2.52 Never fill gasoline containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground away from your vehicle before filling.
- 2.53 Keep the nozzle in contact with the rim of the fuel tank or container opening at all times until the fueling is complete. Do not use a nozzle lock-open device.
- 2.54 If fuel is spilled on clothing, change clothing immediately.
- 2.55 Never overfill fuel tank. Replace gas cap and tighten securely. **Tank is full when level reaches bottom of fill tube.**

# **GENERAL SERVICE**

- 2.56 Never operate machine in a closed area where dangerous carbon monoxide fumes can collect.
- 2.57 Keep all nuts and bolts tight to be sure the equipment is in safe working condition. Never operate a poorly maintained machine.
- 2.58 Do not touch hot areas of the machine.
- 2.59 Never interfere with the intended function of a safety device or reduce the protection provided by a safety device. Check their proper operation regularly.
- 2.60 Keep the entire machine free of grass, leaves, or other debris build up. Clean up oil or fuel spillage and remove any fuel soaked debris. Failure to do so can affect the safety and functionality of the machine, as well as increase the danger of a fire due to contact with the hot surfaces of the machine.
- 2.61 Allow machine to cool before storing.
- 2.62 If you strike something with the mower, turn the mower and blades off, engage the parking brake, and inspect the machine for damage. Repair, if necessary, before resuming.
- 2.63 Never make any adjustments or repairs with the engine running.
- 2.64 Check grass catcher components and the discharge guard frequently and replace with manufacturer's recommended parts, when necessary.
- 2.65 Mower blades are sharp. Wrap the blade or wear gloves before servicing them.
- 2.66 Check parking brake operation frequently. Adjust and service as required.
- 2.67 Maintain or replace safety and instruction labels, as necessary.
- 2.68 Do not attempt to mount a tire without the proper equipment and experience to perform the job.

- 2.69 Always maintain the correct tire pressure. Do not inflate the tires above the recommended pressure. Never weld or heat a wheel and tire assembly. The heat can cause an increase in air pressure resulting in a tire explosion. Welding can structurally weaken or deform the wheel.
- 2.70 Park machine on level ground. Never allow untrained personnel to service machine. Understand service procedure before doing work.

# SAFETY INTERLOCK SYSTEM

Your Bad Boy mower is equipped with a safety interlock system. This system is designed to prevent serious injury or death to the operator and other people or property damage. The system consists of an operator presence switch in the seat, the parking brake, drive lever neutral position, the mower blade engagement switch, and the ignition switch.

These interlocks are vitally important and must be tested frequently. Following are instructions to test these very important safety precautions. **Note: the operator must be seated properly on the machine during these tests and the engine should have been previously allowed to warm to operating temperature.** 

- 2.71 With the parking brake engaged, bring lever arms to their inward position, then attempt to start the machine (the blade actuator should be in off position); the engine should not start.
- 2.72 On a level surface, disengage the parking brake and place lever arms to their outward position, then attempt to start the machine (the blade actuator should be in off position); the engine should not start.
- 2.73 Engage parking brake and leave lever arms in outward position, put blade actuator in the on position, then attempt to start the machine; the engine should not start.
- 2.74 Next, start the engine as stated in the "Mower Operation Section", disengage parking brake, and Very Slowly begin to rise from the seat; the engine should stop.
  - If any of these tests fail to produce the results indicated and the problem cannot be identified, contact your Bad Boy Mower dealer or the support contacts in the rear of this manual.



# **SECTION 3: MOWER OPERATION**

Never operate the machine with faulty equipment. Always be alert of sudden changes in landscape, as the mower will react differently on slopes or embankments than it will on flat surfaces. Never operate the mower with the discharge chute open. Do not cross terrain, other than grass, with blades turning. This could cause damage to property or bystanders.

- 3.1 Place parking brake in up position
- 3.2 Drive arms must be in the "open" position. While sitting on the machine, each arm is positioned away from the operator, to the right and left. Drive arms will lock into place and must be in this position to start machine.
- 3.3 Put PTO switch in the OFF position.
- 3.4 If your machine has been equipped with a ROPS (Roll Over Protection System) then you must fasten seatbelt.
- 3.5 If machine has not been started recently, engage the choke.
- 3.6 Make sure nothing is under or around machine.
- 3.7 Place key in ignition and turn.
- 3.8 Once machine is started, disengage the choke.
- 3.9 Increase RPM by sliding the throttle to fast position, toward the rabbit.
- 3.10 Owners must become familiar with the controls before operating a zero-turn radius vehicle.
- 3.11 Start slowly and build your skill level. Have ample practice before using the machine at full capabilities.
- 3.12 Be comfortable with machine before engaging blades. Know what each component controls before using machine.
- 3.13 Your mower will perform differently on an incline /decline. Be cautious, slow down, and do not make any sudden jerking movements with control arms. The machine could lose traction on a decline or tip backwards on an incline.
- 3.14 Once you become comfortable with your Bad Boy Mower you will notice your overall mowing time will decrease.

Avoid operating your mower on side hills of over 5 degrees, inclines of over 10 degrees, and declines of over 15 degrees.

# **SECTION 4: MOWER MAINTENANCE**

	Interval						
Maintenance	Daily	First 8 hours	Every 50 hours or annually*	Every 100 hours or annually*	Every 200 hours	Every 250 hours	Section
Check and add engine oil	•						Section 3
Check all belts for proper alignment	•						Section 2 (Pump) 6 (Deck)
Check tire pressure and wheel lug nuts	•						Section 5
Check battery terminal connections	•						Section 4
Check condition of blades	•						Section 6
Check for fuel and oil leakage	•						Section 3
Initial oil change		•					Section 3
Change engine oil and filter			•				Section 3
Tighten nuts and screws			•				
Grease mower				•			Section 5
Replace air element and pre-cleaner				•			Section 3
Replace fuel filter ◊				•			Section 3
Clean or replace spark plugs and set gap				•			Section 3
Clean combustion chamber Dealer						•	
Check and adjust valve clearance Dealer						•	
Clean and lap valve seating surface Dealer						•	

<sup>\*</sup>Maintenance by hour or annually which ever come first

<sup>♦</sup> Check air and fuel filter more often in dusty conditions

Dealer Get maintenance performed at a registered dealership



# Maintenance Log

Date:	Hours:	Performed:
Date:	Hours:	Performed:

# SECTION 5: MOWER STORAGE & TRANSPORTATION

- 5.1 Keep machine from collecting debris by storing in a covered area while not in use.
- 5.2 Fuel can harm your machine if left for more than 30 days without changing, especially if the fuel contains ethanol. Never use fuel with more than 10% ethanol by volume. E-15 is not permitted.
- 5.3 Disconnect the negative battery cable when machine will be stored for more than 30 days.
- 5.4 Always secure machine properly when transporting machine.
- 5.5 Do not load machine on trailer with blades engaged.
- 5.6 Do not use ramps to load the machine.
- 5.7 Make sure Parking Brake is in "up" position.
- 5.8 In wet conditions tires may spin while loading / unloading. If necessary, wait for dry conditions before loading / unloading.
- 5.9 Make sure mode of transportation is suitable to bear the weight of mower.
- 5.10 Deck height should be set at maximum before attempting to load.
- 5.11 Secure mower with at least two straps capable of securing weight of mower.

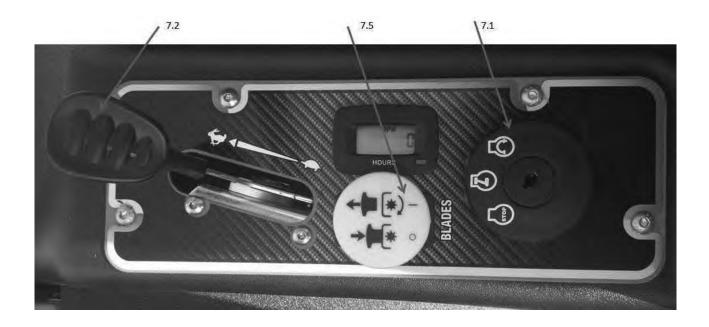


# **SECTION 6: TROUBLESHOOTING**

- 6.1 **Q:** How do I prevent an uneven cutting pattern and increase the quality of cut?
- 6.1 A: Check tire pressure, check blade sharpness (replace blades or sharpen at least once per year or when needed), make sure blades are tightened properly, check spring and belt tension, check the underside of the deck to ensure the mower deck is free of grass build-up and debris, make sure your machine is at full throttle, and vary your mowing pattern each time you cut your grass.
- 6.2 **Q:** What should I do if my mower won't start?
- 6.2 A: Check battery charge and connection (grounds), check your fuel (make sure fuel is less than 30 days old and contains no water), make sure your spark plug is in good condition and spark plug wire is attached, and make sure air filter is clean (a dirty filter makes it more difficult for the engine to draw air). Check the integrity of the 25 amp main fuse; also check for any bare wires and/or bad connections.
- 6.3 **Q:** What should I do if the blades won't engage?
- 6.3 **A:** Make sure the safety switch is plugged in on the bottom of seat. Check the underside of the PTO engager to ensure the plug is secure at switch. Also check PTO fuse underneath operator console (10amps)
- 6.4 **Q:** What type of fuel is recommended for my mower?
- 6.4 A: We recommend that you use a name brand fuel to ensure quality. Use fuel with an octane rating near 87. Higher octane fuels offer no benefit. Only fuels with an ethanol content of 10% or less may be used. By law, E-15 fuel is not permitted. Usage of E-15 will result in premature engine failure.
- 6.5 **Q:** Do you offer touch-up paint for your mowers?
- 6.5 **A:** Touch-up paint is available. Contact your local dealer for more information.

# **SECTION 7: CONTROLS**

- 7.1 **Ignition Switch**—Bad Boy mowers have a three position ignition switch: off, run, and start. With key inserted, rotate it clockwise to START position and release key when engine starts, and switch will automatically return to he RUN position.
- 7.2 **Throttle Control**—A cable is connected to the engine throttle for controlling engine speed. Move lever forward to increase engine rpm, move lever backward to decrease engine rpm.
- 7.3 **Choke Control**—(Not Shown) The choke control, located to the right of the operator's right calf, is a 'push-pull' type. When the choke knob is pushed in, the choke is in the off (run) position. When the choke is pulled out it is in the on (start) position. **Do not operate the machine in the on (start) position.**
- 7.4 **Control Levers**—(Not Shown) These levers control the mower's speed, direction, and neutral lock. These levers are used to steer, accelerate, decelerate and change direction.
- 7.5 **Blade Engage Switch**—This switch engages the blades. Pull the switch up to engage the blades and push the switch down to disengage the blades.





# **SECTION 8: MOVING INOPERABLE MOWER**

- 8.1 Do not tow machine. Use a winch to load on a trailer for transporting.
- 8.2 **ATTENTION**: RETURN BYPASS VALVES TO OPERATING POSITION BEFORE RUNNING MOWER FOLLOWING REPAIRS.
- 8.3 MZ Models are equipped with two neutral engage/disengage arms, located at the rear of the mower protruding from the frame and under the muffler. By pulling the arms out, the mower can be put in a neutral position. Return the arms to the "forward position" for normal operation.

Your Bad Boy Mower Weighs:

**MZ MAGNUM SERIES:** 

585—620 lbs

\*\*\* Weights fluctuate with the addition of accessories.

- 8.5 As you can see by the weights of the machines, you shouldn't ever try to push or pull a Bad Boy Mower by hand. This could cause serious bodily injury.
- 8.6 Hopefully, you'll never need to use this section of the manual. However, if you do, use extreme caution when moving machine!

# **SECTION 9: INSTRUMENTATION**

9.1 **Electronic Hour Meter**—Registers Hour increments up to 9,999.9 total hours. This meter records the cumulative time the engine is running.

# SECTION 10: MOWER BLADE MAINTENANCE

- 10.1 Check mower blades after each use. This is essential for maintaining well-groomed turf. Keep the blades sharp. If a dull blade is used for cutting, the grass will tear rather than cut. This could damage the grass leaving a brown frayed top on the grass within a few hours. A dull blade will also require more power from the engine.
- 10.2 NEVER attempt to straighten a bent blade by heating. NEVER attempt to weld a cracked blade. The blades can break and cause serious injury or death.
- 10.3 NEVER work with blades while engine is running or deck clutch is engaged.
- 10.4 ALWAYS place deck clutch in DISENGAGE position while performing maintenance.
- 10.5 Use blocks when you MUST work under mower.
- 10.6 ALWAYS wear thick gloves when handling blades.
- 10.7 ALWAYS check for blade damage if mower strikes rock, branch, or other objects that could potentially damage the blade.

(REMEMBER: NEVER CHECK BLADE WHILE ENGINE IS ON! NEVER CHECK BLADES WHILE BLADES ARE ENGAGED!)

# **SECTION 11: GREASING THE BEARINGS**

- 11.1 Park the machine on a level surface and disengage the blade control switch.
- 11.2 Move the motion control levers outward to the neutral position, engage parking brake, stop the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
- 11.3 Grease Type: NGLI grade #2 multi-purpose gun grease. Grease the front caster pivots.
- 11.4 Clean the grease fittings with a cloth. Scrape any paint off the front of the fitting(s).
- 11.5 Connect a grease gun to each fitting. Pump grease in fittings until grease begins to seep out of the bearings. Wipe up excess grease.
- 11.6 Refer to service manual section for grease fitting locations.



# **HOW TO CHOOSE THE RIGHT BLADE**

Essentially there are only TWO basic styles of mowing blades used or approved for use on our current products:

- 1) The standard style of mowing blade is essentially designed for cutting grass and effectively discharging the clippings out from the deck to fall onto the lawn or to be captured in a grass collection system. Standard blades are also referred to as "2-in-1" (discharging & bagging) or "high-lift" blades (because they are designed to create a higher-lifting airflow).
- 2) Mulching blades generally have a more curved style surface and frequently include extra cutting surfaces along the blade edges. These blades may also come in a "+" design (which is actually two individual blades arranged in a perpendicular fashion to enhance mulching). The "+" blades are usually found on older style mowers; newer ones utilize blades with more advanced mulching technology. Mulching blades may also be referred to as "3-in-1" (mulching, discharging & bagging) or "all-purpose" blades.

Bear in mind that the re-circulating airflow design of 3/1 blades makes them less efficient at discharging grass clippings than a standard 2/1 blade. As with most all-purpose tools, there is some give and take as opposed to using a tool designed for a more specific purpose.

If you're experiencing less-than-desired cutting or discharging performance with a 3/1 blade, you may want to check into using a 2/1 blade. Conversely, if you're using a 2/1 blade and want to mulch clippings, you should see about the availability of mulching blades or a mulching kit.\*

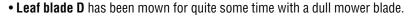
The type of blade installed on a new mower is a decision the retailer makes for each model of mower, based on the expected needs of most customers. If you're unsure of which blade is on a particular model, inspect the blade. Blades have part numbers stamped into them. Then compare these part numbers with the unit's Operator's Manual or Parts List.

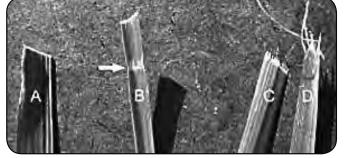
It is true there are many other styles of blades available. But since we don't manufacture or recommend using these other aftermarket styles, we will leave them out of this discussion. Should you want more information on special application or aftermarket blades, you should contact the companies that make these products. NOTE: Customers using non-OEM blades do so at their own risk. The use of unapproved (non-OEM) blades may void any or all of the mower and engine factory warranties.

\* **MULCHING KITS** – These generally consist of mulching blades and a mulching plug (which closes off the discharge opening to keep the clippings contained under the deck for re-cutting) plus any necessary hardware for installation. Please check with your parts distributor regarding the contents of a particular mulching kit.

# **MOWING TIPS:**

- Mow header strips at the ends of the lawn and around flower beds first. Make them wide enough that you can turn the mower
  around in the already mown section. Then mow back and forth between these header strips overlapping each lap by about 1/8
  the width of the mower's deck.
- Don't cut your grass too short, particular for cool season grasses. Higher heights usually provide for a deeper root system, looks better, and is less likely to have weeds invading, particularly crabgrass.
- Don't remove any more than one third of the grass leaf at any one cutting. If circumstances arise that a lawn gets too tall and you just have to lop off a bunch to get caught up, bite the bullet and break it down into several mowings to get caught up with 3 or so days between cuttings.
- NEVER SCALP YOUR LAWN. Scalping severely damages the root system to such a degree that it may die.
- Avoid mowing when the grass is wet or when it's dark
- Avoid throwing grass clippings into the street and driveway where they can be washed into the sewer system. After mowing, clean up driveway and walkways.
- When mowing remove only a third with each cutting (except for the first mowing of the season when it's ok to remove more).
   You can safely leave clippings that will quickly decompose and add nutrients back into the soil. Contrary to popular opinion, grass clippings do not add to thatch buildup. Grass blades are made up of about 75% water.
- Mow your lawn in a different direction with each mowing, especially with lawns of shorter grass types. Altering the direction ensures a more even cut since grass blades will grow more erect and less likely to develop into a set pattern.
- Keep your mower's blade sharp, which means having it sharpened several times during the mowing season. Keep several
  blades around so you'll always have a sharp one on hand. Sharp blades cut the grass cleanly and help mulch clippings into
  small pieces which break down quickly.
- Don't forget to change your mower's oil at least once during the mowing season. For brand new mowers, change the oil after about 5 hours of operation during the initial break-in period.
- At the end of the mowing season use a fuel stabilizer in the remaining gasoline
- In the spring, don't use that old gas unless you properly used a fuel stabilizer, it can cause a number of problems. Better to use fresh gasoline to begin the new mowing season.
- Leaf blade A demonstrates what a leaf blade should look like after mowing with a sharp blade.
- Leaf blade B demonstrates a leaf blade that was injured by a dull mower blade.
- Leaf blade C was cut by the mower but indicates that the mower blade is not sharp enough. The shredded white tissue protruding from the leaf blades C and D is the vascular tissue of the plant.





# To bag or mulch?

Grass clippings do not contribute to thatch buildup or increase the chances of disease. If you mow your lawn at the right height, without removing any more than 1/3 of it's total height, clippings will quickly breakdown without a trace. These clippings contribute additional nitrogen and other nutrients to the soil and supply it with additional organic materials. Clippings from a 1000 sq. ft. lawn can add as much as 1 - 2 pounds of nitrogen back into the soil.

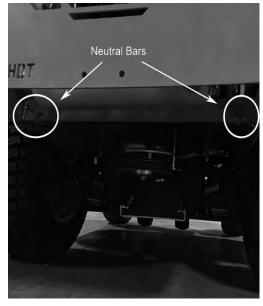
If you have a compost pile, then you may want to bag your clippings occasionally to add much needed green-matter to the compost pile. Make sure it is mixed thoroughly with brown matter to avoid a strong ammonia odor. **DO NOT COMPOST CLIPPINGS** after applying any weed control or weed-feed type product. Before adding clippings to the compost pile wait at least 3 mowings after these products have been applied.

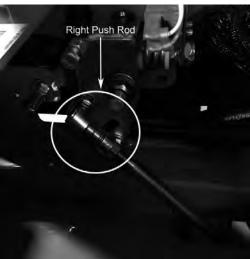


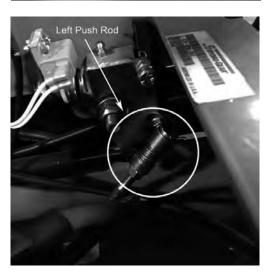
# **SERVICE SECTION**

# **SECTION 1: HYDROSTATIC SYSTEM**

The hydrostatic system on MZ models is a sealed lifetime transaxle system, so no maintenance is required. Under the rear of the mower, you will find the two levers shown in the image. These bypass levers serve as a neutral for moving the mower while the engine is not running. Pull the levers out and lock them into place to activate the bypass.



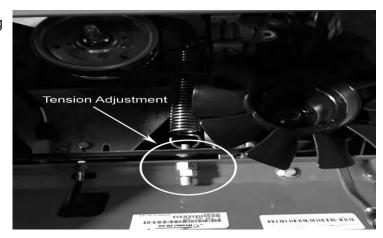




When adjusting the tracking on the mower, the length of the pushrods can be changed by screwing the swivel joint in or out on the ends of the rods. Shortening the overall length of the rod slows the pump down. Lengthening the rod will increase the speed of the pump.

# **SECTION 2: DRIVE BELT**

Shown to the right is the MZ pump belt tensioner. Tightening the two 3/4" jam nuts on the right side will increase the belt tension.



The tension should be adjusted so that there is between 50 to 55 lbs. of tension on the belt. This can be checked with a belt tension gauge as shown to the right.





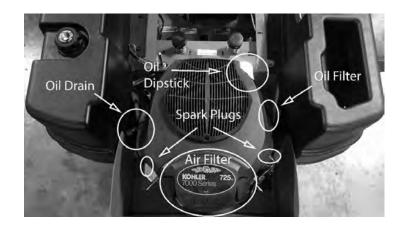
# **SECTION 3: ENGINE**

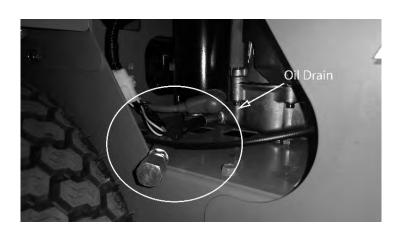
### Kohler

This machine has an oil drain hose installed on the engine to allow for easier oil changes. Bad Boy recommends that the oil and filter be changed at intervals of 50 usage hours or yearly, whichever occurs first. The oil capacity is 2 quarts. Bad Boy 10W-30 synthetic blend engine oil is recommended for maximum protection.

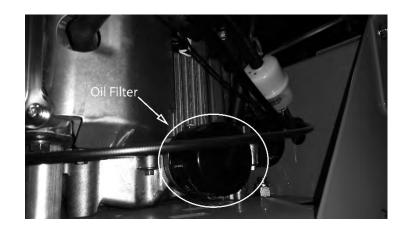
### 3.1 Changing your engine oil and oil filter

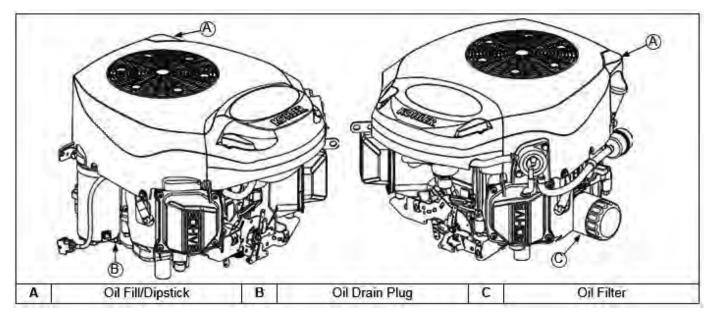
- Remove oil dipstick and open oil drain. Allow oil to completely drain. (Make sure to have an oil pan ready to capture old oil and properly dispose old oil.)
- Clean area around oil filter. Place a container under the oil filter to capture any oil and remove filter. Wipe off mounting surface and reinstall drain plug. Torque to 10 ft\*lb.
- 3) Place new filter in shallow pan with open end up. Fill with new oil until oil reaches the bottom of the threads. Allow 2 minutes for oil to be absorbed by filter material.
- Apply a thin film of clean oil to rubber gasket on new filter
- Refer to instructions on oil filter for proper installation.





- Fill crankcase with approximately 2 quarts of new oil. Level should top of indicator on dipstick.
- 7) Reinstall oil fill/dipstick and tighten securely.
- 8) Start engine; check for oil leaks. Stop Engine; correct oil leaks. Recheck oil level.
- 9) Dispose of used oil and filter in accordance with local ordinances.





The fuel filter is located in the fuel line about 12" from the carburetor on the side of the engine. Replace the filter yearly. Prior to the removal of the old filter, note the direction of fuel flow as indicated on the filter. Have towels readily available n order to quickly remove any fuel leakage. always use new hose clamps and ensure the security of the new filter by lightly pulling on each hose. Always preform maintenance outdoors or in a well ventilated area. Do not smoke or allow any open flames in the vicinity of any maintenance activities.



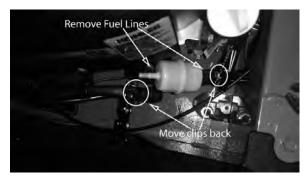


### 3.2 Changing your fuel filter

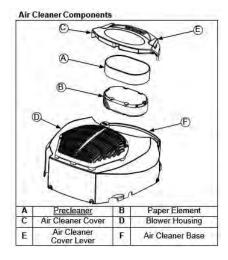
- 1) Locate your fuel filter and mark the direction it is facing.
- 2) Clamp each side of the fuel filter to minimize and gas spills.
- 3) Remove the clips from each side of the fuel filter and remove the fuel filter.
- 4) Place the new fuel filter in the same direction as the old and place clips back into place and remove clamps.

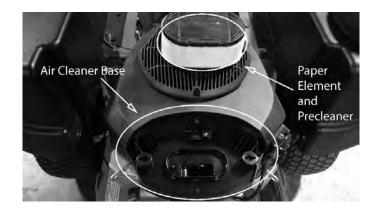






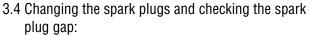
The air cleaner is the engine's only defense against damaging foreign particles. It is very important that the air cleaner element is inspected prior to each use. Remove the element and tap its sides in order to remove debris. Do not blow the filter out using compressed air. Doing so will greatly reduce the air cleaner's effectiveness. Replace yearly; more often in dusty environments. Adhering to these practices will help prevent loss of power and



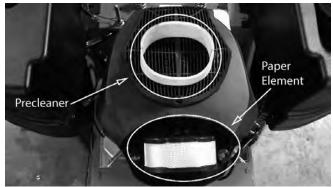


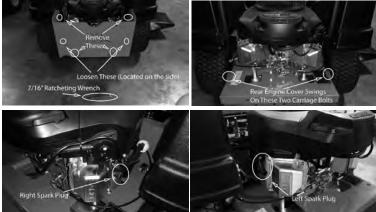
### 3.3 Changing the air cleaner

- Unlock the air cleaner cover and remove to access the air cleaner.
- 2) Remove the paper element and precleaner.
- Replace or wash precleaner in warm water with detergent. Rinse and allow to air dry.
- 4) Lightly oil precleaner with new engine oil; squeeze out excess oil.
- 5) Replace paper element and place precleaner onto new paper element.
- 6) Install onto base and place cover back on and lock into place.

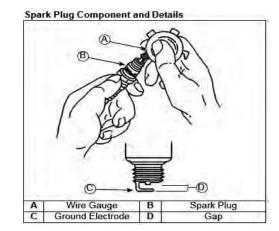


- 1) In order to access the spark plugs you will need to remove the rear engine cover. This can be accomplished by removing the two carriage bolts using a 7/16" ratcheting wrench in the back as well as the two connecting the rear engine cover to the plastic shrouds. Then loosen the two carriage bolts on the side and the rear engine cover will swing down for easy access to the spark plugs.
- 2) Remove the wire on the spark plug and use a 5/8" socket to remove the spark plug.
- 3) Check the gap on the spark plug to verify that it is 0.03 in using a feeler gauge.
- 4) If the spark plug is worn, overheated, wet or carbon fouled replace the spark plug.
- 5) Install the plug into Cylinder head and torque to 20 ft\*lbs. Be careful not to overtighten the spark plug.









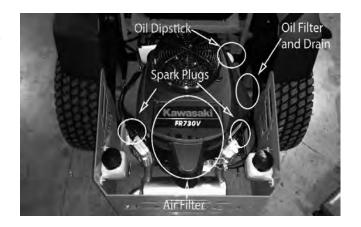
# Kawasaki FR651V

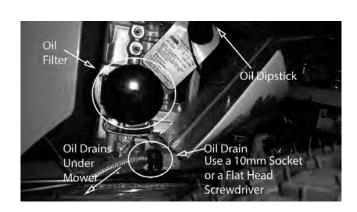
This machine has an oil drain

hose installed on the engine to allow for easier oil changes. Bad Boy recommends that the oil and filter be changed at intervals of 50 usage hours or yearly, whichever occurs first. The oil capacity is 2 quarts. Bad Boy 10W-30 synthetic blend engine oil is recommended for maximum protection.

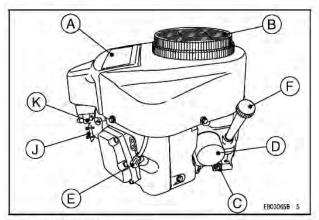
### 3.1 Changing your engine oil and oil filter

- Remove oil dipstick and open oil drain using a 10 mm socket or a flat head screwdriver until oil begins flowing. Allow oil to completely drain. (Make sure to have an oil pan ready to capture old oil and properly dispose old oil.)
- 2) The oil filter is located on the right side of the engine. Clean area around oil filter. Place a container under the oil filter to capture any oil and remove filter. Wipe off mounting surface and reinstall drain plug. Torque to 10 ft\*lb.
- Place new filter in shallow pan with open end up. Fill with new oil until oil reaches the bottom of the threads.
   Allow 2 minutes for oil to be absorbed by filter material.
- 4) Apply a thin film of clean oil to rubber gasket on new filter
- 5) Refer to instructions on oil filter for proper installation.
- 6) Fill crankcase with approximately 2 quarts of new oil. Level should top of indicator on dipstick.
- 7) Reinstall oil fill/dipstick and tighten securely.
- Start engine; check for oil leaks. Stop Engine; correct oil leaks. Recheck oil level
- Dispose of used oil and filter in accordance with local ordinances.

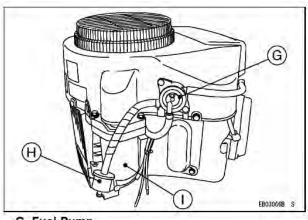




### **Parts Location**



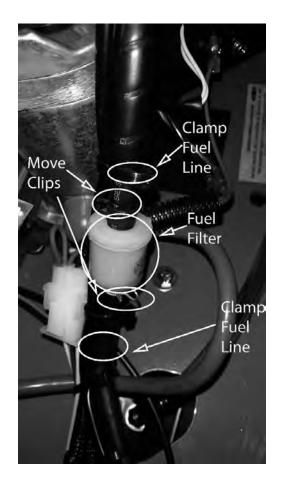
- A. Air Cleaner
- B. Air Inlet Guard
- C. Oil Drain Plug
- D. Oil Filter
- E. Spark Plugs/Spark Plug Caps
- F. Oil Gauge
- J. Control Panel
- K. Carburetor



G. Fuel Pump H. Fuel Filter I. Electric Starter

The fuel filter is located in the fuel line on the left side of the engine by the starter motor. Replace the filter yearly. Prior to the removal of the old filter, note the direction of fuel flow as indicated on the filter. Have towels readily available in order to quickly remove any fuel leakage. Always use new hose clamps and ensure the security of the new filter by lightly pulling on each hose. Always perform maintenance outdoors or in a well ventilated area. Do not smoke or allow any open flames in the vicinity of any maintenance activities.

- 3.2 Changing your fuel filter
- 1) Locate your fuel filter and mark the direction it is facing.
- 2) Clamp each side of the fuel filter to minimize and gas spills.
- 3) Remove the clips from each side of the fuel filter and remove the fuel filter.
- 4) Place the new fuel filter in the same direction as the old and place clips back into place and remove clamps.

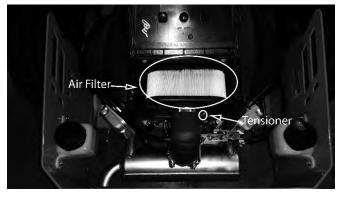


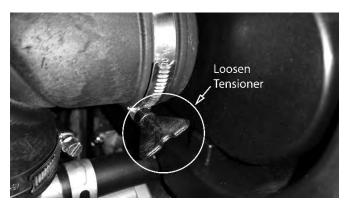
The air cleaner is the engine's only defense against damaging foreign particles. It is very important that the air cleaner element is inspected prior to each use. Remove the element and tap its sides in order to remove debris. Do not blow the filter out using compressed air. Doing so will greatly reduce the air cleaners effectiveness. Replace yearly; more often in dusty environments. Adhering to these practices will help prevent loss of power and premature engine failure.

### 3.3 Changing the air cleaner

- 1) Locate the air filter and lift up the cover.
- 2) Loosen the tensioner on the right side of the air filter.
- 3) Clean or replace paper element.
- 4) Place the paper element back into place and tighten the tensioner.
- 5) Place cover back to original position.



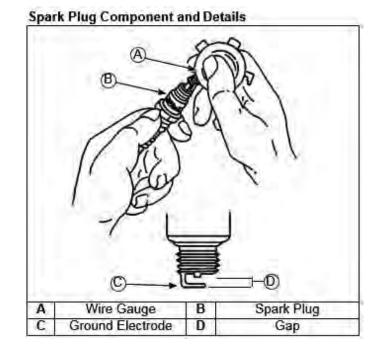




- 3.4 Changing the spark plugs and checking the spark plug gap:
- 1) Remove the wire on the spark plug and use a 13/16" socket to remove the spark plug.
- 2) Check the gap on the spark plug to verify that it is 0.03 in using a feeler gauge.
- 3) If the spark plug is worn, overheated, wet or carbon fouled replace the spark plug.
- 4) Install the plug into cylinder head and torque to 16 ft\*lbs. Be careful not to overtighten the spark plug.







# **SECTION 4: ELECTRICAL SYSTEM**

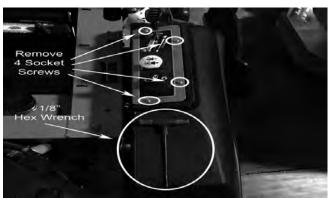
This mower is equipped with two protective fuses: a 25 amp main fuse (pictured to the right) and a 10 amp clutch (blade engagement). The main fuse is located on the left side of the unit; towards the front of the engine. The Clutch fuse is located just underneath the control panel.

In order to access the clutch fuse and the relays you will need to take off the control panel by removing four socket head screws using a 1/8" hex wrench. This can be seen in the images on the right. Once you remove the screws remove the control panel and you can access the clutch fuse and the relay bank.

A blown fuse usually indicates a problem within the electrical system or an electrical component. Never replace a fuse with one of a higher amperage rating or 'bypass' a fuse in any way. Doing so creates a significant fire hazard and can cause severe damage to the mower's electrical components. If a fuse is repeatedly blowing, contact your Bad Boy dealer.



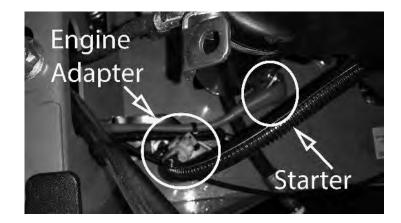




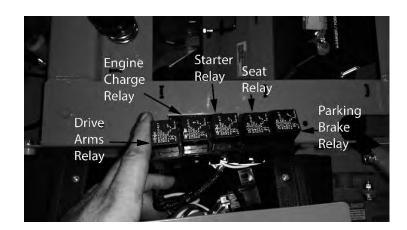




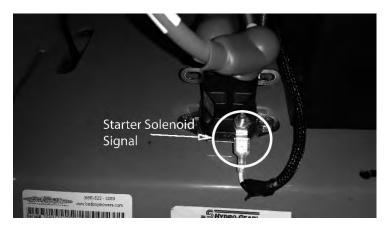
On most models, the red wire coming out of the engine is the charging wire from the alternator. Check for 13.6 - 14.2 volts dc at this wire with engine at full throttle.



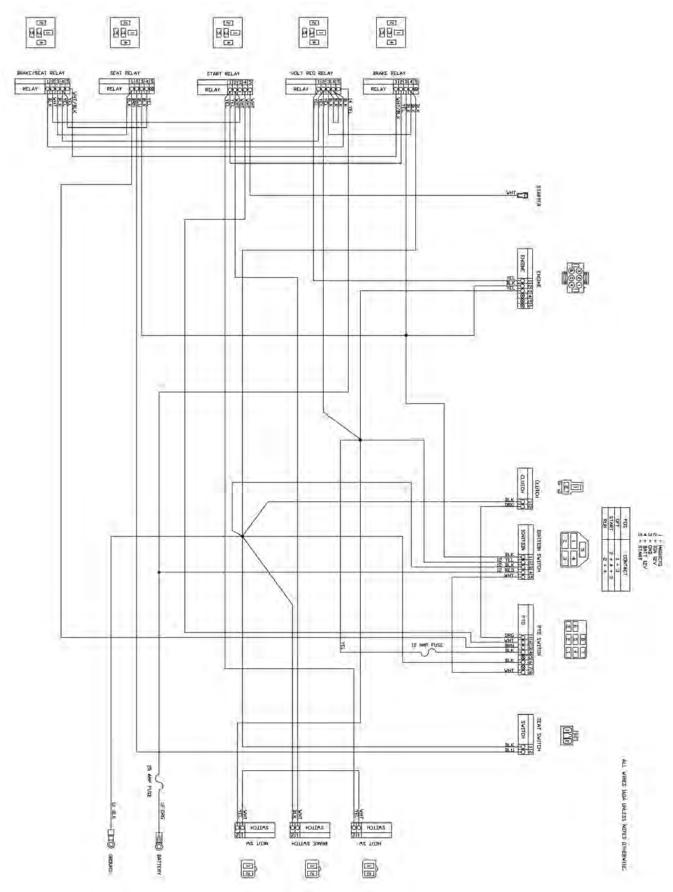
Check the condition and connection of the relays located under the control panel. Ensure that they are clean and connected. Make sure that wire terminal ends have not been pushed out of the relay block.



If you are having issues starting your mower ensure the signal wire is connected to your starter solenoid.







# **SECTION 5: FRAME**

Torque rear wheel lugs to 65-75 ft. lbs. Re-torque at every oil change and check at every mowing.

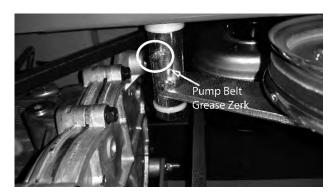


There is one grease fitting on each of the actuator bar pillow blocks (Total of 4). Grease twice a season.





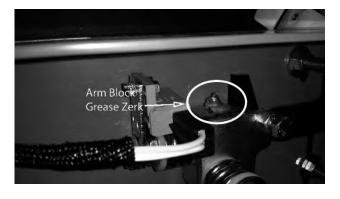
The pump belt tensioner is located under the engine and has a grease fitting at its pivot point. Grease at every engine oil change.



The deck belt tensioner is located at the rear of the deck and has a grease fitting on its pivot point. Grease at every engine oil change.



The control arm blocks have grease fittings located on the top of each block. Grease one time a year



&rease fittings on MZ model total -



# SECTION 6: CUTTING DECK

### Deckbeltremoval:

- (1) Removeignition key.
- (2) Lower the deck to its lowest position.
- (3) Remove both the right and leftblade pulley cover. Use a 7/16" socket or wrench to remove the bolts. Then lift and remove the pulley covers.
- (4) Remove the belt on the left side blade pulley as facing the mower. Roll the belt off of the pulley. Exercise caution while performing this step as fingers can easily become caught between the belt and pulley.

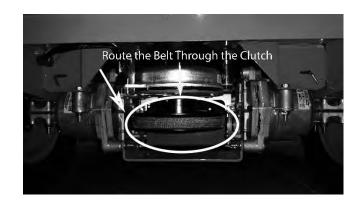




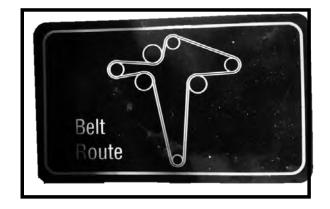


### Deck belt installation:

- (1) Follow steps 1-3 from the deck belt removal section.
- (2) Run the new belt from the clutch through to the deck



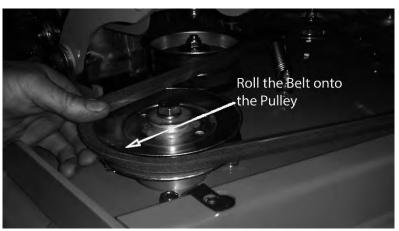
(3) Route the belt according to the belt routing sticker on the mower.



(4) Ensure the belt is on every pulley and then place the belt on the bolt of the pulley on the left side and place pressure on it and roll the pulley to allow the belt to fall into place.



- (5) Check to make sure the belt is on all the pulleys and matches the belt routing sticker.
- (6) Place the pulley covers back onto the deck.





### Leveling the Deck:

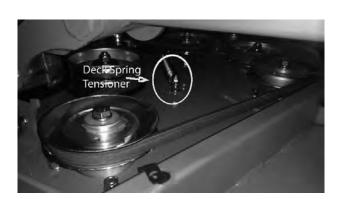
- (1) Start on a flat surface.
- (2) Rotate front casters forward.
- (3) Set the air pressure in all four tires to 12 psi.
- (4) Raise the deck up, and measure all four corners of the deck to see if it is level from left to right and front to back. All decks should be level from left to right and have a 1/8" pitch down in the front.
- (5) Adjust deck to ensure deck is level from left to right and has a 1/8" downward pitch from the back of the deck to the front.

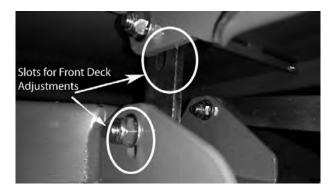






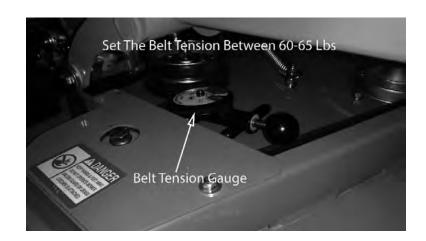
If deck adjustments are necessary, the deck hanger bolts have adjustable slots. These adjusters affect the overall height of the deck and the level from left to right.





The deck spring tension is critical. If the tension is too high, premature failure of the deck belt and blade spindles can occur. If the tension is too low, the belt can 'jump off' or slip on the pulleys. This results in reduced cut quality and early belt failure. Spring tension adjustments can be made by sliding the bolt shown above forward or backward in the slot of the deck Belt tension should be set between 60-65 lbs. with the deck at its lowest setting.

Use a belt tension gauge to ensure the proper tension. Your dealer or service center will have a belt tension gauge or you can buy one (Part Number 041-9999-00).



### Blade Sharpening:

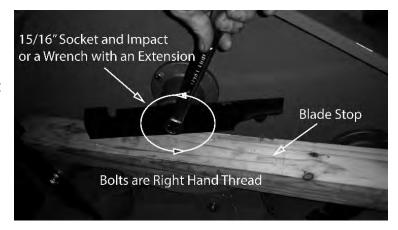
The blade on top (seephoto) was utilized long after replacement was required. In addition to a decline incut quality, failure to replace a worn or damaged blade creates a major safety hazard. Bad Boy recommends that blade sharpening be preformed by a professional.



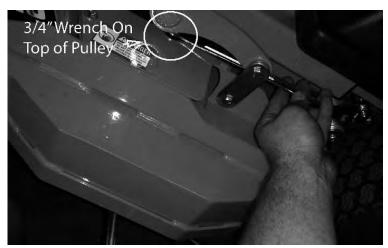


#### Blade Removal:

Tochange blades, it may be easier to use a piece of wood to keep the blade from turning so that the bolt can be loosened. Use a 15/16" socket and impact Drill, or a wrench and an extension to gain more leverage. You might need to put a 3/4" wrench on top of the pulley bolt to keep the blade from spinning. **Bolts used have right-handed threads.** 



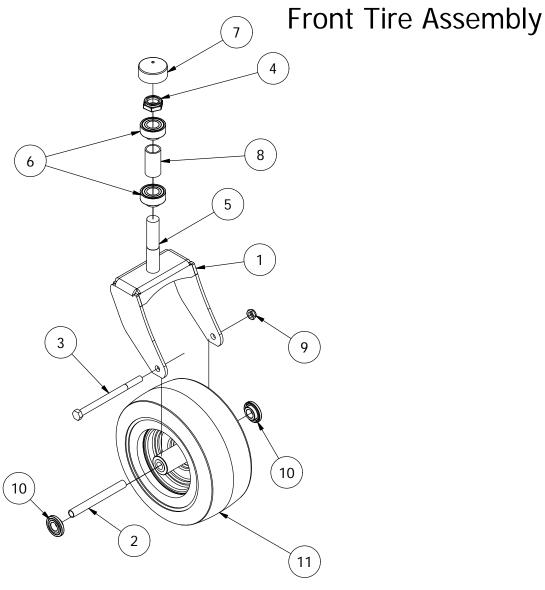
Re-torquethe blade bolts to 90-110 lbs.



The blade spindles contain a sealed ball bearing inside the top and bottom of the spindle. The bearings are replaceable for a more cost effective repair.

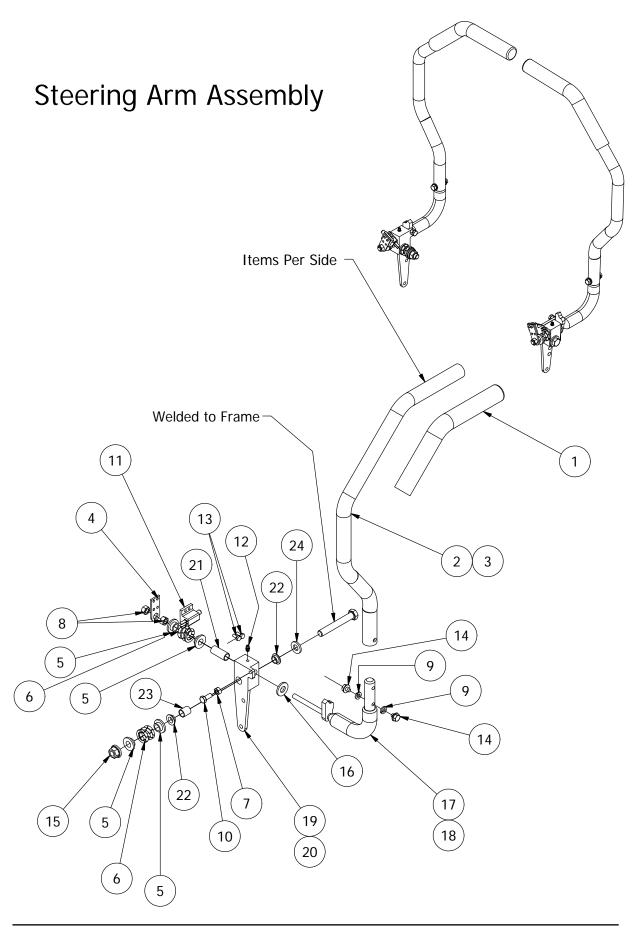


# **PARTS SECTION**



Front Tire Assembly					
ITEM	M QTY PART NUMBER		DESCRIPTION		
1	1	023-1000-00	Front Fork MZ		
2	1	025-0008-00	Front Wheel Spanner		
3	1	018-0004-00	1/2" x 7" Hex Bolt Grade 5		
4	1	013-9004-00	1" Fine Thread 1/2" Nylock Nut		
5	1	018-0005-00	1-14 x 5 Hex Bolt Grade 8 Zinc Yellow		
6	2	010-2000-00	Caster Bearing 2009 & Up		
7	1	014-2050-00	Rubber Bearing Cap		
8	1	025-0005-00	MZ Caster Bearing Spacer		
9	1	018-4010-00	1/2" Nylock Nut (1/2 Jam)		
10	2	022-7009-00	1 3/8" Wheel Bearing		
11	1	022-8049-00	11"x6"-5" Front Tire & Wheel Assembly		

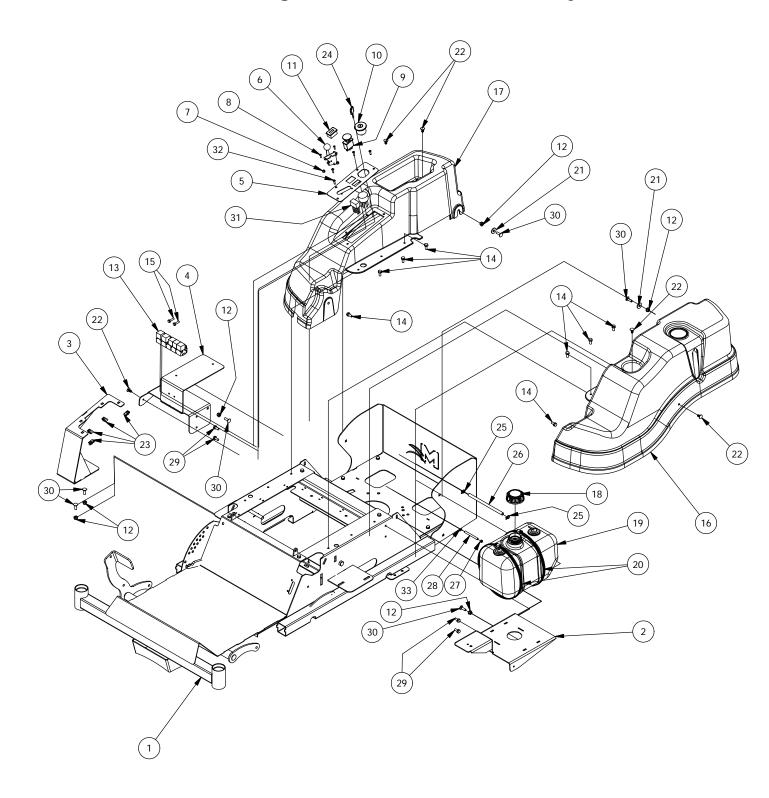




	Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION	
1	1	069-4010-00	Rubber Grip	
2	1	031-8821-00	Left Direction Steering Arm	
3	1	031-8822-00	Right Direction Steering Arm	
4	1	039-1125-00	MZ Switch Bracket	
5	4	019-8027-00	.515 ID Nylon Shoulder Washer	
6	2	034-8025-00	Drive Lever Spring	
7	1	013-8043-00	5/16" Nut	
8	2	018-4010-00	1/2" - 13 Nylon Insert Jam Locknut	
9	2	019-8051-00	5/16" Lock Washer	
10	1	018-8063-00	5/16" x 3/4" Hex Bolt	
11	1	077-8073-00	Safety Switch	
12	1	024-6034-00	1/4" Press in Grease Fitting	
13	2	018-1080-00	12-24x 1/2 HWH Bolt	
14	2	018-2020-00	5/16-18 1/2 HWH Bolt-Steering	
15	1	013-0085-00	1/2-13 Hex Flange Nut ZC	
16	1	019-8054-00	.505 Nylon Spacer	
17	1	031-9025-70	Black Steering Arm Elbow (Right)	
18	1	031-9020-70	Black Steering Arm Elbow (Left)	
19	1	027-9000-00	Left Drive Arm Lever Housing	
20	1	027-9001-00	Right Drive Arm Lever Housing	
21	1	032-1020-00	Drive Arm Block Insert-long	
22	2	032-5055-00	Bushing for 2012 Drive Arms	
23	1	032-1010-00	Drive Arm Block Insert-short	
24	1	019-7000-00	.505x1x .125 Oil Impregnated washer	

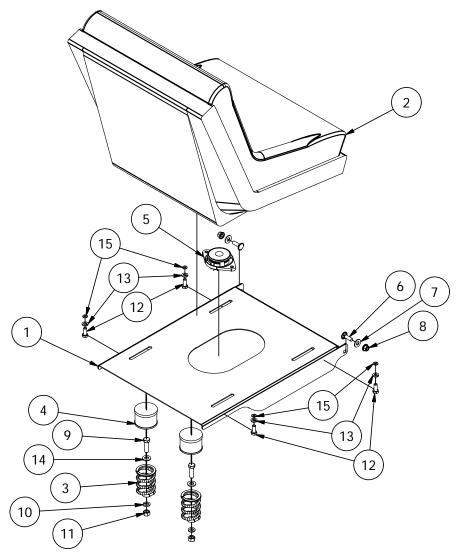


### MZ Magnum Shroud Assembly

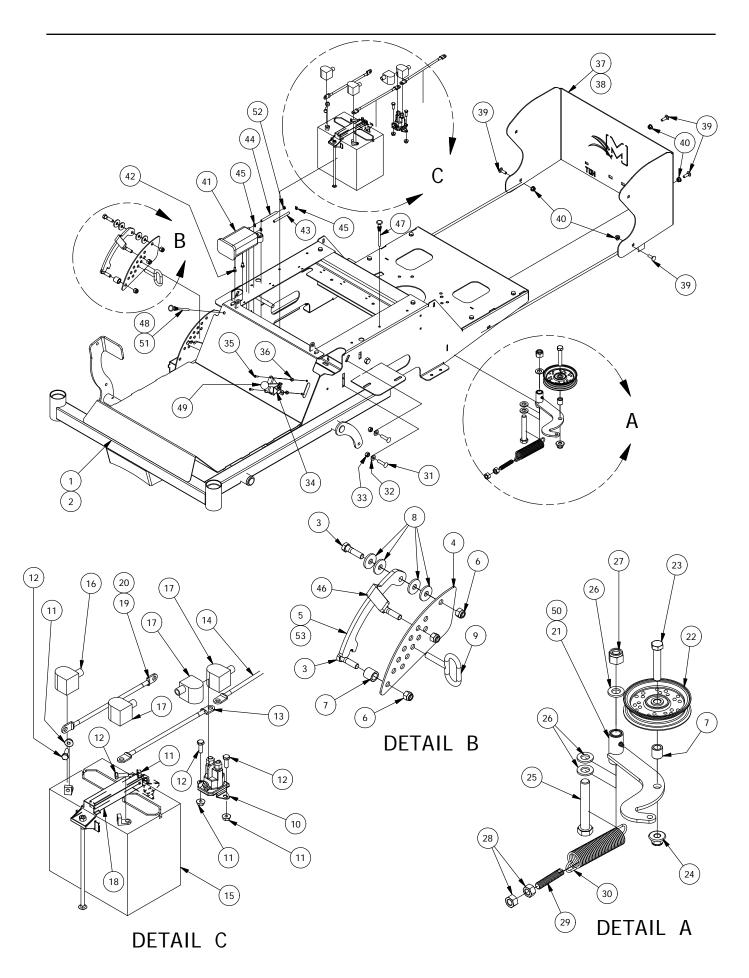


MZ Magnum Shroud Assembly				
ITEM	QTY	PART NUMBER	DESCRIPTION	
1	1	070-5900-00	2014 54" MZ Magnum Frame	
2	1	039-1200-00	MZ Magnum Gas Tank Bracket Assy	
3	1	201-2040-00	MZ Magnum Shroud Control Support Assy	
4	1	201-2030-00	MZ Magnum Shroud Storage Support Assy	
5	1	079-0075-00	Control Panel New MZ	
6	1	055-3000-00	Throttle Lever	
7	2	013-5019-00	10-24 Nylon Insert Locknut	
8	2	018-5200-00	10-24 X 5/8 BS Button Head Bolt	
9	1	056-8058-00	PTO Engager	
10	1	077-8076-00	Ignition Switch	
11	1	083-4013-00	Tachometer	
12	6	013-8049-00	5/16" Nylon Flange Nut	
13	5	086-1201-00	Relay Terminal	
14	8	030-7045-00	5/16 x 3/4 washer head type F screw	
15	2	030-7040-00	1/4 x 1 Hex Head Tek screw	
16	1	074-4000-00	2013 Magnum Left Fender Shroud	
17	1	074-4001-00	2013 Magnum Right Fender Shroud	
18	1	066-0050-00	Fuel Cap 2013 Magnum-080165AE	
19	1	067-0050-00	2.5 Gal EPA Tank Assy-071145AE	
20	2	072-0075-00	MZ Magnum Tank Clamp-63164	
21	2	019-6042-00	.360 ID Plastic Washer	
22	5	040-6080-00	Ratchet Fastener	
23	4	013-0056-00	10-24 "U" Nut	
24	1	042-9000-00	Ignition Key	
25	2	072-8069-00	1/4 Fuel Hose Clamp	
26	1	051-8067-00	1/4" Fuel Line Hose	
27	1	072-8072-00	1/4" Hose Clamp	
28	1	051-2027-00	3/16" Clear Vinyl Tubing	
29	4	030-7042-00	5/16 x 3/4 washer head type F screw	
30	6	018-8065-00	5/16" x 1" Carriage Bolt	
31	1	086-0075-00	wiring harness	
32	4	018-8058-00	10-24 x 1 BS C/S 18-8 SS	
33	1	072-8073-00	3/16" Vinyl Hose Clamp	



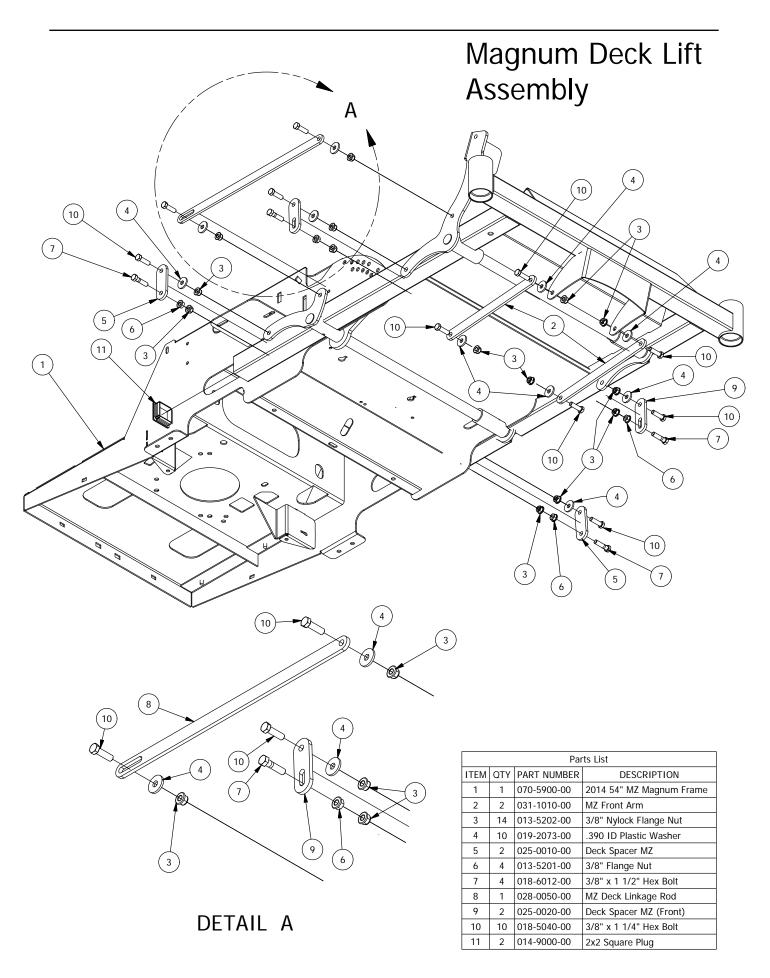


	Parts List				
ITEM	QTY	PART NUMBER	DESCRIPTION		
1	1	026-2010-00	MZ Seat Plate		
2	1	071-9001-00	Black Seat		
3	2	034-8045-00	Seat Spring		
4	2	014-8047-00	Spring Cap Cover		
5	1	071-8062-00	Seat Saftey Switch		
6	2	018-8065-00	55-00 5/16-18 x 1 Carriage Bolts Zinc		
7	2	019-6042-00	.360 ID Plastic Washer		
8	2	013-8049-00	5/16" Nylock Flange Nut		
9	2	018-5040-00	3/8" x 1 1/4" Hex Bolt		
10	2	019-5037-00	037-00 3/8" Lock Washer		
11	2	13-6014-00 3/8" Hex Nut			
12	4	018-8063-00	5/16" x 3/4" Hex Bolt		
13	4	019-8051-00	5/16" Lock Washer		
14	2	019-5029-00	3/8" Flat Washer		
15	4	019-7040-00	40-00 1/4 Flat Washer		

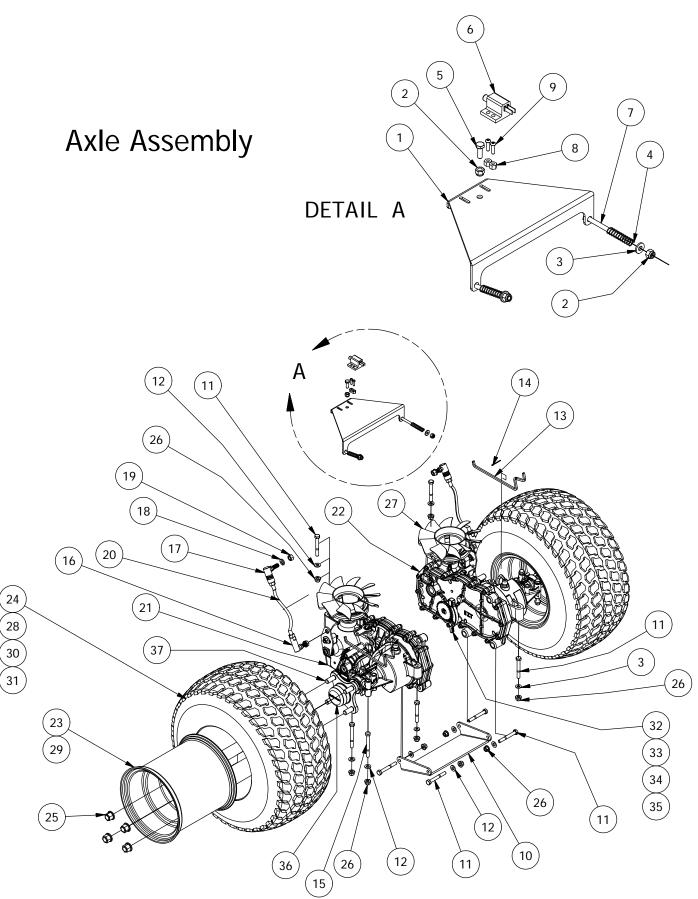




		Parts List	
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	070-5800-00	48" MZ Frame
2	1	070-5900-00	54" MZ Frame
3	3	018-6012-00	3/8" x 1 1/2" Hex Bolt
4	1	026-2020-00	MZ Height Indicator Plate
5	1	031-1050-50	MZ Magnum Deck Level Lock Lever
6	3	013-5041-00	3/8 Nylock Nut
7	2	025-5203-00	Spacer 3/4 OD x 1/2 ID x 3\4 Length
8	4 (3 for Magnum)	019-2073-00	.390 ID Plastic Washer
9	1	040-4000-00	Deck height lever pin
10	1	108-5349-00	Solenoid
11	4	013-9001-00	1/4-20 Hex Flange Nuts Zinc w/Serrations
12	4	018-8052-00	1/4-20 x 3/4 GR 5 Hex Bolts Zinc
13	1	064-0025-00	10" red battery cable
14	1	064-0050-00	62" red cable
15	1	068-8049-00	Battery
16	1	103-5400-00	Black Boot For Ground Cable
17	3	103-5300-00	Red Boot
18	1	043-8929-00	Battery Hold Down
19	1	064-0030-00	24" Ground Cable (21HP Briggs Only)
20	1	064-8061-00	Ground cable
21	1	039-7000-00	MZ Idler arm Bracket
22	1	033-6001-00	4 3/4 Idler Pulley - ABFI-76
23	1	018-6036-00	1/2" x 2 3/4" Hex Bolt
24	1	013-8050-00	1/2-13 Nylon Flange Nut
25	1	018-5311-00	5/8" x 4" Hex Bolt
26	3	019-6017-00	.630 ID Plastic Washer
27	1	013-7021-00	5/8 Std NC Nylock Nut
28	2	013-7018-00	1/2" Hex Nut
29	1	018-2004-00	All Thread-Pump Idler Tensioner
30	1	034-9050-00	Deck spring big diameter
31	4	018-0001-00	3/8 -16 x 1-1/2 short neck bolt
32	4	019-5029-00	3/8" Flat Washer
33	4	013-6014-00	3/8" Hex Nut
34	1	064-8057-75	Brake cable for MZ
35	2	018-5200-00	10-24 X 5/8 BS Button Head Bolt
36	2	013-5019-00	10-24 Nylon Insert Locknut
37	1	026-0110-00	MZ Back Plate
38	1	026-0100-00	Mz Back Plate (21HP Briggs)
39	4	018-8065-00	5/16" x 1" Carriage Bolt
40	4	013-8049-00	5/16" Nylock Flange Nut Zinc
41	1	067-0015-00	Carbon Canister for Magnum/MZ
42	2	018-0025-00	M6-1.0 X 12MM Bolt 8.8
43	1	051-2025-00	3/16" black vinyl tubing
44	1	051-2027-00	3/16" Clear Vinyl Tubing
45	3	072-8073-00	3/16" Vinyl Hose Clamp
46	1	014-2051-00	Deck Height Handle Grip MZ
47	1	054-8016-00	Choke 42 Mz
48	1	054-8017-00	Choke Kohler Magnum
49	1	055-2012-00	Universal Throttle Head
50	1	039-7000-98	Pump Idler Assembly (Parts 7,21,22,23,24)
51	1	054-8016-00	Choke Kawasaki Magnum
52	1	072-8072-00	1/4" Hose Clamp
53	1	031-1050-00	MZ Deck Level Lock Lever
	<u> </u>		



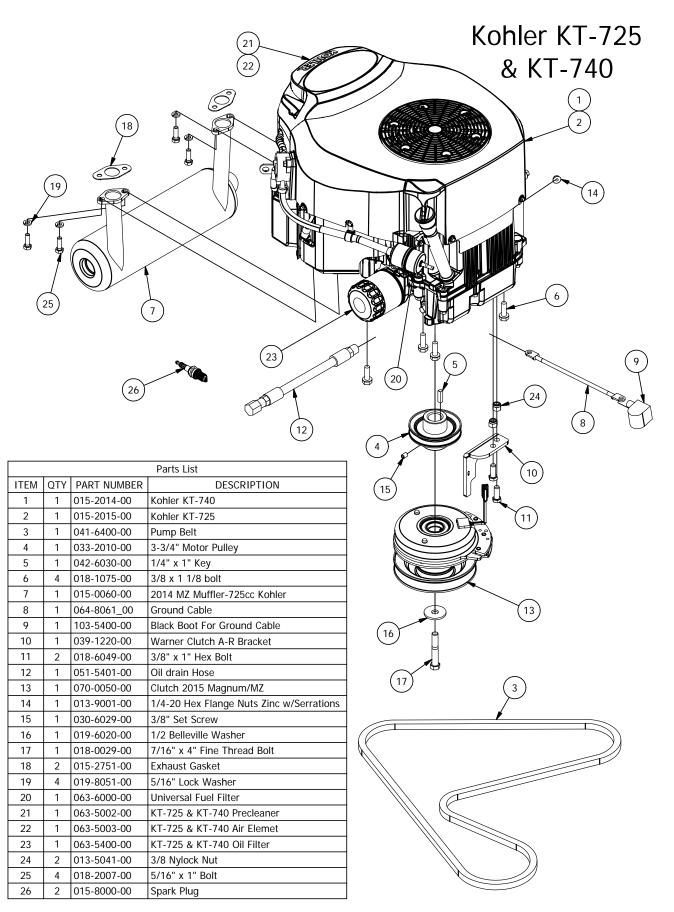


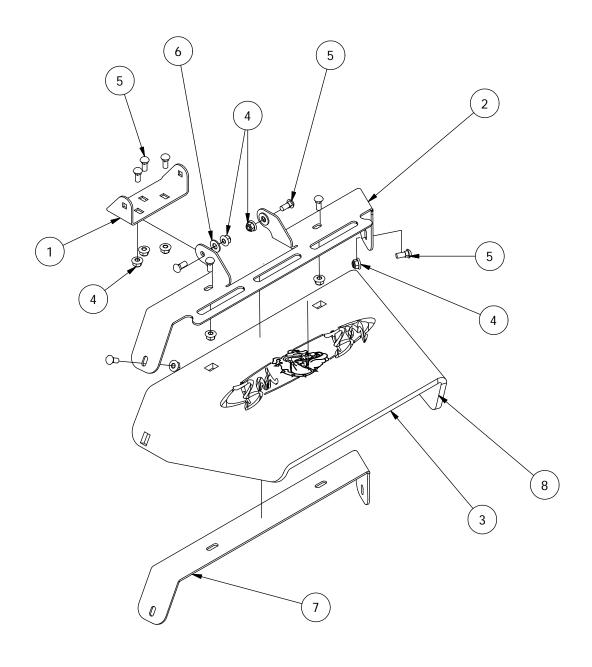


		Parts Lis	st
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	039-1124-00	MZ Brake Lock Bracket
2	3	013-8073-00	1/4" Nylock Nut
3	4	019-7040-00	1/4" Flat Washer
4	2	034-3050-00	Brake Spring
5	1	018-8052-00	1/4" x 3/4" Hex Bolt
6	1	077-8073-00	Safety Switch
7	2	018-1076-00	1/4-20 x2-1/2 Gr2 hex C/s zinc
8	2	013-5019-00	10-24 Nylon Insert Locknut
9	2	018-5200-00	10-24 X 5/8 BS Button Head Bolt
10	1	201-2020-00	MZ Transaxle Support (Lower)
11	8	018-5344-00	5/16" x 2 1/2" Bolt
12	10	019-8044-00	5/16" Flat Washer
13	2	028-0060-00	MZ Brake Release Bar
14	2	040-2025-00	Cotter Pin-Brake bar on Mz
15	4	018-4701-00	5/16" x 3" Hex Bolt
16	2	099-6046-00	3/8-24 Ball Joint
17	2	099-2009-00	Quick Release Ball Joint
18	4	019-5037-00	3/8" Lock Washer
19	4	013-6051-00	3/8" Fine Threaded Jam Nut
20	2	035-9000-00	MZ/Magnum Push Rod - 2014
21	1	050-4031-00	EZT- Left MZ Models
22	1	050-4030-00	EZT - Right MZ Models
23	2	022-8026-00	Rear rim for a 48 & 54"
24	2	022-8025-00	18 x 9.50 - 8 Tire Only MZ 48 &54" Deck only
25	8	013-3000-00	Acorn Lug Nut
26	12	013-8049-00	5/16" Nylon Flange Nut
27	2	050-2074-00	MZ Fan & Pulley Kit
28	2	022-8027-00	42" MZ 18x 7.50-8 tire only
29	2	022-8028-00	Rear rim only 42" MZ
30	2	022-8050-00	18x9.50-8 48 & 54" Deck Tire and Wheel Assembly
31	2	022-2050-00	18x8.50-8/8" 42" Deck Tire and Wheel Assembly
32	2	050-4032-98	MZ Brake Cog Kit
33	2	050-4033-00	MZ Retainer Ring for Brake
34	2	050-4034-00	MZ Brake Gear
35	2	050-4035-00	MZ Brake Arm Kit
36	2	050-2078-00	Mz 4 Bolt Hub Kit
37	8	050-2012-00	Transaxle Wheel Studs

#### Kawasaki FR-651V 12 13 4 (16 6 Parts List ITEM QTY PART NUMBER DESCRIPTION 033-2010-00 3-3/4" Motor Pulley 2 042-6030-00 1/4" x 1" Key 3 1 103-5400-00 Black Boot For Ground Cable 4 5 019-8051-00 5/16" Lock Washer 5 4 018-1075-00 3/8 x 1 1/8 bolt 6 015-5404-00 oil drain 7 064-8061\_00 Ground Cable M8x1.20x20MM Hex head bolt 018-5321-00 8 015-2709-00 Exhaust Gasket 10 4 013-0075-00 M8-1.25 Zinc Nut 11 041-6400-00 Pump Belt 12 063-2097-00 Kawasaki Air Filter 13 063-6000-00 Universal Inline Fuel Filter 726cc Kawasaki Engine-FR651V 14 015-0022-00 15 015-0038-00 Exhaust for FR Kawasaki-MZ 1 1/2 Clear Braded Hose Priced/Foot 16 051-8064-00 063-8017-00 17 1 Kawasaki Oil Filter 18 070-0050-00 Clutch 2015 Magnum/MZ 19 030-6029-00 3/8" Set Screw 20 019-6020-00 1/2 Belleville Washer 018-0029-00 7/16"-20 x 4" Hex Bolt Gr. 8 21 015-5403-00 22 23 039-1220-00 Warner Clutch A-R Bracket 3/8" x 1" Hex Bolt 24 018-6049-00 25 013-5041-00 3/8 Nylock Nut 015-8001-00 Spark Plug - Kawasaki

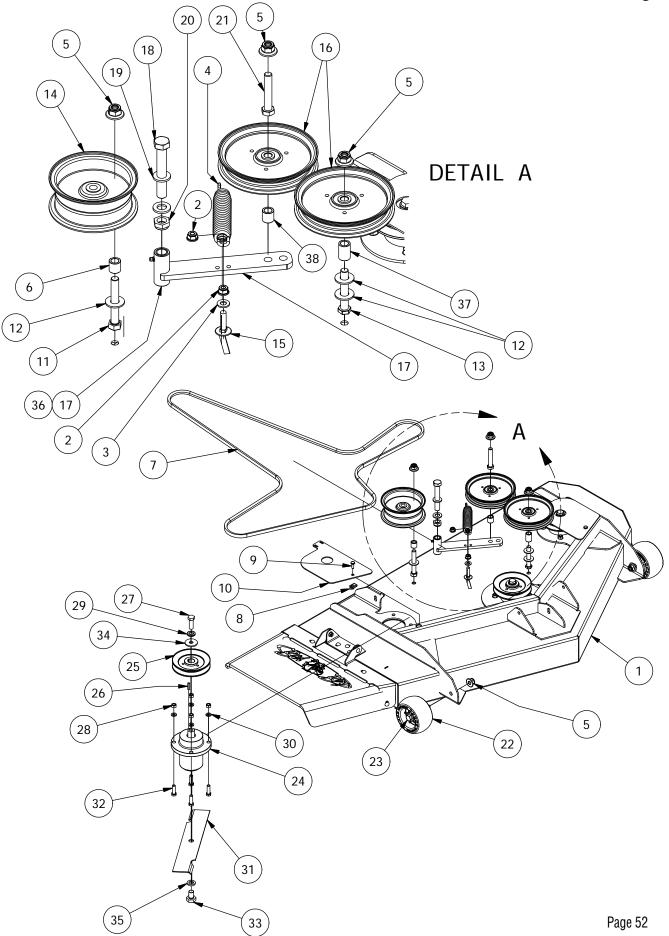






	42" MZ & 48" 54" MZ Magnum- Chute Assembly				
ITEM	QTY	PART NUMBER	DESCRIPTION		
1	1	206-6020-00	0-00 Chute Hanger		
2	1	039-4891-00	Discharge Chute Bracket MZ (Upper)		
3	1	210-6015-00	-6015-00 Rubber Discharge Chute MZ (Component)		
4	9	013-8049-00	5/16" Nylon Flange Nut		
5	9	018-8062-00	3-8062-00 5/16-18x3/4 carriage bolt		
6	2	019-6042-00 .360 ID Plastic Washer			
7	1	039-4890-00	Discharge Chute Bracket MZ (Lower)		
8	1	210-6015-98	Parts 2,3,5,7,8 Make's up the Mz discharge Assembly		

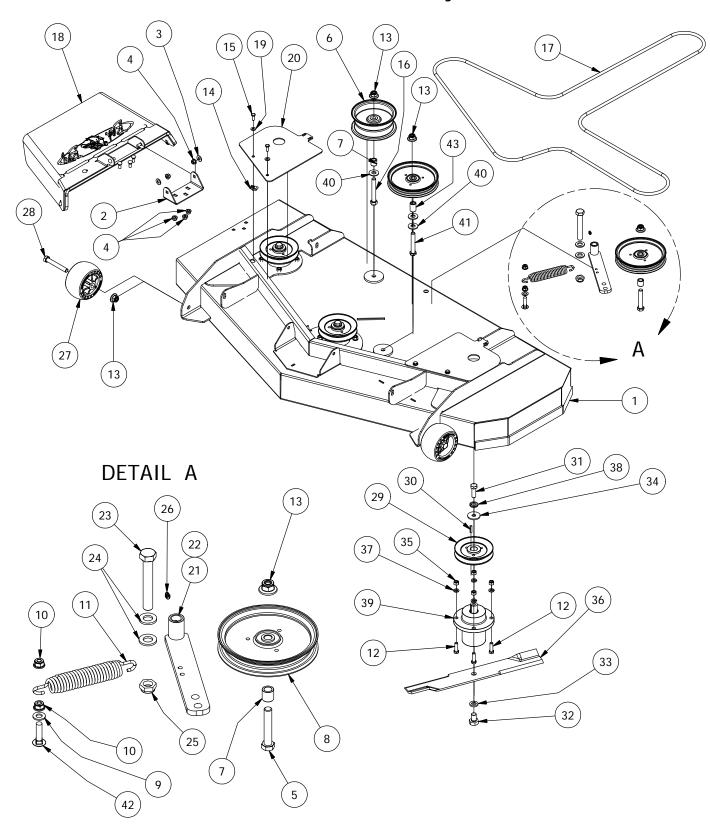
# MZ 48" Deck Assembly



		Parts List	
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	060-2100-00	48 MZ Deck (Component)
2	2	013-5202-00	3/8" Nylock Flange Nut
3	1	019-5029-00	3/8" Flat Washer
4	1	034-2009-00	2009 Deck/Pump Idler Spring
5	5	013-8050-00	1/2-13 Nylon Flange Nut
6	1	025-5203-00	Spacer 3/4 OD x 1/2 ID x 3\4 Length
7	1	041-6027-00	B128 Deck Belt
8	2	013-0054-00	1/4-20 Cage Nut
9	2	018-8052-00	1/4" x 3/4" Hex Bolt
10	2	014-4850-00	MZ Pulley Cover 48"
11	1	018-6054-00	1/2-13 x 3 1/2 GR 5 Hex Bolt
12	3	019-5702-00	1/2" Washer (Grade 8)
13	1	018-7016-00	1/2-13 x GR 5 Hex Bolt Zinc
14	1	033-5000-00	5 3/4" Deck Idler Pulley
15	1	018-4706-00	3/8 x 1-1/2 Carriage Bolt
16	2	033-7201-25	5-3/4 Idler Pulley
17	1	039-6945-00	Deck Idler Bracket
18	1	018-5311-00	5/8" x 4" Hex Bolt
19	2	019-6017-00	.635 ID Plastic Washer
20	1	013-5301-00	5/8-11 Nylon Insert Jam Half Nut
21	1	018-6036-00	1/2" x 2 3/4" Hex Bolt
22	2	022-1000-00	Deck Wheel
23	2	018-0010-00	Deck Wheel Bolt
24	3	037-2000-00	Spindle Assembly
25	3	033-4820-00	MZ Deck Pulley
26	3	042-0010-00	3/16 x 1 Square Key
27	3	018-6019-00	1/2-20 x 1-1/2 Grade 5 Hex Bolt Zinc
28	12	013-6014-00	3/8-16 Hex Nuts Zinc
29	3	019-5007-00	1/2" Lock Washer Zinc
30	12	019-5037-00	3/8 Lockwasher Zinc
31	3	038-4826-00	MZ 48 Blade
32	12	018-5040-00	3/8" x 1 1/4" Hex Bolt
33	3	018-6020-00	5/8" x 1 1/2" Grade 8 Hex Bolt (Fine)
34	3	019-6020-00	1/2 Belleville Washer
35	3	019-4807-00	5/8" Lock Washer
36	1	039-7001-98	Deck Idler Assembly (5,16,17,21,and 39)
37	1	025-5337-00	.502 x .750 x 1.25 Length Spacer
38	1	025-5204-00	42/48 MZ Idler Pully Spacer



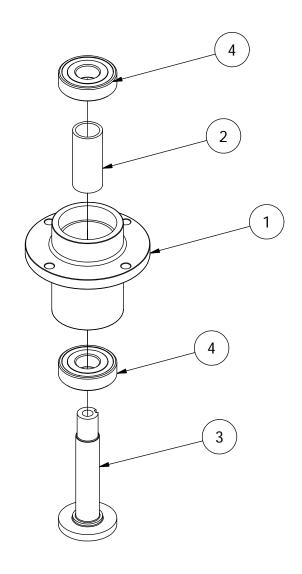
#### MZ Magnum 54" Deck Assembly



		MZ Magnum 54"	Deck Assembly
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	060-2400-00	54 MZ Deck
2	1	206-6020-00	Chute Hanger 48 MZ
3	2	019-6042-00	.360 ID Plastic Washer
4	9	013-8049-00	5/16" Nylon Flange Nut
5	1	018-6036-00	1/2" x 2 3/4" Hex Bolt
6	1	033-5000-00	5 3/4" Deck Idler Pulley
7	2	025-5203-00	3/4" OD x 1/2" ID x 3\4" Length
8	2	033-7201-25	5-3/4 Idler Pulley
9	1	019-5029-00	3/8" Flat Washer
10	2	013-5202-00	3/8" Nylock Flange Nut
11	1	034-2009-00	2009 Deck/Pump Idler Spring
12	12	018-5040-00	3/8" x 1 1/4" Hex Bolt
13	5	013-8050-00	1/2"-13 Nylon Flange Nut-Orange
14	4	013-0054-00	1/4"-20 Cage Nut
15	4	018-8052-00	1/4" x 3/4" Hex Bolt
16	1	018-6054-00	1/2"-13 x 3 1/2" GR 5 Hex Bolt
17	1	041-4022-00	B 138 Deck Belt
18	1	210-6015-98	MZ Discharge Assembly
19	4	019-7040-00	1/4" Flat Washer
20	2	014-4855-00	2014 54" MZ Mag Pulley Cover
21	1	039-6945-00	Deck Idler Arm
22	1	039-6945-98	Deck Idler Assembly
23	1	018-5311-00	5/8" x 4" Hex Bolt
24	2	019-6017-00	.635 ID Plastic Washer
25	1	013-5301-00	5/8"-11 Nylon Insert Jam Half Nut
26	1	024-6034-00	1/4" Press in Grease Fitting
27	2	022-1000-00	Deck Wheel
28	2	018-0010-00	Deck Wheel Bolt
29	3	033-4890-00	MZ Deck Pulley
30	3	042-0010-00	3/16 x 1 Square Key
31	3	018-6019-00	1/2"-20 x 1 1/2 - Grade 5 Fine Thread Bolt
32	3	018-6020-00	5/8" x 1 1/2" Grade 8 Hex Bolt (Fine)
33	3	019-4807-00	5/8" Lock Washer
34	3	019-6020-00	1/2 Belleville Washer
35	12	013-6014-00	3/8" Hex Nut
36	3	038-0005-00	54" MZ Fusion Blade
37	12	019-5037-00	3/8" Lock Washer
38	3	019-5007-00	1/2" Lock Washer Zinc
39	3	037-2000-00	Spindle Assembly
40	3	019-5702-00	1/2" Washer (Grade 8)
41	1	018-7016-00	1/2" x 3" Hex Bolt
42	1	018-4706-00	3/8 x 1 1/2 Carriage Bolt
43	1	025-5337-00	.502 x .750 x 1.25 Length Spacer



## 037-2000-00 Spindle Assembly



	Parts List						
ITEM	QTY	PART NUMBER	DESCRIPTION				
1	1	037-6027-00	Spindle Housing				
2	1	037-6028-00	Spindle Spacer-Component				
3	1	037-6025-00	Spindle Shaft				
4	2	037-6024-00	Spindle Bearing				



091-0201-00 MZ Logo Decal Front



091-0200-00 MZ Magnum Front Grill Decal



091-0211-00 MZ Magnum 725cc Decal Rear Plate



091-0903-00 48" Deck Decal



091-0904-00 54" Deck Decal



091-0208-00 MZ Magnum Brake Decal



091-0212-00 Magnum Deck Height Decal



091-0204-00 MZ Magnum726cc Decal Rear Plate



091-1010-00 Danger Decal Spindle/Discharge



091-0202-00 Magnum Instrument Panel Decal



091-0206-00 Magnum Left Steering Speed Control Decal



091-0207-00 Magnum Right Steering Speed Control Decal



091-0209-00 Magnum Choke Decal



091-1040-00 MZ Floor Panel Cluster



091-1045-00 MZ Belt Route Decal



091-3017-00 Pump Belt Route Decal



091-3150-00 Outlaw Warning Decal

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